



सत्यमेव जयते

**File No: 10960**  
**Government of India**  
**Ministry of Environment, Forest and Climate Change**  
**(Issued by the State Environment Impact Assessment**  
**Authority(SEIAA), TAMIL NADU)**

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Dated 06/09/2024



To,

Lakshminarayanan A  
MKR ESTATE DEVELOPERS PRIVATE LIMITED  
4th Floor, BNT Connections Building, No.126/36, Nelson Manickam Road, Aminjikarai, Chennai ,  
CHENNAI, TAMIL NADU, 600029  
mkrestatedev@gmail.com

**Subject:** Grant of EC under the provision of the EIA Notification 2006 as amended-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 Proposed Construction of Railway Colony Development and commercial for Rail Land Development Authority (Staff Quarters with Integrated Commercial) at T.S.No. 810/1, Block No.38, Egmore Village, Egmore Taluk, Chennai District, Tamil Nadu by M/s. MKR Estate Developers Private Limited submitted to Ministry vide proposal number SIA/TN/INFRA2/476560/2024 dated 20/06/2024.

Ref:

1. Online Proposal No. SIA/TN/INFRA2/476560/2024, Dated:28.05.2024.
2. Your application for Environmental Clearance dated:07.06.2024.
3. Minutes of the 478th SEAC meeting held on 21.06.2024.
4. Minutes of the 738th SEIAA meeting held on 10.07.2024.
5. Reply by the Project Proponent Dated:13.08.2024.
6. Minutes of the 749th SEIAA meeting held on 27.08.2024 & 28.08.2024

2. The particulars of the proposal are as below :

<b>(i) EC Identification No.</b>	EC24C3801TN5111969N
<b>(ii) File No.</b>	10960
<b>(iii) Clearance Type</b>	EC
<b>(iv) Category</b>	B2
<b>(v) Project/Activity Included Schedule No.</b>	8(a) Building / Construction
<b>(vii) Name of Project</b>	M/s MKR ESTATE DEVELOPERS PRIVATE LIMITED
<b>(viii) Name of Company/Organization</b>	MKR ESTATE DEVELOPERS PRIVATE

	LIMITED
(ix) Location of Project (District, State)	CHENNAI, TAMIL NADU
(x) Issuing Authority	SEIAA
(xii) Applicability of General Conditions	no
(xiii) Applicability of Specific Conditions	no

3. In view of the particulars given in the Para 1 above, the project proposal interalia including Form-2(Part A and B) were submitted to the SEIAA for an appraisal by the SEAC under the provision of EIA notification 2006 and its subsequent amendments.
4. The above-mentioned proposal has been considered by SEIAA in the meeting held on 27/08/2024. 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 SEAC, 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).
6. The SEIAA has examined the proposal in accordance with the Environment Impact Assessment (EIA) Notification, 2006 & further amendments thereto and after accepting the SEAC hereby decided to grant EC for instant proposal of M/s. MKR Estate Developers Private Limited, Lakshminarayanan A under the provisions of EIA Notification, 2006 and as amended thereof.
7. The Ministry/SEIAA reserves the right to stipulate additional conditions, if found necessary.
8. 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.
9. The Project Proponent is under obligation to implement commitments made in the Environment Management Plan, which forms part of this EC.
10. Validity of EC is for a period of 7 years from the date of issue of EC. In case the project proponent fails to complete the construction/proposed activities within the EC validity date, application for EC validity extension shall be submitted to the regulatory authority as per the provision contained in the Para 9.0 of EIA notification, 2006 and its amendment.

**11. Salient Features of the proposal:**

S. No	Description	Details		
1.	Name of the Project	Proposed Construction of Railway Colony Development and commercial for Rail Land Development Authority (Staff Quarters with Integrated Commercial) by M/s. MKR Estate Developers Private Limited.		
2.	Location	T.S.No. 810/1, Block No.38, Egmore Village, Egmore Taluk, Chennai District, Tamil Nadu.		
3.	Type of Project	Category "B2" 8(a) Building & Construction Project		
4.	Latitude & Longitude	<b>S. No</b>	<b>Latitude</b>	<b>Longitude</b>
		1.	13° 4'44.58"N	80° 15'24.84"E
		2.	13° 4'45.24"N	80° 15'30.66"E
		3.	13° 4'41.55"N	80° 15'30.43"E
		4.	13° 4'41.24"N	80° 15'29.68"E
		5.	13° 4'41.54"N	80° 15'29.67"E
		6.	13° 4'41.52"N	80° 15'29.01"E
		7.	13° 4'41.24"N	80° 15'28.33"E
		8.	13° 4'40.74"N	80° 15'28.46"E

		9.	13° 4'39.38"N	80°15'24.86"E	
		10.	13° 4'44.12"N	80°15'24.39"E	
5.	<b>Total Plot Area (in sq. m) - Total Land Area- 25252.38 Sq.m</b>				
	<b>S.No</b>	<b>Details</b>	<b>Area (Sq.m)</b>	<b>Percentage (%)</b>	
	1.	Total Land Area	25,252.38	100	
	2.	Total Ground Coverage Area of Buildings	9771	39	
	3.	Roads and Pavements Area	7814.38	31	
	4.	STP, Solid Waste Disposal and Other Utilities Area	252.5	1	
	5.	Greenbelt development Area	4888.5	19	
	6.	OSR Area	2,526.00	10	
6.	Brief description of the project	<p>The project comprises of Residential &amp; Commercial Development for Rail Land Development Authority; Commercial Development Consists of Triple Basement Floor + Level 20 (Level 01 - Ground Floor with Convention Centre, Concourse followed by guest rooms, Admin office floor in the northern side) + Level 02- 04 (First Floor to Third floor (MLP) + Level 05 - Fourth floor (Podium Level with MLP Part &amp; Cafeteria) + Level 06 – Level 20 ( Fifth Floor to Nineteenth floor Commercial office space in the southern side) and Residential Building consists of 2 Towers; Tower 1 (Northern Side) – Stilt floor + Twelve floors with 36 Dwelling units &amp; Tower 2 (Southern Side) – Stilt floor + Fifteen Floors with 120 Dwelling units &amp; Totally 156 D/U, Ashraya – Special School for Intellectually Disabled Children – Southern Railway (G + 1 Levels) &amp; Community Centre (Single Level).</p> <p>As per EIA Notification, 2006 it requires Environmental Clearance from State Environment Impact Assessment Authority (SEIAA) under sector 8(a). The total plot area is 25252.38 Sqm and total built up area is 149934.95 Sqm.</p>			
7.	<b>Built up area details Total Built-Up Area – 149934.95 Sq.m.</b>				
	<b>Name of the Building</b>	<b>FSI Area Sqm</b>	<b>Non FSI Area Sqm</b>	<b>Parking Area Sqm</b>	
				<b>Total Built Up Area Sqm</b>	
	Commercial Building	85760.19	1375.59	44,675.26	131,811.04
	Residential Tower 1	4570.59	303.08	-	4873.67
	Residential Tower 2	10842.01	1216.11		12058.12
	School	1007.86	0.00	0.00	1007.86
	Community Centre	184.26	0.00	0.00	184.26
	<b>Total</b>	<b>102364.91</b>	<b>2894.78</b>	<b>44,675.26</b>	<b>149,934.95</b>
	<b>Name of the Building</b>	<b>FSI Area Sqm</b>	<b>Non FSI Area Sqm</b>	<b>Parking Area Sqm</b>	<b>Total Built Up Area Sqm</b>
	<b>COMMERCIAL BUILDING</b>				
	Basement 03	184.61	0.00	7,661.81	7,846.42
	Basement 02	268.71	0.00	7,577.71	7,846.42
	Basement 01	670.15	0.00	11,705.29	12,375.44
	Level 01 (Ground Level)	6,571.98	1,001.32	0.00	7,573.30
	Level 02 (MLP 01)	861.98	0.00	3,938.32	4,800.30
	Level 03 (MLP 02)	590.75	0.00	4,259.67	4,850.42
	Level 04 (MLP 03)	866.33	0.00	4,259.67	5,126.00
	Level 05 (Podium Level)	2,081.19	0.00	5,272.79	7,353.98
	Level 06	4,772.08	0.00	0.00	4,772.08
	Level 07	5,262.48	0.00	0.00	5,262.48
	Level 08	5,262.48	0.00	0.00	5,262.48
	Level 09	4,939.24	0.00	0.00	4,939.24
	Level 10	4,857.11	0.00	0.00	4,857.11
	Level 11	4,857.11	0.00	0.00	4,857.11
	Level 12	4,857.11	0.00	0.00	4,857.11

