

**APPENDIX - I**  
(See paragraph – 6)  
**FORM 1**

**(I) Basic Information**

Sr.	Item	Details			
1.	Name of Project/s	Proposed Residential Project Madhukosh			
2.	S. No. in the Schedule	4/2 (p), 14/4B (P), 16, 17(P)			
3.	Proposed capacity/ area/ length/ tonnage to be handled/ command area/ lease area/ number of wells to be drilled	<b>Details</b>	<b>Sanctioned as per EC (m<sup>2</sup>)</b>	<b>Amendment (m<sup>2</sup>)</b>	<b>Total (m<sup>2</sup>)</b>
			A	B	A + B
		Total plot area	54,628	-266.00	54,362.00
		Deductions in Area			
		Land Under Road	9,797.39	-571.544	9,225.846
		Reservation	1,448.96	0.00	1,448.964
		Deductions Area	0.000	1,377.343	1,377.343
		Net Gross Area of plot	43,382.04	-1,072.193	42,309.847
		Deductions for			
		Open Space 10%	4,338.20	-107.215	4,230.985
		Internal Roads	325.00	0.00	0.00
		Amenity Space 15%	6,507.30	+88.024	6,595.324
		M.S.E.B. Sub Station/ Transformer	605.00	0.00	605.00
		Total Deduction	11,775.50	-344.191	11,431.309
		Net Area of Plot	31,606.53	-727.992	30,878.538
		Addition for FSI			
		D.P. Road	9,797.39	-1,713.460	8,083.93
		Amenity Area	6,507.30	+88.024	6,595.324
		TDR (0.40)	5,530.30	+225.791	5,756.091
		Internal Road	325.00	0.00	0.00
		M.S.E.B. Substation	605.00	0.00	605.00
		Slum TDR (0.2)	6,321.30	-145.592	6,175.708
		Total Addition for FSI	29,086.31	-1,870.257	27,216.053
		Total Built up Area	60,692.85	-2,598.259	58,094.591
		FSI Permissible	2.00	-0.119	1.881
		Permissible Built up Area	63,213.06	-5,118.469	58,094.591
		Proposed Built up Area	60,609.21	-2,766.191	57,843.019
		Permissible FSI	63,213.06	-5,118.469	58,094.591
		<b>Proposed FSI area</b>	<b>60,609.21</b>	<b>-2,766.191</b>	<b>57,843.019</b>
		<b>Non FSI area</b>	<b>44,200.79</b>	<b>+29,311.89</b>	<b>73,512.68</b>
		<b>Total construction area in m<sup>2</sup></b>	<b>1,04,810.00</b>	<b>+26,545.699</b>	<b>1,31,355.699</b>
		Detailed Area Statement is attached as Annexure I			

4.	New/ Expansion/ Modernization	Expansion
5.	Proposed Capacity/ Area etc.	1,31,355.699 m <sup>2</sup>
6.	Category of Project i.e. 'A' or 'B'	Category B 8 (a)
7.	Does it attract the general condition? If yes, please specify.	No
8.	Does it attract the specific condition? If yes, please specify.	No
9.	Location	Vadgaon Dhayri
	Plot/Survey/Khasara No.	Survey No. 4/2 (p), 14/4B (P), 16, 17(P)
	Village	Vadgaon Budruk
	District	Pune
	State	Maharashtra
10.	Nearest railway station/ airport along with distance in kms.	Shivaji Nagar Station Distance:15 km
11.	Nearest Town, city, District Headquarters along with distance in kms.	Vadgaon Dhayri
12.	Village Panchayats, Zilla Parishad, Municipal Corporation, Local body (complete postal address with telephonic nos. to be given)	Pune Municipal Corporation
13.	Name of the Applicant	Mr. Alok Nayak
14.	Registered Address	<b>Paranjape Schemes (Construction) Ltd.</b> Blue Ridge, Near Cognizant, Rajiv Gandhi Infotech Park-Phase I, Hinjewadi, Pune-411057
15.	Address for correspondence:	<b>Paranjape Schemes (Construction) Ltd.</b> Blue Ridge, Near Cognizant, Rajiv Gandhi Infotech Park-Phase I, Hinjewadi, Pune-411057
	Name	Mr. Alok Nayak
	Designation (Owner/Partner/CEO)	
	Address	<b>Paranjape Schemes (Construction) Ltd.</b> Blue Ridge, Near Cognizant, Rajiv Gandhi Infotech Park-Phase I, Hinjewadi, Pune-411057
	Pin Code	411 004
	E-mail	alokn@pscl.in
	Telephone no.	020-39803980, 22934900 / 22932952/3/4
	Fax No.	3980 3980
16.	Details of Alternative sites examined, if any Location of these sites should be shown on a topo sheet.	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. (a) The Forest (Conservation) Act, 1980? (b) The wildlife (Protection) Act, 1972? (c) The C.R.Z. 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 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.	No such litigation pending against the project

