

# COMPLIANCE STATUS ON ENVIRONMENTAL CLEARANCE

**APRIL 2024 TO SEPTEMBER 2024**

**intellia**  
the central business park



## TRINITY INFRAPARK LLP

**EC Identification No.:**

EC23B038WB189269

**Date of Issue EC:**

18.07.2023

**Project Location:**

Premises No. 22, Gobra Road, Kolkata Municipal Corporation Ward  
No. - 59, Borough No. VII, P.S. - Beniapukur, Kolkata - 700014

**Month & Year of Report Submission: NOVEMBER, 2024**

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## LIST OF ANNEURES

ANNEXURE NO.	DETAILS OF THE DOCUMENT
Annexure – 1	Environmental Clearance
Annexure – 2	Consent To Establish
Annexure – 3	Environmental Monitoring Report
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## ABBREVIATIONS & SYMBOLS USED

ABBREVIATIONS	FULL FORM
"R" factor	: Resistance to heat flow
"U" factor	: It measures the rate of heat transfer
$\mu\text{g}/\text{m}^3$	: Microgram per cubic meter
AAC	: Autoclaved aerated concrete
AAQ	: Ambient Air Quality
AM	: Ante meridiem
BPL	: Below Permissible Limit
CER	: Corporate Environment Responsibility
CFC	: Chlorofluorocarbons
CFU	: Colony Forming Unit
CPCB	: Central Pollution Control Board
D.G. sets	: Diesel generator sets
dB(A)	: A-weighted decibel
E(P) Rules	: Environmental Protection Rules
EC	: Environmental Clearance
ECBC	: Energy Conservation Building Code
EIA	: Environmental Impact Assessment
EMP	: Environmental Management Plan
ESC	: Enterprise Social Commitment
ETP	: Effluent Treatment Plant
HCFC	: Chlorodifluoromethane or Difluoromonochloromethane
ISO	: International Organization for Standardization
KLD	: Kilo Litre per day
kVA	: Kilovolt-amps
kWh	: kilowatt hour
LED	: Light-emitting diode
$L_{eq}$	: Equivalent Continuous Sound Level
MoEFCC	: Ministry of Environment, Forest and Climate Change
NABL	: National Accreditation Board for Testing and Calibration Laboratories
NBC	: National Building Code of India
$\text{ng}/\text{m}^3$	: Nanogram per cubic metre
NOC	: No Objection Certificate
O&M	: Operation and Maintenance
pH	: Potential of Hydrogen (negative logarithm of $\text{H}^+$ ion concentration)
PM	: Post meridiem
$\text{PM}_{10}$	: The particles with a diameter of 10 micrometers and they are also called fine particles
$\text{PM}_{2.5}$	: The particles with a diameter of 2.5 micrometers and they are also called fine particles
PPE	: Personal protective equipment
SEAC	: Expert Appraisal Committee
SEIAA	: State Environment Impact Assessment Authority
Sqm	: Square meter
STP	: Sewage Treatment Plant
Watt/sq.m/degree	: Watt per Square Meter per Degree Celcius
WTP	: Water Treatment Plant

## PURPOSE OF THE REPORT

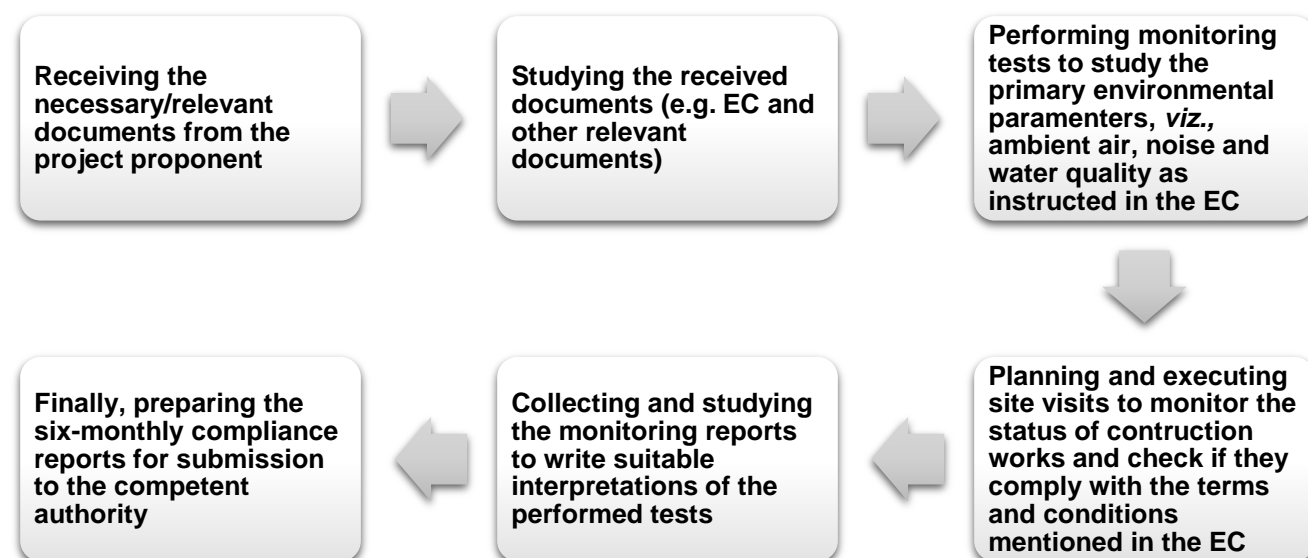
The environmental compliance inspection is a self-determining evaluation of a company's environmental legal obligations and an assessment of how the company complies with the specified conditions. This allows companies to judge and quantify their environmental performance and identify problems with compliance or management system operation.

According to "Sub Para (ii)" of "Para 10" of the **EIA Notification 2006**, the project management is required to produce compliance reports, in both hard and soft copies, to the relevant authorities, every six months, regarding the conditions set forth in Environmental Clearance (EC) letter.

The main objectives of this report are:

- To detect any adverse environmental impact in the surroundings due to the proposed project.
- To check if the project proponent is adhering to the advised environmental safety guidelines.
- To look for any non-conformities that may have an impact on the environment.
- To check if the mitigation measures mentioned in the approved Environmental Management Plan (EMP) and building plan are properly implemented by the project management.
- To comply with the terms and conditions mentioned in the granted EC.

## PREPARATION OF THE REPORT



The current six-monthly compliance report has been meticulously prepared by a team of subject-matter experts on behalf of the project proponent. This report adheres to the specific and general conditions outlined in the sanctioned Environmental Clearance (EC) and covers the period from **April 2024 to September 2024**, as per the specified instructions.

Our analysis encompasses the environmental impacts of the project's activities on the surrounding neighborhood. Additionally, an Environmental Monitoring Programme (EMP) is slated for implementation. This program aims to comprehensively assess ambient air, noise, and water qualities to fulfill the aforementioned objectives.

## PROJECT DETAILS

The proposed commercial project by Trinity Infrapark LLP is located at Premises No. 22, Gobra Road, Kolkata Municipal Corporation Ward No. - 59, Borough No. VII, P.S. - Beniapukur, Kolkata - 700014. Its strategic location offers excellent connectivity via road, rail, flyover, and public transport, making commuting convenient for both employees and employers, saving time and enhancing accessibility.

This Business Park caters to the needs of office buyers seeking an international standard business environment, potentially attracting clients visiting their offices. Intellia Business Park is designed with a 'work & play' concept, featuring open-air meeting and discussion zones.

The total build-up area of the project spans 53,508.75 sqm, comprising 5 blocks: Blocks 1, 2 & 3 (G+8), Block 4 (G+6), and Block 5 (G+5).

