Form - 1 -APPENDIX - I

(See paragraph – 6)

FORM 1

(I) Basic Information

Sr. No.	Item	Details		
1	Name of the project/s	**The Broadway**		
2	S. No. in the Schedule	8(B2) category		
3	Proposed capacity / area/ length/tonnage to be handled/ command area/lease area/ number of wells to be drilled.	**Total plot area**	**42,407.10**	**m^2**
		Deduction	**9,649.64**	**m^2**
		Net Plot area	**32,760.47**	**m^2**
		FSI area	**49,960.37**	**m^2**
		Non FSI area	**84,692.36**	**m^2**
		Total construction area	**1,34,652.73**	**m^2**
		Detailed area statement is attached as **Annexure I**		
4	New / Expansion / Modernization	New project		
5	Existing Capacity/ Area etc.	No		
6	Category of project i.e. A or B	B category		
7	Does it attract the general condition? if yes, please specify	Not Applicable		
8	Does it attract the specific condition? If yes, please specify	Not Applicable		
9	Location	Pune		
	Plot/Survey/ Khasra No.	Sr. No. 185, Wakad–Dange Chowk Road, Next to "Capricio" Building		
	Village	Wakad		
	Tehsil	Pune		
	District	Pune		
	State	Maharashtra		
10	Nearest railway station/port along with distance in kms.	Pune: 18.1 km		
11	Nearest Town, city, District Headquarters along with distance in kms.	Tinsel Town: 7.4 km Supreme Headquarters: 6.6 km		
12	Village Panchayat, ZillaParishad, Municipal Corporation, Local body(complete postal addresses with telephone no. to be given)	Pune municipal Corporation Office, Baner Rd, Baner, Baner Gaon, Baner, Pune, Maharashtra 411045, Phone no.: 020 2589 7982		
13	Name of the applicant	**Lavim Developers Private Limited**		
14	Registered address	Blue ridge, Near Cognizant, Hinjewadi Rajiv Gandhi Infotech Park, Phase 1, Hinjawadi, Pune-411057		
15	Address for correspondence:	Blue ridge, Near Cognizant, Hinjewadi Rajiv Gandhi Infotech Park, Phase 1, Hinjawadi, Pune-411057		
	Name	**Mr. Alok Nayak**		
	Designation(Owner/ Partner/ CEO)	DGM		
	Address	Blue ridge, Near Cognizant, Hinjewadi Rajiv Gandhi Infotech Park, Phase 1, Hinjawadi, Pune-411057		
	Pin code	411057		
	E-mail	alokn@pscl.in		
	Telephone No.			
	Fax No.			
16	Details of alternative sites examined, if any. Location of these sites should be shown on a toposheet.	Not Applicable		
17	Interlinked projects	Not Applicable		
18	Whether separate application of interlinked project has been submitted?	No		
19	If yes, date of submission	Not Applicable		
20	If No, Reason	Stand alone construction project		
21	Whether the proposal involves approval/clearance under: if ,yes details of the same and their status to be given The Forest (Conservation) Act, 1980? a) The wildlife (protection) Act, 1972? b) The CRZ Notification, 1991?	No		
22	Whether there is any Government Order/policy relevant/relating to the site?	No		
23	Forest land involved (hectares)	No forest land involved in proposed project site		
24	Whether there is any litigation pending against	No such litigation pending against the project		

	the project and/or land in which the project is propose to be set up? a) Name of the court b) Case No. c) Orders/ Directions of the court if any and its relevance with the proposed project.	

Capacity corresponding to sectoral activity (such as production capacity for manufacturing, mining lease area and production capacity for mineral production, area for mineral exploration, length for linear transport infrastructure, generation capacity for power generation etc.,)

(II) Activity

1. Construction, operation or decommissioning of the Project involving actions, which will cause physical changes in the locality (topography, land use, changes in water bodies, etc.)

Sr.No.	Information/Checklist confirmation	Yes/No	Details thereof (with approximate quantities /rates, wherever possible) with source of information data
1.1	Permanent or temporary change in land use, land cover or topography including increase in intensity of land use (with respect to local land use plan)	No	Land use is residential.
1.2	Clearance of existing land, vegetation and buildings?	No	No
1.3	Creation of new land uses?	No	Not Applicable
1.4	Pre-construction investigations e.g. bore houses, soil testing?	Yes	Soil sample taken within the plot premises for geotechnical investigation
1.5	Construction works?	No	
1.6	Demolition works?	No	
1.7	Temporary sites used for construction works or Housing of construction workers?	No	
1.8	Above ground buildings, structures or earthworks including linear structures, cut and fill or excavations	Yes	Total excavation quantity: 900 m^3
1.9	Underground works including mining or tunnelling?	No	Not Applicable
1.10	Reclamation works?	No	Not Applicable
1.11	Dredging?	No	Not Applicable
1.12	Offshore structures?	No	Not Applicable
1.13	Production and manufacturing processes?	No	Current Status : No Construction Stage : RMC plant, fly ash brick/ CLC plant only up to project completion
1.14	Facilities for storage of goods or materials?	Yes	Only construction material will be stored in temporary storage during construction stage.
1.15	Facilities for treatment or disposal of solid waste or liquid effluents?	No	Construction Stage: Septic Tank for labour colony, construction waste shall be reused. Operational Stage: Mechanical Composting and Sewage Treatment Plant.
1.16	Facilities for long term housing of operational workers?	No	Not Applicable
1.17	New road, rail or sea traffic during construction or operation?	No	Not Applicable
1.18	New road, rail, air waterborne or other transport infrastructure including new or altered routes and stations, ports, airports etc?	No	Existing road will be used for the transport purpose.
1.19	Closure or diversion of existing transport routes or infrastructure leading to changes in traffic movements?	No	Not Applicable
1.20	New or diverted transmission lines or pipelines?	No	Not Applicable
1.21	Impoundment, damming, culverting, realignment or other changes to the hydrology of watercourses or aquifers?	No	Not Applicable
1.22	Stream crossings?	No	Not Applicable

1.23	Abstraction or transfers of water from ground or surface waters?	No	
1.24	Changes in water bodies or the land surface affecting drainage or run-off?	No	There will not be any changes in water bodies or the land surface
1.25	Transport of personnel or materials for construction, operation or decommissioning?	Yes	Construction materials only.
1.26	Long-term dismantling or decommissioning or restoration works?	No	Not Applicable
1.27	Ongoing activity during decommissioning which could have an impact on the environment?	No	There will not be any negative impact on the Environment, as we would be taking appropriate measure to minimise the effects due to construction activity.
1.28	Influx of people to an area in either temporarily or permanently?	No	Only Construction workers will stay till completion of construction
1.29	Introduction of alien species?	No	Not Applicable
1.30	Loss of native species or genetic diversity?	No	Not Applicable
1.31	Any other actions?	No	Not Applicable

