SIX MONTHLY COMPLIANCE REPORT OF STIPULATED CONDITIONS OF ENVIRONMENTAL CLEARANCE

(January 2023- June 2023)

Of

Proposed Expansion of Residential & commercial Project with MCGM car Parking Lot

At

C.S No.464, Senapati Bapat Marg, Lower Parel, Mumbai-400013

M/s. Lodha Developers Pvt Ltd.
Lodha Excelus, Apollo mills compound, N.M. Joshi Marg,
Mahalakshmi Mumbai 400 011,

Submitted to

Maharashtra Pollution Control Board (Mumbai),
Environment Department, Mantralaya and
Ministry of Environment and Forests and Climate Change
(Regional Office)

Project Details:

<table>
<tr><th>Sr. No.</th><th>Project details</th><th></th></tr>
<tr><td>1.</td><td>Name of the project</td><td>Proposed Expansion of Residential & Commercial project with MCGM car parking Lot at C.S.No.464, Senapati Bapat Marg, Lower Parel, Mumbai-400013</td></tr>
<tr><td>2.</td><td>Name of the project proponent</td><td>M/s. Lodha Developers Pvt.Ltd.</td></tr>
<tr><td>3.</td><td>Clearance Identification No. and Date</td><td>SEIAA-EC-0000000611 dated January 15, 2019</td></tr>
<tr><td>4.</td><td colspan="2">Area Statement:</td></tr>
<tr><td>5.</td><td>Total Plot area (Sq.mt)</td><td>69,803.47</td></tr>
<tr><td>6.</td><td>FSI Area (Sq.mt)</td><td>253787.6</td></tr>
<tr><td>7.</td><td>Non-FSI Area (Sq.mt)</td><td>7,26,434.64</td></tr>
<tr><td>8.</td><td>Total Construction area (Sq.mt)</td><td>980222.24</td></tr>
<tr><td>9.</td><td>Water Requirement of the project (CMD)</td><td>
<table>
<tr><td rowspan="6">Dry Season</td><td>Source of water (CMD)</td><td>MCGM</td></tr>
<tr><td>Fresh Water (CMD)</td><td>1233</td></tr>
<tr><td>Recycled water (CMD)</td><td>639</td></tr>
<tr><td>Swimming Pool make up (Cum)</td><td>16</td></tr>
<tr><td>Total water Requirement</td><td>2095</td></tr>
<tr><td>Fire Fighting Underground water tank</td><td>As per NBC</td></tr>
</table>
</td></tr>
</table>

			(CMD)	
			Firefighting overhead water tank (CMD)	As per NBC
			Excess treated water	192

Wet Season	Source of Water	MCGM
	Fresh water	871
	Recycled water flushing (CMD)	634
	Recycled water Gardening	0
	Swimming pool make up (Cum)	16
	Total Water Requirement (CMD)	2095
	Fire Fighting underground water tank (CMD)	As per NBC
	Fire Fighting overhead water tank (CMD)	As per NBC

			Excess treated water	606
10.	STP details	Sewage generation: 1561 KLD STP Technology: MBR Technology Capacity of STP: 1800 KLD Location & area of STP: Basement, Area: 1125 m2		
11.	Solid waste details (During Pre-Construction Phase	Waste generation: Construction Debris: 28463 m3 Disposal of Construction waste debris: The Construction debris will be disposed as per the construction and Demolition Waste Management Rule 2016		
12	Solid waste details (During Operation Phase	Dry Waste: 2890 kg/d Wet Waste: 4334 kg/day Hazardous waste: A Biomedical waste (if applicable): NA STP Sludge (Dry sludge): 16 CMD Other if Any: Household E-Waste generation		

Monitoring the Implementation of Environmental Safeguards

Ministry of Environment & Forests

Regional Office (West Central Zone), Nagpur

Monitoring Report

PART – I

DATA SHEET

Date: 22.06.2023

1.	Project type: River - valley/ Mining / Industry / Thermal / Nuclear / Other (specify)		:	8b
2.	Name of the project		:	Proposed Expansion of Residential & Commercial project with MCGM car parking Lot at C.S.No.464, Senapati Bapat Marg, Lower Parel, Mumbai-400013
3.	Clearance Identification No. and Date		:	**SEIAA-EC-0000000611 dated January 15, 2019**
4.	Location		:	Village- Lower Parel
	a.	District (S)	:	Mumbai
	b.	State (S)	:	Maharashtra
	c.	Latitude/ Longitude	:	Latitude- 19° 0'17.41"N Longitude- 72°49'46.10"E
5.	Address for correspondence		:	**M/s. Lodha Developers Pvt Ltd** Lodha Excelus, Apollo mills compound, N.M. Joshi Marg, Mahalakshmi Mumbai 400 011
	a.	Address of Concerned Project Chief Engineer (with pin code & Telephone / telex / fax numbers	:	**Mr. Rupesh Kadam** Lodha Excelus, Apollo mills compound, N.M. Joshi Marg, Mahalakshmi Mumbai 400 011
	b.	Address of Executive Project: Engineer/Manager (with pincode/	:	**Mr. Rupesh Kadam** Lodha Excelus, Apollo mills compound,

		Fax numbers)		N.M. Joshi Marg, Mahalakshmi Mumbai 400 011
6.	Salient features		:	
	a.	of the project	:	Annexure A
	b.	of the environmental management plans	:	Annexure B
7.	Break up of the project area		:	
	a.	submergence area forest & non-forest	:	Non-Forest
	b.	Others	:	Annexure – A
8.	Break up of the project affected Population with enumeration of Those losing houses/dwelling units Only agricultural land only, both Dwelling units & agricultural Land & landless labourers/artisan		:	Not Applicable
	a.	SC, ST/Adivasis	:	Not Applicable
	b.	Others (Please indicate whether these Figures are based on any scientific And systematic survey carried out Or only provisional figures, it a Survey is carried out give details And years of survey)	:	Not Applicable
9.	Financial details		:	
	a.	Project cost as originally planned and subsequent revised estimates and the year of price reference	:	Cost of the project: **Rs** 45020000000
	b.	Allocation made for environ-mental management plans with	:	Yes. Attached as **Annexure B**

		item wise and year wise Break-up.		
	c.	Benefit cost ratio/Internal rate of Return and the year of assessment	:	-
	d.	Whether (c) includes the Cost of environmental management as shown in the above.	:	Yes. Refer Annexure - C
	e.	Actual expenditure incurred on the environmental management plans so far	:	
10.	Forest land requirement		:	
	a.	The status of approval for diversion of forest land for non-forestry use	:	Not Applicable
	b.	The status of clearing felling	:	Not Applicable
	c.	The status of compensatory afforestation, if any	:	Not Applicable
	d.	Comments on the viability & sustainability of compensatory afforestation program in the light of actual field experience so far	:	Not Applicable
11.	The status of clear felling in Non-forest areas (such as submergence area of reservoir, approach roads), if any with quantitative information		:	Not Applicable
12.	Status of construction		:	
	a.	Date of commencement (Actual and/or planned)	:	15th Sept 2013
	b.	Date of completion (Actual and/ of planned)	:	20th Sep 2023

13.	Reasons for the delay if the Project is yet to start		:	-
14	Dates of site visits		:	
	a.	The dates on which the project was monitored by the Regional Office on previous Occasions, if any	:	Not yet visited
	b.	Date of site visit for this monitoring report	:	
15.	Details of correspondence with Project authorities for obtaining Action plans/information on Status of compliance to safeguards Other than the routine letters for Logistic support for site visits		:	Not Applicable
	(The first monitoring report may contain the details of all the Letters issued so far, but the Later reports may cover only the Letters issued subsequently.)		:	-

Current Status of Work

Current status of Construction work		**Architect letter is attached**
a.	Date of Commencement (Actual and/ or planned)	15th Sept 2013
b.	Date of completion (Actual and/ or planned)	20th Sep 2023

Undertaking Letter

architects
planners
valuers

pradeepmkamble and associates

H.O. B/101, 1st Floor, Jakh Bautera Complex, Pandit Malviya Path, Ramnagar, Dombivli (E) 421 201.
✆ : (0251) 2862642 • Fax : (0251) 2860995 • E-mail : kkkkamble@yahoo.com

Date: 21/06/2023

Undertaking

We, M/s Pradeep Kamble and Associates, Architect for Proposed Expansion of Residential & Commercial Project with MCGM Car parking Lot at S. No 464, Senapati Bapat Marg, Lower Parel, Mumbai -400013 by **M/s. Lodha Developers Pvt. Ltd**

Environment Clearance has been obtained on (File No. SEIAA-EC-0000000611 dated January 15, 2019)

We are submitting herewith the current status of the project as follows:

Area statement as per EC received	In sq. m
Total Construction area	980222.24
Total FSI area	253787.6
Total Non- FSI area	7,26,434.64
Construction done till date	9,80,220.24

Thanking You,
Yours Faithfully,

Mr. Pradeep Kamble
(CA/87/10471)

Point wise compliance status to various stipulations laid down by the Government of Maharashtra as per the Environmental Clearance issued vide letter no.