**TABLE 1: SALIENT FEATURES OF THE PROJECT**

FACTS	DETAILS
Land Area	22794.59 sqm (100%)
Drain Area	108.371 sqm (0.475%)
Gifted to KMC Land Area	32.785 sqm (0.144%)
Pond Area	802.675 sqm (3.521%)
Ground Coverage Area	7006.180 sqm (30.736% of Land Area)
Service Area	626.622 sqm (2.749% of Land Area)
Paved Area	6740.776 sqm (29.572% of Land Area)
Exclusive Tree Plantation Area	5140.900 sqm (22.553% of Land Area)
Open Parking Area	677.236% of Land Area)
Not To Be Constructed Area	1659.045 sqm (7.278% of Land Area)
Total Build-Up Area	53508.75 sqm. Total F.A.R Area - 41346.46 sqm.
No. of Stories	Five (5) Business / Assembly Building Block 1, 2, & 3 - G+8 Block 4 - G+6 Block 5 - G+5 storied
Total Population during Operation	4524 (Fixed - 3732, Floating - 754, Service - 38)
Total Population during Construction	432 Persons
Source of Water	Kolkata Municipal Corporation
Total Water Requirement (As Per NBC 2016)	245 KLD
Fresh Water Requirement	123 KLD
Treated Wastewater Generation	164 KLD
Treated Wastewater Recycled	122 KLD (To be used in landscaping, flushing & yard washing)
Wastewater Discharge	42 KLD
Constructional Phase Water Demand	35 KLD (30 KLD for workers and 5 KLD for construction work)
Solid Waste Generation and Discharge (Operational phase)	1000 kg/day (Operational Phase) 86 kg/day (Construction Phase)
Electrical Load	5701 kVA (4561 kW) Source: CESC
Parking Required	Required - 362 nos. Provided - 434 nos. [Ground Covered - 150 nos., Ground Open - 54 nos. & MLCP Open - 36 nos., MLCP - 194 nos.]
Total no. of Trees	Total nos. of existing trees - 18 nos. Total nos. of proposed trees for plantation - 346 nos. Total nos. of trees at site after plantation - (18+346) = 364 nos.
Latitude & Longitude of site	22°32'52.46" N, 88°22'25.89" E
D.G Sets for Back Up Power	3 nos. of 1250 kVA
Total Project Cost (Rs.)	Rs. 191481 lakhs

STATUS OF CONSTRUCTIONS

TABLE 2: SUMMARY ON CURRENT CONSTRUCTION PROGRESS STATUS OF THE PROJECT

COMPONENTS	BLOCK - 1	BLOCK - 2	BLOCK - 3	BLOCK - 4	BLOCK - 5
Initial Works (Soil excavation, piling etc.)	100%	100%	90%	Not Started Yet	75%
Civil Construction (Structural Work, Brick Work & Plaster Work)	Block -2: 2 <sup>nd</sup> floor slab casting ongoing				
Electrical work	Block - 2: 8% done				
Fire Fighting Infrastructure	Not Started Yet				
Plumbing	Not Started Yet				
Sewage Treatment Plant	Not Started Yet				
Water Treatment Plant	Not Installed Yet				
Rain Water Harvesting	Not Started Yet				
Boundary wall	Existing				
Drainage network at Site	Not Started Yet				
Composter (if any)	Not Installed Yet				



## CURRENT PHOTOGRAPHS OF THE PROJECT



**BLOCK - 2**



**BLOCK - 1**



**BLOCK - 5**



**WATER SPRINKLING**



**SECURITY ROOM**



**NATURAL WATER BODY**





**LABOUR HUTMENT**



**LABOUR TOILET**



**LABOUR KITCHEN**



**BATCHING PLANT**



**CONSTRUCTION MATERIAL**



**FRONT GATE**





**PEST CONTROL**



**PLANT NEAR MARKETING OFFICE**



**GREENERY NEAR MARKETING OFFICE**

## HEALTH AND OCCUPATIONAL SAFETY ASPECTS

We have prioritized providing essential amenities that cater to the daily needs of our workers. These include access to clean drinking water, water for daily use, well-ventilated accommodations, and hygienic restrooms.

Workers are equipped with essential occupational safety gear, including dust masks, helmets, safety belts, boots, gloves, and protective eyewear. Their usage undergoes regular monitoring to ensure compliance and safety standards.

Furthermore, regular safety training sessions are conducted, emphasizing fire prevention and awareness about potential risks such as snake bites, demonstrating a commitment to comprehensive worker safety and awareness.

The main objectives of such trainings are:

- To prevent accidents and diseases and harmful effects on the health of workers arising from employment in construction.
- To ensure appropriate design and implementation of construction projects.
- To offer tools for examining construction practices, activities, technologies, and operations in light of safety, health, and working conditions.
- To plan, control, and enforce the proper safety measures in the construction site.