2. Use of Natural resources for construction or operation of the Project (such as land, water, materials or energy, especially any resources which are non-renewable or in short supply):

Sr.No.	Information/checklist confirmation	Yes/No	Details thereof (with approximate quantities /rates, wherever possible) with source of information data		
2.1	Land especially undeveloped or agricultural land (ha)	No	No undeveloped or Agricultural land will be used for construction		
2.2	Water (expected source & competing Users)	Yes	**Details**	**Quantity**	**Unit**
			Residential	405	**m^3/day**
			Commercial & Mhada	90	**m^3/day**
			Total	**495**	**m^3/day**
			Source of water: **Pimpri Chinchwad Municipal Corporation (PCMC)**		
2.3	Minerals (MT)	No	Not Applicable		
2.4	Construction material – stone, aggregates, sand / soil (expected source – MT)	Yes	Construction material like Stone, aggregates, sand shall be sourced from local area.		
2.5	Forests and timber (source – MT)	No	Not Applicable		
2.6	Energy including electricity and fuels (source, competing users) Unit: fuel (MT), energy (MW)	Yes	**Description**	**Power requirement**	**Unit**
			Maximum demand	**2,348**	**kVA**
			Connected load	**5,870**	**kVA**
2.7	Any other natural resources (use appropriate standard units)	No	**Not Applicable**		

3. Use, storage, transport, handling or production of substances or materials, which could be harmful to human health or the environment or raise concerns about actual or perceived risks to human health.

Sr.No.	Information/Checklist confirmation	Yes/No	Details thereof (with approximate quantities/rates, wherever possible) with source of information data
3.1	Use of substances or materials, which are hazardous (as per MSIHC rules) to human health or the environment (flora, fauna, and water supplies)	No	No hazardous material will be used for construction.
3.2	Changes in occurrence of disease or affect disease vectors (e.g. insect or water borne diseases)	No	Not Applicable
3.3	Affect the welfare of people e.g. by changing living conditions?	No	Not Applicable
3.4	Vulnerable groups of people who could be affected by the project e.g. hospital patients, children, the elderly etc.,	No	Not Applicable

3.5	Any other causes	No	Not Applicable

4. Production of solid wastes during construction or operation or decommissioning (MT/month)

Sr. No.	Information/ Checklist confirmation	Yes/No	Details thereof (with approximate quantities/rates, wherever possible) with source of information data		
4.1	Spoil, overburden or mine wastes	No	Not Applicable		
4.2	Municipal waste (domestic and or commercial wastes)	Yes	**Details**	**Quantity**	**Unit**
			Total (Residential + Commercial + MHADA)	**1,615**	**kg/day**
4.3	Hazardous wastes (as per Hazardous Waste Management Rules)	No	No hazardous waste will be generated.		
4.4	Other industrial process wastes	No	No, this is Residential project		
4.5	Surplus product	No	Not Applicable		
4.6	Sewage sludge or other sludge from effluent treatment	Yes	**4 kg/day**. Used as manure after drying.		
4.7	Construction or demolition wastes	Yes	As the project is following green building design and construction principles, Construction waste generated will be reused within the site.		
4.8	Redundant machinery or equipment	No	Not Applicable		
4.9	Contaminated soils or other materials	No	Not Applicable		
4.10	Agricultural wastes	No	Not Applicable		
4.11	Other solid wastes	No	Not Applicable		

5. Release of pollutants or any hazardous, toxic or noxious substances to air (kg/hr)

Sr.No.	Information/Checklist confirmation	Yes/No	Details thereof (with approximate quantities/rates, wherever possible) with source of information data
5.1	Emissions from combustion of fossil fuels from stationary or mobile sources	Yes	Usage of DG sets during power cut.
5.2	Emissions from production processes	No	Not Applicable
5.3	Emissions from materials handling including storage or transport	Yes	Fugitive emission from handling such as sand
5.4	Emissions from construction activities including plant and equipment	Yes	Transportation of construction material & usage of DG sets during power cut.
5.5	Dust or odours from handling of materials including construction materials, sewage and waste	Yes	Transportation, loading and unloading of material will generate dust.
5.6	Emissions from incineration of waste	No	Not Applicable
5.7	Emissions from burning of waste in open air (e.g. slash materials, construction debris)	No	Not Applicable
5.8	Emissions from any other sources	No	Not Applicable

6. Generation of Noise and Vibration, and Emissions of Light and Heat:

Sr.No.	Information/Checklist confirmation	Yes/No	Details thereof (with approximate quantities/rates, wherever possible) with source of information data with source of information data
6.1	From operation of equipment e.g. engines, ventilation plant, crushers	Yes	Construction Equipment, mixers, vehicles, etc.
6.2	From industrial or similar processes	No	Not Applicable
6.3	From construction or demolition	Yes	Construction Equipment, mixers, vehicles, etc.
6.4	From blasting or piling	No	Open Foundation
6.5	From construction or operational traffic	Yes	By movement of trucks for material & Ready Mix Concrete
6.6	From lighting or cooling systems	No	Not Applicable
6.7	From any other sources	No	Not Applicable

7. Risks of contamination of land or water from releases of pollutants into the ground or into sewers, surface waters, groundwater, coastal waters or the sea:

Sr.No.	Information/Checklist confirmation	Yes/No	Details thereof (with approximate quantities/rates, wherever possible) with source of information data
7.1	From handling, storage, use or spillage of hazardous materials	No	Not Applicable
7.2	From discharge of sewage or other effluents to water or the land (expected mode and place of discharge)	No	Composting using organic waste converter machine and Sewage Treatment Plant.
7.3	By deposition of pollutants emitted to air into the land or into water	No	Not Applicable
7.4	From any other sources	No	Not Applicable
7.5	Is there a risk of long term built up of pollutants in the environment from these sources?	No	Not Applicable

8. Risk of accidents during construction or operation of the Project, which could affect human health or the environment

Sr. No.	Information/Checklist confirmation	Yes/No	Details thereof (with approximate quantities/rates, wherever possible) with source of information data
8.1	From explosions, spillages, fires etc from storage, handling, use or production of hazardous substances	No	Not Applicable
8.2	From any other causes	No	Not Applicable
8.3	Could the project be affected by natural disasters causing environmental damage (e.g. floods, earthquakes, landslides, cloudburst etc)?	No	The proposed structure is designed as per Seismic Zone III standards.