SEIAA-EC-0000000611 dated 15th January 2019 as follows:

Sl. No.	Condition	status
	Specific Conditions	
I.	PP to upload Earlier EC copy	PP has Noted the condition
II.	PP to submit new approved layout copy.	PP has Noted the condition
III.	SEIAA decided to grant EC for: FSI area: 253787.60 m2, Non FSI area:726434.64 m2 & Total BUA:980222.24 m2 .(IOD no EB/1342/GS/A, Approval Date 05.12.2018)	Noted
	General Conditions	
I	E-waste shall be disposed through Authorized vendor as per E-waste (Management and Handling) Rules, 2016.	PP has Noted the condition.
II	The Occupancy Certificate shall be issued by the Local Planning Authority to the project only after ensuring sustained availability of drinking water, connectivity of sewer line to the project site and proper disposal of treated water as per environmental norms.	PP has Noted the condition.
III	This environmental clearance is issued subject to obtaining NOC from Forestry & Wild life angle including clearance from the standing committee of the National Board for Wild life as if applicable & this environment clearance does not necessarily implies that Forestry & Wild life clearance granted to the project which will be considered separately on merit.	PP has reported that the project site is located at Lower Parel within the urban limits and falls under the Municipal Corporation of Greater Mumbai (MCGM), there are no protected areas lying within a distance of 10 km from the project site
IV	PP has to abide by the conditions stipulated by SEAC& SEIAA.	PP has Noted the condition.
V	The height, Construction built up area of proposed construction shall be in accordance with the existing FSI/FAR norms of the urban local body & it should ensure the same along with survey number before approving layout plan & before according commencement certificate to proposed work. Plan	PP has Noted the condition.

	approving authority should also ensure the zoning permissibility for the proposed project as per the approved development plan of the area.	
VI	If applicable Consent for Establishment" shall be obtained from Maharashtra Pollution Control Board under Air and Water Act and a copy shall be submitted to the Environment department before start of any construction work at the site.	Consent for Establishment is received on 23.12.2015 from MPCB.
VII	All required sanitary and hygienic measures should be in place before starting construction activities and to be maintained throughout the construction phase.	PP has reported that following NBC sanitary and hygienic norms. Provision of good quality drinking water and sufficient no. of toilets are provided on site.
VIII	Adequate drinking water and sanitary facilities should be provided for construction workers at the site. Provision should be made for mobile toilets. The safe disposal of wastewater and solid wastes generated during the construction phase should be ensured.	PP has reported that good quality drinking water supply is ensured by the proponent. Waste water: Mobile Toilets for sanitary disposal of excreta are provided by the project proponent for construction workers during construction activity. Solid waste: Waste generated during the construction phase is handed over to MCGM
IX.	The solid waste generated should be properly collected and segregated. dry/inert solid waste should be disposed off to the approved sites for land filling after recovering recyclable material.	PP has reported that Waste generated during the construction phase is handed over to MCGM
X.	Disposal of muck during construction phase should not create any adverse effect on the neighboring communities and be disposed taking the necessary precautions for general safety and health aspects of people, only in approved sites with the approval of competent authority.	Will be complied.
XI.	Arrangement shall be made that waste water and storm water do not get mixed.	PP has reported that separate provision is made for waste water and storm water.
XII.	All the topsoil excavated during construction activities should be stored for use in horticulture/landscape development within the project site.	PP has reported that topsoil is stored within the site and will be used for landscaping
XIII.	Additional soil for leveling of the proposed site shall be generated within the sites (to the extent possible) so that	PP has reported that Additional soil will be used for site levelling purpose.

	natural drainage system of the area is protected and improved.	
XIV.	Green Belt Development shall be carried out considering CPCB guidelines including selection of plant species and in consultation with the local DFO/ Agriculture Dept.	The proponent will develop green belt of adequate density of local species along the periphery of the plot so as to provide protection against noise and air pollution and will enhance the aesthetic value of region.
XV.	Soil and ground water samples will be tested to ascertain that there is no threat to ground water quality by leaching of heavy metals and other toxic contaminants.	The soil samples were collected to check the quality of soil. No ground water samples were collected since no ground water source is available.
XVI.	Construction spoils, including bituminous material and other hazardous materials must not be allowed to contaminate watercourses and the dumpsites for such material must be secured so that they should not leach into the ground water.	PP has Noted the condition.
XVII.	Any hazardous waste generated during construction phase should be disposed off as per applicable rules and norms with necessary approvals of the Maharashtra Pollution Control Board.	PP has Noted the condition.
XVIII	The diesel generator sets to be used during construction phase should be low sulphur diesel type and should conform to Environments (Protection) Rules prescribed for air and noise emission standards.	DG sets are used only during power failure.
XIX.	The diesel required for operating DG sets shall be stored in underground tanks and if required, clearance from concern authority shall be taken.	During operation phase DG set will be installed as per CPCB norms. DG set is yet to be installed
XX.	Vehicles hired for bringing construction material to the site should be in good condition and should have a pollution check certificate and should conform to applicable air and noise emission standards and should be operated only during non-peak hours.	PP has reported that All the vehicles bringing construction material have valid PUC certificate. All the vehicles do comply with relevant air and noise standard. The proponent has specifically instructed the subcontractors to run the vehicles during non-peak hours.

XXI.	Ambient noise levels should conform to residential standards both during day and night. Incremental pollution loads on the ambient air and noise quality should be closely monitored during construction phase. Adequate measures should be made to reduce ambient air and noise level during construction phase, so as to conform to the stipulated standards by CPCB/MPCB.	PP has reported that Barricades have been provided on site to reduce noise level
XXII.	Fly ash should be used as building material in the construction as per the provisions of Fly Ash Notification of September 1999 and amended as on 27th August, 2003. (The above condition is applicable only if the project site is located within the 100Km of Thermal Power Stations).	PP has reported that the project is using fly ash as a part of composition.
XXIII.	Ready mixed concrete must be used in building construction.	PP has reported that the project is using design mix on site for construction.
XXIV.	Storm water control and its re-use as per CGWB and BIS standards for various applications.	PP has reported that Storm / Rain- water drainage system from the roof terrace of the buildings will be collected. It will also be collected from various levels of building, including balcony drains This water will be stored in the rain water harvesting tank by means of draining, storing part rain water, its re-use and surface runoff water.
XXV.	Water demand during construction should be reduced by use of pre-mixed concrete, curing agents and other best practices referred.	RMC is being used for reducing water consumption.
XXVI.	The ground water level and its quality should be monitored regularly in consultation with Ground Water Authority.	PP has reported that the proponent is not using/ extracting any ground water.
XXVII.	The installation of the Sewage Treatment Plant (STP) should be certified by an independent expert and a report in this regard should be submitted to the MPCB and Environment department before the project is commissioned for operation. Discharge of this unused treated affluent, if any should be discharge in the sewer line. Treated effluent emanating from STP shall be recycled/refused to the maximum extent possible. Discharge of this unused treated affluent, if any should	STP of capacity 1800 KLD of MBBR Technology is installed for treatment of wastewater.

	be discharge in the sewer line. Treatment of 100% gray water by decentralized treatment should be done. Necessary measures should be made to mitigate the odour problem from STP.	
XXVIII.	Permission to draw ground water and construction of basement if any shall be obtained from the competent Authority prior to construction/operation of the project.	PP has reported that No ground water is used at site since there is no ground water source available
XXIX.	Separation of gray and black water should be done by the use of dual plumbing line for separation of gray and black water.	PP has reported that Dual plumbing system will be provided.
XXX.	Fixtures for showers, toilet flushing and drinking should be of low flow either by use of aerators or pressure reducing devices or sensor-based control.	PP has reported that Low flow Fixtures either by use of aerators or pressure reducing devices or sensor-based control for shower, toilets flushing and drinking will be used.
XXXI.	Use of glass may be reduced up to 40% to reduce the electricity consumption and load on air conditioning. If necessary, use high quality double glass with special reflective coating in windows.	PP has reported that the residential building has glass percentage around 25%. In commercial building glass will be used only for the window panes and shall be chosen such that SHGC (Solar Heat Gain Co efficient) suitable for composite to warm and humid climate
XXXII.	Roof should meet prescriptive requirement as per Energy Conservation Building Code by using appropriate thermal insulation material to fulfill requirement.	PP has reported that ECBC is only applicable for centrally air-conditioned buildings and hence it is not applicable.
XXXIII.	Energy conservation measures like installation of CFLs /TFLs for the lighting the areas outside the building should be integral part of the project design and should be in place before project commissioning. Use CFLs and TFLs should be properly collected and disposed off/sent for recycling as per the prevailing guidelines/rules of the regulatory authority to avoid mercury contamination. Use of solar panels may be done to the extent possible like installing solar street lights, common solar water heaters system. Project proponent should install, after checking feasibility, solar plus hybrid non-conventional energy source as source of energy	PP has reported that they will be using solar power for street light with LED lamps, no other internal area is considered to use solar power. They will be using energy efficient lamps such as LED in common areas.