## PROPOSED VIEWS OF THE PROJECT



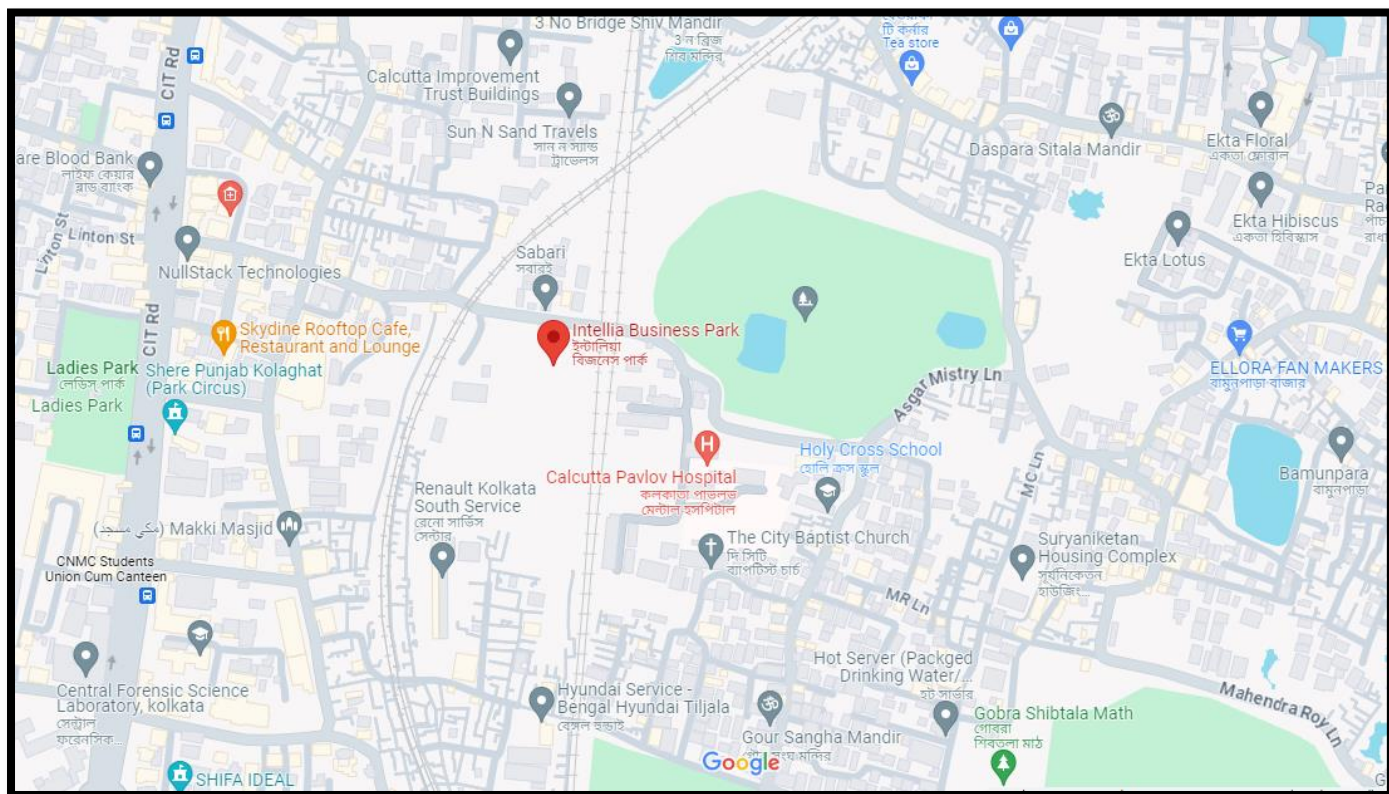
**EVENING VIEW OF THE PROJECT**



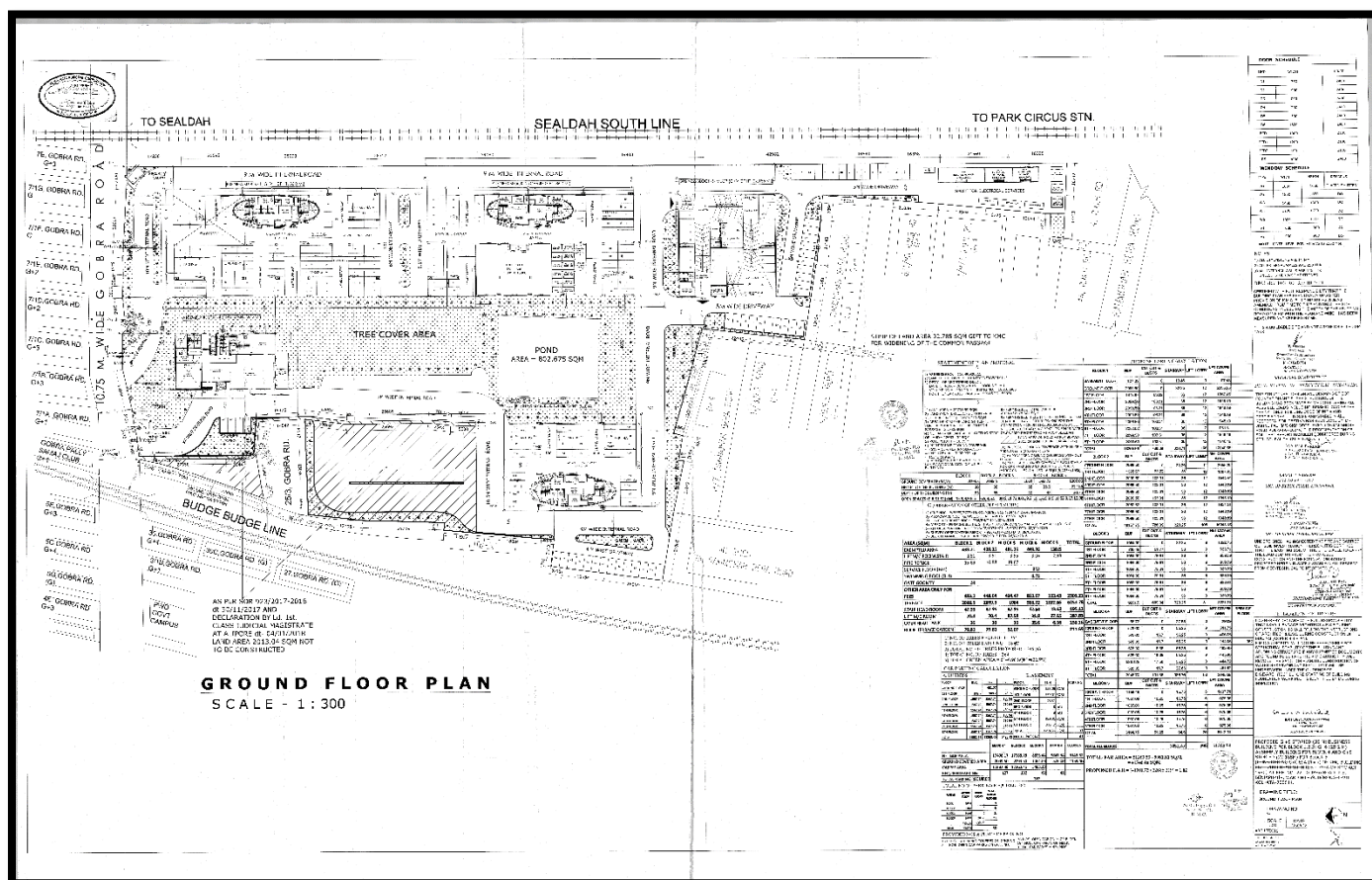
**TOP VIEW**



## LOCATION OF THE PROJECT



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# COMPLIANCE STATUS ON ENVIRONMENTAL CLEARANCE

## (APRIL, 2024 TO SEPTEMBER, 2024)

SL. NO.	STIPULATED CONDITIONS OF ENVIRONMENT CLEARANCE	COMPLIANCE STATEMENT
<b>I.</b>	<b>STATUTORY COMPLIANCE</b>	
(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.	The necessary clearance and approval have already been obtained. <ul style="list-style-type: none"> <li>Annexure - 1: Environmental clearance</li> <li>Annexure - 2: Consent to Establish (CTE)</li> <li>Annexure - 5: Fire Recommendation</li> </ul> All construction works will be done in accordance with the local building byelaws.
(ii)	The approval of the Competent Authority shall be obtained for structural safety of buildings due to earthquakes, adequacy of firefighting equipment <i>etc.</i> as per National Building Code including protection measures from lightening <i>etc.</i>	The necessary approval from the Competent Authority has been secured to ensure the structural safety of the building, in accordance with the sanctioned plan. A copy of sanctioned plan has been attached as <b>Annexure - 4.</b>
(iii)	The project proponent shall obtain forest clearance under the provisions of Forest (Conservation) Act, 1986, in case of the diversion of forest land for non-forest purpose involved in the project.	There was no involvement of forest land in the construction of this specific project.
(iv)	The project proponent shall obtain clearance from the National Board for Wildlife, if applicable.	Not applicable for the current project.
(v)	The project proponent shall obtain Consent to Establish / Operate under the provisions of Air (Prevention & Control of Pollution) Act, 1981 and the Water (Prevention & Control of Pollution) Act, 1974 from the concerned State Pollution Control Board/ Committee.	We have obtained the Consent to Establish (CTE) from the appropriate competent authority. A Copy of CTE has been attached as <b>Annexure - 2.</b>
(vi)	The project proponent shall obtain the necessary permission for drawl of ground water /surface water required for the project from the competent authority.	The water requirement for the construction works is being fulfilled by KMC water supply. A permission letter from KMC has been attached as <b>Annexure - 6.</b>
(vii)	A certificate of adequacy of available power from the agency supplying power to the project along with the load allowed for the project should be obtained.	We have obtained the necessary permission from CESC for construction activities.
(viii)	All other statutory clearances such as the approvals for storage of diesel from Chief Controller of Explosives, Fire Department, Civil Aviation Department shall be obtained, as applicable, by project proponents from the respective competent authorities.	We have obtained the necessary statutory clearances from both the Fire Department (as indicated in <b>Annexure - 5</b> ) and the Civil Aviation Department.
(ix)	The provisions of the Solid Waste (Management) Rules, 2016, e-Waste (Management) Rules, 2016, and the Plastics Waste (Management) Rules, 2016 shall be followed.	The solid waste generated by the project is regularly being collected and managed by the KMC.



<b>SL. NO.</b>	<b>STIPULATED CONDITIONS OF ENVIRONMENT CLEARANCE</b>	<b>COMPLIANCE STATEMENT</b>
(x)	The project proponent shall follow the ECBC/ECBC-R prescribed by Bureau of Energy Efficiency, Ministry of Power strictly.	To promote energy conservation, we will install LED lights and other energy-efficient fixtures for all outdoor and common area lighting.
(xi)	The project proponent should strictly comply with the guidelines for High Rise Buildings, issued by MoEF, GoI vide No. 21-270/2008-IA.III dated 07.02.2012.	It will be followed properly.
(xii)	The project proponent shall comply with the EMP as proposed in terms of Office Memorandum issued by the MoEFCC vide F. No. 22-65/2017-IA.III dated 30.09.2020.	We will strictly adhere to the stated measures and guidelines as per the plan.
<b>II. AIR QUALITY MONITORING AND PRESERVATION</b>		
(i)	Notification GSR 94(E) dated 25.01.2018 of MoEF&CC regarding Mandatory implementation of Dust Mitigation Measures for Construction and Demolition Activities for projects requiring Environmental Clearance shall be complied with.	We have diligently implemented dust mitigation measures at the construction site. Water sprinkling takes place 3 times daily to control dust emissions, while all construction materials are adequately covered to prevent the dispersion of dust particles. Additionally, since the project commenced, the construction site has been properly enclosed with barricades.
(ii)	A management plan shall be drawn up and implemented to contain the current exceedance in ambient air quality at the site.	We have devised a comprehensive management plan to address various aspects of the project.
(iii)	The project proponent shall install system to carryout Ambient Air Quality monitoring for common/criterion parameters relevant to the main pollutants released ( <i>e.g.</i> , PM <sub>10</sub> and PM <sub>2.5</sub> ) covering upwind and downwind directions during the construction period.	Ambient air quality monitoring is conducted on a half-yearly basis as per the Environmental Management Plan (EMP). The most recent monitoring was conducted, and the report has been attached as <b>Annexure - 3</b> along with this report.
(iv)	Diesel power generating sets proposed as source of backup power should be of enclosed type and conform to rules made under the Environment (Protection) Act, 1986. The height of stack of DG sets should be equal to the height needed for the combined capacity of all proposed DG sets. Use of low sulphur diesel is mandatory. The location of the DG sets may be decided with in consultation with State Pollution Control Board.	The project is in its initial stage, and we have already obtained electrical permission from CESC. Any further details regarding the potential need for a DG will be shared accordingly.
(v)	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.	The construction site is properly barricaded before the commencement of construction. To minimize disturbances in the surroundings, green screens will be employed. Additionally, water sprinkling is conducted 3 times daily to reduce dust pollution. Furthermore, construction materials are appropriately transported and stored in designated areas to prevent dust emissions.
(vi)	Sand, murram, loose soil, cement, stored on site shall be covered adequately so as to prevent dust pollution.	The construction materials are properly covered and stored in a designated area.