9. Factors which should be considered (such as consequential development) which could lead to environmental effects or the potential for cumulative impacts with other existing or planned activities in the locality

Sr. No.	Information/Checklist confirmation	Yes/No	Details thereof (with approximate quantities/rates, wherever possible) with source of information data
9.1	Lead to development of supporting facilities, ancillary development or development stimulated by the project which could have impact on the environment e.g.: Supporting infrastructure (roads, power supply, waste or waste water treatment, etc.) •housing development •extractive industries •supply industries •other	No	Not Applicable
9.2	Lead to after-use of the site, which could have an impact on the environment	No	Not Applicable
9.3	Set a precedent for later developments	No	Not Applicable
9.4	Have cumulative effects due to proximity to other existing or planned projects with similar effects	No	Not Applicable

(III) Environmental Sensitivity

Sr.No.	Areas	Name/ Identity	Aerial distance (within 15 km.)Proposed project location boundary
1	Areas protected under international conventions, national or local legislation for their ecological, landscape, cultural or other related value	No	Not Applicable
2	Areas which are important or sensitive for ecological reasons -Wetlands, watercourses or other water bodies, coastal zone, biospheres, mountains, forests	Yes	Not Applicable
3	Areas used by protected, important or sensitive species of flora or fauna for breeding, nesting, foraging, resting, over wintering, migration	No	Not Applicable
4	Inland, coastal ,marine or underground waters	No	Not Applicable
5	State, National boundaries	No	Not Applicable
6	Routes or facilities used by the public for access to recreation or other tourist, pilgrim areas	No	Not Applicable
7	Defence installations	No	Not Applicable
8	Densely populated or built-up area	No	Not Applicable
9	Areas occupied by sensitive man-made land uses(hospitals, schools, places of worship, community facilities)	Yes	School
10	Areas containing important, high quality or scarce resources(ground water resources, surface resources, forestry, agriculture, fisheries, tourism, minerals)	No	Not Applicable
11	Areas already subjected to pollution or environmental damage. (those where existing legal environmental standards are exceeded)	No	Not Applicable
12	Areas susceptible to natural hazard which could cause the project to present environmental problems (earthquakes, subsidence, landslides, erosion, flooding or extreme or adverse climatic conditions)	No	Not Applicable

(IV) Proposed Terms of Reference for EIA studies

Not Applicable

I hereby given undertaking that the data & information given in the application & enclosures are true to the best of my knowledge & belief & I am aware that if any part of the data and information submitted is found to be false or misleading at any stage, the project will be rejected and clearance given, if any to the project will be revoked at our risk and cost.

Date: 28.11.2016

Mr. Alok Nayak
Lavim Developers Private Limited
Blue ridge, Near Cognizant, Hinjewadi Rajiv Gandhi Infotech Park, Phase 1,
Hinjawadi, Pune-411057

Place: Pune

With name & full address
(Project proponent/Authorised signatory)

NOTE:

1) **The projects involving clearance under Coastal Regulation Zone Notification, 1991 shall submit with the application a C.R.Z map duly demarcated by one of the authorized agencies, showing the project activities, w.r.t C.R.Z(at the stage of TOR) and the recommendations of the State Coastal Zone management Authority(at the stage of EC). Simultaneous action shall also be taken to obtain the requisite clearance under the provisions of the C.R.Z Notification, 1991 for the activities to be located in the CRZ.**

2) **The projects to be located within 10 km of the national Parks, Sanctuaries, Biosphere Reserves, Migratory Corridors of Wild Animals, the project proponent shall submit the map duly authenticated by Chief Wildlife Warden showing these features vis-a-vis the project location and the recommendations or comments of the chief Wildlife thereon.(at the stage of EC)**

3) **All correspondence with the ministry of Environment & Forests including submission of application for TOR/Environmental Clearance, subsequent clarifications as may be required from time to time, participation in the EAC meeting on behalf of the project proponent shall be made by the authorised signatory only. The authorised signatory should also submit a document in support of his claim of being an authorised signatory for the specific project.**

APPENDIX– II

(See paragraph 6)

FORM-1 A

(only for construction projects listed under item 8 of the Schedule)
CHECK LIST OF ENVIRONMENTAL IMPACTS
(Project proponents are required to provide full information and wherever necessary attach explanatory notes with the Form and submit along with proposed environmental management plan & monitoring programme)

1. LAND ENVIRONMENT

<table>
<tr><td colspan="3">(Attach panoramic view of the project site and the vicinity)</td></tr>
<tr><td>1.1</td><td>Will the existing land use get significantly altered from the project that is not consistent with the surroundings? (Proposed land use must conform to the approved Master Plan / Development Plan of the area. Change of land use if any and the statutory approval from the competent authority are submitted). Attach Maps of (i) site location,
(ii) surrounding features of the proposed site (within 500 meters) and (iii) the site (indicating levels & contours) to appropriate scales. If not available attach only conceptual plans.</td><td>There is no change of land use. Following documents are attached as supporting documents.
1. Layout plan Annexure II
2. Google image Annexure III</td></tr>
<tr><td>1.2</td><td>List out all the major project requirements in terms of the land area, built up area, water consumption, power requirement, connectivity, community facilities, parking needs, etc.</td><td>
<table>
<tr><td>Total plot area</td><td>42,407.10</td><td>m^2</td></tr>
<tr><td>Deduction</td><td>9,649.64</td><td>m^2</td></tr>
<tr><td>Net Plot area</td><td>32,760.47</td><td>m^2</td></tr>
<tr><td>FSI permissible</td><td>71861.26</td><td>m^2</td></tr>
<tr><td>FSI area</td><td>49,960.37</td><td>m^2</td></tr>
<tr><td>Non FSI area</td><td>84,692.36</td><td>m^2</td></tr>
<tr><td>Total construction area</td><td>1,34,652.73</td><td>m^2</td></tr>
<tr><td colspan="3">Water consumption</td></tr>
<tr><td>Details</td><td>Quantity</td><td>Unit</td></tr>
<tr><td>Residential, Commercial & MHADA</td><td>495</td><td>m^3/day</td></tr>
<tr><td colspan="3">Energy Requirement</td></tr>
<tr><td>Description</td><td>Power requirement</td><td>Unit</td></tr>
<tr><td>Demand Load</td><td>2,348</td><td>kVA</td></tr>
<tr><td colspan="3">Parking details
<table>
<tr><th>Sr. No.</th><th>Type</th><th>Applicable no of parking As per DCR</th><th>Provided parking</th></tr>
<tr><td>1.</td><td>2 Wheeler</td><td>1,672</td><td>1,672</td></tr>
<tr><td>2.</td><td>4 Wheeler</td><td>556</td><td>822</td></tr>
<tr><td>3.</td><td>Cycles</td><td>1,445</td><td>1,445</td></tr>
</table></td></tr>
<tr><td>Connectivity</td><td colspan="2">Proposed site is accessible by –
Location plan is attached as Annexure III</td></tr>
</table>
</td></tr>
<tr><td>1.3</td><td>What are the likely impacts of the proposed activity on the existing facilities adjacent to the proposed site? (Such as open spaces, community facilities, details of the existing land use, disturbance to the local ecology).</td><td>The project being a well-planned activity will result in organized open spaces and green areas. The biodiversity in the area will increase due to proposed green areas.
Community cum recreational facilities will be developed hence no stress on the existing facility is anticipated.</td></tr>
</table>

