



File No: EC/SEIAA/2026-27/4099/2026

State Environment Impact Assessment Authority (SEIAA), Jharkhand

(Constituted as per the provision of EIA Notification, 2006, as amended by the Ministry of Environment, Forest and Climate Change, Government of India)



Dated: 11/07/2026

To,

Rakesh Kumar Chaudhary
galatrix developers private limited
2nd Floor, Gajraj Mansion, Diagonal Road, Bistupur, Jamshedpur, EAST SINGHBUM,
JHARKHAND, 831001
rakeshchaudharyvbm@gmail.com

Subject: Grant of EC under the provision of the EIA Notification 2006-regarding.

Sir/Madam,

This is in reference to your application for Grant of EC under the provision of the EIA Notification 2006-regarding in respect of project PRESIDENT TOWER submitted to Ministry vide proposal number SIA/JH/INFRA2/580741/2026 dated 01/06/2026.

2. The particulars of the proposal are as below:

(i) EC Identification No.	EC26C3801JH5769092N
(ii) File No.	EC/SEIAA/2026-27/4099/2026
(iii) Clearance Type	EC
(iv) Category	B2
(v) Project/Activity Included Schedule No.	8(a) Building / Construction
(vi) Name of Project	PRESIDENT TOWER
(vii) Name of Company/Organization	galatrix developers private limited
(viii) Location of Project (District, State)	EAST SINGHBUM, JHARKHAND
(ix) Issuing Authority	SEIAA
(x) Applicability of General Conditions	no
(xi) Applicability of Specific Conditions	no

Plot/Survey Khasra Nos.: 142 (P) & 149 (P)

3. In view of the particulars given in the Para 1 above, the project proposal interalia including Form-1(Part A and B) were submitted to the Ministry for an appraisal by the State Environment Impact Assessment Authority(SEIAA) Appraisal

Committee (SEIAA) in the Ministry under the provision of EIA notification 2006 and its subsequent amendments.

4. The above-mentioned proposal has been considered by State Environment Impact Assessment Authority (SEIAA) Appraisal Committee of SEIAA in the meeting held on 22/06/2026. The minutes of the meeting and all the Application and documents submitted [(viz. Form-1 Part A, Part B, Part C EIA, EMP)] are available on PARIVESH portal which can be accessed by scanning the QR Code above.
5. The brief about configuration of plant/equipment, products and byproducts and salient features of the project along with environment settings, as submitted by the Project proponent in Form-1 (Part A, B and C)/EIA & EMP Reports/presented during SEIAA are annexed to this EC as Annexure (1).
6. The SEIAA, in its meeting held on 22/06/2026, based on information & clarifications provided by the project proponent and after detailed deliberations recommended the proposal for grant of EC under the provision of EIA Notification, 2006 and as amended thereof subject to stipulation of specific and general conditions as detailed in Annexure (2).
7. The SEIAA has examined the proposal in accordance with the Environment Impact Assessment (EIA) Notification, 2006 & further amendments thereto and after accepting the recommendations of the State Environment Impact Assessment Authority (SEIAA) Appraisal Committee hereby decided to grant EC for instant proposal of M/s. Rakesh Kumar Chaudhary under the provisions of EIA Notification, 2006 and as amended thereof.
8. The Ministry reserves the right to stipulate additional conditions, if found necessary.
9. The EC to the aforementioned project is under provisions of EIA Notification, 2006. It does not tantamount to approvals/consent/permissions etc. required to be obtained under any other Act/Rule/regulation. The Project Proponent is under obligation to obtain approvals /clearances under any other Acts/ Regulations or Statutes, as applicable, to the project.
10. This issues with the approval of the Competent Authority.

Copy To

1. The Member Secretary, CGWA, 18/11 Jamnagar House Man Singh Road, Central, Delhi, cgwa@nic.in
2. The Member Secretary, CPCB, Parivesh Bhawan Cbd-Cum-Office Complex East Arjun Nagar, East, Delhi, mscb.cpcb@nic.in
3. The Monitoring Cell MoEFCC, Compliance & Monitoring Division, Indira Paryavaran Bhawan Jor Bagh Road New Delhi, South, Delhi, moefcc-monitoring@gov.in

Annexure 1

Standard EC Conditions for (Building / Construction)

1. Statutory Compliance

S. No	EC Conditions
1.1	The project proponent shall obtain all necessary clearance/ permission from all relevant agencies including town planning authority before commencement of work. All the construction shall be done in accordance with the local building byelaws.
1.2	The approval of the Competent Authority shall be obtained for structural safety of buildings due to earthquakes, adequacy of firefighting equipment etc. as per National Building Code including protection measures from lightening etc.
1.3	The project proponent shall obtain forest clearance under the provisions of Forest (Conservation)

S. No	EC Conditions
	Act, 1980, in case of the diversion of forest land for non-forest purpose involved in the project.
1.4	The project proponent shall obtain clearance from the National Board for Wildlife, if applicable.
1.5	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.

Additional EC Conditions

N/A

Annexure 2

Details of Products & By-products

Name of the product /By-product	Product / By-product	Quantity	Unit	Mode of Transport / Transmission	Remarks (eg. CAS number)
Group Housing Project	Group Project Housing	27766.68	Sq.m.	Road	Built-Up Area : 27766.68 Sq.m. & 158 Dwelling Units of 3BHK



State Level Environment Impact Assessment Authority, Jharkhand

Nursery Complex, Near Dhurwa Bus Stand, Dhurwa, Ranchi. Jharkhand-834 004

E-mail: msseiaa.jhk@gmail.com / website: www.jseiaa.in

Letter No. : EC/SEIAA/2026-27/4099/2026/

Ranchi, Date :

**To: M/s Galatrix Developers Pvt. Ltd.,
Shri Arun Abhishek Gaur,
Director,
2nd Floor Gajraj Mansion, Diagonal Road,
Bistupur, Jamshedpur.**

Sub. : Environmental Clearance for the project "Proposed Group Housing Project "President Tower" of M/s Galatrix Developers Pvt. Ltd., Village : Hurlung, Tehsil : Jamshedpur, Distt.: East Singhbhum, Jharkhand. (Proposal no.: SIA/JH/INFRA2/580741 /2026) – regarding.

Ref. : Your application no. Nil, dated – 08.06.2026.

It is in reference to the project "Proposed Group Housing Project "President Tower" of M/s Galatrix Developers Pvt. Ltd., Village : Hurlung, Tehsil : Jamshedpur, Distt.: East Singhbhum, Jharkhand" submitted by you for seeking prior Environmental Clearances (EC).

This is a new project which has been taken for appraisal on 13.06.2026.

Project Sector: 8(a) Building and Construction Projects , Category: B2.

Application for Environment Clearance (EC) as per EIA notification, 2006.

Project and Location Details:

Item	Details		
Project Name	PRESIDENT TOWER		
Location	Village: Hurlung Tehsil : Jamshedpur District: East Singhbhum State : Jharkhand		
Plot Area & its break – up (sq.m.)	Particulars	Area (Sq.m.)	Percentage of Plot Area (%)
	Plot Area	7,763.37	100.00%
	Ground Coverage	1,337.49	17.23%

	Road	1,960.00	25.25%
	Open Parking	1,031.50	13.29%
	Paved Path	500.00	6.44%
	Garden	1,110.00	14.30%
	Tree Cover	1,302.00	16.77%
	Other includes; STP : 149.59 Sq.m. Generator Room : 37.16 Sq.m. Waste Bin : 4.64 Sq.m. OWC : 4.64 Sq.m	522.38	6.72%
	Total	7,763.37	100.00%
Ground Coverage Permissible	35%		
Ground Coverage Consume	17.23% (1337.49 Sq.m.)		
FAR Permissible	3.00		
FAR Consume	2.96		
Total Built-Up Area & its break – up (sq.m.)	Floor Name	Proposed Built-up Area (Sq.mt.)	
	Basement Floor	3498.45	
	Ground Floor	1382.74	
	First Floor	1302.44	
	Second Floor	1135.95	
	Third Floor	1135.95	
	Fourth Floor	1135.95	
	Fifth Floor	1135.95	
	Sixth Floor	1135.95	
	Seventh Floor	1135.95	
	Eighth Floor	1135.95	
	Ninth Floor	1135.95	
	Tenth Floor	1135.95	
	Eleventh Floor	1135.95	
	Twelfth Floor	1135.95	
	Thirteenth Floor	1135.95	
	Fourteenth Floor	1135.95	
	Fifteenth Floor	1135.95	
	Sixteenth Floor	1135.95	