XXXIV.	Diesel power generating sets proposed as source of backup power for elevators and common area illumination during operation phase should be of enclosed type and conform to rules made under the Environment (Protection) Act, 1986. The height of stack of DG sets should be equal to the height needed for the combined capacity of all proposed DG sets. Use low sulphur diesel. The location of the DG sets may be decided with in consultation with Maharashtra Pollution Control Board.	PP has reported that During operation phase DG set will be installed as per CPCB norms. DG sets will be operated only in case of power failure as a backup facility
XXXV.	Noise should be controlled to ensure that it does not exceed the prescribed standards. During nighttime the noise levels measured at the boundary of the building shall be restricted to the permissible levels to comply with the prevalent regulations.	PP has reported that project will not have any activity that can generate noise which will exceed limits.
XXXVI.	Traffic congestion near the entry and exit points from the roads adjoining the proposed project site must be avoided. Parking should be fully internalized and no public space should be utilized.	PP has reported that The project has entry/exit points with sufficient width of road to avoid traffic congestion. The site is well connected to the Eastern freeway
XXXVII.	Opaque wall should meet prescriptive requirement as per Energy Conservation Building Code, which is proposed to be mandatory for all air-conditioned spaces while it is aspiration for non-air-conditioned spaces by use of appropriate thermal insulation material to fulfill requirement.	PP has reported that ECBC is only applicable for centrally air-conditioned buildings and hence it is not applicable.
XXXVIII.	The building should have adequate distance between them to allow movement of fresh air and passage of natural light, air and ventilation.	PP has reported that The buildings are designed as per good design practices and as per MCGM laws. The plans are approved by MCGM
XXXIX.	Regular supervision of the above and other measures for monitoring should be in place all through the construction phase, so as to avoid disturbance to the surroundings.	PP has Noted the condition.
XL.	Under the provisions of Environment (Protection) Act, 1986, legal action shall be initiated against the project proponent if it was found that construction of the project has been started without obtaining environmental clearance.	The project has obtained Environment Clearance SEIAA-EC-0000000611 Dated 15th January 2019

XLI.	Six monthly monitoring reports should be submitted to the regional office MoEF, Bhopal with copy to this department and MPCB.	PP has Noted the condition
XLII.	Project proponent shall ensure completion of STP, MSW disposal facility, green belt development prior to occupation of the buildings. As agreed during the SEIAA meeting, PP to explore possibility of utilizing excess treated water in the adjacent area for gardening before discharging it into sewer line No physical occupation or allotment will be given unless all above said environmental infrastructure is installed and made functional including water requirement in Para 2. Prior certification from appropriate authority shall be obtained.	STP 0f 1800 KLD capacity is commissioned WIP for RWH, OWC, Solar water heating & green belt is provided.
XLIII.	Wet garbage should be treated by Organic Waste Converter and treated waste (manure) should be utilized in the existing premises for gardening. And, no wet garbage will be disposed outside the premises. Local authority should ensure this.	PP has Noted the condition
XLIV.	Local body should ensure that no occupation certification is issued prior to operation of STP/MSW site etc. with due permission of MPCB.	PP has Noted the condition
XLV.	A complete set of all the documents submitted to Department should be forwarded to the Local authority and MPCB.	PP has Noted the condition
XLVI.	In the case of any change(s) in the scope of the project, the project would require a fresh appraisal by this Department.	PP has Noted the condition
XLVII.	A separate environment management cell with qualified staff shall be set up for implementation of the stipulated environmental safeguards.	PP has Noted the condition
XLVIII.	Separate funds shall be allocated for implementation of environmental protection measures/EMP along with item-wise breaks-up. These cost shall be included as part of the project cost. Thefunds earmarked for the environment protection measures shall not be diverted for other purposes and year-wise	PP has reported that Separate funds will be allocated for implementation of env. Protection measures as per EMP submitted in EC. EC attached.

	expenditure should reported to the MPCB & this department.	
XLIX.	The project management shall advertise at least in two local newspapers widely circulated in the region around the project, one of which shall be in the Marathi language of the local concerned within seven days of issue of this letter, informing that the project has been accorded environmental clearance and copies of clearance letter are available with the Maharashtra Pollution Control Board and may also be seen at Website at http://ec.maharashtra.gov.in.	Complied.
L.	Project management should submit half yearly compliance reports in respect of the stipulated prior environment clearance terms and conditions in hard & soft copies to the MPCB & this department, on 1st June & 1st December of each calendar year.	PP has Noted the condition
LI.	A copy of the clearance letter shall be sent by proponent to the concerned Municipal Corporation 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.	PP has Noted the condition
LII.	The proponent shall upload the status of compliance of the stipulated EC conditions, including results of monitored data on their website and shall update the same periodically. It shall simultaneously be sent to the Regional Office of MoEF, the respective Zonal Office of CPCB and the SPCB. The criteria pollutant levels namely; SPM, RSPM. SO2, NOx (ambient levels as well as stack emissions) or critical sector 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.	PP has Noted the condition
LIII.	The project proponent shall also submit six monthly reports on the status of compliance of the stipulated EC conditions including results of monitored	Noted. The project has obtained Environment Clearance SEIAA-EC-0000000611 on 15 January 2019, for total plot area of 69,803.47

	data (both in hard copies as well as by e-mail) to the respective Regional Office of MoEF, the respective Zonal Office of CPCB and the SPCB.	sq. m.
LIV.	The environmental statement for each financial year ending 31st March in Form-V as is mandated to be submitted by the project proponent to the concerned State Pollution Control Board as prescribed under the Environment (Protection) Rules, 1986, as amended subsequently, shall also be put on the website of the company along with the status of compliance of EC conditions and shall also be sent to the respective Regional Offices of MoEF by e-mail.	PP has Noted the condition

List of Annexure

S. No	Annexure Name
1	EC Copy
2	Monitoring Report

Annexure 1: EC Copy

सत्यमेव जयते

STATE LEVEL ENVIRONMENT IMPACT ASSESSMENT AUTHORITY

Environment department,
Room No. 217, 2nd floor,
Mantralaya, Annexe,
Mumbai- 400 032.
Date:January 15, 2019

To,
Atul Jangam
at At Plot Bearing C.S.No.464, Senapati Bapat Marg, Lower Parel Division Mumbai

Subject: Environment Clearance for Proposed Expansion of Residential & Commercial Project with MCGM Car Parking Lot at C. S. No. 464, Senapati Bapat Marg, Lower Parel, Mumbai -400013 by Lodha Developers Pvt. Ltd. (formerly known as Jawala Real Estate Pvt. Ltd.

Sir,

This has reference to your communication on the above mentioned subject. The proposal was considered as per the EIA Notification - 2006, by the State Level Expert Appraisal Committee-II, Maharashtra in its 67th (Day - 2)th meeting and recommend the project for prior environmental clearance to SEIAA. Information submitted by you has been considered by State Level Environment Impact Assessment Authority in its 150th meetings.

2. It is noted that the proposal is considered by SEAC-II under screening category 8 (b) as per EIA Notification 2006.

Brief Information of the project submitted by you is as below :-

1.Name of Project	Proposed Expansion of Residential & Commercial Project with MCGM Car Parking Lot
2.Type of institution	Private
3.Name of Project Proponent	Atul Jangam
4.Name of Consultant	Dr. D. A. Patil, Mahabal Enviro Engineers Pvt. Ltd.
5.Type of project	Residential and Commercial Project with MCGM Parking Lot
6.New project/expansion in existing project/modernization/diversification in existing project	Expansion in existing in existing project
7.If expansion/diversification, whether environmental clearance has been obtained for existing project	Obtained Prior EC Obtained Vide No. SEAC 2010/CR. 535/TC.2 dated 05.01.2010 and further amended on 05.01.2011 and SEAC 2013/CR226/TC-1 dated 29.04.2013
8.Location of the project	At Plot Bearing C.S.No.464, Senapati Bapat Marg, Lower Parel Division Mumbai
9.Taluka	Mumbai
10.Village	Lower Parel Division
Correspondence Name:	Atul Jangam, Lodha Developers Pvt. Ltd. (formerly Known as Jawala Real Estate Pvt. Ltd.)
Room Number:	-
Floor:	-
Building Name:	Lodha Excelus
Road/Street Name:	N.M Joshi Marg
Locality:	Mahalaxmi
City:	Mumbai 400 011
11.Area of the project	Municipal Corporation of Greater Mumbai

12.IOD/IOA/Concession/Plan Approval Number	IOD No. EB/ 1342/GS/A dated 24.01.2006 Amended Approval No. EB/ 1342/GS/A dated 29.02.2016
	IOD/IOA/Concession/Plan Approval Number: IOD No. EB/ 1342/GS/A dated 24.01.2006 Amended Approval No. EB/ 1342/GS/A dated 29.02.2016
	Approved Built-up Area: 880070
13.Note on the initiated work (If applicable)	As of today we have constructed 6,59,228 m2 area as per Prior EC Obtained Vide No. SEAC 2010/CR. 535/TC.2 dated 05.01.2010 and further amended on 05.01.2011 and SEAC 2013/CR226/TC-1 dated 29.04.2013
14.LOI / NOC / IOD from MHADA/ Other approvals (If applicable)	IOD No. EB/ 1342/GS/A dated 24.01.2006 Amended Approval No. EB/ 1342/GS/A dated 29.02.2016
15.Total Plot Area (sq. m.)	69,803.47 m2
16.Deductions	4119.67 m2
17.Net Plot area	65683.8 m2
18 (a).Proposed Built-up Area (FSI & Non-FSI)	**FSI area (sq. m.):** 253787.6 m2
	Non FSI area (sq. m.): 7,26,434.64 m2
	Total BUA area (sq. m.): 980222.24
18 (b).Approved Built up area as per DCR	**Approved FSI area (sq. m.):**
	Approved Non FSI area (sq. m.):
	Date of Approval:
19.Total ground coverage (m2)	39751.83 m2
20.Ground-coverage Percentage (%) (Note: Percentage of plot not open to sky)	60.52%
21.Estimated cost of the project	45020000000