Level 13	4,857.11	0.00	0.00	4,857.11
Level 14	4,857.11	0.00	0.00	4,857.11
Level 15	4,857.11	0.00	0.00	4,857.11
Level 16	4,857.11	0.00	0.00	4,857.11
Level 17	4,857.11	0.00	0.00	4,857.11
Level 18	4,857.11	0.00	0.00	4,857.11
Level 19	4,857.11	0.00	0.00	4,857.11
Level 20	4,857.11	0.00	0.00	4,857.11
Terrace Level	0	374.27	0.00	374.27
<b>Total</b>	<b>85760.19</b>	<b>1375.59</b>	<b>44,675.26</b>	<b>131,811.04</b>
<b>Tower-1</b>				
Stilt Floor	125.55	249.24	0.00	374.79
First Floor	370.42	0.00	0.00	370.42
Second Floor	370.42	0.00	0.00	370.42
Third Floor	370.42	0.00	0.00	370.42
Fourth Floor	370.42	0.00	0.00	370.42
Fifth Floor	370.42	0.00	0.00	370.42
Sixth Floor	370.42	0.00	0.00	370.42
Seventh Floor	370.42	0.00	0.00	370.42
Eighth Floor	370.42	0.00	0.00	370.42
Ninth Floor	370.42	0.00	0.00	370.42
Tenth Floor	370.42	0.00	0.00	370.42
Eleventh Floor	370.42	0.00	0.00	370.42
Twelfth Floor	370.42	0.00	0.00	370.42
Terrace Floor	0.00	53.84	0.00	53.84
<b>Total</b>	<b>4570.59</b>	<b>303.08</b>	<b>-</b>	<b>4873.67</b>
<b>Tower-2</b>				
Stilt Floor	162.01	564.82	0.00	726.83
First Floor	712.00	0.00	0.00	712.00
Second Floor	712.00	0.00	0.00	712.00
Third Floor	712.00	0.00	0.00	712.00
Fourth Floor	712.00	0.00	0.00	712.00
Fifth Floor	712.00	0.00	0.00	712.00
Sixth Floor	712.00	0.00	0.00	712.00
Seventh Floor	712.00	0.00	0.00	712.00
Eighth Floor	712.00	0.00	0.00	712.00
Ninth Floor	712.00	0.00	0.00	712.00
Tenth Floor	712.00	0.00	0.00	712.00
Eleventh Floor	712.00	0.00	0.00	712.00
Twelfth Floor	712.00	0.00	0.00	712.00
Thirteenth Floor	712.00	0.00	0.00	712.00
Fourteenth Floor	712.00	0.00	0.00	712.00
Fifteenth Floor	712.00	0.00	0.00	712.00
Terrace Floor	0.00	97.58	0.00	97.58
STP, OWC	0.00	553.71	0.00	553.71
<b>Total</b>	<b>10842.01</b>	<b>1216.11</b>	<b>0.00</b>	<b>12058.12</b>
School	1007.86	0.00	0.00	1007.86
Community center	184.26	0.00	0.00	184.26
<b>Total</b>	<b>85760.19</b>	<b>1375.59</b>	<b>44,675.26</b>	<b>131,811.04</b>
8.	Maximum height of the project	78 m		
9.	Maximum number	GF+ 19 F		

	of floors				
10.	No. of blocks	3 blocks			
11.	Permissible FSI area	123105.35 sqm			
12.	Proposed FSI area	102364.91sqm			
13.	Cost of Project	Rs 348.84 Crores			
14.	No. of Saleable Units	156 Units			
15.	Expected Population	10591Nos			
16.	a) Water requirement (in KLD)				
	<b>S. No.</b>	<b>Details</b>			
	1.	Total Water Requirement			
	2.	Fresh water requirement for domestic purposes			
	3.	Treated water requirement for Flushing purposes			
	4.	Treated water requirement for Gardening purposes			
	5.	Treated water requirement for OSR maintenance			
		<b>Quantity KLD</b>			
		544			
		297			
		222			
		17			
		8			
17.	b) Source	CMWSSB			
18.	Details of Sewage generation and Treatment STP Components	<b>Total Sewage generation 459 KLD</b> <b>STP 490 KLD</b> Bar Screen Chamber Collection Tank Anoxic Tank UASB Reactor Re-circulation Tank Settler Tank Treated water tank UF treated water tank UV Disinfection system Pressure Sand Filter Activated Carbon Filter <b>STP 120 KLD</b> Bar Screen Chamber Collection Tank Anoxic Tank UASB Reactor Re-circulation Tank Settler Tank Treated water tank UF treated water tank UV Disinfection system Pressure Sand Filter Activated Carbon Filter			
19.	Mode of Disposal of treated sewage / effluent	Flushing – 222 KLD, Greenbelt Development – 17 KLD, OSR – 8 KLD, HVAC – 189 KLD			
20.	Quantity of Solid Waste generation, Mode of treatment and Disposal				
	<b>S.No</b>	<b>Description</b>	<b>Waste generation per capita</b>	<b>No. of Persons</b>	<b>Quantity (kg/day)</b>
	1	Residential Population	0.6	780	468

	2	No of visitors & maintenance staff	0.2	86	17
	3	Commercial	0.2	8762	1752
	4	No of visitors & maintenance staff	0.2	963	193
		<b>Total solid waste generation</b>			<b>2430</b>
	5	STP Sludge			50
	<b>S.No</b>	<b>Description</b>	<b>Quantity kg/day)</b>	<b>Mode of treatment / disposal</b>	
	1	Biodegradable Waste (@40% of waste generated)	972	The Biodegradable waste will be processed in the proposed Organic waste convertor to be installed in the site.	
	2	Non-Biodegradable waste (@60% of waste generated)	1458	Waste will be disposed to recyclers	
	3	STP Sludge	50	Will be used as a Manure for greenbelt development	
21.	Quantity of E-Waste generation, Mode of treatment and Disposal - Not Applicable				
22.	Quantity of Biomedical Waste generation, Mode of treatment and Disposal -Not Applicable				
23.	Quantity of Hazardous Waste generation, Mode of treatment and Disposal -Not Applicable				
24.	Power requirement -6524 kVA , Source of Power –TANGEDCO				
	Details of solar energy	<b>S.No</b>	<b>Description</b>	<b>Solar System Saving in Energy</b>	
				<b>Total KW</b>	<b>Efficiency</b>
		1.	Solar Roof Panel Area – 4885 Sq.m (50 % of the Roof top is provided for Solar)	407	50%
			Energy Avg. Production per Hour-KWHR		203
			Energy Production per Day(8-Hours )-KWHR		1624
			Energy Production per Annum-KWHR		592760
			Energy savings / Annum (in Kwh)		592760
			Hot water requirement of 50 % of the total population will be met through Solar Water Heater.		
			50% of population- 390 numbers Hot Water demand- 5 litres/capita.		
			Therefore <b>2 KLD of Hot water</b> will be met through solar water heater.		
25.	Details of D.G. set with Capacity	2 Nos of 2250 KVA, 1 No of 1500 KVA, 2 Nos of 62.5 KVA			
26.	Details of Green Belt Area				
	i) Total area of green belt - 4888.5 sqm				
	ii) No. of trees existing within the project site -15				
	iii) No. of trees proposed to be planted - 320				
	iv) No. of trees to be transplanted / cut - 0				
27.	Details of OSR Area	2526 Sqm			
28.	Details of Parking Area				
		<b>Details</b>	<b>No. of Car parking</b>	<b>No of Two-Wheeler Parking</b>	
		1) Total number of Parking in Basement	619	772	
		2) Total number of Parking in MLP level	157	2562	
		3)Total number of parking in Surface level	237	159	
		4)Total number of Parking for Ashraya school	3	5	
		<b>Total number of parking provided</b>	<b>1016</b>	<b>3498</b>	
29.	Provision for rain water harvesting				