1.4.	Will there be any significant land disturbance resulting in erosion, subsidence & instability? (Details of soil type, slope analysis, vulnerability to subsidence, seismicity etc may be given).	Subsidence is not anticipated as ground water would not be used as a source of water supply. As per seismic-zoning map of India, the project site falls under zone III. Structural design requirements will be as per zone III.
1.5	Will the proposal involve alteration of natural drainage systems? (Give details on a contour map showing the natural drainage near the proposed project site)	The proposed development is planned in such a manner that it will not alter the natural drainage pattern of the area.
1.6	What are the quantities of earthwork involved in the construction activity-cutting, filling, reclamation etc. (Give details of the quantities of earthwork involved, transport of fill materials from outside the site, etc.)	Plot doesn't require any cutting however, excavated material from foundation shall be used for plinth & plot filling in same area.
1.7	Give details regarding water supply, waste handling etc during the construction period.	**Supply Source:** Water for Construction purpose will be sourced from Tanker and bore well **Waste Handling:** Sanitation facilities like toilet blocks and bathrooms will be provided for the construction workers and site staff and the sewage shall be connected to a STP.
1.8	Will the low lying areas & wetlands get altered? (Provide details of how low lying and wetlands are getting modified from the proposed activity)	No wet lands and low-lying areas on the site.
1.9	Whether construction debris & waste during construction cause health hazard? (Give quantities of various types of wastes generated during construction including the construction labour and the means of disposal)	No health hazard. Minor quantity of construction debris will be generated and utilised within the site.

2. WATER ENVIRONMENT

<table>
<tr><td>2.1</td><td>Give the total quantity of water requirement for the proposed project with the breakup of requirements for various uses. How will the water requirement met?
State the sources & quantities and furnish a water balance statement.</td><td>Detailed water utilization chart Enclosed as Annexure IV</td></tr>
<tr><td>2.2</td><td>What is the capacity (dependable flow or yield) of the proposed source of water?</td><td>The proposed water demand will be met from Pimpri Chinchwad Municipal Corporation (PCMC)</td></tr>
<tr><td>2.3</td><td>What is the quality of water required, in case, the supply is not from a municipal source? (Provide physical, chemical, biological characteristics with class of water quality)</td><td>
<table>
<tr><th>Sr. No.</th><th>Parameters (As per IS 10500)</th><th>Unit</th><th>Limits</th></tr>
<tr><td>1.</td><td>pH</td><td>-</td><td>6.5-8.5</td></tr>
<tr><td>2.</td><td>Colour (units on Platinum Cobalt scale)</td><td>-</td><td>5</td></tr>
<tr><td>3.</td><td>Odour</td><td>-</td><td>Unobjectionable</td></tr>
<tr><td>4.</td><td>Turbidity</td><td>NTU</td><td>5</td></tr>
<tr><td>5.</td><td>Total Hardness (as $CaCO_3$)</td><td>mg/l</td><td>300</td></tr>
<tr><td>6.</td><td>Chlorides</td><td>mg/l</td><td>250</td></tr>
<tr><td>7.</td><td>Sulphates</td><td>mg/l</td><td>200</td></tr>
<tr><td>8.</td><td>Fluorides</td><td>mg/l</td><td>1</td></tr>
<tr><td>9.</td><td>Nitrates</td><td>mg/l</td><td>45</td></tr>
<tr><td>10.</td><td>Lead</td><td>mg/l</td><td>0.05</td></tr>
<tr><td>11.</td><td>Arsenic</td><td>mg/l</td><td>0.05</td></tr>
<tr><td>12.</td><td>Cadmium</td><td>mg/l</td><td>0.01</td></tr>
</table>
</td></tr>
<tr><td>2.4</td><td>How much of the water requirement can be met from the recycling of treated</td><td>Treated water will be used for toilet flushing, Gardening, vehicle washing.</td></tr>
</table>

<table>
<tr><td></td><td>wastewater? (Give the details of quantities, sources and usage)</td><td colspan="3"><table>
<tr><td>Total STP capacity</td><td>450</td><td>m^3/day</td></tr>
<tr><td>Total water requirement</td><td>495</td><td>m^3/day</td></tr>
<tr><td>Domestic water requirement</td><td>331</td><td>m^3/day</td></tr>
<tr><td>Flushing water</td><td>331</td><td>m^3/day</td></tr>
<tr><td>Sewage Generation</td><td>396</td><td>m^3/day</td></tr>
<tr><td>Treated water from STP</td><td>388</td><td>m^3/day</td></tr>
<tr><td>Treated water used for Landscape</td><td>44</td><td>m^3/day</td></tr>
<tr><td>Treated water used for vehicle washing</td><td>20</td><td>m^3/day</td></tr>
</table></td></tr>
<tr><td>2.5</td><td>Will there be diversion of water from other users? (Please assess the impacts of the project on other existing uses and quantities of consumption)</td><td colspan="3">NA</td></tr>
<tr><td>2.6</td><td>What is the incremental pollution load from wastewater generated from the proposed activity? (Give details of the quantities and composition of wastewater generated from the proposed activity)</td><td colspan="3">Sewage Generation: 396 m^3/day will be generated from the proposed Housing project. The composition of waste water is given in the table indicating the quality of raw waste water before treatment
<table>
<tr><th>Parameters</th><th>Raw sewage</th><th>Treated sewage</th><th>Units</th></tr>
<tr><td>pH</td><td>6 to 8.5</td><td>7-7.5</td><td>mg/l</td></tr>
<tr><td>BOD 3 days at 27°C</td><td>250-400</td><td><10</td><td>mg/l</td></tr>
<tr><td>COD</td><td>400-850</td><td><30</td><td>mg/l</td></tr>
<tr><td>O & G</td><td>25</td><td>Nil</td><td>mg/l</td></tr>
<tr><td>TSS</td><td>250</td><td><10</td><td>mg/l</td></tr>
</table>Mitigation measures: Domestic Effluent will be treated in Sewage Treatment plant of capacity 450 m^3/day The treated sewage water will be reused for flushing, gardening, vehicle washing etc.</td></tr>
<tr><td>2.7</td><td>Give details of the water requirements met from water harvesting? Furnish details of the facilities created.</td><td colspan="3">The project activity shall have rainwater harvesting only of rainfall on terraces. Recharge pits are provided for each building for groundwater recharge mechanism.</td></tr>
<tr><td>2.8.</td><td>What would be the impact of the land use changes occurring due to the proposed project on the runoff characteristics (quantitative as well as qualitative) of the area in the post construction phase on a long term basis? Would it aggravate the problems of flooding or water logging in any way?</td><td colspan="3">Proposed development is in line with the approval of town planning authority.
The project will have proper storm water drainage facility. So there will be no problem of water logging due to this project.</td></tr>
<tr><td>2.9</td><td>What are the impacts of the proposal on the ground water? (Will there be tapping of ground water; give the details of ground water table, recharging capacity, and approvals obtained from competent authority, if any)</td><td colspan="3">Water demand for the construction as well as operational phase will be met from PCMC.
Rainwater harvesting scheme will be practiced for groundwater recharge, which will have a positive impact on the ground water table.</td></tr>
<tr><td>2.10</td><td>What precautions/measures are taken to prevent the run-off from construction activities polluting land & aquifers? (Give details of quantities and the measures taken to avoid the adverse impacts)</td><td colspan="3">The Following control measures have been proposed to check the surface run-off, as well as uncontrolled flow of water from the construction site:
Avoid excavation during monsoon season.
Rainwater harvesting.
Sedimentation trench all along the periphery of plot to prevent surface runoff.
Reduce and filter surface runoff.</td></tr>
</table>