<b>SL. NO.</b>	<b>STIPULATED CONDITIONS OF ENVIRONMENT CLEARANCE</b>	<b>COMPLIANCE STATEMENT</b>
(vii)	Wet jet shall be provided for grinding and stone cutting.	We will use a wet jet for stone cutting purposes.
(viii)	Unpaved surfaces and loose soil shall be adequately sprinkled with water to suppress dust.	Water sprinkling occurs 3 times daily at the site, particularly focusing on roadways and loose soil to suppress dust. Additionally, a specified speed limit (10 km/hr) for vehicles has been implemented to minimize dust propagation.
(ix)	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.	No demolition has taken place for this current project.
(x)	The diesel generator sets to be used during construction phase shall be low Sulphur diesel type & shall conform to Environmental (Protection) prescribed for air and noise emission standards.	The project is in its initial stage, and we have already obtained electrical permission from CESC. Any further details regarding the potential need for a DG will be shared accordingly.
(xi)	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.	The electrical connection from CESC has been provided for the construction work.
(xii)	For indoor air quality the ventilation provisions as per National Building Code of India.	We have ensured adequate ventilation to maintain high indoor air quality.
<b>III. WATER QUALITY MONITORING AND PRESERVATION</b>		
(i)	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.	No natural drainage system exists within the current project area. The drainage system will be designed in accordance with the sanctioned plan.
(ii)	Buildings shall be designed to follow the natural topography as much as possible. Minimum cutting and filling should be done.	Professional architects have designed the buildings, ensuring minimal land cutting and filling by the proponent.
(iii)	Total fresh water use shall not exceed the proposed requirement as provided in the project details.	Currently, the drinking water requirement is being met from KMC water supply. A permission letter has been attached as <b>Annexure - 6</b> .
(iv)	The quantity of fresh water usage, water cycling 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 of Ministry of Environment, Forest and Climate Change (MoEFCC) along with State Level Environment Impact Assessment Authority (SEIAA) and West Bengal Pollution Control Board (WBPCB) along with six monthly Monitoring	The rainwater harvesting work has not commenced yet. Updates regarding its progress will be shared later.

SL. NO.	STIPULATED CONDITIONS OF ENVIRONMENT CLEARANCE	COMPLIANCE STATEMENT
	reports.	
(v)	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.	We have obtained permission for water from KMC and a concurrence letter is attached as <b>Annexure - 6</b> .
(vi)	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 <i>etc.</i> would be considered as pervious surface.	We will use grass paver blocks with more than 50% opening for the open parking spaces and pathways.
(vii)	Installation of dual pipe plumbing for supply of recycled water and other for flushing, landscape, irrigation, car washing, thermal cooling, conditioning <i>etc.</i> and for supplying fresh water for drinking, cooking and bathing <i>etc.</i> shall to be done.	We plan to install a dual plumbing system at a later stage.
(viii)	Use of water saving devices/ fixtures ( <i>viz.</i> , low flow flushing systems; use of low flow faucets tap aerators <i>etc.</i> ) for water conservation shall be incorporated in the building plan.	We have plans to install a dual flushing system and aerators for the taps later to conserve water.
(ix)	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.	The construction of the Sewage Treatment Plant (STP) has not commenced yet.
(x)	Water demand during construction should be reduced by use of pre-mixed concrete, curing agents and other best practices referred.	The project is in its initial stage.
(xi)	The local bye-law provisions on rain water harvesting should be followed. If local byelaw provision is not available, adequate provision for storage and recharge should be followed as per the Ministry of Urban Development Model Building Byelaws, 2016. Rain water harvesting recharge pits/storage tanks shall be provided for ground water recharging as per the CGWB norms.	The implementation of the rainwater harvesting system has not yet commenced.
(xii)	A rain water harvesting plan needs to be designed where the recharge bores of minimum one recharge bore per 5,000 square meters of built-up area and storage capacity of minimum one day of total fresh water requirement shall be provided. In areas where ground water recharge is not feasible, the rain water should be harvested and stored for reuse. The ground water shall not be withdrawn without approval from the Competent Authority.	The construction of the rainwater harvesting system has not yet commenced. Updates regarding its progress will be shared at a later time.
(xiii)	All recharge should be limited to shallow aquifer.	Noted.
(xiv)	Any ground water dewatering should be properly managed and shall conform to the approvals and the guidelines of the State Water Investigation Directorate (SWID) in the matter. Formal approval	The water required for construction is being supplied from KMC water supply, and a permission letter has been attached as <b>Annexure - 6</b> .



<b>SL. NO.</b>	<b>STIPULATED CONDITIONS OF ENVIRONMENT CLEARANCE</b>	<b>COMPLIANCE STATEMENT</b>
	shall be taken from the SWID for any ground water abstraction or dewatering.	
(xv)	Sewage shall be treated in the STP with tertiary treatment. The treated effluent from STP shall be recycled/re-used for flushing, AC make up water and gardening.	The construction of the Sewage Treatment Plant (STP) has not yet commenced. Once completed, it will be utilized for flushing and other purposes through water reuse.
(xvi)	No sewage or untreated effluent water would be discharged through storm water drains.	Sewage will undergo treatment in the STP and will be discharged appropriately. Further updates will be shared later.
(xvii)	Onsite sewage treatment of capacity of treating 100% waste water to be installed. 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 Regional Office of MoEF&CC along with SEIAA and WBPCB before the project is commissioned for operation. Treated waste water shall be reused on site for landscape, flushing, cooling tower, and other end-uses. Excess treated water shall be discharged as per statutory norms notified by MoEF&CC. Natural treatment systems shall be promoted.	The construction of the Sewage Treatment Plant (STP) has not yet commenced. Updates regarding this will be shared later.
(xviii)	Periodical monitoring of water quality of treated sewage shall be conducted. Necessary measures should be made to mitigate the odour problem from STP.	We will regularly monitor the quality of the treated water to ensure its continual improvement. The monitoring reports will be submitted in the future.
(xix)	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.	The sludge disposal practice will be in accordance with the necessary norms.
(xx)	Water meter with totaliser should be provided at freshwater inlets, STP discharge and recycling lines.	Water meters will be installed at the appropriate stage of the project.
<b>IV. NOISE MONITORING AND PREVENTION</b>		
(i)	Ambient noise levels shall conform to residential area/commercial area/industrial area/silence zone 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.	We are monitoring ambient air and noise quality during both day and night throughout the construction phase. The report has been attached as <b>Annexure - 3</b> .
(ii)	Noise level survey shall be carried as per the prescribed guidelines and report in this regard shall be submitted to Regional Office of the MoEF&CC along with SEIAA and WBPCB as a part of six- monthly compliance report.	We recently conducted a noise level survey in accordance with the prescribed guidelines, which is included as <b>Annexure - 3</b> in this report. The survey results have been submitted and will continue to be included as part of the six-monthly compliance report to the Regional Office of the MoEF&CC, SEIAA, and WBPCB.

<b>SL. NO.</b>	<b>STIPULATED CONDITIONS OF ENVIRONMENT CLEARANCE</b>	<b>COMPLIANCE STATEMENT</b>
(iii)	Acoustic enclosures for DG sets, noise barriers for ground-run bays, ear plugs for operating personnel shall be implemented as mitigation measures for noise impact due to ground sources.	We have already obtained the connection from CESC. The installation of a DG will be considered if required.
<b>V. ENERGY CONSERVATION MEASURES</b>		
(i)	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.	The Design and Architecture team has diligently followed this requirement, resulting in the incorporation of the specified aspect into the design in accordance with the guidelines of the Energy Conservation Building Code (ECBC).
(ii)	Outdoor and common area lighting shall be LED.	We will utilize energy-efficient lighting systems, such as LED lights, during both the construction and operational phases to conserve energy.
(iii)	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.	The concept of passive solar cooling has been integrated into the building design, following architectural principles.
(iv)	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.	All the common area lighting will be illuminated through LED lights to conserve energy.
(v)	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 byelaws requirement, whichever is higher.	The Solar power system works have not yet commenced. Updates regarding the progress will be shared once the works begin.
(vi)	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 front solar water heaters, as far as possible.	The Solar power system works have not yet commenced. Updates on the progress will be shared once the work begins.
<b>VI. WASTE MANAGEMENT</b>		
(i)	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.	KMC is presently collecting MSW regularly, and this practice will be upheld in the future.
(ii)	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.	The excavated muck (90k CFT/ 2548.5162 CUM) has been utilized to fill lowland areas.