Description	Area in Sqm	Coefficient runoff	Annual Rainfall in m	Total Rainwater Runoff Cum
Roof area	9771	0.85	1.1	9136
Road area	7814.38	0.7	1.1	6017
Green area	4888.5	0.25	1.1	1344
<b>Total Annual Rainfall Runoff</b>				<b>16497</b>
Considering 50 rainy days in 365 days, per day rainwater will be				330
Rainwater collection Tank provided for storing 100% of the roof area.				183
Per day Roof area Rain fall collection is 183 Cum (190 m <sup>3</sup> Underground Rainwater storage tank Proposed)				
Remaining rainwater will be recharge into recharge well.				147
<b>Recharge pit</b> : 27 Nos with Dia 1.2 m, depth 3m.				
100 % of rainwater managed inside by storage and recharge within the site, during abnormal rain the excess rainwater will be discharged into storm water drain in the roadside, connection provisions will be done in the site.				
v The roof top rainwater from the project site will be collected in the UG rainwater Storage Tank (190 Cum) through downspouts and the same will be used as fresh water source for domestic purpose during monsoon season after Preliminary treatment.				
v The water from paved and green surfaces will be directed to the recharge wells (Proposed – 27 Nos. of 1.2m Dia, 3 m Depth with a total capacity of 147 Cum).				
30.	EMP Cost (Rs.)	<b>Construction Phase:</b> Capital Cost – Rs.9.8 Lakhs Recurring cost – Rs.28.5 Lakhs <b>Operational Phase:</b> Capital Cost – Rs.176 Lakhs Recurring cost – Rs.42.34 Lakhs		
31.	CER Cost - <b>Rs.340 Lakhs</b>			
	<b>S. No.</b>	<b>CER Activity</b>	<b>Capital cost Allocation (in lakhs)</b>	<b>Action Plan</b>
		Dr Ambedkar Govt Boys Higher Secondary School, Egmore – 0.78 km, E		12 months from the commencement of construction
	1	i. Green belt development in the school ii. Providing hygiene Toilets rooms for students iii. Providing Environmental related books in the school library iv. Infrastructure development works if any as per demand v. Building repair work as per school demand	15	
	2	Govt High School, Ottery – 1.47 km, N i. Green belt development in the school ii. Providing hygiene Toilets rooms for students iii. Providing Environmental related books in the school library iv. Infrastructure development works if any as per demand v. Building repair work as per school demand	15	
	3	Infrastructure facilities & Simulators for Skill development in Ashraya School (For Physically Challenged students)	50	

5	Govt. Institute for Mentally Retarded, Tambaram	260
	<b>Total</b>	<b>340</b>

## 12. General Instructions:

- 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 SEIAA website where it is displayed.
- 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 must display the same for 30 days from the date of receipt.
- The project proponent shall have a well laid down environmental policy duly approved by the Board of Directors (in case of Company) or competent authority, duly prescribing 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.
- Action plan for implementing EMP and environmental conditions along with responsibility matrix of the project proponent (during construction phase) and authorized entity mandated with compliance of conditions (during operational phase) shall be prepared. The year wise funds earmarked for environmental protection measures shall be kept in separate account and not to be diverted for any other purpose. Six monthly progress of implementation of action plan shall be reported to the Ministry/Regional Office along with the Six-Monthly Compliance Report
- 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.
- The Regional Office of this SEIAA shall monitor compliance of the stipulated conditions. The project authorities should extend full cooperation to the officer (s) of the Regional Office by furnishing the requisite data / information/monitoring reports.
- 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
- This issues with the approval of the Competent Authority For information on deliberations, refer to the minutes of SEAC and SEIAA available in the PARIVESH Portal.

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

### **Copy To**

- The Principal Secretary to Government, Environment, Climate Change and Forests Department, Govt. of Tamil Nadu, Fort St. George, Chennai - 9.
- The Chairman, Central Pollution Control Board, Parivesh Bhavan,CBD Cum-Office Complex, East Arjun Nagar, New Delhi - 110032.
- The Chairman, Tamil Nadu Pollution Control Board, 76, Mount Salai, Guindy, Chennai-600 032.
- The APCCF (C), Regional Office, Ministry of Environment & Forest (SZ),34, HEPC Building, 1st & 2nd Floor, Cathedral Garden Road, Nungambakkam, Chennai - 34.
- Monitoring Cell, I A Division, Ministry of Environment & Forests, Paryavaran Bhavan, CGO Complex, New Delhi - 110003.
- The Commissioner, Greater Chennai Corporation, Chennai District.
- Stock File

**Annexure 1**

### **Specific EC Conditions for (Building / Construction)**

#### **1. Seac Conditions - Site Specific**

S. No	EC Conditions
1.1	<ol style="list-style-type: none"> <li>1. The PP shall ensure that the raw material such as the building stones/jelly, M-sand are transported, stored and used in the site without providing hindrance to the public living nearby.</li> <li>2. The construction shall comply with Green Building norms and shall get minimum IGBC Gold rating.</li> <li>3. 50% of the roof area should be covered with Solar panels. Provision of hot water shall be met through solar water heaters.</li> <li>4. The PP shall obtain fresh water supply commitment letter from the local body /TWAD before obtaining CTE from the TNPCB.</li> <li>5. The PP shall adopt Permeable pavement design to harvest rainwater.</li> <li>6. The PP must adopt zero liquid discharge (ZLD) to ensure that there will be no discharge of any waste wastewater into the environment.</li> <li>7. The PP must increase the total number of beds in palliative care section from 14 to 25 as committed and ensure that adequate information is available to the people, especially from the poorer sections of society, to make use of the facility.</li> <li>8. The generated Bio medical waste shall be handled as per Bio Medical waste management Rules 2016.</li> <li>9. The project proponent shall allot necessary area for the collection of E waste and strictly follow the E-Waste Management Rules 2016, as amended for disposal of the E waste generation within the premise.</li> <li>10. The project proponent shall obtain the necessary authorization from TNPCB and strictly follow the Hazardous &amp; Other Wastes (Management and Transboundary Movement) Rules, 2016, as amended for the generation of Hazardous waste within the premises.</li> <li>11. The proponent shall provide STP of adequate capacity as committed and shall continuously &amp; efficiently operate STP so as to satisfy the treated sewage &amp; treated Effluent discharge standards prescribed by the TNPCB time to time. The proponent shall periodically test the treated sewage &amp; effluent through TNPCB Lab /NABL accredited laboratory and submit report to the TNPCB. The proponent shall ensure that no form of municipal solid waste &amp; sludge from the STP shall be disposed outside the proposed project site at any time.</li> <li>12. The PP shall furnish the separate water balance details for proposed Residential and commercial area respectively.</li> <li>13. The PP shall furnish the separate solid waste management plan for proposed Residential and commercial area respectively.</li> <li>14. The PP shall furnish the separate sewage generation quantity for proposed Residential and commercial area respectively.</li> <li>15. Project proponent is advised to explore the possibility and getting the cement in a closed container rather through the plastic bag to prevent dust emissions at the time of loading/unloading.</li> <li>16. Project proponent should ensure that there will be no use of “Single use of Plastic” (SUP).</li> <li>17. The proponent should provide the sufficient electric vehicle charging points as per the requirements at ground level and allocate the safe and suitable place in the premises for the same.</li> <li>18. The project proponent should develop green belt in the township as per the plan submitted and also follow the guidelines of CPCB/Development authority for green belt as per the norms.</li> <li>19. Project proponent should invest the CSR amount as per the proposal and submit the compliance report regularly to the concerned authority/Directorate of environment.</li> <li>20. Proponent should submit the certified compliance report of previous/present EC along with action taken report to the Regional office MoEF Lko/Director of Environment and other concerning authority regularly.</li> <li>21. Proponent shall provide the dual pipeline network in the project for utilization of treated water of STP for different purposes and also provide the monitoring mechanism for the same. STP treated water not to be discharged outside the premises without the permission of the concerned authority.</li> </ol>