	Seventeenth Floor	1135.95	
	Eighteenth Floor	1135.95	
	Nineteenth Floor	1135.95	
	Twentieth Floor	1135.95	
	Terrace Floor	0	
	Total	27766.68	
Number of Block	1		
No. of Floor	B+G+20		
Height (m)	61.72m		
Building Configuration	158 dwelling units of 3 BHK and a shop having an area of 1051.86 Sq.m.		
Population	1393		
Municipal Solid Waste	Total estimated MSW is 660.8 Kg/day including 264.32 Kg/day bio-degradable waste (i.e. 40% of MSW) and 396.48 Kg/day non-bio-degradable waste (i.e. 60% of MSW)		
Parking	188 Car Parking & 159 Two Wheeler Parking		
Power Requirement	Power Requirement	0.22 MVA (conventional)	
	Energy Saving	18.20%	
	Power Back-up	1000 KVA	
	Renewal Energy	95.28 kWh per day 2% of conventional energy demand	
RWH Pits	2 Nos of Recharge pit		
Total no. of Dwelling Units	158 dwelling units of 3 BHK 1 retail Shop 1 Community Hall		
Total Project Cost	Rs. 83.25 Crores.		
EMP Cost (Construction Phase)	Capital Cost: Rs. 42.00 Lakh		
	Recurring Cost: Rs. 19.75 Lakh		
EMP Cost (Operational Phase)	Capital Cost: Rs. 129.00 Lakh		
	Recurring Cost: Rs. 17.00 Lakh		
Disaster Management	Separate Assembly Points will be marked for each section. Residents will be made aware of the safety protocols and escape routes.		
Coordinate	22°47'50.3"N 86°16'00.6"E		

LAND DETAILS

Khata no.	Plot no.
221	142 (P)
167	149 (P)

POPULATION

Building Type	Configuration	DW Units / Area	NBC Norms	Population
Residential units	3BHK	158	6	948
<i>Floating Population 10%</i>				95
	Retail Shop	1051.86	1 person per 3 Sq.m. of street floor	350 <i>35 fixed & 315 floating</i>
Total				1393

WATER & WASTEWATER

Water Demand

Residential Blocks	Domestic @70L Per head		Flushing @35L per head	
1043	73		36.5	
Commercial Units	Fix		Floating	
	Domestic @25L per head	Flushing @20L per head	Domestic @5L per head	Flushing @10L per head
350 <i>35 fixed & 315 floating</i>	0.875	0.7	1.575	3.150
Water Demand Total (UNIT : KLD)				
<i>Domestic</i>				75.45
<i>Swimming Pool</i>				6.90
<i>Flushing</i>				40.35
<i>Dust Suppression</i>				5.00
<i>Landscaping</i>				5.00
<i>Car Washing</i>				10.00
Total Water Demand				142.70
Total Fresh Water Demand				82.35
Total Treated Water Demand				60.35
Discharge to Municipal Drain				20.22

Source: Fresh Water from Municipal Water Supply System / Ground Water & Treated Water from Sewage Treatment Plant (STP)

Swimming Pool - Water Requirement and Wastewater Generation

	Water Demand	Loss 10%	Waste Water
Swimming Pool	69.00 KL	6.90 KL	62.10 KL
Water Treatment Plant (WTP) : 75 KL			
Treated Water	55.89 KL	10% Loss during Processing	6.20 KL

Chemical requirement for swimming pool

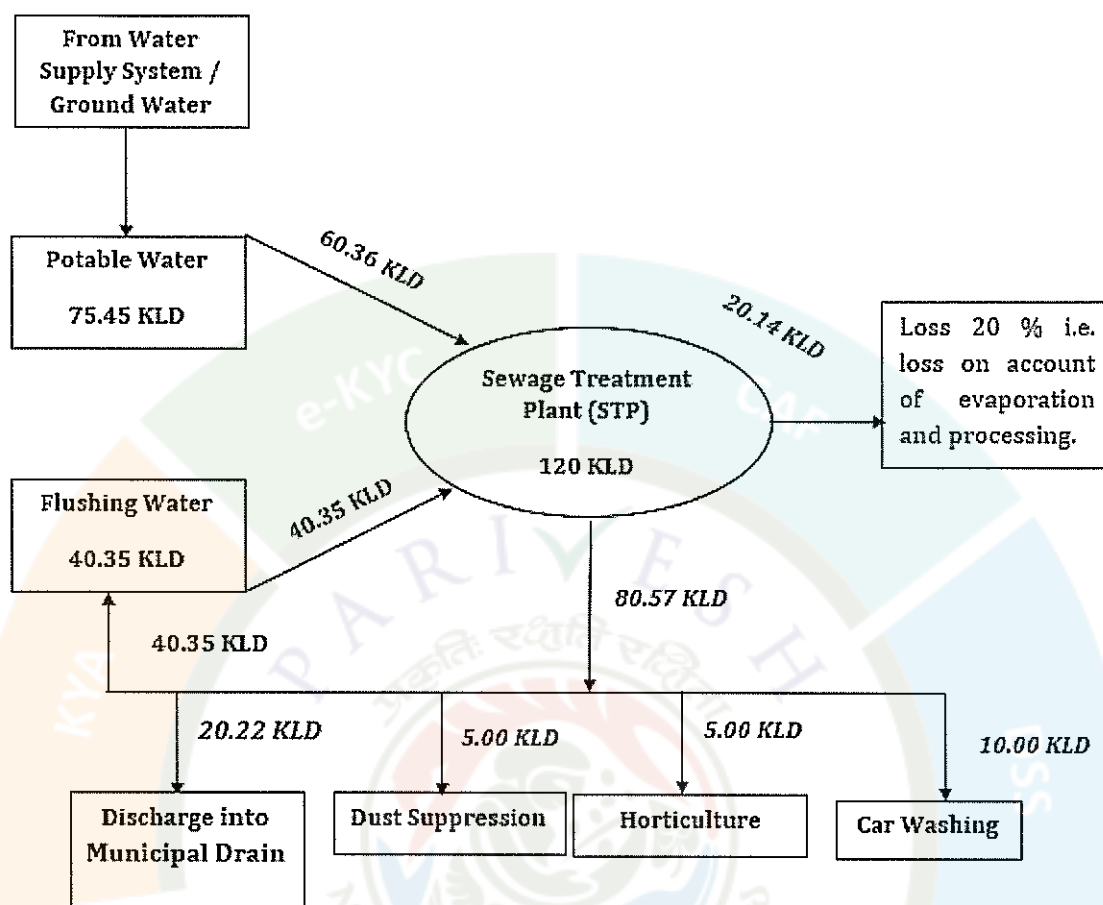
Chemical	Purpose	Dosage for 69 KL Pool
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Liquid Chlorine (12%)	Increase chlorine by 1 ppm	3.45 L
Calcium Hypochlorite	Increase chlorine by 1 ppm	104 g
Trichlor Tablets	Continuous chlorination	3-4 tablets (200 g each)
Sodium Carbonate (Soda Ash)	Raise pH by 0.1 unit	345 g
Hydrochloric Acid (HCl)	Lower pH by 0.1 unit	431 mL
Sodium Bicarbonate	Increase alkalinity by 10 ppm	259 g
Muriatic Acid	Reduce alkalinity by 10 ppm	518 mL
Calcium Chloride	Increase hardness by 10 ppm	259 g
Cyanuric Acid	Increase stabilizer by 10 ppm	173 g
Algaecide (Initial)	Algae prevention	690 mL
Algaecide (Maintenance)	Weekly maintenance	173 mL/week
Calcium Hypochlorite	Shock treatment	863 g
Liquid Chlorine (12%)	Shock treatment	8.63 L

Waste Water Management

STP Calculation (KLD)			
Total Domestic Water	75.45	60.36	80% of Domestic Water is Waste Water
Total Flushing Water	40.35	40.35	100% of Flushing Water is Waste Water
Total Volume of Waste Water		100.71	
STP Capacity		120.00	
Waste Water Management (KLD)			
Volume of Treated Water from STP <i>i.e., 80% of Waste Water</i>			80.57
Loss 20 % loss on account of evaporation, loss in conveyance and processing.			20.14
Break-Up			
Flushing			40.35
Dust Suppression			5.00
Horticulture			5.00
Car Washing			10.00
Discharge to Municipal Drain			20.22