**(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.	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)	Yes	Permanent change in land use Land reserved for Residential Development	
1.2	Clearance of existing land, vegetation and buildings?	No		
1.3	Creation of new land uses?	No	Residential Project Development	
1.4	Pre-construction investigations e.g. bore holes, soil testing?	Yes	Soil samples taken within the plot premises for geotechnical investigation	
1.5	Construction works?	Yes	Construction Completed	A,B,C,D,F,G,I,J & K.
			Construction in progress	E,H & L.
			Construction not yet started	A1.
			We have received EC for the Construction area 1,04,810 m <sup>2</sup> . 1,00,996.546-m <sup>2</sup> construction was completed at site.	
1.6	Demolition works?	No		
1.7	Temporary sites used for construction works or housing of construction workers?	Yes	Temporary sheds are provided for workers.	
1.8	Above ground buildings, structures or earthworks including linear structures, cut and fill or excavations	Yes	Total Excavation quantity: 6,800 m <sup>3</sup>	
1.9	Underground works including mining or tunnelling?	No		
1.10	Reclamation works?	No		
1.11	Dredging?	No		
1.12	Offshore structures?	No		
1.13	Production and manufacturing processes?	No		
1.14	Facilities for storage of goods or materials?	Yes	Only construction material will be stored in temporary storage site	
1.15	Facilities for treatment or disposal of solid waste or liquid effluents?	Yes	Municipal Solid Waste Disposal System, Vermi Composting and Sewage Treatment Plant	
1.16	Facilities for long term housing of operational workers?	No		
1.17	New road, rail or sea traffic during construction or operation?	No	Movements of trucks for material transport while construction	
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		
1.20	New or diverted transmission lines or pipelines?	No		
1.21	Impoundment, damming, culverting, realignment or other changes to the hydrology of watercourses or aquifers?	No		

1.22	Stream crossings?	No			
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 workers and construction material		
1.26	Long-term dismantling or decommissioning or restoration works?	No			
1.27	Ongoing activity during decommissioning which could have an impact on the environment?	Yes	There will not be any impact on the Environment		
1.28	Influx of people to an area in either temporarily or permanently?	Yes	<b>Sanctioned as per EC (no.)</b>	<b>Amendment (no.)</b>	<b>Total (no.)</b>
			5,005	-254	4,749
1.29	Introduction of alien species?	No	No introduction of alien species will occur as this is purely residential project		
1.30	Loss of native species or genetic diversity?	No	No threat of species loss will occur		
1.31	Any other actions?	No			

**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.	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				
2.2	Water (expected source & competing users) unit: m <sup>3</sup> /day	Yes	Source of water will be PMC.			
			Details	Existing as per m3/day	Amendment m3/day	Total no. m3/day
			Fresh water	451	-27	424
			Recycled water (flushing)	225	-12	213
			Recycled water (gardening)	36	00	36
			Recycled water (vehicle washing)	-	-	
			HVAC Makeup	Not applicable		
			Total water requirement (CMD)	712	-39	673
			Excess treated water	250	-41	209
			Fire fighting (Cum)	-	-	-
			Total	712		673
2.3	Minerals (Mt)	No				
2.4	Construction material – stone, aggregates, sand / soil (expected source – Mt)	Yes	Stone aggregates demand will be met from the clay / soil generated after excavation and cutting of rocks			
2.5	Forests and timber (source – Mt)	No	Only door frames (if so planned)			
2.6	Energy including electricity and fuels (source, competing users) Unit: fuel (Mt), energy (MW)	Yes	Sanctioned as per EC (MW)	Amendment (MW)	Total (MW)	
			2.72	1.72	4.42	
2.7	Any other natural resources (use appropriate standard units)	No				