S. No	EC Conditions
	<p>22. The project proponent shall provide a measuring device for monitoring the various sources of water supply namely fresh water, treated waste water and harvested rain water.</p> <p>23. The proponent should provide the MoU with STPs' owner/concerned department for getting the STPs treated water for construction use.</p>

## 2. Seiaa Specific Conditions

S. No	EC Conditions
2.1	<p>After detailed discussions, the Authority noted the reply submitted by the PP and accepts the recommendation of SEAC and decided to grant Environmental Clearance subject to the conditions as recommended by SEAC &amp; normal conditions and conditions in Annexure 'C' of this minutes in addition to the following conditions.</p> <ol style="list-style-type: none"> <li>1. The PP shall furnish flood inundation from the competent Authority before obtaining CTE from the TNPCB.</li> <li>2. The PP shall furnish the detail report of vibration study due to Rail movements before obtaining CTE from the TNPCB.</li> <li>3. The construction activity should not result in temperature rise, disturbance in air flow, geometry &amp; orientation of the building, not result impact in thermal environment and should be carbon neutral building.</li> <li>4. The proponent shall ensure that the building activities should not cause any damage to water environment, vegetation around.</li> <li>5. The Building activity should in no way result in Urban Heat Island (UHI) effect.</li> <li>6. The usage of glass and Air Conditioner should not impact the Temperature outside.</li> <li>7. All efforts should be made to increase Green features by improving the design Engineering &amp; Construction.</li> <li>8. Efficient water consumption systems should be utilized to support water conservation.</li> <li>9. Smart technologies like smart elevator appliance, smart meters etc., should be used for energy conservation.</li> <li>10. Action to be initiated to provide green roofs.</li> <li>11. The EMP should support all mitigation activities and promote reuse &amp; recycle of the waste generated.</li> <li>12. The precaution essential for seismic control and regularization should be emplaced</li> <li>13. There should be enough tree plantation best for shading (15%)</li> </ol>
2.2	<p>Annexure 'C' <b>Climate Change</b></p> <ol style="list-style-type: none"> <li>1. The proponent shall adopt strategies to decarbonize the building, reduce carbon footprints and develop strategies for climate proofing and mitigation.</li> <li>2. The proponent shall adopt strategies to reduce carbon &amp; GHG emissions during operation (operational phase and building materials).</li> <li>3. The proponent shall adopt methodology to control thermal environment and other shocks in the building.</li> <li>4. The proponent shall adopt strategies to ensure the buildings in blocks are not trapping heat to become local urban heat islands.</li> <li>5. The proponent shall ensure that the building does not create artificial wind tunnels creating cold water and uncomfortable living conditions resulting in health issues.</li> <li>6. The activities should in no way cause emission and build-up Green House Gases. All actions to be eco-friendly and support sustainable management of the natural resources within and outside the campus premises.</li> </ol>

S. No	EC Conditions
	<p>7. The proponent shall ensure that the buildings does not cause any damage to water environment, air quality and should be carbon neutral building.</p> <p><b>Health</b></p> <p>8. The proponent shall adopt strategies to maintain the health of the inhabitants within and in the vicinity.</p> <p><b>Energy</b></p> <p>9. The proponent shall adopt strategies to reduce electricity demand and consumption.</p> <p>10. The proponent shall provide provisions for automated energy efficiency.</p> <p>11. The proponent shall provide provisions for controlled ventilation and lighting systems.</p> <p>12. The proponent shall provide adequate capacity of DG set (standby) for the proposed STP so as to ensure continuous and efficient operation.</p> <p><b>Regulatory Frameworks</b></p> <p>13. The proponent shall effectively implement and strictly adhere to the Solid Waste Management Rules, 2016, E-Waste (Management) Rules, 2016, Plastic Waste Management Rules, 2016 as amended, Bio-Medical Waste Management Rules, 2016 as amended, Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016 as amended, Construction and Demolition Waste Management Rules, 2016, &amp; Batteries (Management and Handling) Rules, 2001.</p> <p>14. The proponent shall provide elevator as per rules CMDA/DTCP.</p> <p><b>Database maintenance &amp; audits</b></p> <p>15. The database record of environmental conditions of all the events from pre-construction, construction and post-construction should be maintained in digitized format.</p> <p>16. The proponent should maintain environmental audits to measure and mitigate environmental concerns.</p> <p><b>Biodiversity</b></p> <p>17. The proponent shall ensure that the proposed activities in no way result in the spread of invasive species.</p> <p>18. The proponent shall adopt sustainability criteria to protect the micro environment from wind turbulences and change in aerodynamics since high rise buildings may stagnate air movements.</p> <p>19. The proponent shall ensure utmost safety for the existing biodiversity, trees, flora &amp; fauna and the critically endangered species &amp; endangered species shall not disturb under any circumstances.</p> <p>20. The proponent shall develop building-friendly pest control strategies by using non chemical measures so as to control the pest population thereby not losing beneficial organisms.</p> <p>21. The proponent shall adopt strategies to prevent birds getting hit by the high buildings.</p> <p><b>Safety measures</b></p> <p>22. The proponent should develop an emergency response plan &amp; safety evacuation plan (including disabled people) in addition to the disaster management plan.</p> <p>23. All bio-safety standards, hygienic standards and safety norms of working staff to be strictly followed as stipulated in EIA/EMP.</p> <p>24. The disaster management/disaster mitigation standards&amp; fire safety standards as prescribed by competent authorities.</p> <p>25. The proponent shall provide the emergency exit in the buildings.</p> <p><b>Water/Sewage</b></p> <p>26. The proponent shall ensure that no untreated sewage is let outside the project site under any circumstances. Further, the treated water shall not be disposed off through any other means other than the permitted mode of disposal.</p> <p>27. The proponent shall provide STP of adequate capacity as committed and shall continuously &amp; efficiently operate STP so as to satisfy the treated sewage discharge standards prescribed by the TNPCB time to time.</p> <p>28. The proponent shall periodically test the treated sewage the through TNPCB lab /NABL accredited laboratory and submit report to the TNPCB &amp; IRO of MoEF&amp;CC.</p> <p>29. The proponent shall ensure that provision should be given for proper utilization of recycled water.</p>

S. No	EC Conditions
	<p>30. The project proponent shall adhere to storm water management plan as committed.</p> <p><b>Parking</b></p> <p>31. The project proponent shall provide adequate parking space for visitors of all inmates including clean traffic plan as committed.</p> <p><b>Solid waste Management</b></p> <p>32. The proponent shall ensure that no form of municipal solid waste shall be disposed outside the proposed project site at any time.</p> <p>33. The proponent should strictly comply with, Tamil Nadu Government order regarding ban on one time use and throwaway plastics irrespective of thickness with effect from 01.01.2019 under Environment (Protection) Act, 1986.</p> <p><b>EMP</b></p> <p>34. The proponent shall strictly adhere to the EIA/EMP report.</p> <p>35. The proponent shall ensure that the green belt plan is implemented as indicated in EMP. Also, the proponent shall explore possibilities to provide sufficient grass lawns.</p> <p><b>Others</b></p> <p>36. As per the 'Polluter Pay Principle', the proponent will be held responsible for any environmental damage caused due to the proposed activity including withdrawal of EC and stoppage of work.</p> <p>37. The project proponent shall adhere to height of the buildings as committed.</p>

**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) 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.
1.6	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.
1.7	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.

S. No	EC Conditions
1.8	The provisions of the Solid Waste Management Rules, 2016, e-Waste (Management) Rules, 2016, and the Plastics Waste Management Rules, 2016, shall be followed.
1.9	The project proponent shall follow the ECBC/ECBC-R prescribed by Bureau of Energy Efficiency, Ministry of Power strictly.