22.Production Details

Serial Number	Product	Existing (MT/M)	Proposed (MT/M)	Total (MT/M)
1	NA	NA	NA	NA

23.Total Water Requirement

Dry season:	Source of water	MCGM
	Fresh water (CMD):	1233
	Recycled water - Flushing (CMD):	639
	Recycled water - Gardening (CMD):	183
	Swimming pool make up (Cum):	16
	Total Water Requirement (CMD) :	2095
	Fire fighting - Underground water tank(CMD):	As per NBC
	Fire fighting - Overhead water tank(CMD):	As per NBC
	Excess treated water	192
Wet season:	Source of water	MCGM
	Fresh water (CMD):	871
	Recycled water - Flushing (CMD):	634
	Recycled water - Gardening (CMD):	0
	Swimming pool make up (Cum):	16
	Total Water Requirement (CMD) :	2095
	Fire fighting - Underground water tank(CMD):	As per NBC
	Fire fighting - Overhead water tank(CMD):	As per NBC
	Excess treated water	606
Details of Swimming pool (If any)	Yes, Swimming pool make up 16 KLD	

24.Details of Total water consumed									
Particulars	Consumption (CMD)			Loss (CMD)			Effluent (CMD)		
Water Requirement	Existing	Proposed	Total	Existing	Proposed	Total	Existing	Proposed	Total
Domestic	NS	NA	NA	NA	NA	NA	NA	NA	NA

25.Rain Water Harvesting (RWH)	Level of the Ground water table:	8 m
	Size and no of RWH tank(s) and Quantity:	2 RWH tanks with total capacity: 724 m3
	Location of the RWH tank(s):	Basement Level
	Quantity of recharge pits:	28 Nos.
	Size of recharge pits :	3.0 x 3.0 x 4.0 m
	Budgetary allocation (Capital cost) :	Rs. 175 Lakhs
	Budgetary allocation (O & M cost) :	Rs. 15 Lakhs/year
	Details of UGT tanks if any :	UG Tanks will be provided as per NBC Location: Basement
26.Storm water drainage	Natural water drainage pattern:	The slope of the site and area is towards north side
	Quantity of storm water:	1.14 m3/sec
	Size of SWD:	450 mm, 500 mm dia pipe
27.Sewage and Waste water	Sewage generation in KLD:	1561 KLD
	STP technology:	MBR
	Capacity of STP (CMD):	1800 KLD
	Location & area of the STP:	Basement, Area: 1125 m2
	Budgetary allocation (Capital cost):	Rs. 450 Lakhs
	Budgetary allocation (O & M cost):	Rs. 90 Lakhs/year

28.Solid waste Management		
Waste generation in the Pre Construction and Construction phase:	**Waste generation:**	Construction Debris: : 28463 m3
	Disposal of the construction waste debris:	The construction debris will be disposed as per the Construction and Demolition Waste Management Rules 2016.
Waste generation in the operation Phase:	**Dry waste:**	2890 kg/day
	Wet waste:	4334 kg/day
	Hazardous waste:	NA
	Biomedical waste (If applicable):	NA
	STP Sludge (Dry sludge):	16 CMD
	Others if any:	Household E waste generation
Mode of Disposal of waste:	**Dry waste:**	Dry garbage will be segregated at source & disposed off to recyclers
	Wet waste:	Wet garbage will be composted using Mechanical Composting Technology and used as organic manure for landscaping.
	Hazardous waste:	NA
	Biomedical waste (If applicable):	NA
	STP Sludge (Dry sludge):	Sludge use as manure for gardening
	Others if any:	The E-waste shall be handed over to e-waste management vendor authorized by MPCB.
Area requirement:	**Location(s):**	Basement
	Area for the storage of waste & other material:	100 m2
	Area for machinery:	200 m2
Budgetary allocation (Capital cost and O&M cost):	**Capital cost:**	Rs. 170 Lakhs
	O & M cost:	Rs. 70 Lakhs/year

29.Effluent Charecterestics					
Serial Number	**Parameters**	**Unit**	**Inlet Effluent Charecterestics**	**Outlet Effluent Charecterestics**	**Effluent discharge standards (MPCB)**
1	NA	NA	NA	NA	NA
Amount of effluent generation (CMD):		NA			
Capacity of the ETP:		NA			
Amount of treated effluent recycled :		NA			
Amount of water send to the CETP:		NA			
Membership of CETP (if require):		NA			
Note on ETP technology to be used		NA			
Disposal of the ETP sludge		NA			

30.Hazardous Waste Details							
Serial Number	Description	Cat	UOM	Existing	Proposed	Total	Method of Disposal
1	NA	NA	NA	NA	NA	NA	NA

31.Stacks emission Details						
Serial Number	Section & units	Fuel Used with Quantity	Stack No.	Height from ground level (m)	Internal diameter (m)	Temp. of Exhaust Gases
1	NA	NA	NA	NA	NA	NA

32.Details of Fuel to be used				
Serial Number	Type of Fuel	Existing	Proposed	Total
1	NA	NA	NA	NA
33.Source of Fuel		NA		
34.Mode of Transportation of fuel to site		NA		

35.Energy		
Power requirement:	Source of power supply :	BEST
	During Construction Phase: (Demand Load)	2000 kVA
	DG set as Power back-up during construction phase	500 kVA
	During Operation phase (Connected load):	81.92 MW
	During Operation phase (Demand load):	32.10 MW
	Transformer:	-
	DG set as Power back-up during operation phase:	10 x 1250 kVA, 1 x 500 kVA
	Fuel used:	HSD
	Details of high tension line passing through the plot if any:	Nil

Energy saving by non-conventional method:
Solar Hot Water system for Residential Building Solar lighting in landscape , common area passages

36.Detail calculations & % of saving:		
Serial Number	Energy Conservation Measures	Saving %

1	• Natural shading through elevation features to minimize heat gain and reduce air-conditioning requirement , • Use of low-e glass to reduce power requirement , • Energy efficient lighting fixtures (LED lights) to all buildings	27%

37.Details of pollution control Systems

Source	Existing pollution control system	Proposed to be installed
NA	NA	NA

Budgetary allocation (Capital cost and O&M cost):	**Capital cost:**	Rs. 150 Lakhs
	O & M cost:	Rs. 15 Lakhs/year

38.Environmental Management plan Budgetary Allocation

a) Construction phase (with Break-up):

Serial Number	Attributes	Parameter	Total Cost per annum (Rs. In Lacs)
1	Water spray for dust suppression	-	10
2	Site sanitation and Potable Water Supply to Labour	-	20
3	Environmental Monitoring	-	4
4	Health check-up & first aid	-	12
5	Safety Personal Protective Equipment	-	25
6	Traffic Management (Sign Boards, Persons at entry exit and Parking area)	-	8
7	Safety nets	-	35
8	Storm water Management (SWD along plot boundary and Sedimentation Pits)	-	5
9	Tyre cleaning and Vehicle maintenance	-	6
10	Safety Training to Workers (Twice in Year), Safety Officer	-	14
11	Disinfection	-	6
12	Total	-	145

b) Operation Phase (with Break-up):

Serial Number	Component	Description	Capital cost Rs. In Lacs	Operational and Maintenance cost (Rs. in Lacs/yr)
1	STP (Tertiary)	-	450	90
2	Solar System	-	150	15
3	Rainwater harvesting	-	175	15
4	Solid Waste Composting plant	-	170	70

5	Landscape	-	400	60
6	Environmental Monitoring	-	-	4
7	Total	-	1354	254

39.Storage of chemicals (inflamable/explosive/hazardous/toxic substances)

Description	Status	Location	Storage Capacity in MT	Maximum Quantity of Storage at any point of time in MT	Consumption / Month in MT	Source of Supply	Means of transportation
NA	NA	NA	NA	NA	NA	NA	NA

40.Any Other Information

No Information Available

	CRZ/ RRZ clearance obtain, if any:	NA
	Distance from Protected Areas / Critically Polluted areas / Eco-sensitive areas/ inter-State boundaries	NA, Sanjay Gandhi National Park: 16.2 km
	Category as per schedule of EIA Notification sheet	8 (b)
	Court cases pending if any	No
	Other Relevant Informations	The ToR prescribed by EAC in its 25th meeting held on 30.11.2017
	Have you previously submitted Application online on MOEF Website.	Yes
	Date of online submission	14-10-2017

3. The proposal has been considered by SEIAA in its 150th meeting & decided to accord environmental clearance to the said project under the provisions of Environment Impact Assessment Notification, 2006 subject to implementation of the following terms and conditions:

Specific Conditions:

I	PP to upload Earlier EC copy.
II	PP to submit new approved layout copy.
III	SEIAA decided to grant EC for : FSI area: 253787.60 m2,Non FSI area:726434.64 m2 & Total BUA:980222.24 m2 .(IOD no EB/1342/GS/A, Approval Date 05.12.2018)

General Conditions:

I	E-waste shall bedisposed through Authorized vendor as per E-waste (Management and Handling) Rules, 2016.
II	The Occupancy Certificate shall be issued by the Local Planning Authority to the project only after ensuring sustained availability of drinking water, connectivity of sewer line to the project site and proper disposal of treated water as per environmental norms.
III	This environmental clearance is issued subject to obtaining NOC from Forestry & Wild life angle including clearance from the standing committee of the National Board for Wild life as if applicable & this environment clearance does not necessarily implies that Forestry & Wild life clearance granted to the project which will be considered separately on merit.
IV	PP has to abide by the conditions stipulated by SEAC& SEIAA.
V	The height, Construction built up area of proposed construction shall be in accordance with the existing FSI/FAR norms of the urban local body & it should ensure the same along with survey number before approving layout plan & before according commencement certificate to proposed work. Plan approving authority should also ensure the zoning permissibility for the proposed project as per the approved development plan of the area.
VI	If applicable Consent for Establishment" shall be obtained from Maharashtra Pollution Control Board under Air and Water Act and a copy shall be submitted to the Environment department before start of any construction work at the site.
VII	All required sanitary and hygienic measures should be in place before starting construction activities and to be maintained throughout the construction phase.
VIII	Adequate drinking water and sanitary facilities should be provided for construction workers at the site. Provision should be made for mobile toilets. The safe disposal of wastewater and solid wastes generated during the construction phase should be ensured.
IX	The solid waste generated should be properly collected and segregated. dry/inert solid waste should be disposed off to the approved sites for land filling after recovering recyclable material.