2.11	How is the storm water from within the site managed?(State the provisions made to avoid flooding of the area, details of the drainage facilities provided along with a site layout indication contour levels)	• Rainwater harvesting using recharge pits. • Sedimentation trench all along the periphery of plot to prevent surface runoff.
2.12	Will the deployment of construction labourers particularly in the peak period lead to unsanitary conditions around the project site (Justify with proper explanation)	No, the deployment of construction labourers will not lead to any unsanitary condition. The construction labourers will be provided with temporary shelter shades & adequate sanitation facilities within the project premises.
2.13	What on-site facilities are provided for the collection, treatment & safe disposal of sewage? (Give details of the quantities of wastewater generation, treatment capacities with technology & facilities for recycling and disposal)	The Sewage Treatment Plant (STP) is designed to treat the raw waste water generated from Residential building. **Sewage Generation: 396 m^3/day** **Total STP capacity: 450 m^3/day** STP details are attached as **Annexure V**
2.14	Give details of dual plumbing system if treated waste used is used for flushing of toilets or any other use.	Treated water will be used for flushing, gardening & vehicle washing.

3. VEGETATION

3.1	Is there any threat of the project to the biodiversity? (Give a description of the local ecosystem with its unique features, if any)	There is no sensitive ecosystem present at site that will be disturbed by the project.
3.2	Will the construction involve extensive clearing or modification of vegetation? (Provide a detailed account of the trees & vegetation affected by the project)	No, there is no extensive modification of vegetation. **No. of Trees existing on site: NA** **No. of Proposed trees: 576 No.** **Total No. of Trees at completion of project: 576 No.**
3.3	What are the measures proposed to be taken to minimize the likely impacts on important site features (Give details of proposal for tree plantation, landscaping, creation of water bodies etc along with a layout plan to an appropriate scale)	Total of **7,376.33 m^2** on ground is provided for the development of landscape in the premises. The green belt will be developed for control of pollution, aesthetic view and recreational activities of the complex.

4. FAUNA

4.1	Is there likely to be any displacement of fauna- both terrestrial and aquatic or creation of barriers for their movement? Provide the details.	No. The proposed site and its surroundings do not support any habitat for any group of wild animals.
4.2	Any direct or indirect impacts on the avifauna of the area? Provide details.	No. There will be no direct or indirect impact on the avifauna of the area.
4.3	Prescribe measures such as corridors, fish ladders etc. to mitigate adverse impacts on fauna	The proposed project would not have any adverse impact on fauna.

5. AIR ENVIRONMENT

5.1	Will the project increase atmospheric concentration of gases & result in heat islands? (Give details of background air quality levels with predicted values based on dispersion models taking into account the increased traffic generation as a result of the proposed constructions)	The project will result in negligible increase in the atmospheric concentrations of gases due to D.G. operations (back up power only) and the increased traffic. The proposed activity will not result in the formation of any heat islands, as it does not involve any significant change in the land use pattern or the concreting of areas. However, we will try to reduce the heat island effect by providing heat reflective paints on the building roofs
5.2	What are the impacts on generation of dust, smoke, odorous fumes or other hazardous gases? Give details in relation to all the meteorological parameters.	Diesel generator sets operated for back-up power supply are identified as the only major sources of gaseous and particulate emission. Impact of vehicular is not significant. SO_2, SPM, NO_X and CO emissions are expected due to fuel combustion in generator sets.
5.3	Will the proposal create shortage of parking space for vehicles? Furnish details of the present level of transport infrastructure and measures proposed for improvement including the traffic management at the entry & exit to the project site.	**Sr. No. / Type / Applicable no of parking As per DCR / Provided parking** **1. 2 Wheeler 1,672 1,672** **2. 4 Wheeler 556 822** **3. Cycles 1,445 1,445**
5.4	Provide details of the movement patterns with internal roads, bicycle tracks, pedestrian pathways, footpaths etc., with areas under each category.	Internal roads, footpaths/ pedestrian pathways have been planned within the proposed complex
5.5	Will there be significant increase in traffic noise & vibrations? Give details of the sources and the measures proposed for mitigation of the above.	Considering the addition of vehicles due to the proposed project with the existing roads and vehicles plying on them, there will be marginal increase in the noise levels but will not result in an impact.
5.6	What will be the impact of DG sets & other equipment on noise levels & vibration in & ambient air quality around the project site? Provide details.	DG set will be used in construction and operation phase only in case of power failure. The DG Sets shall be as per the guide lines laid down by EPR for specific noise emission standards. Measures shall be taken for reduction of noise by using acoustic enclosures. Noise emissions are expected from various construction equipment and machinery but will not result in an impact.

6. AESTHETICS

6.1	Will the proposed constructions in any way result in the obstruction of a view, scenic amenity or landscapes? Are these considerations taken into account by the proponents?	The proposed land use of the site would be mainly residential and will not result in obstruction of view, scenic amenity or landscape. However, the buildings will be planned in such a way that the organised open areas and landscaped areas are at the centre so that all can enjoy the green areas.
6.2	Will there be any adverse impacts from new constructions on the existing structures? What are the considerations taken into account?	No, at present there are no structures on the plot.
6.3	Whether there are any local considerations of urban form & urban design influencing the design criteria? They may be explicitly spelt out.	The project has been designed as per the town planning authority (B & C class building regulations), Government of Maharashtra.
6.4	Are there any anthropological or archaeological sites or artefacts nearby? State if any other significant features in the vicinity of the proposed site have been considered.	No anthropological or archaeological sites or artefacts are found near the site area.

7. SOCIO-ECONOMIC ASPECTS

7.1	Will the proposal result in any changes to the demographic structure of local population? Provide the details.	No. Majority of the labour will be recruited locally and minimal skilled workers would be from outside, which is anticipated to be very small and will not alter the existing demographic profile of the area.
7.2	Give details of the existing social infrastructure around the proposed project.	The Existing social infrastructure around the proposed project consists of schools & college
7.3	Will the project cause adverse effects on local communities, disturbance to sacred sites or other cultural values?	No. The project will have positive impact on local communities.