## 2. Air Quality Monitoring And Preservation

S. No	EC Conditions
2.1	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.
2.2	A management plan shall be drawn up and implemented to contain the current exceedance in ambient air quality at the site.
2.3	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 PM2.5) covering upwind and downwind directions during the construction period.
2.4	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.
2.5	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, murrum and other construction materials prone to causing dust pollution at the site as well as taking out debris from the site.
2.6	Sand, murrum, loose soil, cement, stored on site shall be covered adequately so as to prevent dust pollution.
2.7	Wet jet shall be provided for grinding and stone cutting.
2.8	Unpaved surfaces and loose soil shall be adequately sprinkled with water to suppress dust.
2.9	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 Management Rules 2016.
2.10	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.

S. No	EC Conditions
2.11	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.
2.12	For indoor air quality the ventilation provisions as per National Building Code of India.

### 3. Water Quality Monitoring And Preservation

S. No	EC Conditions
3.1	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.
3.2	Buildings shall be designed to follow the natural topography as much as possible. Minimum cutting and filling should be done.
3.3	Total fresh water use shall not exceed the proposed requirement as provided in the project details.
3.4	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.
3.5	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.
3.6	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.
3.7	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.
3.8	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.
3.9	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.
3.10	Water demand during construction should be reduced by use of pre-mixed concrete, curing agents and other best practices referred.
3.11	The local bye-law provisions on rain water harvesting should be followed. If local bye-law provision is not available, adequate provision for storage and recharge should be followed as per the

S. No	EC Conditions
	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.
3.12	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.
3.13	All recharge should be limited to shallow aquifer.
3.14	No ground water shall be used during construction phase of the project.
3.15	The quantity of fresh water usage, water recycling and rainwater harvesting shall be measured and recorded to monitor the water balance as projected by the project proponent. The record shall be submitted to the Regional Office, MoEF&CC along with six monthly Monitoring reports.
3.16	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.
3.17	No sewage or untreated effluent water would be discharged through storm water drains.
3.18	Onsite sewage treatment of capacity of treating 100% waste water to be installed. The installation of the Sewage Treatment Plant (STP) shall be certified by an independent expert and a report in this regard shall be submitted to the 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.
3.19	Periodical monitoring of water quality of treated sewage shall be conducted. Necessary measures should be made to mitigate the odour problem from STP.
3.20	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.

#### 4. Noise Monitoring And Prevention

S. No	EC Conditions
4.1	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.
4.2	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.

S. No	EC Conditions
4.3	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.

### 5. Energy Conservation Measures

S. No	EC Conditions
5.1	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.
5.2	Outdoor and common area lighting shall be LED.
5.3	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.
5.4	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.

### 6. Waste Management

S. No	EC Conditions
6.1	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.
6.2	Disposal of muck during construction phase shall not create any adverse effect on the neighbouring communities and be disposed taking the necessary precautions for general safety and health aspects of people, only in approved sites with the approval of competent authority.
6.3	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.
6.4	Organic waste compost/Vermiculture pit/Organic Waste Converter within the premises with a minimum capacity of 0.3 kg /person/day must be installed.
6.5	All non-biodegradable waste shall be handed over to authorized recyclers for which a written tie up must be done with the authorized recyclers.
6.6	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.
6.7	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

S. No	EC Conditions
	bricks, AACs, Fly Ash Lime Gypsum blocks, Compressed earth blocks, and other environment friendly materials.
6.8	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.
6.9	Any wastes from construction and demolition activities related thereto shall be managed so as to strictly conform to the Construction and Demolition Waste Management Rules, 2016.
6.10	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.

### 7. Green Cover

S. No	EC Conditions
7.1	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).
7.2	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.
7.3	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.
7.4	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.

### 8. Transport

S. No	EC Conditions
8.1	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.
8.2	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

S. No	EC Conditions
	be operated only during non-peak hours.

9.

S. No	EC Conditions
9.1	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.

#### 10. Human Health Issues

S. No	EC Conditions
10.1	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.
10.2	For indoor air quality the ventilation provisions as per National Building Code of India.
10.3	Emergency preparedness plan based on the Hazard identification and Risk Assessment (HIRA) and Disaster Management Plan shall be implemented.
10.4	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.
10.5	Occupational health surveillance of the workers shall be done on a regular basis.
10.6	A First Aid Room shall be provided in the project both during construction and operations of the project.

#### 11. Miscellaneous

S. No	EC Conditions
11.1	The project proponent shall prominently advertise it at least in two local newspapers of the District or State, of which one shall be in the vernacular language within seven days indicating that the project has been accorded environment clearance and the details of MoEFCC/SEIAA website where it is displayed.

S. No	EC Conditions
11.2	ii. 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.
11.3	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.
11.4	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.
11.5	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.
11.6	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 report to the head of the organization.
11.7	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
11.8	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.
11.9	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.
11.10	The project authorities must strictly adhere to the stipulations made by the State Pollution Control Board and the State Government.
11.11	The project proponent shall abide by all the commitments and recommendations made in the EIA/EMP report and also that during their presentation to the State Expert Appraisal Committee.
11.12	No further expansion or modifications in the plant shall be carried out without prior approval of the Ministry of Environment, Forest and Climate Change (MoEF&CC)/SEIAA-TN.
11.13	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.

S. No	EC Conditions
11.14	The Ministry/SEIAA-TN may revoke or suspend the clearance, if implementation of any of the above conditions is not satisfactory.
11.15	The Ministry/SEIAA-TN reserves the right to stipulate additional conditions if found necessary. The Company in a time bound manner shall implement these conditions.
11.16	The Regional Office of this Ministry shall monitor compliance of the stipulated conditions. The project authorities should extend full cooperation to the officer (s) of the Regional Office by furnishing the requisite data / information/monitoring reports.
11.17	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.
11.18	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.

## 12. Specific Conditions

S. No	EC Conditions
12.1	Recommendations of mitigation measures from possible accident shall be implemented based on Risk Assessment studies conducted for worst case scenarios using latest techniques.

Environmental Clearance is issued along with the following conditions containing four parts namely

Part - A – Common conditions applicable for Pre-construction, Construction and Operational Phases

Part - B – Specific Conditions – Pre construction phase

Part - C – Specific Conditions – Construction phase

Part - D – Specific Conditions – Operational Phase/Post constructional Phase / Entire life of the project.

**Part - A – Common conditions applicable for Pre-construction, Construction and Operational Phases:**

1. Any appeal against this Environmental Clearance shall lie with the Hon'ble National Green Tribunal, if preferred, within a period of 30 days as prescribed under Section 16 of the National Green Tribunal Act, 2010.
2. The construction of STP, ETP, Solid Waste Management facility, E-waste management facility, DG sets, etc., should be made in the earmarked area only. In any case, the location of these utilities should not be changed later on.
3. The Environmental safeguards contained in the application of the proponent /mentioned during the presentation before the State Level Environment Impact Assessment Authority / State Level Expert Appraisal Committee should be implemented in letter and spirit.
4. All other statutory clearances such as the approvals for storage of diesel from Chief Controller of Explosives, Fire and Rescue Services Department, Civil Aviation Department, Forest Conservation Act, 1980 and Wild Life (Protection) Act, 1972, State / Central Ground Water Authority, Coastal Regulatory Zone Authority, other statutory and other authorities as applicable to the project shall be obtained by project proponent from the concerned competent authorities.
5. The SEIAA reserves the right to add additional safeguard measures subsequently, if non-compliance of any of the EC conditions is found and to take action, including revoking of this Environmental Clearance as the case may be.
6. A proper record showing compliance of all the conditions of Environmental Clearance shall be maintained and made available at all the times.