X	Disposal of muck during construction phase should not create any adverse effect on the neighboring communities and be disposed taking the necessary precautions for general safety and health aspects of people, only in approved sites with the approval of competent authority.
XI	Arrangement shall be made that waste water and storm water do not get mixed.
XII	All the topsoil excavated during construction activities should be stored for use in horticulture / landscape development within the project site.
XIII	Additional soil for leveling of the proposed site shall be generated within the sites (to the extent possible) so that natural drainage system of the area is protected and improved.
XIV	Green Belt Development shall be carried out considering CPCB guidelines including selection of plant species and in consultation with the local DFO/ Agriculture Dept.
XV	Soil and ground water samples will be tested to ascertain that there is no threat to ground water quality by leaching of heavy metals and other toxic contaminants.
XVI	Construction spoils, including bituminous material and other hazardous materials must not be allowed to contaminate watercourses and the dumpsites for such material must be secured so that they should not leach into the ground water.
XVII	Any hazardous waste generated during construction phase should be disposed off as per applicable rules and norms with necessary approvals of the Maharashtra Pollution Control Board.
XVIII	The diesel generator sets to be used during construction phase should be low sulphur diesel type and should conform to Environments (Protection) Rules prescribed for air and noise emission standards.
XIX	The diesel required for operating DG sets shall be stored in underground tanks and if required, clearance from concern authority shall be taken.
XX	Vehicles hired for bringing construction material to the site should be in good condition and should have a pollution check certificate and should conform to applicable air and noise emission standards and should be operated only during non-peak hours.
XXI	Ambient noise levels should conform to residential standards both during day and night. Incremental pollution loads on the ambient air and noise quality should be closely monitored during construction phase. Adequate measures should be made to reduce ambient air and noise level during construction phase, so as to conform to the stipulated standards by CPCB/MPCB.
XXII	Fly ash should be used as building material in the construction as per the provisions of Fly Ash Notification of September 1999 and amended as on 27th August, 2003. (The above condition is applicable only if the project site is located within the 100Km of Thermal Power Stations).
XXIII	Ready mixed concrete must be used in building construction.
XXIV	Storm water control and its re-use as per CGWB and BIS standards for various applications.
XXV	Water demand during construction should be reduced by use of pre-mixed concrete, curing agents and other best practices referred.
XXVI	The ground water level and its quality should be monitored regularly in consultation with Ground Water Authority.
XXVII	The installation of the Sewage Treatment Plant (STP) should be certified by an independent expert and a report in this regard should be submitted to the MPCB and Environment department before the project is commissioned for operation. Discharge of this unused treated affluent, if any should be discharge in the sewer line.Treated effluent emanating from STP shall be recycled/refused to the maximum extent possible. Discharge of this unused treated affluent, if any should be discharge in the sewer line.Treatment of 100% gray water by decentralized treatment should be done. Necessary measures should be made to mitigate the odour problem from STP.
XXVIII	Permission to draw ground water and construction of basement if any shall be obtained from the competent Authority prior to construction/operation of the project.
XXIX	Separation of gray and black water should be done by the use of dual plumbing line for separation of gray and black water.
XXX	Fixtures for showers, toilet flushing and drinking should be of low flow either by use of aerators or pressure reducing devices or sensor based control.
XXXI	Use of glass may be reduced up to 40% to reduce the electricity consumption and load on air conditioning. If necessary, use high quality double glass with special reflective coating in windows.
XXXII	Roof should meet prescriptive requirement as per Energy Conservation Building Code by using appropriate thermal insulation material to fulfill requirement.
XXXIII	Energy conservation measures like installation of CFLs /TFLs for the lighting the areas outside the building should be integral part of the project design and should be in place before project commissioning. Use CFLs and TFLs should be properly collected and disposed off/sent for recycling as per the prevailing guidelines/rules of the regulatory authority to avoid mercury contamination. Use of solar panels may be done to the extent possible like installing solar street lights, common solar water heaters system. Project proponent should install, after checking feasibility, solar plus hybrid non-conventional energy source as source of energy.

XXXIV	Diesel power generating sets proposed as source of backup power for elevators and common area illumination during operation phase should be of enclosed type and conform to rules made under the Environment (Protection) Act, 1986. The height of stack of DG sets should be equal to the height needed for the combined capacity of all proposed DG sets. Use low sulphur diesel. The location of the DG sets may be decided with in consultation with Maharashtra Pollution Control Board.
XXXV	Noise should be controlled to ensure that it does not exceed the prescribed standards. During nighttime the noise levels measured at the boundary of the building shall be restricted to the permissible levels to comply with the prevalent regulations.
XXXVI	Traffic congestion near the entry and exit points from the roads adjoining the proposed project site must be avoided. Parking should be fully internalized and no public space should be utilized.
XXXVII	Opaque wall should meet prescriptive requirement as per Energy Conservation Building Code, which is proposed to be mandatory for all air-conditioned spaces while it is aspiration for non-air-conditioned spaces by use of appropriate thermal insulation material to fulfill requirement.
XXXVIII	The building should have adequate distance between them to allow movement of fresh air and passage of natural light, air and ventilation.
XXXIX	Regular supervision of the above and other measures for monitoring should be in place all through the construction phase, so as to avoid disturbance to the surroundings.
XL	Under the provisions of Environment (Protection) Act, 1986, legal action shall be initiated against the project proponent if it was found that construction of the project has been started without obtaining environmental clearance.
XLI	Six monthly monitoring reports should be submitted to the Regional office MoEF, Bhopal with copy to this department and MPCB.
XLII	Project proponent shall ensure completion of STP, MSW disposal facility, green belt development prior to occupation of the buildings. As agreed during the SEIAA meeting, PP to explore possibility of utilizing excess treated water in the adjacent area for gardening before discharging it into sewer line No physical occupation or allotment will be given unless all above said environmental infrastructure is installed and made functional including water requirement in Para 2. Prior certification from appropriate authority shall be obtained.
XLIII	Wet garbage should be treated by Organic Waste Converter and treated waste (manure) should be utilized in the existing premises for gardening. And, no wet garbage will be disposed outside the premises. Local authority should ensure this.
XLIV	Local body should ensure that no occupation certification is issued prior to operation of STP/MSW site etc. with due permission of MPCB.
XLV	A complete set of all the documents submitted to Department should be forwarded to the Local authority and MPCB.
XLVI	In the case of any change(s) in the scope of the project, the project would require a fresh appraisal by this Department.
XLVII	A separate environment management cell with qualified staff shall be set up for implementation of the stipulated environmental safeguards.
XLVIII	Separate funds shall be allocated for implementation of environmental protection measures/EMP along with item-wise breaks-up. These cost shall be included as part of the project cost. The funds earmarked for the environment protection measures shall not be diverted for other purposes and year-wise expenditure should reported to the MPCB & this department.
XLIX	The project management shall advertise at least in two local newspapers widely circulated in the region around the project, one of which shall be in the Marathi language of the local concerned within seven days of issue of this letter, informing that the project has been accorded environmental clearance and copies of clearance letter are available with the Maharashtra Pollution Control Board and may also be seen at Website at http://ec.maharashtra.gov.in.
L	Project management should submit half yearly compliance reports in respect of the stipulated prior environment clearance terms and conditions in hard & soft copies to the MPCB & this department, on 1st June & 1st December of each calendar year.
LI	A copy of the clearance letter shall be sent by proponent to the concerned Municipal Corporation 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.
LII	The proponent shall upload the status of compliance of the stipulated EC conditions, including results of monitored data on their website and shall update the same periodically. It shall simultaneously be sent to the Regional Office of MoEF, the respective Zonal Office of CPCB and the SPCB. The criteria pollutant levels namely; SPM, RSPM. SO2, NOx (ambient levels as well as stack emissions) or critical sector 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.
LIII	The project proponent shall also submit six monthly reports on the status of compliance of the stipulated EC conditions including results of monitored data (both in hard copies as well as by e-mail) to the respective Regional Office of MoEF, the respective Zonal Office of CPCB and the SPCB.

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

4. The environmental clearance is being issued without prejudice to the action initiated under EP Act or any court case pending in the court of law and it does not mean that project proponent has not violated any environmental laws in the past and whatever decision under EP Act or of the Hon'ble court will be binding on the project proponent. Hence this clearance does not give immunity to the project proponent in the case filed against him, if any or action initiated under EP Act.