	What are the safeguards proposed?	

8. BUILDING MATERIALS

8.1	May involve the use of building materials with high-embodied energy. Are the construction materials produced with energy efficient processes? (Give details of energy conservation measures in the selection of building materials and their energy efficiency)	As the developed project shall be a green building; material used shall be from energy efficient source, locally procured and also 50% of material by cost will have a minimum 10% recycle content.
8.2	Transport and handling of materials during construction may result in pollution, noise & public nuisance. What measures are taken to minimize the impacts?	Adequate mitigation measures will be adopted. Construction equipment with idling control technologies will be used. Regular maintenance of the equipment will be carried out. The workers exposed to high noise generating would be provided with earplugs, earmuffs as per Environmental Management Plan.
8.3	Are recycled materials used in roads and structures? State the extent of savings achieved?	Fly ash in cement concrete. Typically 20- 25 % of cement is substituted with fly ash.
8.4	Give details of the methods of collection, segregation & disposal of the garbage generated during the operation phases of the project.	The bio-degradable and non-bio degradable waste will be segregated at source of waste generation. **Solid waste generated will be 1,615 kg/day**

Wet quantity 60%	976.55	kg/day
Dry quantity 34%	637.75	kg/day
Inert waste given outside (7%)	0.73	kg/day
Total	**1,615**	**kg/day**

9. ENERGY CONSERVATION

9.1	Give details of the power requirements, source of supply, backup source etc. What is the energy consumption assumed per square foot of built-up area? How have you tried to minimize energy consumption?	Power requirement for residential **5,870 kVA** (Connected Load) Source of power supply: MSEDCL DG Set will be provided as emergency backup. Energy efficient building envelope & roof assembly will be provided to minimise energy consumption.
9.2	What type of, and capacity of, power back-up to you plan to provide?	DG Set will be provided as emergency backup for lighting in common areas. **No. of DG sets = 3** **DG set Capacity is: 320 kVA (2 no.) × 250 kVA (1 no.)**
9.3	What are the characteristics of the glass you plan to use? Provide specifications of its characteristics related to both short wave and long wave radiation?	Plain float glass
9.4	What passive solar architectural features are being used in the building? Illustrate the applications made in the proposed project.	The building structure will be designed in such a way that we are encouraging maximum day light. Being a green building we will ensure that all the regularly occupied spaces shall meet maximum Daylight
9.5	Does the layout of streets & buildings maximise the potential for solar energy devices? Have you considered the use of street lighting, emergency lighting and solar hot water systems for use in the building complex? Substantiate with details.	Being an affordable housing scheme, solar energy devices are not proposed.
9.6	Is shading effectively used to reduce cooling/heating loads? What principles have been used to maximize the shading of Walls on the East and the West and the Roof? How much energy saving has been effected?	Yes. To reduce heating load effectively, we are providing energy efficient envelope which includes wall & Roof assembly. In addition, we also have provided chajjas for shading purpose.

9.7	Do the structures use energy-efficient space conditioning, lighting and mechanical systems? Provide technical details. Provide details of the transformers and motor efficiencies, lighting intensity and air-conditioning load assumptions? Are you using CFC and HCFC free chillers? Provide specifications.	We are not using Air-conditioning in the any spaces designed in the project. Minimum Pump efficiency : 60 % Minimum Motor efficiency : 60 %		
9.8.	What are the likely effects of the building activity in altering the micro-climates? Provide a self-assessment on the likely impacts of the proposed construction on creation of heat island & inversion effects?	As the proposed project shall be developed as a green building. we will ensure following measures; which would not alter micro climate We are providing energy efficient envelope which includes wall & Roof assembly. In addition to reduce heat island effect, we also shall provide heat reflective paints.		
9.9.	What are the thermal characteristics of the building envelope? (a) roof; (b) external walls; and (c) fenestration? Give details of the material used and the U-values or the R values of the individual components.	U value in Watts/hr/m^2/^oC		
		Roof	1.2	Watts/hr/m^2/^oC
		Wall	1.8	Watts/hr/m^2/^oC
9.10	What precautions & safety measures are proposed against fire hazards? Furnish details of emergency plans.	The building envelope is fire resistant. Proper signages shall be installed for safe evacuation of the residents		
9.11	If you are using glass as wall material provides details and specifications including emissivity and thermal characteristics.	Not Applicable		
9.12	What is the rate of air infiltration into the building? Provide details of how you are mitigating the effects of infiltration.	The following measures will be adopted to mitigate the effects of infiltration: • Aluminium/ MS/ uPVC windows with rubber gasket, so that the windows are sealed, will be provided.		
9.13	To what extent the non-conventional energy technologies are utilised in the overall energy consumption? Provide details of the renewable energy technologies used.	Renewable energy technologies are not proposed for this project.		

10. Environment Management Plan

	The Environment Management Plan would consist of all mitigation measures for each item wise activity to be undertaken during the construction, operation and the entire life cycle to minimize adverse environmental impacts as a result of the activities of the project. It would also delineate the environmental monitoring plan for compliance of various environmental regulations. It will state the steps to be taken in case of emergency such as accidents at the site including fire.	Enclosed as **Annexure VI**