**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.	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	
3.3	Affect the welfare of people e.g. by changing living conditions?	No	Proposed Project will not effect the welfare of people
3.4	Vulnerable groups of people who could be affected by the project e.g. hospital patients, children, the elderly etc.,	No	Proposed Project will not affect hospital patients, children etc.
3.5	Any other causes	No	

**4. Production of wastes during construction or operation or decommissioning (Mt/month)**

Sr.	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				
4.2	Municipal waste (domestic and or commercial wastes)	Yes	Details	Sanctioned as per EC (kg/day)	Amendment (kg/day)	Total (kg/day)
			Total	2,491	-133	2,358
4.3	Hazardous wastes (as per Hazardous Waste Management Rules)	Yes	No hazardous waste will be generated as this is Residential Project			
4.4	Other industrial process wastes	No	No, This is a Residential Project			
4.5	Surplus product	No	Not Applicable			
4.6	Sewage sludge or other sludge from effluent treatment	Yes	5 m <sup>3</sup> /day. Used as manure after drying.			
4.7	Construction or demolition wastes	No	Not Applicable			
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.	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	No	Not Applicable
5.2	Emissions from production processes	No	Not Applicable
5.3	Emissions from materials handling including storage or transport	No	Fugitive emission from handling such as sand

5.4	Emissions from construction activities including plant and equipment	No	Transportation of construction material, DG sets etc.
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.	Information/Checklist confirmation	Yes/No	Details thereof (with approximate quantities/rates, wherever possible) 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	Minor construction machinery as Ready Mix Concrete will be used
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.	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	STP will be used to treat the sewage. Treated water will be used for flushing, gardening. Surplus Treated Water will be discharged in Municipal Sewer Lines
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 build 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.	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.
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**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.	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.: <ul style="list-style-type: none"> <li>Supporting infrastructure (roads, power supply, waste or waste water treatment, etc.)</li> <li>housing development</li> <li>extractive industries</li> <li>supply industries</li> <li>other</li> </ul>	No	
9.2	Lead to after-use of the site, which could have an impact on the environment	No	
9.3	Set a precedent for later developments	No	
9.4	Have cumulative effects due to proximity to other existing or planned projects with similar effects	No	

**(III) Environmental Sensitivity**

Sr.	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	
2	Areas which are important or sensitive for ecological reasons - Wetlands, watercourses or other water bodies, coastal zone, biospheres, mountains, forests	Mula River	3.5 km
3	Areas used by protected, important or sensitive species of flora or fauna for breeding, nesting, foraging, resting, overwintering, migration	No	
4	Inland, coastal, marine or underground waters	No	
5	State, National boundaries	No	
6	Routes or facilities used by the public for access to recreation or other tourist, pilgrim areas		
7	Defence installations	National Defence Academy	5 km
8	Densely populated or built-up area	Dhayri	0 km

9	Areas occupied by sensitive man-made land uses (hospitals, schools, places of worship, community facilities)	Sanas High School Research Station	0.3 km 2.5 km
10	Areas containing important, high quality or scarce resources (ground water resources, surface resources, forestry, agriculture, fisheries, tourism, minerals)	Mula River	3.5 km
11	Areas already subjected to pollution or environmental damage. (those where existing legal environmental standards are exceeded)	No	
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	



**(IV). Proposed Terms of Reference for EIA studies**

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

Date: 23.11.2016  
Place: Pune

**Mr. Alok Nayak**  
**Paranjape Schemes (Construction) Ltd.**  
Blue Ridge, Near Cognizant, Rajiv Gandhi  
Infotech Park-Phase I, Hinjewadi, Pune-411057

Signature of the applicant  
With Name and 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). Simultaneously action shall also be taken to obtain the requisite clearance under the provisions of the C.R.Z.
2. The projects to be located within 10 km of the National Parks, Sanctuaries, Biosphere Reserves, Migratory Corridors of Wildlife Warden showing these features vis-à-vis the project location and the recommendations or comments of the Chief Wildlife Warden 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 authorized signatory only. The authorized signatory should also submit a document in support of his claim of being an authorized 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)