5. In case of submission of false document and non-compliance of stipulated conditions, Authority/ Environment Department will revoke or suspend the Environment clearance without any intimation and initiate appropriate legal action under Environmental Protection Act, 1986.

6. The Environment department reserves the right to add any stringent condition or to revoke the clearance if conditions stipulated are not implemented to the satisfaction of the department or for that matter, for any other administrative reason.

7. Validity of Environment Clearance: The environmental clearance accorded shall be valid as per EIA Notification, 2006, and amendments by MoEF&CC Notification dated 29th April, 2015.

8. In case of any deviation or alteration in the project proposed from those submitted to this department for clearance, a fresh reference should be made to the department to assess the adequacy of the condition(s) imposed and to incorporate additional environmental protection measures required, if any.

9. The above stipulations would be enforced among others under the Water (Prevention and Control of Pollution) Act, 1974, the Air (Prevention and Control of Pollution) Act, 1981, the Environment (Protection) Act, 1986 and rules there under, Hazardous Wastes (Management and Handling) Rules, 1989 and its amendments, the public Liability Insurance Act, 1991 and its amendments.

10. Any appeal against this Environment clearance shall lie with the National Green Tribunal (Western Zone Bench, Pune),New Administrative Building, 1stFloor, D-, Wing, Opposite Council Hall, Pune, if preferred, within 30 days as prescribed under Section 16 of the National Green Tribunal Act, 2010.

Shri. Anil Diggikar (Member Secretary SEIAA)

Copy to:

1. SHRI JOHNY JOSEPH, CHAIRMAN-SEIAA
2. SHRI UMAKANT DANGAT, CHAIRMAN-SEAC-I
3. SHRI M.M.ADTANI, CHAIRMAN-SEAC-II
4. SHRI ANIL .D. KALE. CHAIRMAN SEAC-III
5. SECRETARY MOEF & CC
6. IA- DIVISION MOEF & CC
7. MEMBER SECRETARY MAHARASHTRA POLLUTION CONTROL BOARD MUMBAI
8. REGIONAL OFFICE MOEF & CC NAGPUR
9. MUNICIPAL COMMISSIONER MUMBAI
10. MUNICIPAL COMMISSIONER NAVI MUMBAI
11. REGIONAL OFFICE MPCB MUMBAI
12. REGIONAL OFFICE MPCB NAVI MUMBAI
13. REGIONAL OFFICE MIDC ANDHERI
14. REGIONAL OFFICE MIDC KOPER KHAIRANE NAVI MUMBAI
15. MAHARASHTRA STATE ELECTRICITY DISTRIBUTION CO. LTD
16. COLLECTOR OFFICE MUMBAI
17. COLLECTOR OFFICE MUMBAI SUB-URBAN

Annexure 2: Monitoring Report

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TEST REPORT

21/02/2023

Sample / Report No.	**01/TH/A/2/23/0004**		
Name of Customer	**Enviro Policy Research India private Limited**		
Address of Customer	607, Oriana Business Park, Road no 22 Wagle Estate, Thane West 400604 Maharashtra India		
Order / Reference	TRF dated 15.02.2023		
Sample Drawn by	Customer	Sample Received On	15/02/2023
Start of Analysis	15/02/2023	End of Analysis	18/02/2023
Sample Container	--	Sample Quantity	--
Monitoring For	**Ambient Air Monitoring**		
Sample declaration as provided by customer :			
Sampling Location	**At Project Site ,Parel**		
Duration	24 hrs / 8 hrs /1 hr/ as applicable		
Time	11:00 AM To 11:00 AM		
Limits	National Ambient Air Quality Standards vide GSR 826(E) Dated: 16.11.2009		

Parameters	Results	Limits	Units	Method
General parameters				
Sulphur dioxide (SO_2)	17	Max. 80	µg/m³	IS 5182(Part 2):2001, RA 2006
Nitrogen Dioxide (NO_2)	36.2	Max. 80	µg/m³	IS 5182(Part 6):2006
Respirable Suspended Particulates Matter (PM_{10})	96	Max. 100	µg/m³	IS 5182(Part 23):2006
Particulate Matter ($PM_{2.5}$)	58	Max. 60	µg/m³	US EPA CFR 40 Part 50 Appendix L
Carbon Monoxide (CO)	0.56	Max. 2	mg/m³	IS 5182(Part 10):1999,RA 2009

-----End of Test Report-----

Ms.Shweta Malvankar
Analyst

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TC-8284

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TEST REPORT

20/02/2023

Sample / Report No.	**01/TH/SO/2/23/0002**		
Name of Customer	**Enviro Policy Research India private Limited**		
Address of Customer	607, Oriana Business Park, Road no 22 Wagle Estate, Thane West 400604 Maharashtra India		
Order / Reference	TRF dated 15.02.2023		
Sample declaration as provided by customer :			
Sample Name	Soil Sample - Parel		
Sample Drawn by	Customer	Sample Received On	15/02/2023
Start of Analysis	15/02/2023	End of Analysis	18/02/2023
Sample Container	Plastic Bag	Sample Quantity	1 kg

Parameters	Results	Units	Method
Physical parameters			
Texture	Loamy	--	Soil testing manual
Organic content	1.3	%	EPA 160.4
Bulk Density	1.58	g/ml	ASTM D 5057-90, RA 2001
Colour	Reddish brown	--	Visual
Chemical Parameters			
pH	5.9	--	By pH meter
Electrical conductivity	273	µs/cm	Soil testing manual
Total Phosphate	0.012	%	Spectrophotometric method
Chemical Parameters (Aqueous Extract)			
Chloride as Cl	0.014	%	EPA SW 846 method 9253
Sulphate as SO_4	54	mg/kg	EPA SW 846 method 9038
Calcium as Ca	0.016	%	APHA 3120 B, 23rd Edition: 2017
Magnesium as Mg	0.047	%	APHA 3120 B, 23rd Edition: 2017
Sodium as Na	165	mg/kg	APHA 3120 B, 23rd Edition: 2017
Potassium as K	61	mg/kg	APHA 3120 B, 23rd Edition: 2017
Specific parameters			
Total Kjeldahls Nitrogen, TKN	0.98	%	APHA 4500 Norg B
Water retaining capacity	11.8	%	ISO 1274:1998
Heavy metals (Extraction fluid)			
Copper as Cu	38	mg/kg	APHA 3120 B, 23rd Edition: 2017
Zinc as Zn	346	mg/kg	APHA 3120 B, 23rd Edition: 2017
Lead as Pb	<2.0	mg/kg	APHA 3120 B, 23rd Edition: 2017
Iron as Fe	266	mg/kg	APHA 3120 B, 23rd Edition: 2017

-----End of Test Report-----

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TEST REPORT

20/02/2023

Sample / Report No.	**01/TH/W/2/23/0009**		
Name of Customer	**Enviro Policy Research India private Limited**		
Address of Customer	607, Oriana Business Park, Road no 22 Wagle Estate, Thane West 400604 Maharashtra India		
Order / Reference	TRF dated 15.02.2023		
Sample declaration as provided by customer :			
Sample Name	Surface Water- Parel		
Sample Drawn by	Customer	Sample Received On	15/02/2023
Start of Analysis	15/02/2023	End of Analysis	18/02/2023
Sample Container	Plastic Can	Sample Quantity	1 lit + 1 lit

Parameters	Results	Units	Method
Chemical parameters			
pH	6.9	--	IS 3025(Part 11):1983, RA 2017
Potassium as K	25	mg/L	IS 3025(Part 45):1993,RA 2019
Boron as B	0.6	mg/L	APHA 3125 B,23rd Edition: 2017
Alkalinity	129	mg/L	IS 3025(Part 23):1986, RA 2019
Electrical Conductivity	4010	µS/cm	IS 3025 (Part 14):1984,RA 2019
Nitrite	ND	mg/L	APHA 4500
Colour	4.2	Hazen	IS 3025(Part 4):1983, RA 2017
Total Dissolved Solids (TDS)	196	mg/L	IS 3025(Part 16):1984, RA 2017
Total Hardness as $CaCO_3$	206	mg/L	IS 3025(Part 21):2009, RA 2019
Sulphate as SO_4	128	mg/L	IS 3025(Part 24):1986,RA 2019
Fluoride as F	0.5	mg/L	IS 3025(Part 60):2008,RA 2019
Nitrate as NO_3	22	mg/L	IS 3025(Part 34):1988,RA 2019
Magnesium as Mg	8	mg/L	IS 3025(Part 46):1994,RA 2019
Calcium as Ca	66	mg/L	IS 3025(Part 40):1991,RA 2019
Carbonates	14	mg/L	IS 3025 (Part 51):2001,RA 2017
Total Phosphorus	2.5	mg/L	IS 3025 (Part 31):1988,RA 2019
Bicarbonate	236	mg/L	IS 3025 (Part 51):2001,RA 2017
Chloride as Cl	142	mg/L	IS 3025 (Part 32):1988,RA 2019

-----End of Test Report-----

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TEST REPORT

20/02/2023

Sample / Report No.	**01/TH/W/2/23/0010**		
Name of Customer	**Enviro Policy Research India private Limited**		
Address of Customer	607, Oriana Business Park, Road no 22 Wagle Estate, Thane West 400604 Maharashtra India		
Order / Reference	TRF dated 15.02.2023		
Sample declaration as provided by customer :			
Sample Name	Ground Water- Parel		
Sample Drawn by	Customer	Sample Received On	15/02/2023
Start of Analysis	15/02/2023	End of Analysis	18/02/2023
Sample Container	Plastic Can	Sample Quantity	1 lit + 1 lit