7. 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. The status of compliance of environmental clearance conditions and shall also be sent to the Regional Office of the Ministry of Environment and Forests, Chennai by e-mail.
8. The Regional Office of the Ministry located at Chennai shall monitor compliance of the stipulated conditions. The project authorities should extend full cooperation to the officer (s) of the Regional Office by furnishing the requisite data / information / monitoring reports.
9. "Consent for Establishment & Consent to Operate" shall be obtained from the Tamil Nadu Pollution Control Board and a copy shall be submitted to the SEIAA, Tamil Nadu.
10. In the case of any change(s) in the scope of the project, a fresh appraisal by the SEAC/SEIAA shall be obtained before implementation.
11. The conditions will 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, the Public Liability Insurance Act, 1991, along with their amendments, draft Minor Mineral Conservation & Development Rules, 2010 framed under MMDR Act 1957, National Commission for protection of Child Right Rules, 2006 and rules made there under and also any other orders passed by the Hon'ble Supreme Court of India/Hon'ble High Court of Madras and any other Courts of Law, including the Hon'ble National Green Tribunal relating to the subject matter.
12. The Environmental Clearance shall not be cited for relaxing the other applicable rules to this project.
13. Failure to comply with any of the conditions mentioned above may result in withdrawal of this clearance and attract action under the provisions of the Environment (Protection) Act, 1986.
14. 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, Chennai, the respective Zonal Office of CPCB, Bengaluru and the TNPCB. The criteria pollutant levels namely; PM<sub>10</sub>, PM<sub>2.5</sub>, SO<sub>2</sub>, NO<sub>x</sub> (ambient levels as well as stack emissions) or critical sectoral parameters, indicated for the project shall be monitored.

15. The SEIAA, TN may cancel the Environmental Clearance granted to this project under the provisions of EIA Notification, 2006, if, at any stage of the validity of this environmental clearance, if it is found or if it comes to the knowledge of this SEIAA, TN that the project proponent has deliberately concealed and/or submitted false or misleading information or inadequate data for obtaining the Environmental Clearance.
16. The Environmental Clearance does not imply that the other statutory / administrative clearances shall be granted to the project by the concerned authorities. Such authorities would be considering the project on merits and be taking decisions independently of the Environmental Clearance.
17. The SEIAA, TN may alter/modify the above conditions or stipulate any further condition in the interest of environment protection, even during the subsequent period.
18. The Environmental Clearance does not absolve the applicant/proponent of his obligation/requirement to obtain other statutory and administrative clearances from other statutory and administrative authorities.
19. Where the trees need to be cut, compensation plantation in the ratio of 1:10 (i.e. planting of 10 trees for every one tree that is cut) should be done with the obligation to continue maintenance.
20. A separate environmental management cell with suitable qualified personnel should be set-up under the control of a Senior Executive who will report directly to the Head of the Organization and the shortfall shall be strictly reviewed and addressed.
21. The EMP cost shall be deposited in a nationalized bank by opening separate account and the head wise expenses statement shall be submitted to TNPCB with a copy to SEIAA annually.
22. The Project Proponent has to provide adequate rain water harvesting pits as committed to recover and reuse the rain water during normal rains as reported.
23. The project activity should not cause any disturbance & deterioration of the local bio diversity.
24. The project activity should not impact the water bodies. A detailed inventory of the water bodies and forest should be evaluated and fact reported to the Forest Department & PWD for monitoring.
25. All the assessed flora & fauna should be conserved and protected.
26. The proponent should strictly comply with, Tamil Nadu Government Order (Ms) No.84 Environment and forests (EC.2) Department dated 25.06.2018 regarding ban on one

time use and throwaway plastics irrespective of thickness with effect from 01.01.2019 under Environment (Protection) Act, 1986.

27. Ground water should not be withdrawn for any purposes involved in the project activity.
28. The proponent shall appoint an Environmental Engineer with necessary qualification for the operation and maintenance of STP (Sewage Treatment Plant) and GWTP (grey water Treatment Plant)
29. The Proponent shall provide the dispenser for the disposal of Sanitary Napkins.
30. All the mitigation measures committed by the proponent for the flood management, Solid waste disposal, Sewage treatment & disposal etc., shall be followed strictly.
31. No waste of any type to be disposed of in any watercourse including drains, canals and the surrounding environment.
32. Traffic congestion near the entry and exit points from the roads adjoining the proposed project site must be avoided.
33. The safety measures proposed in the report should be strictly followed.

**Part - B – Specific Conditions – Pre construction phase:**

1. The project authorities should advertise with basic details at least in two local newspapers widely circulated, one of which shall be in the vernacular language of the locality concerned, within 7 days of the issue of clearance. The press releases also mention that a copy of the clearance letter is available with the State Pollution Control Board and also at website of SEIAA, TN. The copy of the press release should be forwarded to the Regional Office of the Ministry of Environment and Forests located at Chennai and SEIAA-TN.
2. In the case of any change(s) in the scope of the project, a fresh appraisal by the SEAC/SEIAA shall be obtained before implementation.
3. A copy of the clearance letter shall be sent by the proponent to the Local Body. The clearance letter shall also be put on the website of the Proponent.
4. The approval of the competent authority shall be obtained for structural safety of the buildings during earthquake, adequacy of firefighting equipments, etc. as per National Building Code including protection measures from lightning etc. before commencement of the work.

5. All required sanitary and hygienic measures for the workers should be in place before starting construction activities and they have to be maintained throughout the construction phase.
6. Design of buildings should be in conformity with the Seismic Zone Classifications.
7. The Construction of the structures should be undertaken as per the plans approved by the concerned local authorities/local administration.
8. No construction activity of any kind shall be taken up in the OSR area.
9. Consent of the local body concerned should be obtained for using the treated sewage in the OSR area for gardening purpose. The quality of treated sewage shall satisfy the bathing quality prescribed by the CPCB.
10. The project proponent shall ensure the entry of basement shall be above maximum flood level.
11. The proponent shall prepare completion plans showing Separate pipelines marked with different colours with the following details
  - i. Location of STP, compost system, underground sewer line.
  - ii. Pipe Line conveying the treated effluent for green belt development.
  - iii. Pipe Line conveying the treated effluent for toilet flushing
  - iv. Water supply pipeline
  - v. Gas supply pipe line, if proposed
  - vi. Telephone cable
  - vii. Power cable
  - viii. Storm water drains, and
  - ix. Rain water harvesting system, etc. and it shall be made available to the owners
12. A First Aid Room shall be provided in the project site during the entire construction and operation phases of the project.
13. The present land use surrounding the project site shall not be disturbed at any point of time.
14. The green belt area shall be planted with indigenous native trees.
15. Natural vegetation listed particularly the trees shall not be removed during the construction/operation phase. In case any trees are likely to be disturbed, shall be replanted.
16. During the construction and operation phase, there should be no disturbance to the aquatic eco-system within and outside the area.

17. The Provisions of Forest conservation Act 1980, Wild Life Protection Act 1972 & Bio diversity Act 2002 should not be violated.
18. There should be Firefighting plan and all required safety plan.
19. Regular fire drills should be held to create awareness among owners/ residents.

**Part - C - Specific Conditions – Construction phase:**

**1. Construction Schedule:**

- i) The Project proponent shall have to furnish the probable date of commissioning of the project supported with necessary bar charts to SEIAA-TN.

**2. Labour Welfare:**

- i) All the laborers to be engaged for construction should be screened for health and adequately treated before and during their employment on the work at the site.
- ii) Personnel working in dusty areas should wear protective respiratory devices and they should also be provided with adequate training and information on safety and health aspects. Occupational health surveillance program of the workers should be undertaken periodically to observe any contradictions due to exposure to dust and take corrective measures, if needed.
- iii) Periodical medical examination of the workers engaged in the project shall be carried out and records maintained. For the purpose, schedule of health examination of the workers should be drawn and followed accordingly. The workers shall be provided with personnel protective measures such as masks, gloves, boots etc.

**3. Water Supply:**

- i) The entire water requirement during construction phase may be met from private tankers
- ii) Provision shall be made for housing labour within the site with all necessary infrastructures and facilities such as fuel for cooking, mobile toilets, mobile STP, safe drinking water, medical health care, crèche etc. The housing may be in the form of temporary structures to be removed after the completion of the project.
- iii) Adequate drinking water and sanitary facilities should be provided for construction workers at the site. The treatment and disposal of waste water shall be through dispersion trench after treatment through septic tank. The MSW

generated shall be disposed through Local Body and the identified dumpsite only.

- iv) Water demand during construction should be reduced by use of pre-mixed concrete, curing agents and other best practices prevalent.
- v) Fixtures for showers, toilet flushing and drinking water should be of low flow type by adopting the use of aerators / pressure reducing devices / sensor based control.