<b>SL. NO.</b>	<b>STIPULATED CONDITIONS OF ENVIRONMENT CLEARANCE</b>	<b>COMPLIANCE STATEMENT</b>
(iii)	Separate wet and dry bins must be provided in each bin it and at the ground level for facilitating segregation of waste. Solid waste shall be segregated into wet garbage and inert materials.	KMC is presently collecting MSW regularly, and this practice will be upheld in the future.
(iv)	Organic waste compost/ Vermiculture pit/ Organic Waste Converter within the premises with a minimum capacity of 0.3 kg /person/day must be installed.	The composter has not been installed yet. Updates regarding its installation will be shared at a later time.
(v)	All non-biodegradable waste shall be handed over to authorized recyclers for which a written tie up must be done with the authorized recyclers.	The local municipality is currently collecting all non-biodegradable waste.
(vi)	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.	In the 'Building & Construction' category, the current project has not generated any hazardous waste during its pre-construction and construction phases. In the operational phase, the DG set's filter and lube oil will be the only sources of hazardous waste. In compliance with the Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016, the proponent will seek authorization from WBPCB. Updates on this process will be provided. Once authorized, any generated hazardous waste will be disposed of through approved recyclers.
(vii)	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.	We plan to use environmentally friendly building material. Updates regarding the same will be shared in next report.
(viii)	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.	We will try to use fly ash, aiming to procure an adequate quantity of fly ash. Updates regarding the same will be shared in next report.
(ix)	Any wastes from construction and demolition activities related thereto shall be managed so as to strictly conform to the Construction and Demolition Rules, 2016.	No demolition of permanent structures occurred for this project.
(x)	Used CFLs and TFLs should be properly collected and disposed-off/sent for recycling as per the prevailing guidelines/ rules of the regulatory authority to avoid mercury contamination.	The project is currently in its initial stage and it will be followed at applicable stages of the project life-cycle.
(xi)	Construction and demolition activities should be equipped with adequate dust emission measures including installation of anti-smog guns.	No demolition of permanent structures occurred for this project, as mentioned earlier.
<b>VII. WATER BODY CONSERVATION</b>		
(i)	Existing water body (if any) should not be lined and their embankments should not be cemented. The water body is to be kept in natural conditions without disturbing the ecological habitat.	There is a water body present at the site, covering an area of 802.675 sqm.
<b>VIII. GREEN COVER</b>		



<b>SL. NO.</b>	<b>STIPULATED CONDITIONS OF ENVIRONMENT CLEARANCE</b>	<b>COMPLIANCE STATEMENT</b>
(i)	The unit should strictly abide by The West Bengal Trees (Protection and Conservation in Non-Forest Areas) Act, 2006 and subsequent rules. The proponent should undertake plantation of trees over at Least 20% of the total areas.	Sufficient greenery will be incorporated at suitable stages of the project. The plantation plan and approval from DFO have been attached as <b>Annexure - 7</b> .
(ii)	No tree can be felled/transplant unless exigencies demand. Where absolutely necessary, tree felling shall be with prior permission from the concerned regulatory authority. Old trees should be retained based on girth and age regulations as may be prescribed by the Forest Department. Plantations to be ensured species (cut) to species (planted).	No tree felling was conducted. Approximately, 10 trees are currently existing on-site and have been duly preserved.
(iii)	In addition to existing trees, 145 nos. trees are to be planted and maintained by the project proponent. The landscape planning should include plantation of native species. The species with heavy foliage, broad leaves and wide canopy cover are desirable. Water intensive and/or invasive species should not be used for landscaping. The project proponent should follow plantation plan approved by DFO, Forest Utilisation Division vide Memo no. 134/17T dated 28.01.2022.	The development of green belts and landscaping will adhere to the specifications outlined in the plantation plan. The plantation plan and approval from DFO have been attached as <b>Annexure - 7</b> .
(iv)	Where the trees need to be cut with prior permission from the concerned Local Authority, compensatory plantation in ratio of 1:10 (i.e., planting of trees for every 1 tree that is cut) shall be done and maintained. Plantations to be ensured species (cut) to species (planted). Area for green belt development shall be provided as per the details provided in the project document.	No tree felling was conducted, and approximately 10 trees currently exist on-site, all of which have been properly preserved. Therefore, no prior permission is required.
(v)	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.	The topsoil, stripped to a depth of 20 cm, will be used for landscaping and various other purposes.
<b>IX. TRANSPORT</b>		
(i)	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. a. Hierarchy of roads with proper segregation of vehicular and pedestrian traffic. b. Traffic calming measures. c. Proper design of entry and exit points. d. Parking norms as per local regulation.	These measures align with our project planning. Throughout the operational phase, our actions will continue to be guided by the following perspectives: a) Establishment of a road hierarchy with clear segregation of vehicular and pedestrian traffic, as outlined in the sanctioned drawings. b) Implementation of traffic calming measures will be prioritized. c) Development of entry and exit points for future execution has already been completed. d) Parking norms will be designed in accordance with local regulatory guidelines.

<b>SL. NO.</b>	<b>STIPULATED CONDITIONS OF ENVIRONMENT CLEARANCE</b>	<b>COMPLIANCE STATEMENT</b>
(ii)	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.	Security personnel has been appointed at the site, working alongside the project team to ensure that vehicles and equipment deployed during the construction phase maintain proper conditions. This includes possessing appropriate PUC and fitness certificates while adhering to applicable air and noise emission standards, especially during non-peak hours.
(iii)	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 05 km 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 05 km 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.	The project area falls under the jurisdiction of the Kolkata Traffic Police. Presently, traffic in the area remains minimal, and no significant congestion has been observed around the project site. A traffic management plan will be implemented before the project's completion.
<b>X. HUMAN HEALTH ISSUES</b>		
(i)	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.	We have supplied masks to the workers, particularly for use in highly dust-polluted areas, prioritizing the health of our employees.
(ii)	For indoor air quality the ventilation provisions as per National Building Code of India.	The project has been designed as per the National Building Code of India to ensure adequate ventilation.
(iii)	Emergency preparedness plan based on the Hazard identification and Risk Assessment (HIRA) and Disaster Management Plan shall be implemented.	Hazard identification and Risk Assessment (HIRA) and Disaster Management Plan has been designed as per the sanctioned plan.
(iv)	Provision shall be made for the housing of construction labour within the site with all necessary infrastructure and facilities such as fuel for cooking, mobile toilets, mobile STP, safe drinking water, medical health care, crèche etc. The housing may be in the form of temporary structures to be removed after the completion of the project.	We have arranged temporary labor accommodations equipped with adequate facilities, including separate bathing and toilet areas, as well as a kitchen. The effluents from the toilets are discharged into the KMC sewer drain. Additionally, the drinking and cooking water, supplied by KMC, is used for these purposes.
(v)	Occupational health surveillance of the workers shall be done on a regular basis.	We have provided adequate occupational safety gear including dust masks, helmets, safety belts, boots, gloves, and eyewear to the laborers. There is strict monitoring to ensure proper usage. Additionally, health camps have been organized for construction workers to assess their health