Parameters	Results	Units	Method
Chemical parameters			
pH	5.9	--	IS 3025(Part 11):1983, RA 2017
Potassium as K	30	mg/L	IS 3025(Part 45):1993,RA 2019
Boron as B	0.3	mg/L	APHA 3125 B,23rd Edition: 2017
Alkalinity	130	mg/L	IS 3025(Part 23):1986, RA 2019
Electrical Conductivity	4020	µS/cm	IS 3025 (Part 14):1984,RA 2019
Nitrite	ND	mg/L	APHA 4500
Colour	4.1	Hazen	IS 3025(Part 4):1983, RA 2017
Total Dissolved Solids (TDS)	395	mg/L	IS 3025(Part 16):1984, RA 2017
Total Hardness as $CaCO_3$	190	mg/L	IS 3025(Part 21):2009, RA 2019
Sulphate as SO_4	113	mg/L	IS 3025(Part 24):1986,RA 2019
Fluoride as F	0.8	mg/L	IS 3025(Part 60):2008,RA 2019
Nitrate as NO_3	24	mg/L	IS 3025(Part 34):1988,RA 2019
Magnesium as Mg	20	mg/L	IS 3025(Part 46):1994,RA 2019
Calcium as Ca	64	mg/L	IS 3025(Part 40):1991,RA 2019
Carbonates	21	mg/L	IS 3025 (Part 51):2001,RA 2017
Total Phosphorus	2.9	mg/L	IS 3025 (Part 31):1988,RA 2019
Bicarbonate	251	mg/L	IS 3025 (Part 51):2001,RA 2017
Chloride as Cl	138.1	mg/L	IS 3025 (Part 32):1988,RA 2019

-----End of Test Report-----

Ms.Shweta Malvankar
Analyst

This report can not be reproduced in parts. The results relate to sample tested.

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ANNEXURE - A

1. PROJECT DETAILS

Sr. No.	Description	Details		
1	Area Details	Total Plot area: 69,803.47 Sq.m FSI Area: 253787.6 Sq.m Non-FSI: 7,26,434.64 Sq.m Total BUA area: 980222.24 Sq.m		
2	Building Configuration	wing 1: 4 B + G + 6 podiums+ 7th to 78th wing 2: 4 B+ G + 6 podiums+7th to 78th wing 3: 4 B+ G + 6 podiums+7th to 76th wing 4: 4 B+ G + 6 podiums+7th to 78th wing 5: 4 B + G + 6 podiums +7th to 72th wing 6: 4 B+ G + 6 podiums+7th to 72th Town Houses: G+2; 12 nos. Retail (Commercial) building: 1 B + lower ground + ground + 2 floors Public Parking: 3 B+G+P1+P2		
3	No. of Tenements & Shops	2614 nos		
4	Total Population (Nos.)	13070 nos		
5	Total Water Requirements (CMD)	**Dry Season**	Source of water (CMD)	MCGM
			Fresh Water (CMD)	1233
			Recycled water (CMD)	639
			Swimming Pool make up (Cum)	16
			Total water Requirement	2095
			Fire Fighting Underground water tank (CMD)	As per NBC
			Firefighting	AS per NBC

			overhead water tank (CMD)	
			Excess treated water	192 KLD
		Wet Season	Source of Water	MCGM
			Fresh water	871
			Recycled water flushing (CMD)	634
			Recycled water Gardening	-
			Swimming pool make up (Cum)	16
			Total Water Requirement (CMD)	2095
			Fire Fighting underground water tank (CMD)	As per NBC
			Fire Fighting overhead water tank (CMD)	AS per NBC
			Excess treated water	606

			(CMD)	
6	Sewage Generation (CMD) & % of Sewage discharge in sewer line	Sewage generation: 1561 KLD STP technology: MBR Capacity of STP: 1800 KLD Location & area of STP: Basement Area:1125 m2		
7	STP Capacity & Technology	Capacity of STP: 1800 KLD STP Technology: MBR Technology		
8	STP Location	Basement Area		
9	Total Solid Waste Quantities	Solid waste details (During Pre-Construction Phase	Waste generation: Construction Debris :28463 m3	
		Solid waste details (During Operation Phase)	Dry waste: 2890 kg/d Wet waste: 4334 kg/d Hazardous waste: NA Biomedical waste: NA STP Sludge (Dry Sludge)-16 CMD Other if any: Household E-Waste generation	
10	Power requirement	Source of power: BEST During Construction phase:(Demand Load): 2000 KVA DG Set as power back up during construction phase :500 KVA During Operation Phase (Connected load): 81.92 MW During Operation Phase (Demand load):32.10 MW		
11	Energy Efficiency	Solar hot water system for Residential Building lighting in landscape common are passage etc.		
13	D.G. set capacity	DG Set power back-up during Construction Phase :500 KVA DG Set as power back up during Operation Phase: 10*1250Kva, 1*500 kVA		

Sr. No.	**Description**	**Details**
15	Project Cost in	45020000000

16	Rain Water Harvesting	Level of the Ground water table	8 m
		Size and no of RWH tanks (S)and Quantity	2 RWH Tanks with total Capacity: 734 M3
		Location of the RWH Tank	Basement Level
		Quantity of recharge pits	28 Nos. of Ring Well
		Size of recharge pit	3.0*3.0*4.0m
		Budgetary allocation (Capital Cost)	Rs 175 lakh
		Budgetary allocation (O&M Cost_	Rs 15 Lakh/yr
		Details of UGT Tanks it any	UG Tank are provided as per NBC Location : Basement
17	EMP Cost	Construction phase: 145 Lakhs Operation phase: Capital cost: 1354 lakhs O&M Cost: 254 lakhs	
18	CER Details (with justification, if any)	NA	

ANNEXURE - B

EMP for Construction Phase

EMP FOR AIR ENVIRONMENT

- **Construction Phase (EMP for Air Environment):**

To mitigate the impacts of PM_{10} & $PM_{2.5}$ during the construction phase of the project, the following measures are recommended for implementation:

Dust Control Plan:

The most cost-effective dust suppressant is water because water is easily available on construction site. Water can be applied using water trucks, handled sprayers and automatic sprinkler systems. Furthermore, incoming loads could be covered to avoid loss of material in transport, especially if material is transported off-site.

Vehicle Emission Controls and Alternatives

- During construction, vehicles will be properly maintained to reduce emission. As it is a construction project, vehicles will be generally having "PUC" certificate.
- Footpaths and Pedestrian ways: Adequate footpaths and pedestrian ways would be provided at the site to encourage non-polluting methods of transportation

Procedural Changes to construction activities

Idle time reduction:

Construction equipment is commonly left idle while the operators are on break or waiting for the completion of another task. Emission from idle equipment tends to be high, since catalytic converters cools down, thus reducing the efficiency of hydrocarbon and carbon monoxide oxidation. Existing idle control technologies comprises of power saving mode, which automatically off the engine at present time and reduces emissions, without intervention from the operators.

Improved Maintenance:

Significant emission reductions can be achieved through regular equipment maintenance. Contractors will be asked to provide maintenance records for their fleet as part of the contract bid, and at regular intervals throughout the life of the contract. Incentive provisions will be established to encourage contractors to comply with regular

maintenance requirements.

Reduction of On-Site Construction Time:

Rapid on-site construction would reduce the duration of traffic interference and therefore, will reduce emissions from traffic delay.

- **Operation Phase (EMP for Air Environment):**

To mitigate the impacts of pollutants from DG set and vehicular traffic during the operational phase of the Project, following measures are recommended for implementation:

Diesel Generator Set Emission Control Measures

Adequate stack height will be maintained to disperse the air pollutants generated from the operation of DG set to dilute the pollutants concentration within the immediate vicinity. Hence no additional emission control measures have been suggested.

EMP FOR NOISE ENVIRONMENT

- **Construction Phase (EMP for Noise Management):**

To mitigate the impacts of noise from construction equipment during the construction phase on the site, the following measures are recommended for implementation.

Time of Operation:

Noisy construction equipment has not been allowed to use at night time.

Job Rotation and Hearing Protection:

Workers employed in high noise areas are not employed on shift basis. Hearing protection such as earplugs/muffs will be provided to those working very close to the noise generating machinery.