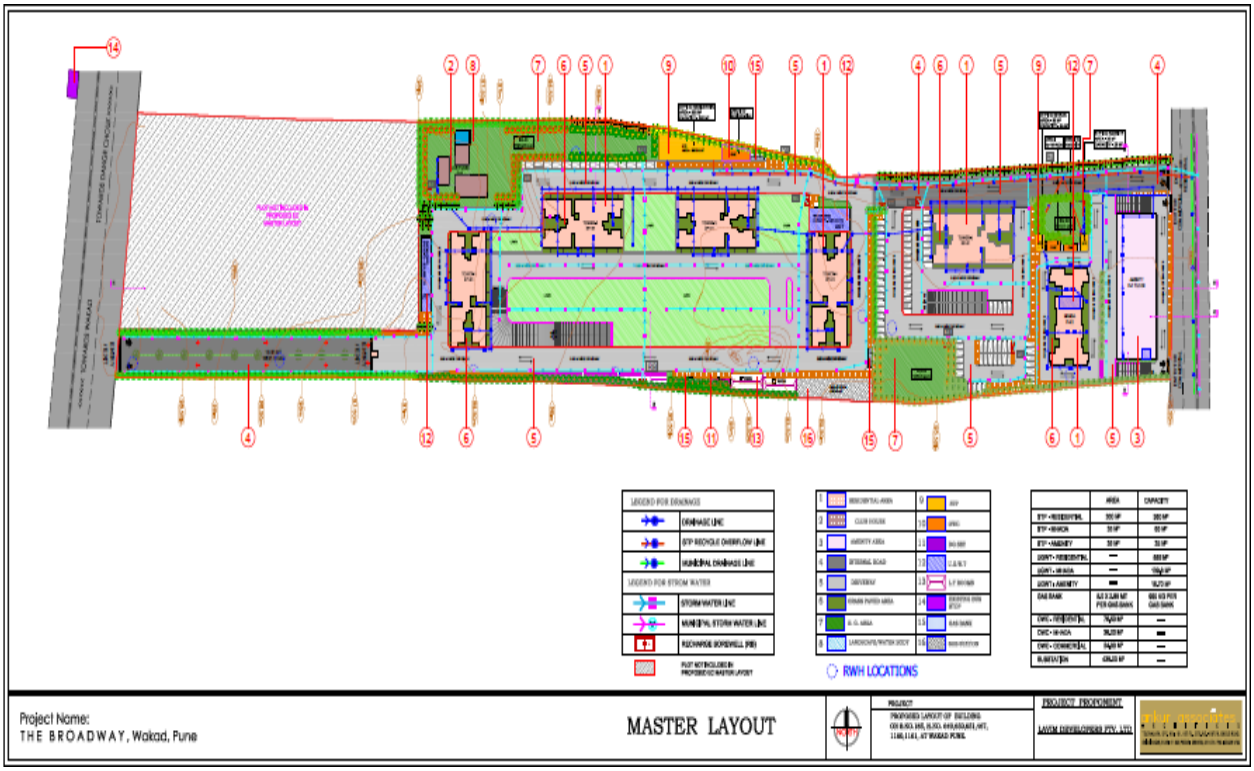
Annexure I
Area Statement

Details	Area	Unit
Total plot area	**42,407.10**	**m^2**
Deduction	**9,649.64**	**m^2**
Net Plot area	**32,760.47**	**m^2**
FSI permissible	**71861.26**	**m^2**
FSI area	**49,960.37**	**m^2**
Non FSI area	**84,692.36**	**m^2**
Total construction area	**1,34,652.73**	**m^2**
Garden area	**7,376.33**	**m^2**
Parking area	**33,760.00**	**m^2**

Building details

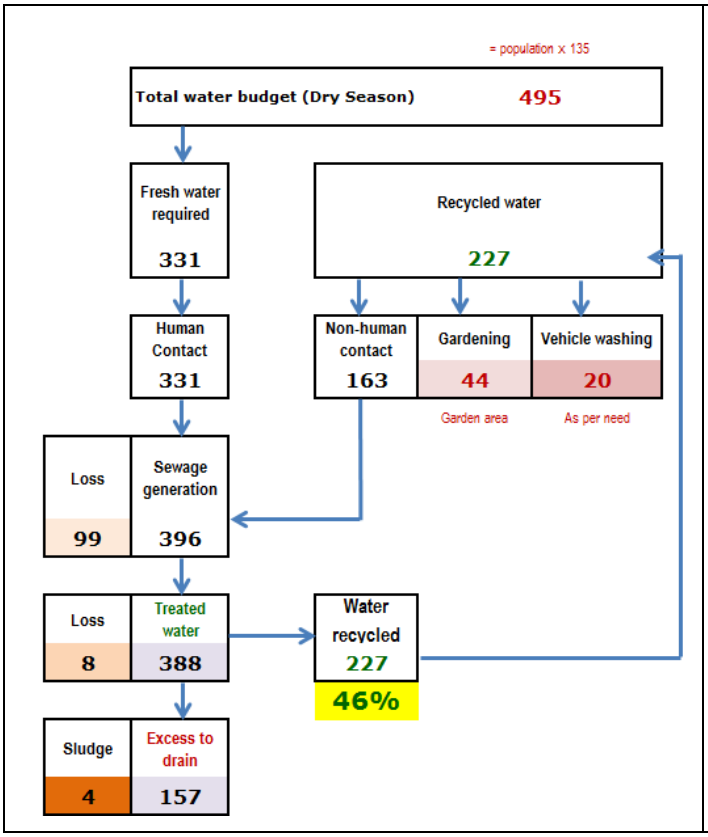
Details	Buildings	Tenements (no.)	Population (no.)	Height (m)
Tower 1(2P+21)	1	114	570	69.90
Tower 2 (2P+21)	1	114	570	69.90
Tower 3 (2P+21)	1	114	570	69.90
Tower 4 (2P+21)	1	114	570	69.90
Tower 5 (2P+21)	1	114	570	69.90
Commercial P+7 (In Amenity Space)	1	Shops:24, Office:10	550	26.40
MHADA Tower 6 (P+12)	1	96	480	44.71
Total		**666**	**3,880**	

Annexure II
Layout plan



Annexure III
Google image

Annexure IV
Water Utilization details



	Dry Season	Wet Season
Total water budget	495	495
Fresh water requirement	331	331
Human contact	331	331
Non-human contact	163	163
Gardening	44	22
Vehicle washing	20	20
Losses (total) & sludge	111	111
Sewage generation	396	396
Treated water	388	388
Water recycled	227	205
Excess to drain	157	179
% recycled	46	41

Rounded off to Integer values

Annexure V
Moving Bed Bio Reactor (MBBR)

Calculation for STP Capacity:

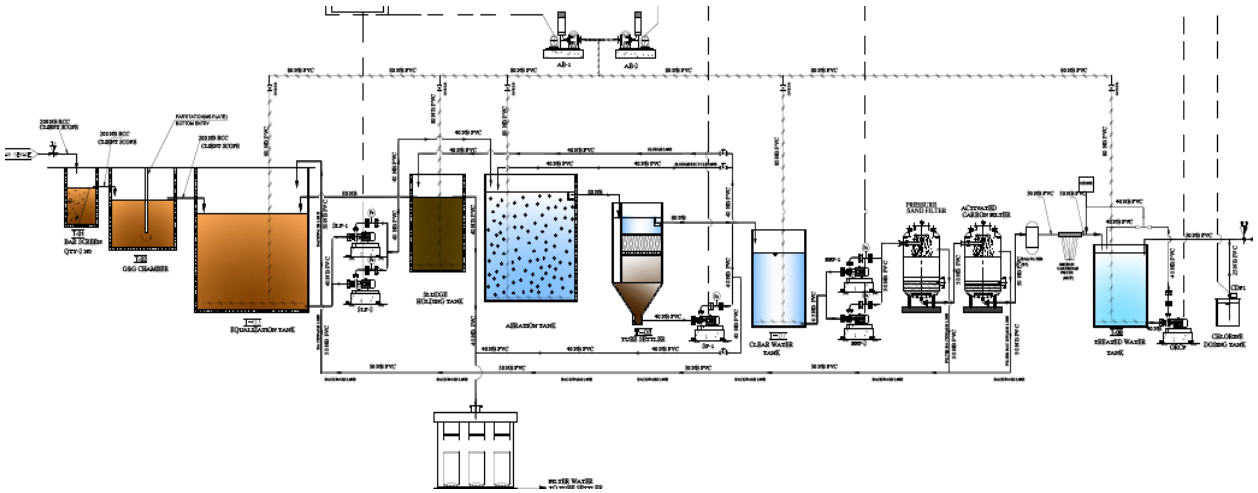
Total estimated population = **3,880 person**