WATER BALANCE



CONNECTIVITY

Feature	Location	Approx. Aerial Distance (km)	Direction
Railway Station	Tatanagar Junction Railway Station	7.66	SW
Airport (Nearest Airstrip)	Sonari Airport	10.20	W
Operational Commercial Airport	Birsa Munda Airport	115.00	NW
Bus Stand	Mango Bus Stand	6.00	NW
National Highway	NH-33	3.00	N

ENVIRONMENTAL SENSITIVITY AREA

Environmental Feature	Name of Feature	Direction from Site	Aerial Distance (km)
Wildlife Sanctuary	Dalma Wildlife Sanctuary	North	8.64
Forest	Dalma PF	North	3.57
Water Body	Dimna Lake	South	6.94
	Subarnarekha River	South-West	0.53
	Kharkai River	West	11.58
Educational Institute	National Institute of Technology Jamshedpur	West	12.77
	XLRI Xavier School of Management	West	7.97
	Arka Jain University	West	8.86
	Netaji Subhas University	North	1.41
	Baridih High School	West	2.74
	NSE School	West	4.77
Healthcare Hospital	Brahmananda Narayana Multispeciality Hospital	North-West	8.9
	MGM Medical College and Hospital	South-West	10.3
	Tata Main Hospital	South-West	14.1
	Mercy Hospital	South-West	3.50
	TMH Tinsplate	South	3.70
	Apex Hospital	West	5.93
	Sadar Hospital	South – West	7.85

SOLID WASTE MANAGEMENT

Construction Phase

Building Type	Municipal Solid Waste @0.2 Kg per Person per Day	Bio-degradable (40% of MSW)	Non-Biodegradable (60% of MSW)
Labours @0.1 Kg/Day/Person	15 Kg / Day	6 Kg / Day	9 Kg / Day

Solid Waste generated during construction phase would include top soil, brick bats, pieces of reinforcing roads, pieces of wood boards & waste of other construction material, cans of paints electrical wire, etc.

Top-Soil would be separately stored at pre-defined location within the site & preserved for landscaping. Sub – Soil would be stored for reuse in road making, plinth filling, etc. E-

Waste & Hazardous waste (cans of paints_ would be collected in separates containers.
Recyclable wastes including bags, packing, pcs of steel rods sold to rag pickers.

C & D Waste

C&D Waste Constituents	Percentage Composition (%)	Quantity (Ton)	Disposal / Utilization Method
Soil, Sand and Gravel	34.99%	479.95	Reused on-site for backfilling, leveling & landscaping
Brick and Masonry	29.95%	410.84	Used for sub-base, filling & road works
Concrete	24.98%	342.70	Crushed and reused as aggregate (where feasible)
Metal	4.97%	68.18	Sold to authorized scrap recyclers
Bitumen	2.04%	27.98	Reused in road works / disposed through authorized agency
Wood	2.04%	27.98	Reused / handed over to authorized recyclers
Other	1.02%	13.99	Disposed as per standard practice
	100.00%	1371.72 Ton	Handed over to Municipal Solid Waste Management Facility / authorized C&D waste processing facility

Operational Phase

Building Type	Municipal Solid Waste	Bio-degradable (40% of MSW)	Non-Biodegradable (60% of MSW)
Residential Building @0.6 Kg per Person per Day	625.8 Kg/Day	250.32 Kg/Day	375.48 Kg/Day
Commercial Building @0.1 Kg per Person per Day	35 Kg/Day	14 Kg/Day	21 Kg/Day
TOTAL	660.8 Kg/Day	264.32 Kg/Day	396.48 Kg/Day

Estimated quantity of municipal solid waste Community building & residential building.
During operational phase of buildings municipal solid waste would be generated. They would be stored in different colour bins.

Colour Bin	Waste Type	% of Waste	Quantity (Kg/Day)	Treatment / Disposal Method
Green	Biodegradable	40% of MSW	264.32	Treated on-site through Organic Waste Converter (OWC) to produce compost for landscaping and horticulture use.

Blue	Recyclable (plastic, paper, metal, glass)	75% of dry	297.36	Handed over to authorized recyclers for material recovery and recycling.
Black	Reject / non-recyclable inert	15% of dry	59.472	Handed over to the Municipal Authority for scientific landfill disposal.
Red	Hazardous / sanitary waste	5% of dry	19.824	Collected separately and disposed of through authorized agencies as per applicable rules.
Yellow	E-waste (electrical, batteries etc.)	5% of dry	19.824	Handed over to authorized e-waste recyclers in accordance with the E-Waste Management Rules, 2016.

Organic Waste Converter – Process & Capacity Details

Particulars	Unit	Quantity / Description
Total Organic Waste Generated	kg/day	264.32
Inert / Reject Material (≈5%)	kg/day	13.22
Net Waste Fed to OWC	kg/day	251.10
Bulking Agent (10–15%)	kg/day	25 – 38
Bio-culture / Enzyme Addition	kg/day	0.9 – 1.3
Total Input to OWC	kg/day	~289
OWC Processing Capacity	kg/day	300
Retention Time in OWC	Hours	24
Temperature Maintained	°C	55–65
Moisture Content Maintained	%	55–60
Volume Reduction	%	60–65
Semi-processed Output	kg/day	~100
Curing Period	days	7–14
Final Compost Yield	kg/day	78 – 91
Compost Utilization	—	On-site landscaping
Rejects Disposal	—	Authorized municipal facility

An Organic Waste Converter of 300 kg/day capacity is proposed to handle 251.10 kg/day of biodegradable waste. The system ensures effective volume reduction, odor-free operation, and generation of nutrient-rich compost for in-house greenbelt development.

ENERGY DEMAND

The total conventional energy demand of the proposed project is estimated at 17,38,893 kWh/year (i.e. 4764.01 kWh / day). Through the adoption of energy-efficient lighting systems, regenerative lifts, IE3/IE4 motors, VFD-controlled pumps, efficient STP and OWC systems, and other energy conservation measures, an overall energy saving of approximately 18.20% is achieved, resulting in a net energy requirement of 14,05,485.52 kWh/year (i.e. 3850.65 kWh/day).

In compliance with the provisions of Clause 4(a) of Category 2 Table under Notification No. S.O. 3999(E) dated 09/12/2016 published by MOEF & CC and sustainable building practices, rooftop solar photovoltaic (PV) panels equivalent to 2% of the total annual energy demand are proposed, generating approximately 95.28 kWh/day. A total of 24 solar PV panels requiring approximately 480 sq.ft. of rooftop area will be installed.

20% of total parking spaces to be equipped with EV charging points / infrastructure (conduits & wiring).

Unit : kWh				
Category	Conventional Demand (A)	Energy Saving (B)	% of Energy Saving	Net Demand (C = A - B)
DU	12,61,440	1,89,216	15.00%	10,72,224
Pumps (60 kW)	65,700	9,855	15.00%	55,845
STP (120 KLD)	70,080	10,512	15.00%	59,568
OWC (300 Kg/Day)	1,42,350	21,352.50	15.00%	120,997.50
External/Common Area Lighting	1,01,868	61,120.80	60.00%	40,747.20
Swimming Pool Filtration	4,015	602.25	25.00%	3,412.75
3 Number of Lifts	93,440	23,360	25.00%	70,080
TOTAL	17,38,893	18.20%	3,16,018.55	14,22,874.45

Energy Conservation Measures

The project incorporates various energy conservation measures to minimize overall power consumption and enhance operational efficiency. The following measures have been proposed for different utilities and services within the project:

- ✓ **Domestic Units (DU):** Energy-efficient LED lighting fixtures and star-rated appliances such as fans, air-conditioners, refrigerators, and other electrical equipment shall be provided in the residential units. These measures are expected to achieve an average overall energy saving of approximately 21.75% compared to conventional systems.