Other Measures:

- Developer must ensure barricading for minimum of 5 m (as the site is adjacent to road)
- During construction, shady trees can be planted on the periphery of the boundary to reduce noise impact
- Also to reduce noise impact, one must ensure smooth movement of traffic vehicles

- Measures of NBC, 2016 must be followed by developer to control noise
- Developer must follow guidelines of BS 5228 and Defra Guideline (NO 0234)
- Plant and vehicles should comply with EU noise emission limit
- Control hours of operation of all plants and vehicles and machineries
- Avoid unnecessary use of plant and machinery
- Use acoustic barriers whenever possible
- Use line flat bed lorries or storage bin with noise attenuating materials
- Handle materials carefully; for example, scaffolding and fittings should be carried and placed; not thrown or dropped
- Ensure that materials are delivered and installed during normal working hours
- Ensure site supervision during installation
- Maintain vehicles regularly to reduce engine, exhaust, and body rattle noise
- Use silencer based plants and machinery to avoid noise impact
- Ensure that hard road surfaces are well maintained to reduce rattling of vehicles
- Use mechanical sweeper with noise attenuators
- Observe less or no waiting time for the vehicles or plants and machinery so that they are not running unnecessarily
- Don't leave equipment running unnecessarily
- Service and maintain as well as clean the equipment of regular basis
- As far as possible, use self-compacting concrete to reduce the need for vibrating equipment
- Use shielding or barriers around pumps, compressors and machinery
- Also install online noise monitoring system to understand the noise level at the site (continuous level), so that immediate decision can be taken to control any activity which is causing noise pollution

▪ **Operation Phase:**

To mitigate the impacts of noise from diesel generator set during operational phase, the following measures are recommended

Noise Emission Control Technologies

Source of noise in the operational phase will be from backup DG sets (which will be in operation only during power failure) and pumps & motors. All the machinery will be of highest standard of reputed make and will comply with standard i.e. The DG set room will be provided with acoustic enclosure to have minimum 75 dB(A) insertion loss or for

meeting the ambient noise standard whichever is on higher side.

EMP FOR WATER ENVIRONMENT

- **Construction Phase (EMP for Water Management):**

To prevent degradation and to maintain the quality of the water source, adequate control measures have been proposed. To check the surface run-off as well as uncontrolled flow of water into any water body check dams with silt basins are proposed. The following management measures are suggested to protect the water source being polluted during the construction phase.

- Avoid excavation during monsoon season
- Care has been taken to avoid soil erosion
- Common toilets have been constructed on site during construction phase and the sewage would be channelized to the septic tanks in order to prevent sewage to enter into the water bodies.
- To prevent surface and ground water contamination by oil and grease, leak-proof containers has been used for storage and transportation of oil and grease. The floors of oil and grease handling area have been kept effectively impervious. Any wash off from the oil and grease handling area or workshop has been drained through imperious drains.
- Collection and settling of storm water, prohibition of equipment wash downs and prevention of soil loss and toxic release from the construction site are necessary measure to betaken to minimize water pollution.
- All stacking and loading area has been provided with proper garland drains,

equipped with baffles, to prevent run off from the site, to enter into any water body.

- **Operation Phase (EMP for Water Management):**

In the operation phase of the project, water conservation and development measures will be taken, including all possible potential for rain water harvesting. Following measures will be adopted.

Water Source Development

Water source development shall be practiced by installation of scientifically designed Rain Water Harvesting system. Rainwater harvesting promotes self-sufficiency and fosters an appreciation for water as a resource.

Minimizing Water Consumption

Consumption of fresh water will be minimized by combination of water saving devices and other domestic water conservation measures. Further, to ensure on-going water conservation, an awareness program will be introduced for the students and employees. The following section discusses the specific measures, which shall be implemented

Wastewater Treatment Scheme

The sewage will be treated in the STP provided within the complex. STP which will be recycled within the project and remaining will be discharged to Sewer.

Other Measures:

- LFD would be installed
- Rainwater harvesting would be installed
- Recycle and reuse of water would be taking place
- Recycled water would be used for flushing and gardening purpose

EMP FOR LAND ENVIRONMENT

- **Construction Phase**

Construction Debris:

Construction debris is bulky and heavy and re-utilization and recycling is an important strategy for management of such waste. As concrete and masonry constitute the majority of waste generated, recycling of this waste by conversion to aggregate can offer benefits of reduced landfill space and reduced extraction of raw material for new construction activity. This is particularly applicable to the project site as the construction is to be completed in a phased manner. Mixed debris with high gypsum, plaster, has not been be used as fill, as they are highly susceptible to contamination, and will be send to designated solid waste landfill site. Metal scrap from structural steel, piping, concrete reinforcement and sheet metal work has been removed from the site by construction contractors. A significant portion of wood scrap has been reused on site. Recyclable wastes such as plastics, glass fibre insulation, roofing etc. shall be sold to recyclers.

Hazardous Waste:

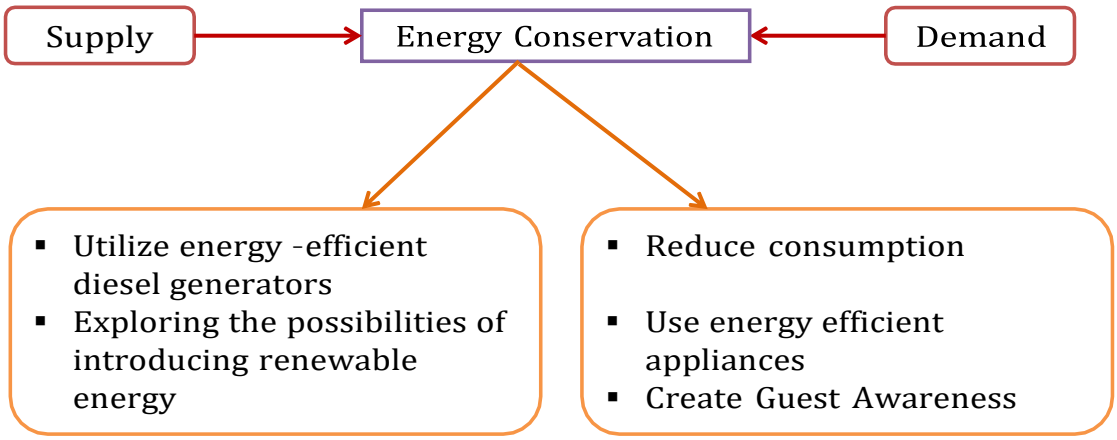
Construction sites are sources of many toxic substances such as paints, solvents wood preservatives, pesticides, adhesives and sealants. Hazardous waste generated during construction phase shall be stored in sealed containers and disposed off as per The Hazardous Wastes (Management, Handling & Transboundary Movement) Rules, 2008.

- **Operation Phase:**

The philosophy of solid waste management at the complex will be to encouraging the four R's of waste i.e. Reduction, Reuse, Recycling and Recovery (materials & energy). Regular public awareness meetings will be conducted to involve the people in the proper segregation andstorage techniques. With regards to the disposal/treatment of waste, the management will take the services of the authorized agency for waste management and disposal of the same on the project site during its operational phase.

EMP FOR ENERGY CONSERVATION

Energy conservation program will be implemented through measures taken bothon energy demand and supply.



Energy conservation will be one of the main focuses during the complex planning and operation stages. The conservation efforts would consist of the following;

Architectural design

- Maximum utilization of solar light has been done.
- Maximize the use of natural lighting through design.
- The orientation of the buildings has been done in such a way that maximum daylight is available.
- The green areas has been spaced, so that a significant reduction in the temperature can take place

Energy Saving Practices

- Energy efficient lamps have been provided within the complex.
- Constant monitoring of energy consumption and defining targets for energy conservation.
- Adjusting the settings and illumination levels to ensure minimum energy used for desired comfort levels

ENVIRONMENTAL MONITORING

The purpose of environmental monitoring is to evaluate the effectiveness of implementation of Environmental Management Plan (EMP) by periodic monitoring. The important environmental parameters within the impact area are selected so that any adverse effects are detected and time action can be taken. The project proponent will monitor ambient air Quality, Ground Water Quality and Quantity, and Soil Quality in accordance with an approved monitoring schedule.

The detailed Monitoring Programme is given in **Table**

Monitoring Programme for Project

Sr. No.	Type	Location	Parameters	Period and Frequency
1	Ambient AirQuality	Project Site	Criteria Pollutants:SO_2, NO_2, PM_{10}, PM $_{2.5}$, CO	Half yearly (24 hr. average samples) during construction phase and annual during operation phase.
2	Groundwater(Portability testing)	Project Site	Drinking water parameters as per Standards	Half yearly
3	Ambient Noise	Project Site	dB (A) levels	Half yearly (Hourly day and night time leq levels) during construction phase and every year during operation phase.
4	Potable Water Quality	Municipal Supply	As per IS potable water standards	Half yearly
5	Soil Quality	Project Site	Organic matter, C.H., N, Alkalinity, Acidity, heavy metals and trace metal, Alkalinity, Acidity	Half yearly
6	Waste Characterization	Educational	Physical and Chemical composition	Daily
7	Treated Water	Outlet of STP	BOD, MPN, coliform count, etc.	Daily

ANNEXURE - C

EMP Costing During Construction Phase

Serial Number	Attributes	Parameter	Total Cost per annum (Rs. In Lacs)
1	Water spray for dust suppression	-	10
2	Site Sanitation and potable water supply to labour	-	20
3	Environmental Monitoring	-	4
4	Health Checkup and first aid	-	12
5	Safety Personal Protective Equipment		25
6	Traffic Management (Sign Bords, Persons at entry exit and parking area)		8
7	Safety nets		35
8	Strom water management (SWD)along plot boundary and sedimentation pits)		5
9	Tyre cleaning and vehicle maintenance		6
10	Safety Training to workers (Twice in year) Safety Officer		14
11	Disinfection		6
12	**Total**		**145**

EMP Costing During Operation Phase

Sr.no	Component	Description	Capital Cost Rs.In lacs	Operational and Maintenance cost(Rs in Lac/yr)
1	STP(Tertiary)	-	450	90
2	Solar System	-	150	15
3	Rain water Harvesting	-	175	15
4	Soild waste Composting	-	170	70
Total			**945**	**190**