Total water demand = **495 m^3/day**

Total sewage generation = **396 m^3/day**

The STP was designed for **450 m^3/day**

STP technology used in this project is moving bed Bio reactor (MBBR)



The expected characteristics of raw sewage and treated sewage are given below

Parameters	Raw Sewage	Treated Sewage
pH	7-8	7-8
Suspended Solids	200	BDL
BOD	300	<10 mg/l
COD	450	50 mg/l
Oil & Grease	10-20	<5 mg/l

MBBR Bioreactors: The MBBR Aeration tanks are located next to each other. Each of the tanks will be provided with aeration pipelines at the bottom, which will be in stainless steel and are manifold to cover half the periphery of the tank. Aeration tank is filled with a specific quantity of the bio-media, which is made of plastic material with a specific gravity just below that of water, to enable it to remain in suspension. The inlet of the aeration tank is on the top with the sewage falling freely into the MBBR tank. The outlet is located on the opposite side, which has a perforated Screen mounted on it, which prevents the bio-media from flowing out of the MBBR Tank. Both compartments are connected to each other by a fabricated channel, which has perforated sheets on each side. The outlet of the second MBBR is connected to the Tube Settler Unit.

Tube Settler Unit: Sewage from aeration tank along with biological stabilized solids will flow by gravity to the Compact Tube Settler Unit. The separation of solid from sewage is achieved by laminar flow developed between the tubes. Due to this, heavier solids slide down along the inside of the tubes, whereas the clear water rises up and flows out. The sludge settling at the bottom of

the tanks will be transferred from time to time to the sludge-holding tank. The clear water from the settling tank will overflow into the Filter Feed Tank.

Aeration System: The Aeration System consists of 2 air blowers. One Blower will be on duty while the other will be on standby. The Blowers will be used for aeration inside the MBBR.

Filtration System: This consists of a Pressure Multimedia Filter and Activated Carbon filter that removes any remaining suspended solids and odour in the treated water so as to ensure its total conformance with the discharge standards set by the regulatory authorities and reuse of water. The Filter is to be backwashed at pre-set intervals with water from the Treated Water tank.

Disinfection System: The Disinfection System, which comprises of a dosing system, ensures complete removal of any remaining harmful organisms in the water. The water flowing into the Polishing Filter Feed Tank is dosed with an oxidant above and then allowed to remain in the tank for a predetermined time so that there is enough contact time for the oxidant to totally disinfect the water.

Sludge: The excess sludge is pumped to the sludge tank from where de-slugging is to be done once every 3 to 6 months (depending on load factors) by pumping out to tankers and disposal engaging corporation private agencies.

Annexure VI
Environmental Management Plan during Construction Phase

Sr. No.	Environmental Components	Predicted Impacts	Probable source of Impact	Mitigation Measures	Remarks
			CONSTRUCTION PHASE		
1.	Ambient Air Quality	Negative impact inside construction site premises. No negative impact outside site.	Dust emissions from excavation, air emissions from machinery and other construction activities at site.	Dust reduction measures such as road watering. Periodic maintenance of construction equipment. Use of good quality fuels. Use of Personal Protective Equipments	Impacts are temporary during construction phase. Impacts will be confined to short distances, as coarse particles will settle within the short distance from activities.
2.	Noise	Negative impact near noise generation sources inside premises. No significant impact onambient noise levels in the surrounding area.	Noise generated from construction activities and operation of construction equipment and DG sets	Use of well maintained equipment. Heavy construction activity limited to day- time hours only. Use of noise mufflers in and construction vehicle Use of earplugs/muffs by construction staff.	Temporary impacts during construction phase. No blasting or other high noise activities envisaged.
3.	Water	No significant negative impact.	Surface runoff from project site. Oil/fuel and waste spills. Improper debris disposal. Discharge of sewage from labour camp.	Silt fences to reduce run-off Secondary containment and dykes in material storage areas. Sewage treatment in septic tanks.	Labour will be employed to reduce size of labour camps. No perennial surface water resource adjacent to site. No excavation work will be
4.	Land	Minor negative impact	Excavation, Construction debris, waste from labour camp.	Reutilization and recycling of construction debris Waste from labour camps will be collected and composted on site. Non compostable waste will be transported to landfill site. Topsoil will be conserved and used for landscaping in functional phase.	-
5.	Aesthetics	Minor negative impacts	Construction activities and Excavation	The impacts will be compensated by extensive tree plantation and gardening in the use phase.	Short term impact restricted only in the initial stages of construction.

Environmental Management Plan during Functional Phase

Sr. No.	Environmental Components	Predicted Impacts	Probable Source of Impact	Mitigation Measures	Remarks
			FUNCTIONAL PHASE		
1.	Ambient Air Quality	Minor Negative impact	Particulate and gaseous emissions from DG sets and vehicle movement	Use of low sulphur good fuel Periodic maintenance of DG sets Use of CNG/LPG as a fuel should be encouraged.	No DG sets will be used.
2.	Noise	Minor negative impact inside premises.	Noise from vehicle movement and operation of diesel generator sets during power failure.	Housing of DG sets in buildings with appropriate acoustics. Traffic management measures to reduce noise Appropriate trees which will act as noises barriers will be planted in the premises and along roadside.	--
3.	Water	No significant adverse impact	Oil/ fuel and waste spills in vehicle parking area. Discharge of sewage. Discharge of contaminated storm water	Sewage water will be treated and recycled. Rainwater harvesting and recharge of groundwater aquifer is proposed. Good housekeeping and storm water management will be followed.	Recycled water will be used for gardening and flushing purpose.
4.	Land	No negative impact	Storage and disposal of solid wastes. Discharge of sewage. Fuel and material spills.	Treatment and reuse of sewage water. Integrated waste management and spill control plan. Dry garbage will be sent for recycling and wet garbage will be composted.	Segregation of dry and wet garbage before will be done before disposal.
5.	Biological	Overall Positive impact	Habitat disturbance	Green spaces inside the premises will help to compensate the earlier effect from vegetation. Landscaping and extensive plantation in the premises.	Landscaping will help in reducing any adverse impacts on air and noise quality.
6.	Socio-economic	Overall positive impact	Increased job opportunity in household maintenance and ancillary services.	--	Positive and long term impact-
FUNCTIONAL PHASE					
7.	Traffic Pattern	No significant Impact	The complex is likely to add moderately to the traffic flow considered during peak hour.	Traffic Management practises will be employed. Adequate parking space will be provided in the premises.	