- ✓ **Pumps (60 kW):** Water supply and utility pumps shall be equipped with IE3/IE4 energy-efficient motors and Variable Frequency Drive (VFD) systems to optimize pump performance and reduce electricity consumption. Expected energy saving is approximately 15–20%.
- ✓ **STP (120 KLD):** The Sewage Treatment Plant shall utilize IE3/IE4 energy-efficient motors, optimized aeration systems, and efficient blowers. The average power consumption for wastewater treatment is considered as approximately 1.5–2.0 kWh per m³ of wastewater treated, and for design calculations, 1.6 kWh/m³ has been considered. Expected energy saving is approximately 15%.
- ✓ **OWC (300 Kg/day):** The Organic Waste Converter shall be provided with energy-optimized motors and efficient drying/mixing systems. Standard energy consumption for OWC operation is approximately 1.2–1.5 kWh per kg/day of waste processed, and an average value of 1.3 kWh/kg has been considered for design purposes. Expected energy saving is approximately 15%.
- ✓ **External/Common Area Lighting:** Conventional lighting systems shall be replaced with energy-efficient LED fixtures along with occupancy sensors and timer-based controls wherever feasible. These measures are expected to achieve approximately 60–80% energy savings compared to conventional lighting systems.
- ✓ **Swimming Pool Filtration System:** Energy-efficient filtration pumps with timer-based control systems shall be installed to optimize operating hours and reduce energy consumption.
- ✓ **Passenger Lifts (3 Nos.):** Conventional passenger lifts generally consume approximately 5.5–6.5 kW (≈7.5–8.7 HP) per lift, whereas regenerative lifts require only about 4.0 kW average demand. Therefore, regenerative lift systems with braking energy recovery mechanisms have been proposed, resulting in approximately 30–40% lower energy consumption compared to conventional lift systems.
- ✓ **Service / Fire Lift:** Conventional service/fire lifts consume approximately 7.5–9.0 kW (≈10–12 HP), whereas regenerative lift systems operate with an average demand of approximately 5.5 kW. Regenerative technology shall be adopted to improve energy efficiency and reduce operational electricity demand.
- ✓ The adoption of the above energy conservation measures shall substantially reduce the overall connected load and operational energy requirement of the project, thereby promoting sustainable and energy-efficient development.

Energy Performance Index (EPI)

It is a measure used to evaluate the energy efficiency of a building by comparing the total annual energy consumption with the built-up area of the building.

EPI (Initial)

$$EPI = \frac{1,734,878}{27,434.42}$$

$$EPI = 63.24 \text{ kWh/m}^2/\text{year}$$

EPI (After Energy Conservation & Renewable Energy Measures)

$$EPI = \frac{1,402,112.92}{27,434.42}$$

$$EPI = 51.10 \text{ kWh/m}^2/\text{year}$$

The Energy Performance Index (EPI) of the proposed Group Housing Project has been assessed as 63.24 kWh/m²/year under conventional operating conditions. Through the adoption of energy-efficient measures such as LED lighting, energy-efficient pumps and motors (IE3/IE4), Variable Frequency Drives (VFDs), regenerative lifts, efficient STP and OWC systems, and rooftop solar photovoltaic panels, the EPI is reduced to 51.10 kWh/m²/year.

The reduction of approximately 12.14 kWh/m²/year, corresponding to an overall improvement of about 19.2%, demonstrates the effectiveness of the proposed energy conservation and renewable energy measures. The achieved EPI value indicates that the project is designed to operate with lower energy intensity and reduced dependence on conventional grid electricity, thereby contributing to resource conservation, reduction in greenhouse gas emissions, and sustainable development.

Therefore, the proposed project incorporates adequate energy-efficiency measures and renewable energy generation systems, resulting in a satisfactory EPI and improved environmental performance throughout its operational phase.

Renewable Energy Generation (Solar)

The project proposes the use of Solar Photovoltaic (SPV) cells as a renewable energy source to reduce dependence on conventional grid electricity and promote sustainable development. Solar PV technology converts solar radiation directly into electrical energy through photovoltaic cells installed over rooftop areas and other suitable locations within the project premises.

The proposed solar power system shall generate approximately 95.28 kWh/day of electricity, which contributes around 2% of the total connected energy demand after implementation of energy conservation measures. Approximately 24 solar panels are proposed considering an average generation of 4 kWh per panel per day. The total area required for installation of the solar panels is estimated to be about 480 sq.ft.

$$\text{Solar Energy Generation (2\% of conventional demand)} = 34,777.86 / 365 = 95.28 \text{ kWh/day}$$

$$\begin{aligned} \text{Assuming 4 kWh generation per solar panel per day} &= 95.28 / 4 = 23.82 \\ &\approx 24 \text{ Solar Panels} \end{aligned}$$

$$\text{Area Required (@20 sq.ft./panel)} = 480 \text{ sq.ft.}$$

RAIN WATER RECHARGE PITS

2 Rainwater Recharge pits are proposed. Rain water from roof tops will be drained through rain water vertical down take pipes. These vertical down take pipes shall be located at suitable locations inside the shafts or periphery of the building. The terrace will be sloped. The down take pipes will be connected to the storm water network and then to Rainwater Harvesting Pits.

Catchment Area(m2)	Runoff Coefficient	Intensity of Rainfall in 24 hr. (mm)	Maximum Intensity of Rainfall hourly (mm/hr)	Retention Time - Runoff (m3/15 mins)	Runoff 60 minutes
1120.66	0.85	180	9	2.14	8.57
Volume of desilting Tank (m3)	Volume of Recharge Pit (m3 Per pit)	Total Volume (M3)	Runoff 60 minutes	No. of pits required	No. of pits proposed
2.5	2.5	5	8.57	1.72	2

Rainwater from other surface type

Surface Type	Area (sq.m)	Runoff Co-efficient	Effective Area (sq.m)
Paved / Road Area/Open Parking	3491.50	0.65	2269.48
Lawn / Garden / Tree Cover	2665.00	0.15	399.75
Total Effective Catchment Area			2669.23

Hourly Rainfall = 9mm/hr

Hourly Run-off = $2669.23 * (9/1000) = 24.02 \text{ m}^3 \text{ per hour}$

This run-off will be drained through a network of open drain & connected to Storm Water Municipal Drain.

BUDGETARY PROVISION

Project Cost

Particulars	Amount (INR)
Land	4,54,78,627.00
Construction Cost	75,00,00,000.00
EMP	1,71,00,000.00
Statutory Clearance & Other	2,00,00,000.00
Total Project Cost	83,25,78,627.00 (Rs. 83.25 Cr.)

Environmental Management Plan (EMP) Cost

A. EMP Cost for Construction Phase

S. No.	Description	Capital Cost (Rs. Lakhs)	Recurring Cost (Rs. Lakhs/Annum)
1	Construction site enclosure with 3 m high corrugated GI sheets	10.00	-
2	Acoustic enclosure for DG Set	4.00	-
3	Air Fogging Gun and Water Tankers	3.00	15.00

	for dust suppression		
4	Covered shed for storage of construction materials and tarpaulin arrangements	5.00	-
5	Temporary septic tank and sanitation facilities	3.00	0.50
6	Drinking water and worker welfare facilities	1.50	0.50
7	Temporary storm water drainage and sediment traps	5.00	0.50
8	HDPE bins and waste storage area	1.00	0.25
9	PPE, occupational health and safety measures	2.00	1.00
10	Environmental monitoring, awareness programs and miscellaneous measures	7.50	2.00
Sub-Total (A)	Construction Phase	42.00	19.75

B. EMP Cost for Operational Phase

S. No.	Description	Capital Cost (Rs. Lakhs)	Recurring Cost (Rs. Lakhs/Annum)
1	Plantation of 500 saplings including 3-year maintenance	4.00	0.75
2	Development of landscaped lawns, parks and green areas	8.00	1.50
3	120 KLD Sewage Treatment Plant (MBBR/SBR Technology)	35.00	3.00
4	300 kg/day Organic Waste Converter with shredder and curing system	15.00	1.50
5	Two Rainwater Harvesting and Recharge Pits with filtration arrangements	12.00	1.00
6	Rooftop Solar Power System (40–50 kWp including inverter and net metering)	30.00	2.00
7	Acoustic enclosure and stack for DG Set	5.00	0.75
8	Solid Waste Management infrastructure and collection system	5.00	1.00
9	Swimming Pool Filtration and Water Recirculation System (15 m ³ /hr)	5.00	1.50
10	Environmental monitoring, STP sludge management, training and	10.00	4.00

	miscellaneous provisions		
Sub-Total (B)	Operational Phase	129.00	17.00

ENVIRONMENT MANAGEMENT PLAN

During Construction Phase

Likely to impact	Mitigation Measure
Site Clearance ➤ Tree Felling ➤ Dismantling of existing structure & disposal of C & D Waste ➤ Grading & Leveling of Site ➤ Removal of Top Soil	✓ There are NO Trees at all at the site. ✓ Water sprinkling on identified site. ✓ Store top soil at pre-determined identified site & preserved.
Construction of Labour Camp	Local Labors will be hire
Installation, commissioning, and operation of construction equipment & machineries	✓ Regular maintenance of machineries to minimize generation of noxious gases and dust. To ensure that construction equipments are compliant to BIS Specification wherever applicable. ✓ Also that they comply to applicable standard for emission prescribed by regulators
Earthwork Soil excavation for foundation work construction activities	✓ Use excavated soil for plinth filling or Road construction. ✓ Surplus soil to be used in own mines for plantation purpose.
Generation of Solid Waste	✓ Recyclable waste to be handed over to Rag Pickers.
Transport & Storage of construction materials	✓ Trucks carrying fine materials to be covered with tarpaulins ✓ Trucks with Pollution under Control Certificate. ✓ Toe wall along the edge of soil / sand storage to be provided to arrest flow of material during monsoon. ✓ Temporary storage yard to be constructed for proper storage of construction materials.