SL. NO.	STIPULATED CONDITIONS OF ENVIRONMENT CLEARANCE	COMPLIANCE STATEMENT
		conditions.
(vi)	A First Aid Room shall be provided in the project both during construction and operations of the project.	As the project is in its initial stage, plans are underway to set up a First Aid Room for the workers and staff.
<b>XI. ENVIRONMENTAL MANAGEMENT PLAN (EMP)</b>		
(i)	The project proponent should submit the proposed EMP on a six monthly basis. The Office Memorandum issued by the MoEF&CC vide F. No. 22-65/2017-IA.III dated 30.09.2020 should be strictly followed.	The project proponent has designed an Environmental Management Plan (EMP), which is currently being implemented and will continue to be followed in the future.
(ii)	Need based activities for local people is part of the EMP. Details of such activities for expansion project (in addition to the activities for the existing project is given in Annexure-1.	Noted and it will be submitted accordingly.
(iii)	The project proponent shall install display board for display of all environmental parameters including sensor-based air, water and noise quality monitoring stations within their premises.	As construction has recently commenced, we plan to install display boards featuring the mentioned parameters as soon as possible.
(iv)	The company shall have a well laid down environmental policy duly approved by the Board of Directors. The environmental policy should prescribe for standard operating procedures to have proper checks and balances and to bring into focus any infringements/deviation/violation of the environmental / forest / wildlife norms /conditions. The company shall have defined system of reporting infringements /deviation / violation of the environmental / forest / wildlife norms / conditions and / or shareholders / stake holders. The copy of the board resolution in this regard shall be submitted to the Regional Office of MoEF&CC along with SEIAA and WBPCB as a part of six-monthly report.	The project proponent is actively committed to environmental strategies and will consistently update the Regional Office of MoEF&CC, SEIAA, and WBPCB regarding the maintained level of Environmental Compliance. This will be achieved through the submission of a six-monthly environmental compliance report, reflecting the progress of the work.
(v)	A separate Environmental Cell both at the project and company head quarter level, with qualified personnel shall be set up under the control of Senior Executive, who with directly to the head of the organization.	At site level a safety officer has been appointed who investigates all environmental related matters.
(vi)	Action plan for implementing EMP and environmental conditions along with responsibility matrix of the company shall be prepared and shall be duly approved by competent authority. The year wise funds earmarked for environmental protection measures shall be kept in separate account and not to be diverted for any other purpose.	We have developed an action plan to implement the Environmental Management Plan (EMP) during construction as specified. Additionally, funds allocated year-wise for environmental protection measures have been segregated in a separate account, committed exclusively to these purposes and will not be diverted for any other use.
(vii)	Year wise progress of implementation of action plan shall be reported to the Regional Office of MoEF&CC along with SEIAA and WBPCB along with the Six-Monthly Compliance Report.	Noted. The said condition will be followed.
<b>XII. MISCELLANEOUS</b>		
(i)	The environmental clearance accorded shall be valid for a period of 10 years for the proposed	Environmental Clearance has been issued in 18 <sup>th</sup> July, 2023 and it will be valid upto 2033.



SL. NO.	STIPULATED CONDITIONS OF ENVIRONMENT CLEARANCE	COMPLIANCE STATEMENT
	project.	
(ii)	The project proponent shall prominently advertise it at least in two local newspapers of the District or State, of which one shall be in the vernacular language within seven days indicating that the project has been accorded environment clearance and the details of MoEFCC/SEIAA website where it is displayed.	The newspaper advertisement has been attached as <b>Annexure - 8</b> .
(iii)	The copies of the environmental clearance shall be submitted by the project proponents to the Head of local bodies, Panchayats and Municipal Bodies in addition to the relevant offices of Government who in turn has to display the same for 30 days from the date of receipt.	The project proponent has already completed the necessary actions.
(iv)	The project proponents shall upload the status of compliance of the stipulated environment clearance conditions, including results of monitored data on their website and update the same on half-yearly basis.	Noted. Reports will be submitted semi-annually. The current report covers the period from April 2024 to September 2024.
(v)	The project proponents shall submit six- monthly reports on the status of the compliance of the stipulated environmental conditions on the website of the Ministry of Environment, Forest and Climate Change at environment clearance portal with a copy to SEIAA and WBPCB.	We have consistently submitted the compliance report at six-month intervals.
(vi)	The project proponent shall submit the environmental statement for each financial year in Form - V to the concerned State Pollution Control Board as prescribed under the Environment (Protection) Rules, 1986, as amended subsequently and put on the website of the company.	The specified condition will be fulfilled within the appropriate timeframe.
(vii)	The project proponent shall inform the Regional Office of The MoEF&CC along with SEIAA and WBPCB, the date of financial closure and final approval of the project by the concerned authorities, commencing the land development work and start of production operation by the project.	It will be followed as instructed.
(viii)	The project authorities must strictly adhere to the stipulations made by the State Pollution Control Board and the State Government.	It will be followed as instructed.
(ix)	The project proponent shall be abided by all the commitments and recommendations made in the EIA/EMP report and also that during their presentation to the State Expert Appraisal Committee (SEAC).	It will be followed as instructed.
(x)	No further expansion and modification in the plant shall be carried out without prior approval of the SEIAA.	Noted.
(xi)	Concealing factual data or submission of false/fabricated data may result in revocation of this environmental clearance and attract action	Noted.

<b>SL. NO.</b>	<b>STIPULATED CONDITIONS OF ENVIRONMENT CLEARANCE</b>	<b>COMPLIANCE STATEMENT</b>
	under the provisions of Environment (Protection) Act, 1986.	
(xii)	The SEIAA may revoke or suspend the clearance, if implementation of any of the above conditions is not satisfactory.	Noted.
(xiii)	The SEIAA reserves the right to stipulate additional conditions if found necessary. The Company in a time bound manner shall implement this condition.	Noted.
(xiv)	The Regional Office of the MoEF&CC/ SEIAA/ WBPCB shall monitor the stipulated conditions. The Project authorities should extend their full cooperation to the officer(s) of the Regional Office of the MoEF&CC/ SEIAA/ WBPCB by furnishing the requisite data/ information/ monitoring reports.	We will provide the necessary assistance to the concerned officials during inspections.
(xv)	The above conditions shall be enforced, inter-alia under the provisions of the Water (Prevention & Control of Pollution) Act, 1974, The Air (Prevention & Control of Pollution) Act, 1981, the Environment (Protection) Act, 1986, Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016 and the Public Liability Insurance Act, 1991 along with their amendments and Rules and any other orders passed by The Hon'ble Supreme Court of India / High Courts and any other Court of Law relating to the subject matter.	Noted.
(xvi)	Any appeal against this EC shall lie with the Green Tribunal, if preferred, within a period of 30 days as prescribed under Section 16 of the Green Tribunal Act, 2010.	Noted.

## SIGNIFICANCE OF ENVIRONMENTAL MONITORING

The urban and semi-urban areas of cities are increasingly filled with multistory residential buildings, primarily due to the growing population. To address the shortage of living space, investors, developers, and builders are focusing on projects aimed at accommodating the expanding population and immigrants.

Providing essential facilities such as drinking water, healthcare, proper roads, and sanitation is equally crucial for the public's well-being. These initiatives not only offer housing but also contribute to local economic development. Industrial growth, including manufacturing units, plays a fundamental role in shaping a region's development and is chiefly responsible for creating job opportunities in an area.

While these achievements are significant, it is imperative to prioritize environmental preservation by using natural resources sustainably. The current need is to address the serious disasters our planet Earth is already experiencing.

Considering these aspects, the Ministry of Environment, Forest and Climate Change (MoEF&CC) prescribes specific norms in the Environmental Clearance issued to such development projects. Adherence to these norms is crucial to mitigate the adverse effects of these developments. To comply with these criteria, a team of subject-matter experts prepares a report on behalf of the project proponent, which is then presented to the governing bodies.

Regular monitoring throughout the project's duration assesses environmental elements like air, noise, and water quality. Each project proponent is obligated to submit a Six-Monthly Compliance Report demonstrating the project's status and adherence to all conditions outlined in the Environmental Clearance. These reports include monitoring data on various environmental parameters according to the Central Pollution Control Board (CPCB) norms.

The subsequent reports provided herein represent the baseline environmental monitoring data conducted on-site to meet environmental clearance regulations. These test reports were conducted by laboratories accredited by the National Accreditation Board for Testing and Calibration Laboratories (NABL) and recognized by the CPCB. The methodology for each test can be found in the enclosed reports, included as an annexure with our compliance report.