<b>1. LAND ENVIRONMENT</b>																																																																																																																	
(Attach panoramic view of the project site and the vicinity)																																																																																																																	
1.1 Will the existing landuse get significantly altered from the project that is not consistent with the surroundings? (Proposed landuse must conform to the approved Master Plan / Development Plan of the area. Change of landuse if any and the statutory approval from the competent authority be 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.	<p>The existing land use will not get altered from the project. As per the zoning structure the area comes under residential area.</p> <p>Proposed development is in line with D. P.</p> <p>Following document is attached as supporting documents.</p> <p>1. Conceptual Plan 2. Location Map</p> <p><b>Attached as Annexure II</b></p>																																																																																																																
1.2 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.	<table border="1"> <thead> <tr> <th>Details</th><th>Sanctioned as per EC (m<sup>2</sup>)</th><th>Amendment (m<sup>2</sup>)</th><th>Total (m<sup>2</sup>)</th></tr> <tr> <td></td><td>A</td><td>B</td><td>A + B</td></tr> </thead> <tbody> <tr> <td>Total plot area</td><td>54,628</td><td>-266.00</td><td>54,362.00</td></tr> <tr> <td>Deductions in Area</td><td></td><td></td><td></td></tr> <tr> <td>Land Under Road</td><td>9,797.39</td><td>-571.544</td><td>9,225.846</td></tr> <tr> <td>Reservation</td><td>1,448.96</td><td>0.00</td><td>1,448.964</td></tr> <tr> <td>Deductions Area</td><td>0.000</td><td>1,377.343</td><td>1,377.343</td></tr> <tr> <td>Net Gross Area of plot</td><td>43,382.04</td><td>-1,072.193</td><td>42,309.847</td></tr> <tr> <td>Deductions for</td><td></td><td></td><td></td></tr> <tr> <td>Open Space 10%</td><td>4,338.20</td><td>-107.215</td><td>4,230.985</td></tr> <tr> <td>Internal Roads</td><td>325.00</td><td>0.00</td><td>0.00</td></tr> <tr> <td>Amenity Space 15%</td><td>6,507.30</td><td>+88.024</td><td>6,595.324</td></tr> <tr> <td>M.S.E.B. Sub Station/ Transformer</td><td>605.00</td><td>0.00</td><td>605.00</td></tr> <tr> <td>Total Deduction</td><td>11,775.50</td><td>-344.191</td><td>11,431.309</td></tr> <tr> <td>Net Area of Plot</td><td>31,606.53</td><td>-727.992</td><td>30,878.538</td></tr> <tr> <td>Addition for FSI</td><td></td><td></td><td></td></tr> <tr> <td>D.P. Road</td><td>9,797.39</td><td>-1,713.460</td><td>8,083.93</td></tr> <tr> <td>Amenity Area</td><td>6,507.30</td><td>+88.024</td><td>6,595.324</td></tr> <tr> <td>TDR (0.40)</td><td>5,530.30</td><td>+225.791</td><td>5,756.091</td></tr> <tr> <td>Internal Road</td><td>325.00</td><td>0.00</td><td>0.00</td></tr> <tr> <td>M.S.E.B. Substation</td><td>605.00</td><td>0.00</td><td>605.00</td></tr> <tr> <td>Slum TDR (0.2)</td><td>6,321.30</td><td>-145.592</td><td>6,175.708</td></tr> <tr> <td>Total Addition for FSI</td><td>29,086.31</td><td>-1,870.257</td><td>27,216.053</td></tr> <tr> <td>Total Built up Area</td><td>60,692.85</td><td>-2,598.259</td><td>58,094.591</td></tr> <tr> <td>FSI Permissible</td><td>2.00</td><td>-0.119</td><td>1.881</td></tr> <tr> <td>Permissible Built up Area</td><td>63,213.06</td><td>-5,118.469</td><td>58,094.591</td></tr> <tr> <td>Proposed Built up Area</td><td>60,609.21</td><td>-2,766.191</td><td>57,843.019</td></tr> <tr> <td>Permissible FSI</td><td>63,213.06</td><td>-5,118.469</td><td>58,094.591</td></tr> </tbody> </table>	Details	Sanctioned as per EC (m <sup>2</sup> )	Amendment (m <sup>2</sup> )	Total (m <sup>2</sup> )		A	B	A + B	Total plot area	54,628	-266.00	54,362.00	Deductions in Area				Land Under Road	9,797.39	-571.544	9,225.846	Reservation	1,448.96	0.00	1,448.964	Deductions Area	0.000	1,377.343	1,377.343	Net Gross Area of plot	43,382.04	-1,072.193	42,309.847	Deductions for				Open Space 10%	4,338.20	-107.215	4,230.985	Internal Roads	325.00	0.00	0.00	Amenity Space 15%	6,507.30	+88.024	6,595.324	M.S.E.B. Sub Station/ Transformer	605.00	0.00	605.00	Total Deduction	11,775.50	-344.191	11,431.309	Net Area of Plot	31,606.53	-727.992	30,878.538	Addition for FSI				D.P. Road	9,797.39	-1,713.460	8,083.93	Amenity Area	6,507.30	+88.024	6,595.324	TDR (0.40)	5,530.30	+225.791	5,756.091	Internal Road	325.00	0.00	0.00	M.S.E.B. Substation	605.00	0.00	605.00	Slum TDR (0.2)	6,321.30	-145.592	6,175.708	Total Addition for FSI	29,086.31	-1,870.257	27,216.053	Total Built up Area	60,692.85	-2,598.259	58,094.591	FSI Permissible	2.00	-0.119	1.881	Permissible Built up Area	63,213.06	-5,118.469	58,094.591	Proposed Built up Area	60,609.21	-2,766.191	57,843.019	Permissible FSI	63,213.06	-5,118.469	58,094.591