Water Pollution	✓ Sewage & Cess Pool is proposed to be constructed for labor. ✓ Drinking water facility to be provided. ✓ Collection of surface run-off from active construction area and channelize them to desiltation pond. Desilted water to be let off to natural drainage.
Hazardous Waste	✓ Used oil from construction equipments will be collected in HDPE containers and handed over to authorized recyclers. ✓ Used cans of paints, varnished to be handed over to authorized recycler.
Noise Pollution (Noise generated by construction equipments)	✓ Regular repair & maintenance of equipments. ✓ Providing acoustic barrier around periphery of construction site (3.5 m high GI Sheet). Boundary wall has already been constructed around the project area. ✓ DG set will be provided as per the norms of CPCB.
Environment Monitoring	Regular environment monitoring will be done covering noise, air & water quality, during half yearly EC Compliance.
Arrangement of Water for Construction	✓ Create water storage tank to store water procured through water tankers / ground water abstraction.

During Operational Phase

Attributes	Environmental Issues	Impact	Mitigation Measure
Air Environment	Movement of Vehicles along internal Road	Generation of dust & noxious gases	✓ Water sprinkling on internal Roads. ✓ Create grass cover on open spaces. ✓ Internal Roads to be paved. ✓ Avenue Plantation ✓ Plantation along periphery of project premises. ✓ Enforce speed limit for vehicle within project area.
Noise Environment	Movement of Vehicles along internal Road	Noise	Ensure ✓ Restrict speed limit to 20 KMPH. ✓ Enforce no Horn Zone.
Solid Waste Management	Generation of Municipal Solid	Unhygienic Condition	Collection of ✓ Bio-Degradable Waste

Water Environment	Waste		✓ Recyclable Solid Waste ✓ Non-Recyclable Solid Waste ✓ Hazardous Waste Into a colored bin. Disposal ✓ Recyclable waste to be handed over to rag pickers. ✓ Bio-Degradable & Non-Recyclable solid waste to be converted into fertilizer through OWC. Hazardous waste to be handed to authorized hazardous Waste Management Facility.
	Generation of Sludge from STP	Unhygienic Condition	A sludge treatment & recovery plant will be installed along with the STP. The product may be utilized as fertilizer.
	Generation of Sewage	Waste Water	✓ Provision of STP for treatment of waste water & recycling
	Storm Water	Surface run-off may carry suspended solid during monsoon	✓ Provide a network of storm water drains terminating into desiltation tank. This tank would be connected to storm water drainage system.
	Roof top rainwater harvesting system	Loss of rainwater	✓ Provide rainwater harvesting system with drawdown pipes & harvesting pits.

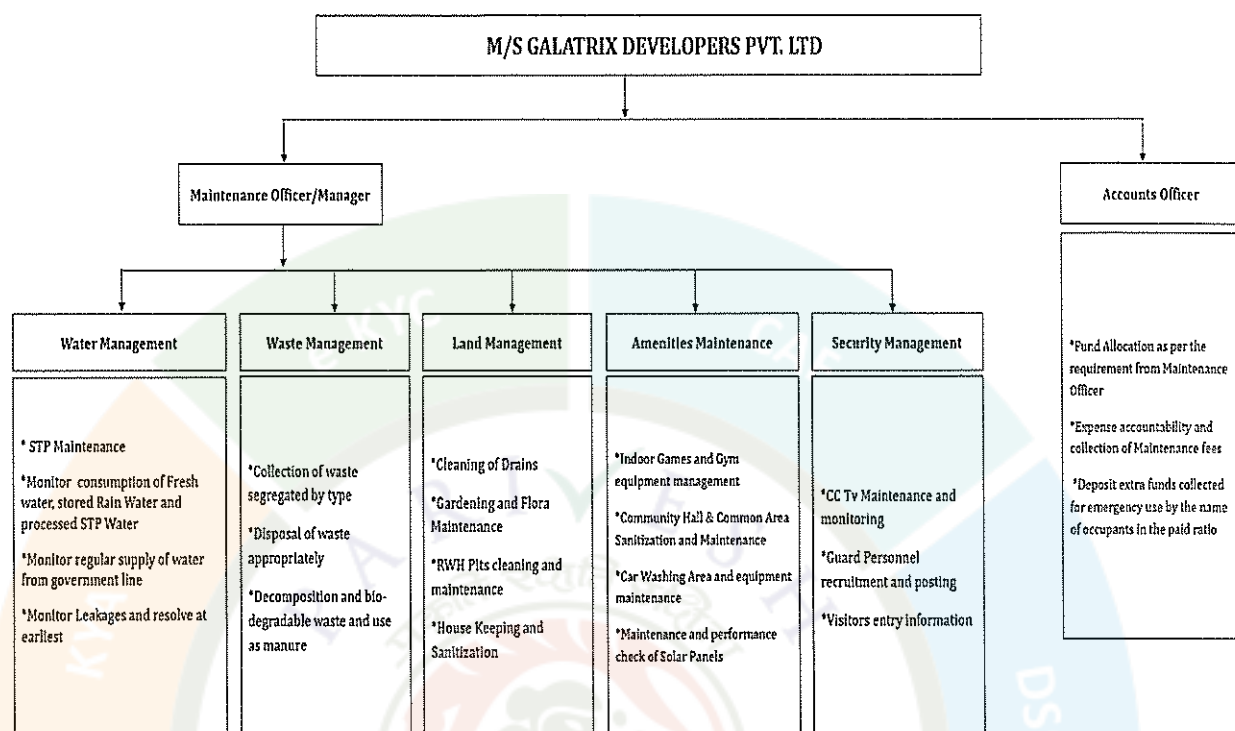
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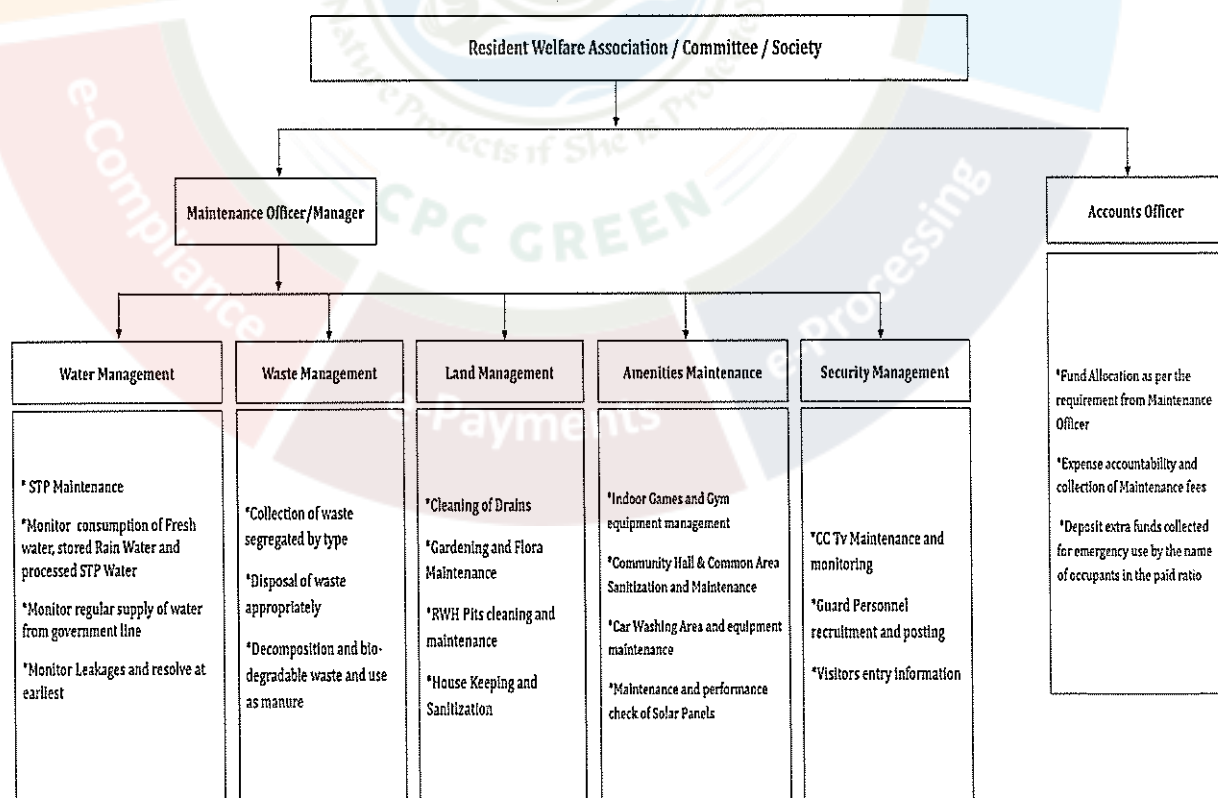
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ORGANIZATIONAL STRUCTURE