#### **4. Solid Waste Management:**

- i) In the solid waste management plan, the STP sludge management plan for direct use as manure for gardens is not acceptable; it must be co-composted with biodegradables.
- ii) Hazardous waste such as batteries, small electronics, CFL bulbs, expired medicines and used cleaning solvent bottles should be segregated at source, collected once in a month from residences and disposed as per the SWM Rules 2016.
- iii) Domestic solid wastes to be regularly collected in bins or waste handling receptacles and disposed as per the solid waste management rules 2016.
- iv) No waste of any type to be disposed of in any watercourse including drains, canals and the surrounding environment.
- v) E-waste shall be disposed through Authorized vendor as per E-waste (Management and Handling) Rules, 2016 and subsequent amendment.

#### **5. Top Soil Management:**

- i) All the top soil excavated during construction activities should be stored for use in horticulture/ landscape development within the project site.

#### **6. Construction Debris disposal:**

- i) Disposal of construction debris during construction phase should not create any adverse effect on the neighboring communities and be disposed off only in approved sites, with the approval of Competent Authority with necessary precautions for general safety and health aspects of the people. The construction and demolition waste shall be managed as per Construction & Demolition Waste Management Rules, 2016.
- ii) Construction spoils, including bituminous materials and other hazardous materials, must not be allowed to contaminate watercourses. The dump sites for

such materials must be secured so that they should not leach into the adjacent land/ lake/ stream etc.

#### **7. Diesel Generator sets:**

- i) Low Sulphur Diesel shall be used for operating diesel generator sets to be used during construction phase. The air and noise emission shall conform to the standards prescribed in the Rules under the Environment (Protection) Act, 1986, and the Rules framed thereon.
- ii) The diesel required for operating stand by DG sets shall be stored in barrels fulfilling the safety norms and if required, clearance from Chief Controller of Explosives shall be taken.
- iii) The acoustic enclosures shall be installed at all noise generating equipments such as DG sets, air conditioning systems, cooling water tower etc.

#### **8. Air & Noise Pollution Control:**

- i) Vehicles hired for bringing construction materials to the site should be in good condition and should conform to air and noise emission standards, prescribed by TNPCB/CPCB. The vehicles should be operated only during non-peak hours.
- ii) Ambient air and noise levels should conform to residential standards prescribed by the TNPCB, both during day and night. Incremental pollution loads on the ambient air and noise quality should be closely monitored during the construction phase. The pollution abatement measures shall be strictly implemented.
- iii) Traffic congestion near the entry and exit points from the roads adjoining the proposed project site shall be avoided. Parking shall be fully internalized and no public space should be utilized. Parking plan to be as per CMDA norms. The traffic department shall be consulted and any cost effective traffic regulative facility shall be met before commissioning.
- iv) The buildings should have adequate distance between them to allow free movement of fresh air and passage of natural light, air and ventilation.
- v) The project proponent should ensure that adequate Air Pollution Control measures shall be provided from buses and other vehicles, which will be entering the bus terminal. Further, water sprinkling system shall be provided

and same shall be used at regular interval to control the dust emission within the project site.

**9. Building material:**

- i) Fly-ash blocks 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 Notification No. S.O. 2807 (E) dated: 03.11.2009.
- ii) Ready-mix concrete shall alone be used in building construction and necessary cube-tests should be conducted to ascertain their quality.
- iii) Use of glass shall be reduced up to 40% to reduce the electricity consumption and load on air conditioning. If necessary, high quality double glass with special reflecting coating shall be used in windows.

**10. Storm Water Drainage:**

- i) Storm water management around the site and on site shall be established by following the guidelines laid down by the storm water manual.
- ii) Storm water management plan shall be obtained by engaging the services of Anna University/IIT.

**11. Energy Conservation Measures:**

- i) Roof should meet prescriptive requirement as per Energy Conservation Building Code by using appropriate thermal insulation material, to fulfill the requirement.
- ii) Opaque wall should meet prescribed requirement as per Energy Conservation Building Code which is mandatory for all air conditioned spaces by use of appropriate thermal insulation material to fulfill the requirement.
- iii) All norms of Energy Conservation Building Code (ECBC) and National Building Code, 2005 as energy conservation have to be adopted Solar lights shall be provided for illumination of common areas.
- iv) Application of solar energy should be incorporated for illumination of common areas, lighting for gardens and street lighting. A hybrids system or fully solar system for a portion of the apartments shall be provided.
- v) A report on the energy conservation measures conforming to energy conservation norms prescribed by the Bureau of Energy Efficiency shall be prepared incorporating details about building materials & technology; R & U factors etc and submitted to the SEIAA in three month's time.

- vi) Energy conservation measures like installation of CFLs/TFLs for lighting the areas outside the building should be integral part of the project design and should be in place before project commissioning.

**12. Fire Safety:**

- i) Adequate fire protection equipments and rescue arrangements should be made as per the prescribed standards.
- ii) Proper and free approach road for fire-fighting vehicles upto the buildings and for rescue operations in the event of emergency shall be made.

**13. Green Belt Development:**

- i) The Project Proponent shall plant tree species with large potential for carbon capture in the proposed green belt area based on the recommendation of the Forest department well before the project is completed.
- ii) The proponent has to earmark the greenbelt area with dimension and GPS coordinates for the green belt area all along the boundary of the project site with at least 3 meter wide and the same shall be included in the layout out plan to be submitted for CMDA/DTCP approval.
- iii) The proponent shall develop the green belt as per the plan furnished and area earmarked for the greenbelt shall not be alter at any point of time for any other purpose.

**14. Sewage Treatment Plant:**

- i) The Sewage Treatment Plant (STP) installed should be certified by an independent expert/ reputed Academic institutions for its adequacy and a report in this regard should be submitted to the SEIAA, TN before the project is commissioned for operation. Explore the less power consuming systems viz baffle reactor, etc., for the treatment of sewage.
- ii) The Proponent shall install STP as furnished. Any alteration to satisfy the bathing quality shall be informed to SEIAA-TN.
- iii) The project proponent shall operate and maintain the Sewage Treatment Plant and Effluent treatment plant effectively to meet out the standards prescribed by the CPCB.
- iv) The project proponent shall continuously operate and maintain the Sewage treatment plant and Effluent treatment plant to achieve the standards prescribed by the CPCB.

- v) The project proponent has to ensure the complete recycling of treated Sewage & Effluent water after achieving the standards prescribed by the CPCB.
- vi) The project proponent has to provide separate standby D.G set for the STP/GWTP for the continuous operation of the STP/GWTP in case of power failure.

**15. Rain Water Harvesting:**

- i) The proponent shall ensure that roof rain water collected from the covered roof of the buildings, etc shall be harvested so as to ensure the maximum beneficiation of rain water harvesting by constructing adequate sumps so that 100% of the harvested water shall be reused.
- ii) Rain water harvesting for surface run-off, as per plan submitted should be implemented. Before recharging the surface run off, pre-treatment with screens, settlers etc. must be done to remove suspended matter, oil and grease, etc.
- iii) The Project Proponent has to provide adequate rain water harvesting pits as committed to recover and reuse the rain water during normal rains as reported.
- i) The project activity should not cause any disturbance & deterioration of the local bio diversity.

**16. Building Safety:**

Lightning arrester shall be properly designed and installed at top of the building and where ever is necessary.