# DATASETS AS PER ENVIRONMENTAL MONITORING

## AMBIENT AIR QUALITY

Air Quality Monitoring (AAQ) was conducted at two locations on the site, carried out in two phases. The AAQ values obtained have been compared against the prescribed standards and are graphically represented below:

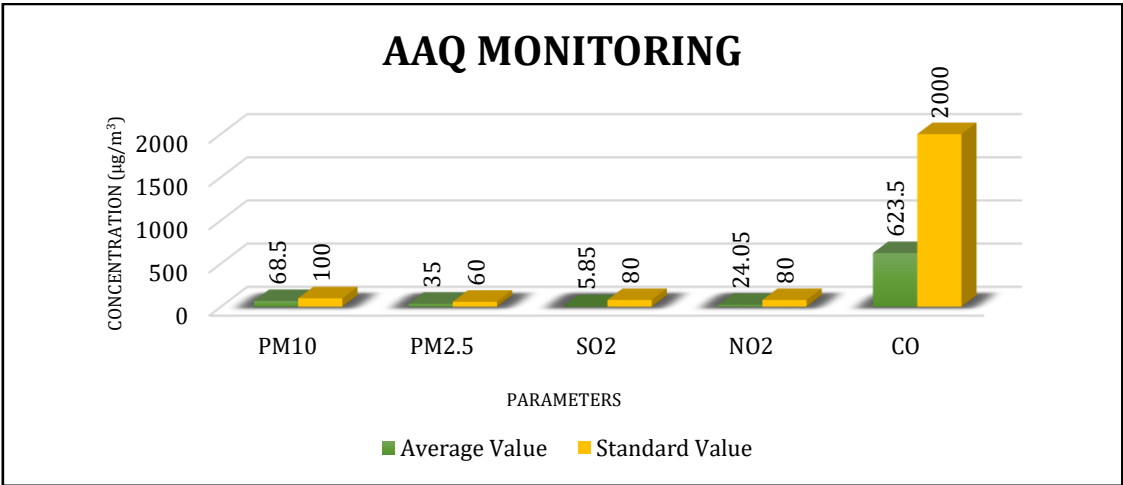
TABLE 3: BASELINE DATA OF THE AMBIENT AIR QUALITY (AAQ)

LOCATION	DATE OF MONITORING	POLLUTING PARAMETER	CONCENTRATION OF THE POLLUTANTS	AMBIENT AIR QUALITY (NATIONAL STANDARD VALUES)
Near Main Gate	11.08.2024 to 12.08.2024	Particulate Matter (PM <sub>10</sub> ) in µg/m <sup>3</sup>	74	100
		Particulate Matter (PM <sub>2.5</sub> ) in µg/m <sup>3</sup>	39	60
		Sulphur dioxide (SO <sub>2</sub> ) in µg/m <sup>3</sup>	6.3	80
		Nitrogen dioxide (NO <sub>2</sub> ) in µg/m <sup>3</sup>	24.7	80
		Carbon Monoxide CO in µg/m <sup>3</sup>	664	2000
Near Labour Hutment	11.08.2024 to 12.08.2024	Particulate Matter (PM <sub>10</sub> ) in µg/m <sup>3</sup>	63	100
		Particulate Matter (PM <sub>2.5</sub> ) in µg/m <sup>3</sup>	31	60
		Sulphur dioxide (SO <sub>2</sub> ) in µg/m <sup>3</sup>	5.4	80
		Nitrogen dioxide (NO <sub>2</sub> ) in µg/m <sup>3</sup>	23.4	80
		Carbon Monoxide CO in µg/m <sup>3</sup>	583	2000
Limit as per CPCB notification, New Delhi, 18th November 2009, for ambient air quality				

TABLE 5: AVERAGE VALUES OF THE TESTED AAQ PARAMETERS

POLLUTING PARAMETER	AVERAGE VALUES (µg/m <sup>3</sup> )	AMBIENT AIR QUALITY STANDARD (NATIONAL)
Particulate Matter (PM <sub>10</sub> ) in µg/m <sup>3</sup>	68.5	100
Particulate Matter (PM <sub>2.5</sub> ) in µg/m <sup>3</sup>	35	60
Sulphur dioxide (SO <sub>2</sub> ) in µg/m <sup>3</sup>	5.85	80
Nitrogen dioxide (NO <sub>x</sub> ) in µg/m <sup>3</sup>	24.05	80
Carbon Monoxide CO in µg/m <sup>3</sup>	623.5	2000

GRAPH 1: GRAPHICAL REPRESENTATION OF AVERAGE AAQ VALUES OF THE AREA



## NOISE QUALITY

Noise level monitoring was conducted in two phases at two locations within the project site. The acquired values have been compared against the prescribed national standards and are graphically represented.

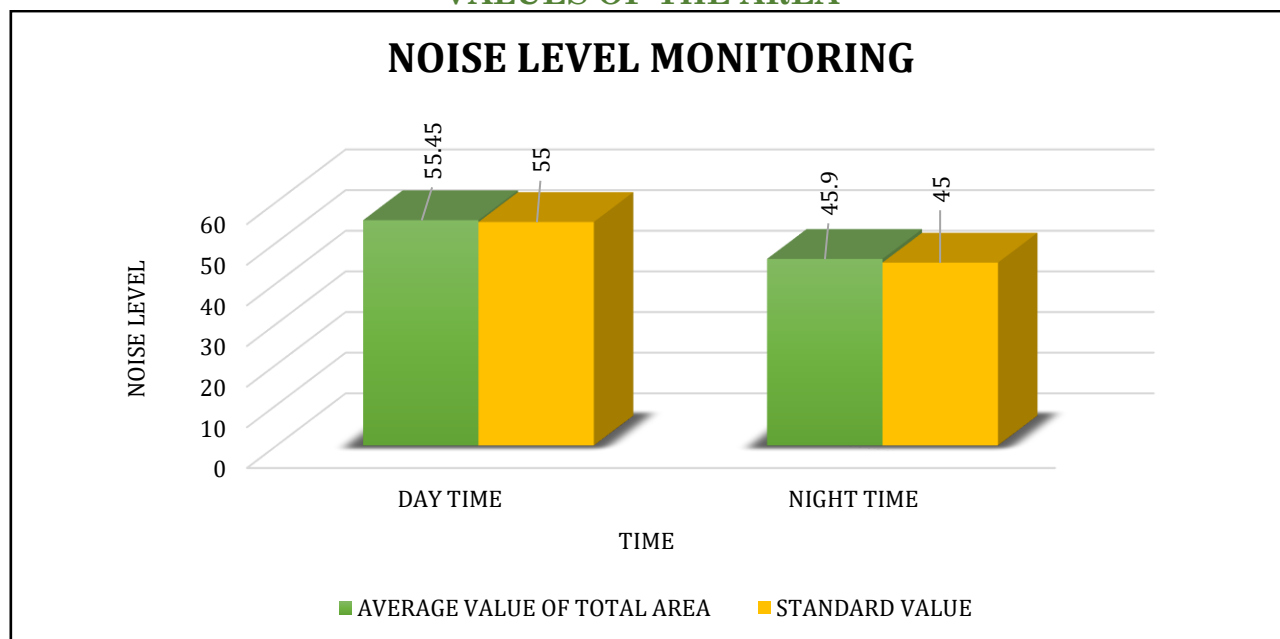
**TABLE 6: BASELINE DATA OF THE AMBIENT NOISE LEVEL**

LOCATION	DATE OF MONITORING	Leq VALUE OF AMBIENT NOISE LEVEL [in dB(A)]	
		DAY TIME	NIGHT TIME
Near Main Gate	11.08.2024 to 12.08.2024	56.8	47.4
Near Labour Hutment		54.1	44.4

**TABLE 7: AVERAGE VALUES OF NOISE LEVEL MONITORING**

AVERAGE NOISE LEVEL VALUE OF TOTAL AREA IN dB (A)		AMBIENT NOISE LEVEL STANDARD VALUE dB (A)	
DAY TIME	NIGHTTIME	DAY TIME	NIGHTTIME
55.45	45.9	55	45

**GRAPH 2: GRAPHICAL REPRESENTATION OF AVERAGE NOISE LEVEL VALUES OF THE AREA**



**TABLE 8: STANDARD VALUES FOR NOISE LEVELS AT DIFFERENT SITES**

Code	Category	Leq dB(A) Day Time	Leq dB(A) Night Time	Day Time: 06:00 hr. - 22:00 hr. Night Time: 22:00 hr. - 06:00 hr.
A.	Industrial area	75	70	
B.	Commercial area	65	55	
C.	Residential area	55	45	
D.	Silence Zone / Eco-sensitive area	50	40	

## SURFACE WATER QUALITY

- **Source of Sample:** Pond Water
- **Sample Drawn On:** 11.08.2024

**TABLE 9: WATER QUALITY RESULTS OF SAMPLE DRAWN FROM POND WATER**

### MICROBIOLOGICAL ANALYSIS

SL. NO.	CHARACTERISTIC	LIMIT AS PER IS 2296:1982 FOR CLASS B WATER	RESULT
1.	Total Coliform Organisms in MPN/100ml	500 (max)	94