During Construction Phase



During Operational Phase



STATUTORY CLEARANCES

1	Land Docs	:	Own Land for Development
2	DFO Territorial	:	DFO, Jamshedpur Forest Division vide letter no. 818, dated 28.04.2026 certified that the distance of reserved / protected forest is more than 250 meters from project site.
3	DFO Wildlife	:	Deputy Conservator of Forest & Field Director, Elephant Project, Jamshedpur vide letter no. 762, dated 13.05.2026 certified that the proposed project site is outside Eco Sensitive Zone of Dalma Wildlife Sanctuary.
4	CO certificate	:	The CO, Jamshedpur, East Singhbhum vide letter no. 112, dated 03.02.2026 has mentioned the plot no. of the project is not recorded as "Jungle - Jhari" in R.S. Khatiyani & Register II.
5	AAI NOC	:	Airport authority of India issued NOC vide NOC ID no. JAMS /EAST /B/ 010826/2333808, dated 12.01.2026.
6	Building Plan approval	:	Building plan approved by East Singhbhum Zila Parishad vide memo no. ESZP/GH/0219/2025, dated 21.01.2026.
7	Fire Department	:	Fire Advisory has been issued by Fire Department, Jharkhand, Ranchi, vide memo no. 6909/Tech./2024, dated 14.10.2024.
8	Environmental Safeguard from Jharkhand State Pollution Control Board (JSPCB)	:	Environmental Safeguard issued by Environmental Engineer –cum – Nodal Officer, Jharkhand State Pollution Control Board (JSPCB) vide its Memo No.: PC/SEIAA/EC-CTE/53/2026 - 1822, dated : 08.06.2026.

State Level Environment Level Impact Assessment Authority (SEIAA), Jharkhand in its 132nd meeting held on 09th, 10th, 11th, 12th, 13th, 14th and 15th June, 2026 discussed the project proposal along with recommendations made by SEAC in its 132nd meeting held on 22nd, 23rd & 24th June, 2026 and decided to grant EC to the project.

On the basis of recommendation of SEAC and decision of SEIAA to grant of EC, Environmental Clearance is hereby issued to the **"Proposed Group Housing Project "President Tower" of M/s Galatrix Developers Pvt. Ltd., Village : Hurlung, Tehsil : Jamshedpur, Distt.: East Singhbhum, Jharkhand"** alongwith the following specific conditions as recommended by SEAC and Environmental Engineer –cum – Nodal Officer, JSPCB vide memo no. PC/SEIAA/EC-CTE/53/2026 - 1822, dated : 08.06.2026 is also included:

I. Specific Conditions:

- i. This Environmental Clearance is valid subject to the following condition below –
That this project has-
 - a. Obtained all legal rights to operate at concerned place.
 - b. Complied with all existing concerned laws of the land and
 - c. Complied with the decisions of SEIAA on the issue of Environmental Clearance till date.
- ii. The directions proscribed and prescribed in the Office Memorandum No. FC-11/119/2020-FC, Dated : 17th May, 2022 of MoEF&CC shall be strictly adhered to.
- iii. In compliance of OM no.F.No. IA3-22/3/2024-IA.III (E-241594) dated 24.07.2024 of MoEF&CC, Govt. of India plantation of saplings shall be carried out in the earmarked green belt area as the part of tree plantation campaign “*Ek Ped Ma Ke Naam*” and the details of the same shall be uploaded in the MeriLiFE Portal (<https://merilife.nic.in>). 10% of the total green belt proposed shall be allocated under this clause.
- iv. Ground water to be drawn for use in the project only after obtaining permission from the Competent Authority.
- v. Environment management system including organization structure to be drawn to ensure compliance of EC conditions stipulated based on principles of Continual Improvement and periodical management review.
- vi. All raw material to be stored only under covered shed.
- vii. PAs to offset (upto 20%) consumption of conventional energy sources by promoting use of solar energy, passive energy utilization, optimum fenestration, shading effect and heat islands.
- viii. Developers to promote energy conservation measures such that it offsets not less than 02 % of connected load.
- ix. Trees should be developed & maintained not less than 15% of project area.
- x. Organic Waste Converter (OWC) to be installed of sufficient capacity such that all organic waste (bio degradable) generated is composted at source only.
- xi. Developers/Company to install STP of sufficient capacity such that all the sewer produced is treated and reused.
- xii. Developers/Company to install Rain water harvesting structures such that all the roof top water runoff is collected and harvested including reuse on 100% basis.
- xiii. Developers/Company to conduct and submit carbon footprint and carbon sequestration study report including mitigation measures as a part of EC compliance.

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- xiv. Water runoff originating from open non constructed areas of project premises to be harvested /guided in such a way that it does not create water logging condition outside.
- xv. Sufficient number of EV fast charging points to be installed.
- xvi. MSW Collection centre should be located in isolated and preferably unmanned area. Movement of the vehicle carrying waste should be under tarpaulin covered condition only. Route of vehicle should be such that it avoids residential areas as far as practical.
- xvii. ISO 14k EMS system standard to be followed for implementation of EMPs with MRM in place for feedback to Sr management.
- xviii. Install the required STP, if project start functioning before commencing or functioning of CETP of Municipal Corporation.
- xix. This Environmental Clearance is granted subject to final outcome of Hon'ble Supreme Court of India, Hon'ble High Court, Hon'ble NGT, MoEF & CC and any other Court of Law, if any, as may be applicable to this project.
- xx. Environmental clearance is subject to obtaining prior clearance from forestry and Wildlife angle including clearance from standing committee of NBWL, as may be applicable to this project (in case any fauna occurs / is found in the Project area or if the area involves forest land or Wildlife habitat i.e. core zone of elephant/tiger reserve etc. and or located with in 10 km. of protected area).
- xxi. The project proponent may apply simultaneously for forest and NBWL clearance, in order to complete the formalities without undue delay, which till process on their respective merits, no rights will vest in or accrue to them unless all clearance are obtained.
- xxii. This Environmental Clearance shall be valid subject to the sustainable environmental management.

II. Statutory Compliance :

- i. The project proponent shall obtain all necessary clearance/ permission from all relevant agencies including town planning authority before commencement of work. All the construction shall be done in accordance with the local building byelaws.
- ii. The approval of the Competent Authority shall be obtained for structural safety of buildings due to earthquakes, adequacy of fire fighting equipment etc as per National Building Code including protection measures from lightening etc.
- iii. The project proponent shall obtain forest clearance under the provisions of Forest (Conservation) Act, 1980, in case of the diversion of forest land for non-forest purpose involved in the project.
- iv. In the writ petition (Civil) no. 202/1995, T.N. Godaverman Thirumulpad vs union of India and ors. the Hon'ble Supreme Court passed an order dated 03.06.2022 " National Park or Wildlife Sanctuary must have an ESZ of minimum 01 km in which

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the activities prescribed and prescribed in the guidelines of 09th February, 2011 shall be strictly adhered to”.

- v. The project proponent shall obtain clearance from the National Board for Wildlife, if applicable.
- vi. 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.
- vii. The project proponent shall obtain the necessary permission for drawl of ground water / surface water required for the project from the competent authority.
- viii. 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.
- ix. 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.
- x. The provisions of the Solid Waste (Management) Rules, 2016, e-Waste (Management) Rules, 2016, and the Plastics Waste (Management) Rules, 2016 shall be followed.
- xi. The project proponent shall follow the ECBC/ECBC-R prescribed by Bureau of Energy Efficiency, Ministry of Power strictly.
- xii. Provision shall be made for the housing of construction labour within the site with all necessary infrastructure and facilities such as fuel (kerosene/gas) for cooking, safe drinking water, medical health care, etc. The housing may be in the form of temporary structures to be removed after completion of the project.
- xiii. Provision of drinking water, waste water disposal, solid wastes management and primary health facilities shall be ensured for labour force. Proper sanitation facilities shall be provided at the construction site to prevent health related problems. Domestic as well as sanitary wastes from construction camps shall be cleared regularly.
- xiv. All the labourers to be engaged for construction works shall be screened for health and adequately treated before issue of work permits. The contractor shall ensure periodic health check-up of construction workers.
- xv. All vehicles/equipment deployed during construction phase shall be ensured in good working condition and shall conform to applicable air and noise emission standards. These shall be operated only during non-peaking hours.
- xvi. Accumulation/stagnation of water shall be avoided ensuring vector control.
- xvii. Water during construction phase should be preferred from Municipal supply.
- xviii. Unskilled construction labourers shall be recruited from the local areas.