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Total plot area	54,628	-266.00	54,362.00																																																																																																														
Deductions in Area																																																																																																																	
Land Under Road	9,797.39	-571.544	9,225.846																																																																																																														
Reservation	1,448.96	0.00	1,448.964																																																																																																														
Deductions Area	0.000	1,377.343	1,377.343																																																																																																														
Net Gross Area of plot	43,382.04	-1,072.193	42,309.847																																																																																																														
Deductions for																																																																																																																	
Open Space 10%	4,338.20	-107.215	4,230.985																																																																																																														
Internal Roads	325.00	0.00	0.00																																																																																																														
Amenity Space 15%	6,507.30	+88.024	6,595.324																																																																																																														
M.S.E.B. Sub Station/ Transformer	605.00	0.00	605.00																																																																																																														
Total Deduction	11,775.50	-344.191	11,431.309																																																																																																														
Net Area of Plot	31,606.53	-727.992	30,878.538																																																																																																														
Addition for FSI																																																																																																																	
D.P. Road	9,797.39	-1,713.460	8,083.93																																																																																																														
Amenity Area	6,507.30	+88.024	6,595.324																																																																																																														
TDR (0.40)	5,530.30	+225.791	5,756.091																																																																																																														
Internal Road	325.00	0.00	0.00																																																																																																														
M.S.E.B. Substation	605.00	0.00	605.00																																																																																																														
Slum TDR (0.2)	6,321.30	-145.592	6,175.708																																																																																																														
Total Addition for FSI	29,086.31	-1,870.257	27,216.053																																																																																																														
Total Built up Area	60,692.85	-2,598.259	58,094.591																																																																																																														
FSI Permissible	2.00	-0.119	1.881																																																																																																														
Permissible Built up Area	63,213.06	-5,118.469	58,094.591																																																																																																														
Proposed Built up Area	60,609.21	-2,766.191	57,843.019																																																																																																														