### CHEMICAL ANALYSIS

SL. NO.	TEST PARAMETER	TOLERANCE LIMITS FOR INLAND SURFACE WATERS, CLASS B (IS: 2296-1982)	RESULT
1.	pH Value at 25°C	6.5 - 8.5	7.41
2.	Dissolved Oxygen in mg/l	5 (Min)	6.2
3.	Chemical Oxygen Demand (as COD) in mg/l	---	9
4.	Biochemical oxygen demand (3 days at 27°C) in mg/l	3	2.2
5.	Color in Hazen units	300	10
6.	Fluorides (as F) in mg/l	1.5	0.11
7.	Cadmium (as Cd) in mg/l	---	<0.002
8.	Chlorides (as Cl) in mg/l	---	52.1
9.	Chromium (as Cr <sup>6+</sup> ) in mg/l	---	<0.05
10.	Cyanides (as CN) in mg/l	0.05	<0.02
11.	Total Dissolved Solids (as TDS) in mg/l	---	304
12.	Selenium (as Se) in mg/l	---	<0.01
13.	Sulphate (as SO <sub>4</sub> ) in mg/l	---	39.7
14.	Lead (as Pb) in mg/l	---	<0.01
15.	Copper (as Cu) in mg/l	---	<0.02
16.	Arsenic (as As) in mg/l	0.2	<0.01
17.	Iron (as Fe) in mg/l	---	0.34
18.	Phenolic Compounds (as C <sub>6</sub> H <sub>5</sub> OH) in mg/l	0.005	<0.001
19.	Zinc (as Zn) in mg/l	---	0.16
20.	Anionic detergents (as MBAS) in mg/l	1	0.2
21.	Nitrate (as NO <sub>3</sub> ) in mg/l	---	<0.5



# INTERPRETATION OF THE TEST RESULTS FOR AMBIENT AIR QUALITY (AAQ) MONITORING

One of the immediate environmental impacts of a construction site is the potential contamination of the air due to ongoing work. Airborne pollutants, including minute particles, volatile chemicals, and inorganic gaseous compounds, can be dispersed by the wind, affecting nearby areas.

To mitigate air pollution, adherence to the National Ambient Air Quality Standards (NAAQS) is crucial, necessitating continuous monitoring of Ambient Air Quality (AAQ). This monitoring, conducted in two phases at the project site, aims to anticipate potential air pollution events resulting from the proposed work and plan necessary interventions for pollution control, if required. Laboratory reports from an authorized facility, attached as **Annexure - 3** to this document, provide further details.

## Methodology for AAQ Monitoring:

- Samples of PM<sub>10</sub> and PM<sub>2.5</sub> in ambient air were collected using respirable dust samplers and fine dust samplers at a flow rate of 1.2 m<sup>3</sup> per minute.
- Gas samples were collected at a flow rate of 0.5 liters per minute.

## Sampling Locations:

- a) Near Main Gate
- b) Near Labour Hutment

## Sampling Date:

11.08.2024 - 12.08.2024

## Selected Parameters for AAQ Monitoring

- a) Particulate Matter (PM<sub>10</sub>)
- b) Particulate Matter (PM<sub>2.5</sub>)
- c) Sulphur dioxide (SO<sub>2</sub>)
- d) Nitrogen dioxide (NO<sub>2</sub>)
- e) Carbon Monoxide (CO)

## INFERENCE

Throughout the two monitoring phases, the evaluation of five parameters yielded the subsequent results (average values expressed in µg/m<sup>3</sup>):

AAQ Values (µg/m<sup>3</sup>): PM<sub>10</sub> – 68.5; PM<sub>2.5</sub> – 35; SO<sub>2</sub> – 5.85; NO<sub>2</sub> – 24.05; CO – 623.5.

**Hence, the ambient air quality data indicates that the monitored air quality parameters at both locations were notably satisfactory.**

# INTERPRETATION OF THE TEST RESULTS FOR NOISE LEVEL MONITORING

A noise level monitoring system is a crucial tool for authorities to oversee noise pollution in various locations, particularly in sensitive zones such as schools, hospitals, and no-honking areas. It facilitates the implementation of appropriate measures to address this issue.

When designing the surveillance program to assess noise quality, a primary consideration was testing the noise generated by activities such as operating piling machines, excavation equipment, and vehicular movements within the project premises, particularly those activities within the Impact Zone that could potentially disrupt the surrounding areas.

At the current project site, background noise quality was monitored at two locations. Laboratory reports from an authorized facility, included as **Annexure - 3** with this document, provide further details.

## Methodology for Noise Level Monitoring:

- Monitoring was carried out from 06:00 am to 10:00 pm (during 75% of the day time). Night time monitoring was not performed.
- IS 9876: 1981 (RA: 2001) was followed as the method of analysis.

## Sampling Locations:

- a) Near Main Gate
- b) Near Labour Hutment

## Sampling Date:

- c) 11.08.2024 - 12.08.2024

## National Standards for Ambient Noise Level

According to the national regulations, the noise levels for this area should not exceed 55 dB(A) during the day and 45 dB(A) at night.

## INFERENCE

During the day and night, the average ambient noise levels were recorded at 55.45 dB(A) and 45.9 dB(A), respectively.

These levels, slightly above the prescribed limits, can be attributed to the ongoing construction activities. It's anticipated that the noise levels will decrease upon completion of the construction phase.

## INTERPRETATION OF THE TEST RESULTS FOR WATER QUALITY MONITORING

Monitoring surface water contaminants holds significant importance. Assessing surface water quality allows for a comprehensive evaluation of the physical, chemical, and biological aspects of aquatic systems concerning human health, ecosystem health, and specific uses.

In compliance with the Environmental Clearance (EC) guidelines, periodic checks ensure that harmful pollutants are not seeping into the water sources. To achieve this, samples were collected from distinct sources, and the laboratory reports, conducted by an authorized facility, are provided as **Annexure - 3** with this document.

### Source of Sample:

- a) **Source of Surface Water:** Pond water

### Sampling Date:

11.08.2024

**Some of the key parameters for testing water quality include the following:**

- **Total Dissolved Solids (TDS)**
- **Total Hardness** (as  $\text{CaCO}_3$ )
- **Total Alkalinity** (as  $\text{CaCO}_3$ )
- **Calcium**
- **Magnesium**

## INFERENCE

From the microbial analysis of the ground water sample, no significant bacterial content has been recorded.

Furthermore, the chemical analysis revealed that all the inorganic and organic substances, taken into for water quality testing, lie below the acceptable limits. No heavy metal concentration was noticed.

**Therefore, the overall water quality report suggests that all the tested parameters lie within the permitted range, and no contamination took place due to the present project's construction work.**



## FIELD PHOTOGRAPHS OF ENVIRONMENTAL MONITORING



**AMBIENT AIR QUALITY MONITORING**



**NOISE LEVEL MONITORING**



**WATER QUALITY MONITORING**

## NEED BASED ACTIVITY FOR LOCAL PEOPLE

ALL THE ACTIVITIES WILL BE DONE OUTSIDE THE PROJECT AREA							NAME OF THE BENEFICIARY
SL. NO.	PROPOSED NEED BASED ACTIVITIES	INVESTMENT (IN LAKHS)				TOTAL (IN LAKHS)	
		YEAR 1	YEAR 2	YEAR 3	YEAR 4		
1.	Providing funds for drinking water supply, drains, MSW management to the surrounding habitat.	0	0	0	0	0	Park Circus (0.95 km, SE), Tiljala (3.18 km, SE), Topsia (2.95 km, E)
2.	Initiating programme with KMC for vector control.	0	0	0	0	0	Kolkata Municipal Corporation
3.	Donations for construction and maintenance of toilets with running water facility, infrastructural support, hand washing stations, MSW management, providing educational tools like computers, internet connection, etc. to the nearby schools through NGO's.	0	0	0	0	0	Karaya Govt. School (1.25 km, NE), Karaya Govt. School (1.25 km, NE), Primary School Bhawanipore (1.73 km, SE), Ballygunge Govt. School (1.25 km, S), Abhinav Bharati High School (0.92 km, NW), Path Bhavan Primary School (1.34 km, SW)
4.	Providing funds to the nearby girls' school for sanitary napkin vending machines and proper disposal mechanism for the same through NGO's.	0	0	0	0	0	Kasia Bagan Urdu Girls Junior High School (0.90 km, E), Calcutta Girl's College (0.85 km, E), Davindra Girls High School (1.47 km, NW)
<b>TOTAL</b>		0	0	0	0	0	