- xix. Monitoring of ground water table and quality once in three months shall be carried out. Construction of tube wells, bore wells shall be strictly regulated.
- xx. Adequate provision shall be made to cater the parking needs. Parking spaces standards as given in "Manual on Norms and Standards for Environmental Clearance of Large Construction Projects" issued by Ministry of Environment and Forests, Government of India shall be adopted.
- xxi. Rest room facilities shall be provided for service population.
- xxii. Water body falling within premises (if any) shall not be lined or no embankment shall be cemented. The water bodies, if any, shall be kept in natural conditions without disturbing the ecological habitat.
- xxiii. Construction shall conform to the requirements of local seismic regulations. The project proponent shall obtain permission for the plans and designs including structural design, standards and specifications of all construction work from concerned authority.

III. Air quality monitoring and preservation:

- 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.
- ii. A management plan shall be drawn up and implemented to contain the current exceedance in ambient air quality at the site.
- iii. The project proponent shall install system to carryout Ambient Air Quality monitoring for common/criterion parameters relevant to the main pollutants released (e.g. PM10 and PM25) covering upwind and downwind directions during the construction period.
- 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. The location of the DG sets may be decided with in consultation with State Pollution Control Board.
- 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.
- vi. Sand, murram, loose soil, cement, stored on site shall be covered adequately so as to prevent dust pollution.
- vii. Wet jet shall be provided for grinding and stone cutting.

- viii. Unpaved surfaces and loose soil shall be adequately sprinkled with water to suppress dust.
- 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.
- x. The diesel generator sets to be used during construction phase shall be low sulphur diesel type and shall conform to Environmental (Protection) prescribed for air and noise emission standards.
- 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.
- xii. For indoor air quality the ventilation provisions as per National Building Code of India.

IV. Water quality monitoring and preservation:

- 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.
- ii. Buildings shall be designed to follow the natural topography as much as possible. Minimum cutting and filling should be done.
- iii. Total fresh water use shall not exceed the proposed requirement as provided in the project details.
- iv. The quantity of fresh water usage, water recycling and rainwater harvesting shall be measured and recorded to monitor the water balance as projected by the project proponent. The record shall be submitted to the Regional Office, MoEF&CC along with six monthly Monitoring reports.
- 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.
- 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 etc. would be considered as pervious surface.

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- vii. Installation of dual pipe plumbing for supplying fresh water for drinking, cooking and bathing etc and other for supply of recycled water for flushing, landscape irrigation, car washing, thermal cooling, conditioning etc. shall be done.
- viii. Use of water saving devices/ fixtures (viz. low flow flushing systems; use of low flow faucets tap aerators etc) for water conservation shall be incorporated in the building plan.
- 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.
- x. Water demand during construction should be reduced by use of pre-mixed concrete, curing agents and other best practices referred.
- 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.
- 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.
- xiii. All recharge should be limited to shallow aquifer.
- xiv. No ground water shall be used during construction phase of the project.
- xv. Any ground water dewatering should be properly managed and shall conform to the approvals and the guidelines of the CGWA in the matter. Formal approval shall be taken from the CGWA for any ground water abstraction or dewatering.
- xvi. The quantity of fresh water usage, water recycling and rainwater harvesting shall be measured and recorded to monitor the water balance as projected by the project proponent. The record shall be submitted to the Regional Office, MoEF&CC along with six monthly Monitoring reports.
- xvii. 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. As proposed, no treated water shall be disposed in to municipal drain.
- xviii. No sewage or untreated effluent water would be discharged through storm water drains.
- xix. Onsite sewage treatment of capacity of treating 100% waste water to be installed based on the MBBR/MBR/SBR technology. The installation of the Sewage Treatment Plant (STP) shall be certified by an independent expert and a report in this regard shall be submitted to the Ministry before the project is commissioned for

- operation. 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 Ministry of Environment, Forest and Climate Change. Natural treatment systems shall be promoted.
- xx. Periodical monitoring of water quality of treated sewage shall be conducted. Necessary measures should be made to mitigate the odour problem from STP.
 - xxi. 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.

V. Noise monitoring and prevention:

- 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.
- ii. Noise level survey shall be carried as per the prescribed guidelines and report in this regard shall be submitted to Regional Officer of the Ministry as a part of six-monthly compliance report.
- 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.

VI. Energy Conservation measures:

- 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.
- ii. Outdoor and common area lighting shall be LED.
- 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.
- 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.
- 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 bye-laws requirement, whichever is higher.
- 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 from solar water heaters, as far as possible.

VII. Waste Management:

- 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.
- 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.
- iii. Separate wet and dry bins must be provided in each unit and at the ground level for facilitating segregation of waste. Solid waste shall be segregated into wet garbage and inert materials.
- 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.
- 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.
- 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.
- 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.
- 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.
- 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.
- 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.

VIII. Green Cover:

- i. 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).



- ii. A minimum of 1 tree for every 80 sqm of land should be planted and maintained. The existing trees will be counted for this purpose. 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.
- iii. Where the trees need to be cut with prior permission from the concerned local Authority, compensatory plantation in the ratio of 1:10 (i.e. planting of 10 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.
- iv. 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.

IX. Transport:

- 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.
- 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.
- 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 kms radius of the project is maintained and improved upon after the implementation of the project. This plan should be based on cumulative impact of all development and increased habitation being carried out or proposed to be carried out by the project or other agencies in this 05 Kms radius of the site in different scenarios of space and time and the traffic management plan shall be duly validated and certified by the State Urban Development department and the P.W.D./ competent authority for road augmentation and shall also have their consent to the implementation of components of the plan which involve the participation of these departments.







X. Human Health Issues:

- 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.
- ii. For indoor air quality the ventilation provisions as per National Building Code of India.
- iii. Emergency preparedness plan based on the Hazard identification and Risk Assessment (HIRA) and Disaster Management Plan shall be implemented.
- 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.
- v. Occupational health surveillance of the workers shall be done on a regular basis.
- vi. A First Aid Room shall be provided in the project both during construction and operations of the project.

XI. Corporate Environment Responsibility:

- i. The project proponent shall comply with the provisions contained in this Ministry's OM vide F.No. 22-65/2017-IA.III dated 1st May 2018, as applicable, regarding Corporate Environment Responsibility.
- ii. 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 MoEF&CC as a part of six-monthly report.
- iii. 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 will directly to the head of the organization.
- iv. 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. Year wise progress of implementation of action plan shall be reported to the Ministry/Regional Office along with the Six Monthly Compliance Report.



XII. Miscellaneous:

- i. 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 MoEF&CC/SEIAA website where it is displayed.
- ii. The copies of the environmental clearance shall be submitted by the project proponents to the Heads of local bodies, Panchayats and Municipal Bodies in addition to the relevant offices of the Government who in turn has to display the same for 30 days from the date of receipt.
- iii. The project proponent 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.
- iv. The project proponent 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.
- v. 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.
- vi. The project proponent shall inform the Regional Office as well as the Ministry, 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.
- vii. The project authorities must strictly adhere to the stipulations made by the State Pollution Control Board and the State Government.
- viii. The project proponent shall abide by all the commitments and recommendations made in the EIA/EMP report, commitment made during Public Hearing and also that during their presentation to the Expert Appraisal Committee.
- ix. No further expansion or modifications in the plant shall be carried out without prior approval of the Ministry of Environment, Forests and Climate Change (MoEF&CC).
- x. Concealing factual data or submission of false/fabricated data may result in revocation of this environmental clearance and attract action under the provisions of Environment (Protection) Act, 1986.
- xi. The Ministry / SEIAA / SEAC may revoke or suspend the clearance, if implementation of any of the above conditions is not satisfactory.
- xii. The Ministry / SEIAA / SEAC reserves the right to stipulate additional conditions if found necessary. The Company in a time bound manner shall implement these conditions.
- xiii. It shall be mandatory for the project management to submit six (06) monthly compliance report in respect of the stipulated prior Environmental Clearance terms and conditions in hard copies and soft copies to the regulatory authority concerned

Regional Office of MoEF & CC at Ranchi and Jharkhand State Pollution Control Board (J.S.P.C.B.), Ranchi / CPCB as per direction contained in EIA Notification, 2006 and as amended vide OM No. J-11013/5/2009-IA.II dated : 29.06.2010, OM No. F.No.J-11013/5/2011-IA.I dated : 05.08.2011 and letter No. J-11013/71/2016-IA I(M) dated : 25.10.2017 of MoEF & CC, Govt. of India.