**Part – D - Specific Conditions – Operational Phase/Post constructional phase/Entire life of the project:**

1. There should be Firefighting plan and all required safety plan.
2. Regular fire drills should be held to create awareness among owners/ residents.
3. Hazardous waste such as batteries, small electronics, CFL bulbs, expired medicines and used cleaning solvent bottles should be segregated at source, collected once in a month from residences and disposed as per the SWM Rules 2016.
4. The building should not spoil the green views and aesthetics of surroundings and should provide enough clean air space.
5. The Project proponent has to spend the CER as committed in the affidavit.
6. The EMP cost shall be deposited in a nationalized bank by opening separate account and the head wise expenses statement shall be submitted to TNPCB with a copy to SEIAA annually

7. The Project proponent shall get due permission from the wetland Authority before the commencement of the work, if applicable.
8. The Project proponent should discuss with the wet land Authority, Tamil Nadu Forest Department, PWD and support lake restoration cum improvement, awareness and conservation programs.
9. The project activities should in no way disturb the manmade structures.
10. The Proponent shall do afforestation/ restoration programme contemplated to strengthen the open spaces shall preferably include native species along with the financial forecast for planting and maintenance for 5 years.
11. Raw water quality to be checked for portability and if necessary RO plant shall be provided.
12. The ground water level and its quality should be monitored and recorded regularly in consultation with Ground Water Authority.
13. Treated effluent emanating from STP shall be recycled / reused to the maximum extent possible.
14. The Proponent shall operate STP continuously by providing stand by DG set in case of power failure.
15. It is the sole responsibility of the proponent that the treated sewage water disposed for green belt development/ avenue plantation should not pollute the soil/ ground water/ adjacent canals/ lakes/ ponds, etc
16. Adequate measures should be taken to prevent odour emanating from solid waste processing plant and STP.
17. The e - waste generated should be collected and disposed to a nearby authorized E-waste centre as per E- waste (Management & Handling), Rules 2016 as amended.
18. Diesel power generating sets proposed as source of back-up power 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.
19. The noise level shall be maintained as per MoEF/CPCB/TNPCB guidelines/norms both during day and night time.
20. Spent oil from D.G sets should be stored in HDPE drums in an isolated covered facility and disposed as per the Hazardous & other Wastes (Management & Transboundary

Movement) Rules 2016. Spent oil from D.G sets should be disposed off through registered recyclers.

21. The proponent shall ensure that storm water drain provided at the project site shall be maintained without choking or without causing stagnation and should also ensure that the storm water shall be properly disposed off in the natural drainage / channels without disrupting the adjacent public. Adequate harvesting of the storm water should also be ensured.
22. 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.
23. Failure to comply with any of the conditions mentioned above may result in withdrawal of this clearance and attract action under the provisions of the Environment (Protection) Act, 1986.
24. The Environmental Clearance is issued based on the documents furnished by the project proponent. In case any documents found to be incorrect/not in order at a later date the Environmental Clearance issued to the project will be deemed to be revoked/ cancelled.

#### **AFFIDAVIT FURNISHED BY THE PROPONENT**

I, Mr A Lakshminarayanan, Authorised Signatory represent M/s MKR Estate Developers Private Limited, 4th Floor, BNT Connections Building, No.126/36, Nelson Manickam Road, Aminjikarai, Chennai – 600029. We have proposed Construction of Railway Colony Development and commercial for Rail Land Development Authority (Staff Quarters with Integrated Commercial) at T.S.No. 810/1, Block No.38, Egmore Village, Egmore Taluk, Chennai District. An application submitted by us seeking Environmental Clearance under the EIA Notification, 2006 is under scrutiny in the Authority. I am furnishing the following undertaking to the Authority, hereby solemnly affirm and state as follows: -

We commit to SEIAA that the total freshwater requirement for our Commercial & Residential development is 297 KLD. The required water will be met through CMWSSB.

We commit to SEIAA that the Total quantity of sewage generated from the proposed project is 459 KLD which will be treated in the 490 & 120 KLD sewage treatment plant, out of which

436 kLD of treated water will be generated, out of which 222 kLD will be used for flushing, 25 kLD will be used Greenbelt & OSR and 189 kLD will be used for HVAC.

We commit to SEIAA that the Total Municipal Solid waste generated from the development will be 2430 Kg/day in which 972 Kg/day is Biodegradable waste, which will be treated in Organic waste Converter within the project site mixed with 50 Kg/day STP sludge and then used as manure for landscaping purpose within project site and 1458 Kg/day is Non-Biodegradable waste will be sold to recyclers.

We have allocated the CER fund of Rs. 340 Lakhs will be utilized for the following activities.

S. No.	CER Activity	Capital cost Allocation (in lakhs)	Action Plan
1	<p>Dr Ambedkar Govt Boys Higher Secondary School, Egmore – 0.78 km, E</p> <p>I. Green belt development in the school</p> <p>ii. Providing hygiene Toilets rooms for students</p> <p>iii. Providing Environmental related books in the school library</p> <p>iv. Infrastructure development works if any as per demand</p> <p>v. Building repair work as per school demand</p>	15	12 months from the commencement of construction
2	<p>Govt High School, Ottery – 1.47 km, N</p> <p>I. Green belt development in the school</p> <p>ii. Providing hygiene Toilets rooms for students</p> <p>iii. Providing Environmental related books in the school library</p> <p>iv. Infrastructure development works if any as per demand</p> <p>v. Building repair work as per school demand</p>	15	

3	Infrastructure facilities & Simulators for Skill development in Ashraya School (For Physically Challenged students)	50	
5	Govt. Institute for Mentally Retarded, Tambaram	260	
	<b>Total</b>	<b>340</b>	

The capital cost of Rs.340 Lakhs towards CER activities will be spent before applying CTO from TNPCB.

We will obtain IGBC Gold certificate before obtaining CTO from TNPCB.

#### **Environmental Management Cost- Operation Phase-Capital Cost**

S. No	Description	Quantity	Cost (Lakhs)
<b>1</b>	<b>Sewage Treatment Plant</b>		
	Civil	-	70
	Electrical & Mechanical	-	25
<b>2</b>	<b>Fresh water supply</b>	-	20
<b>3</b>	<b>Solid Waste Management</b>	-	5
<b>4</b>	<b>Greenbelt Development</b>		
	Seedings/ Plants	320	2
	Guards	320	3
	Establishing cost	---	5
<b>5</b>	<b>Energy Conservation measures</b>		
	i) Solar Street Lights	-	20
	ii) Installation Cost	-	5
<b>6</b>	<b>Rain water harvesting</b>		
	RWH Sumps & Storm water drains	-	6

	RWH recharge wells		5
7	Pond in OSR		10
	<b>Total</b>		<b>176</b>

### Environmental Management Cost- Operation Phase-Recurring Cost

S. No	Description	Qty	Cost (Lakhs)
<b>1</b>	<b>Sewage Treatment Plant</b>		
	Power consumption cost	12 KW x 22 hrs x 365 days	8
	Manpower cost	2 x 12 months	2
	Consumables / Chemicals	-	3
<b>2</b>	<b>Excess treated sewage disposal</b>	-	3
<b>2</b>	<b>Solid Waste Management</b>		
	Door to Door Collection-Garbage		8
	Maintenance		0.24
<b>3</b>	<b>Greenbelt development</b>		
	Gardener(1No for every 2500sqmts)	2 x 12 months	3
	Manure		0.5
<b>4</b>	<b>Rainwater harvesting</b>		
	Maintenance Staffs	2 x 12 months	1.6
<b>5</b>	<b>Energy Conservation</b>		
	Solar streetlights		8
<b>6</b>	<b>Environmental Monitoring</b>		
	Sampling-Sewage(once in a month)	12 samples	0.4

	Water - Once in a month (1 No x 12)	12 samples	0.4
	Air – Once in a month (1 No x 12)	12 samples	0.4
	Noise - Once in a month (5 No x 12)	60 samples	0.4
	Soil - Once in a month (1 No x 12)	12 samples	0.4
7	OSR Pond Maintenance		3
	<b>Total per Annum</b>		<b>42.34</b>

We assure that we are liable for the operation and maintenance of STP for a period of 10 years from the date of operation of the project.

We also assure that the storm water drain would not carry any untreated or treated sewage.

We also assure that our project site does not encroach any water bodies such as rivers, canals, nallas, lakes, ponds, tanks, etc., from its original boundary.

We also assure that no litigations are pending against the project.

I am aware that I can be prosecuted under relevant Act and Rules, if I am not ensuring the adherence of the above commitment.

Commitment signed by me as an Authorized signatory of the Project Proponent before the SEIAA, Tamil Nadu.

**Signature Not Verified**

Digitally Signed by : A R Rahul Nadh IAS  
Member Secretary, SEIAA

Date: 07/09/2024