- xiv. 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.
- xv. The SEIAA, Jharkhand or any other competent Authority may alter modify the above conditions or stipulate any further condition in the interest of Environment Protection.
- xvi. Any appeal against this EC shall lie with the National Green Tribunal, if preferred, within a period of 30 days as prescribed under Section 16 of the National Green Tribunal Act, 2010.
- xvii. The Prescribed EC is valid as per Notification no. S.O. 1807(E) dated 12.04.2022 of MoEF & CC, Govt. of India.

Environmental Safeguard provided by JSPCB

A. Safeguards for control of Water Pollution:

1. That, the occupier shall provide provisions for treatment of Sewage through a Sewage Treatment Plant (STP) of adequate capacity as required, to meet the discharge norms prescribed under the Environment (Protection) Act, 1986 and the Rules made thereunder.
2. That, the occupier shall ensure that no untreated wastewater or effluent is discharged outside the premises under any circumstances, and all wastewater shall be treated to meet prescribed standards before reuse or disposal.
3. That, the occupier shall provide proper drainage channels across the premises to prevent waterlogging and avoid contamination of surrounding areas.
4. That, the occupier shall install silt traps and sedimentation tanks to control construction run-off and prevent the discharge of silt-laden water outside the premises.
5. That, the occupier shall ensure that, water during construction phase should be preferred from Treated Waste Water of the existing Hospital premises.
6. That, the occupier shall ensure that, total fresh water use shall not exceed the proposed requirement as provided in the project details.
7. That, the occupier shall ensure that, installation of dual pipe plumbing for supplying fresh water for drinking, cooking and bathing etc and other for supply of recycled

water for flushing, landscape irrigation, car washing, thermal cooling, conditioning etc. shall be done.

8. That, the occupier shall ensure that, use of water saving devices/ fixtures (viz. low flow flushing systems: use of low flow faucets tap aerators etc) for water conservation shall be incorporated in the building plan.
9. That, the occupier shall ensure that, water demand during construction should be reduced by use of premixed concrete, curing agents and other best practices referred.
10. That, the occupier shall ensure that, rain water harvesting recharge pits/storage tanks shall be provided for ground water recharging as per the CGWB norms.
11. That, the occupier shall ensure that, the ground water shall not be withdrawn without approval from the Competent Authority.
12. That, the occupier shall ensure that, no ground water shall be used during construction phase of the project for the construction purposes.

B. Safeguards for control of Air Pollution:

1. That, the occupier shall ensure that, acoustic enclosure shall be provided to the DG sets to mitigate the noise pollution and conform to rules made under the Environment (Protection) Act, 1986. The gaseous emissions from DG set shall be dispersed through adequate stack height as per CPCB standards. 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.
2. That, the occupier shall install Retrofit Emission Control Devices (RECDs) to the DG sets as per CPCB norms from the manufacturers certified by CPCB for same.
3. That, the occupier shall use only low-sulphur fuel for DG sets and shall ensure periodic monitoring of emissions to meet prescribed standards.
4. That, the occupier shall use only PUC-certified vehicles and DG sets complying with established emission norms of CPCB.
5. That, the occupier shall ensure regular maintenance of all construction machinery and equipment to minimize emissions and ensure efficient operation.
6. 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 6 meter height).
7. That, the occupier shall ensure that, 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.
8. That, the occupier shall store fine construction materials such as sand, cement and aggregates in enclosed spaces to prevent their dispersion due to wind or site activity.
9. That, the occupier shall construct pucca internal road or pave the approach road so as to avoid generation of dust particles due to vehicular movement and shall be so designed to ensure free movement of vehicles and other machinery.
10. That, the occupier shall ensure that, 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. Moreover, all construction and demolition waste shall be managed as per the provisions of the Construction and Demolition Waste Rules, 2016.

11. That, the occupier shall ensure that, unpaved surfaces and loose soil shall be adequately sprinkled with water to suppress dust.
12. That, the occupier shall ensure that for indoor air quality the ventilation provisions as per National Building Code of India.

C. General Safeguards:

1. That, the occupier shall construct pucca (i) minimum ten feet high boundary wall and (ii) approach road and internal roads and shall keep the premises neat, clean and tidy.
2. That, the occupier shall submit ambient air quality, noise level and effluent analysis reports to the Board before and after commissioning of the project.
3. That, the occupier shall ensure that, use of environment friendly materials such as Fly Ash bricks, hollow bricks, AACs, Fly Ash Lime Gypsum blocks, compressed earth blocks shall be used for at least 50% of the construction material quantity.
4. That, the occupier shall ensure that, adequate provisions shall be made to cater the parking needs. Parking spaces standards as given in "Manual on Norms and Standards for Environmental Clearance of Large Construction Projects" issued by Ministry of Environment and Forests, Government of India shall be complied with.
5. That, the occupier shall ensure that separate bins for dry and wet solid waste must be provided in each unit for facilitating segregation of waste.
6. That, the occupier shall install organic waste compost / Vermiculture pit / Organic Waste Converter within the premises with a minimum capacity of 0.3 kg /person/day.
7. That, the occupier shall ensure that, all non-biodegradable waste shall be handed over to authorized recyclers for which a written tie up must be done with the authorized recycler.
8. That, the occupier shall ensure that any hazardous waste generated during construction phase, shall be disposed off as per applicable rules and norms with necessary approvals from the Jharkhand State Pollution Control Board.
9. That, the occupier shall ensure that the provisions of the Solid Waste Management Rules, 2016, The e-Waste (Management) Rules, 2022, the Plastic Waste Management Rules, 2016, the Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016 and The Noise Pollution (Regulation and Control) Rules, 2000 shall be followed and complied with.
10. That, the occupier shall comply with all applicable provisions of the Water (Prevention & Control of Pollution) Act, 1974; the Air (Prevention & Control of Pollution) Act, 1981; and the Environment (Protection) Act, 1986 and rules thereunder.
11. That, this Comments & Environmental Safeguards is issued from the environmental angle only and does not absolve the occupier from other statutory obligations prescribed under any other law or any other instrument in force. The sole and complete responsibility to comply with these conditions rests with the occupier.

12. That, the occupier shall conserve the energy via solar power or LED.
13. The approval of the Competent Authority shall be obtained for structural safety of building due to earthquakes, adequacy of fire fighting equipment etc. as per National Building Code including protection measures from lightening etc.
14. That, this Comments & Environmental Safeguards shall not in any way adversely affect or jeopardize legal proceedings, if any, instituted in the past or that may be instituted against the occupier by the State Board for violation of the Act or Rules made thereunder.

Sd/-
Member Secretary
State Level Environment Impact
Assessment Authority, Jharkhand

Memo No. : EC/SEIAA/2026-27/4099/2026/ 89

Ranchi, Date: 06.07.2026

Copy to:

1. Secretary, Department of Forests, Environment & Climate Change, Govt. of Jharkhand.
2. Deputy Commissioner, District – Jamshedpur, East Singhbhum, Jharkhand.
3. Divisional Forest Officer, Jamshedpur Forest Division, Jamshedpur, Jharkhand.
4. Deputy Conservator of Forest & Field Director, Elephant Project, Jamshedpur, Jharkhand.
5. Director, IA Division, Monitoring Cell, MoEF and Climate Change, Indira Paryavaran Bhavan, Jorbag Road, Aliganj, New Delhi – 110003.
6. Regional Office, Ministry of Environment, Forest and Climate Change, Govt. of India, 2nd Floor, Jharkhand State Housing Board (HQ), Harmu Chowk, Ranchi, Jharkhand – 834002.
7. Member Secretary, Jharkhand State Pollution Control Board, Ranchi.
8. Member Secretary, Jharkhand State Expert Appraisal Committee, Ranchi.
9. Website.
10. Guard file.


Member Secretary
State Level Environment Impact
Assessment Authority, Jharkhand