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	<p align="center"><b>Total Water consumption</b></p> <table border="1"> <tr> <td><b>Sanctioned as per EC</b></td><td>394</td><td>m<sup>3</sup>/day</td></tr> <tr> <td><b>Amendment</b></td><td>676</td><td>m<sup>3</sup>/day</td></tr> </table> <p align="center"><b>Power requirement</b></p> <table border="1"> <tr> <td><b>Sanctioned as per EC</b></td><td>2.72</td><td>MW</td></tr> <tr> <td><b>Amendment</b></td><td>4.42</td><td>MW</td></tr> </table> <p align="center"><b>Total Parking</b></p> <table border="1"> <tr> <th>Details</th><th>Existing as per EC</th><th>Amendment</th><th>Total</th><th>Unit</th></tr> <tr> <td>Car</td><td>646</td><td>-55</td><td>591</td><td>No's</td></tr> <tr> <td>Scooter</td><td>1,910</td><td>+59</td><td>1,969</td><td>No's</td></tr> <tr> <td>Cycle</td><td>1,870</td><td>-124</td><td>1,746</td><td>No's</td></tr> <tr> <td>Parking area</td><td><b>24,499</b></td><td><b>+6,319</b></td><td><b>30,819</b></td><td>m<sup>2</sup></td></tr> </table> <p>Connectivity</p> <p>Mumbai Pune Bypass is 1 km from site in NE direction, 32 m wide Sinhgad road in SE direction &amp; 9 m road is in SW direction.</p>	<b>Sanctioned as per EC</b>	394	m <sup>3</sup> /day	<b>Amendment</b>	676	m <sup>3</sup> /day	<b>Sanctioned as per EC</b>	2.72	MW	<b>Amendment</b>	4.42	MW	Details	Existing as per EC	Amendment	Total	Unit	Car	646	-55	591	No's	Scooter	1,910	+59	1,969	No's	Cycle	1,870	-124	1,746	No's	Parking area	<b>24,499</b>	<b>+6,319</b>	<b>30,819</b>	m <sup>2</sup>
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1.3	<p>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 landuse, disturbance to the local ecology).</p>	<p>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.</p> <p>Community cum recreational facilities will be developed hence no stress on the existing facility is anticipated.</p>																																				
1.4.	<p>Will there be any significant land disturbance resulting in erosion, subsidence &amp; instability? (Details of soil type, slope analysis, vulnerability to subsidence, seismicity etc may be given).</p>	<p>The main reasons for erosion are overexploitation of groundwater, instable slopes, landslides etc. The proposed construction will involve cutting and filling operations. The project will involve construction of roads and development of green areas, which would reduce the chances of erosion and subsidence.</p> <p>Subsidence is not anticipated as ground water would not be used as a source of water supply.</p> <p>As per seismic-zoning map of India, the project site falls under zone III. Structural design requirements will be as per zone III.</p>																																				
1.5	<p>Will the proposal involve alteration of natural drainage systems? (Give details on a contour map showing the natural drainage near the proposed project site)</p>	<p>The proposed development is planned in such a manner that it will not alter the existing drainage pattern of the area.</p>																																				
1.6	<p>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?)</p>	<p>Cutting and filling for construction activity are balanced, so no transportation of earth will be required.</p>																																				
1.7	<p>Give details regarding water supply, waste handling etc during the construction period.</p>	<p>Temporary water storage tanks will be provided for drinking and construction purpose. Drinking water will be made available from Municipal Water Supply Line and other water will be taken from tanker water.</p> <p>Temporary Septic Tanks for the construction workers would be provided.</p>																																				
1.8	<p>Will the low lying areas &amp; wetlands get altered? (Provide details of how low lying and wetlands are getting modified from the proposed activity)</p>	<p>No wet lands and low-lying areas on the site.</p>																																				
1.9	<p>Whether construction debris &amp; waste during construction cause health hazard? (Give quantities of various types of wastes)</p>	<p>No health hazard. Minor quantity of construction debris will be generated which will be used as filling in the site.</p>																																				

generated during construction including the construction labour and the means of disposal)				
<b>2. WATER ENVIRONMENT</b>				
2.1 Give the total quantity of water requirement for the proposed project with the break-up of requirements for various uses. How will the water requirement met? State the sources & quantities and furnish a water balance statement.	<b>Water Supply Source: Pune Municipal Corporation (PMC)</b>			
	<b>Particulars</b>	<b>Water Consumption</b>	<b>Unit</b>	
	Residential	666	m <sup>3</sup> /day	
	Row Houses	4	m <sup>3</sup> /day	
	Shops	2	m <sup>3</sup> /day	
	Swimming Pool Make up	4	m <sup>3</sup> /day	
	<b>Total</b>	<b>676</b>	<b>m<sup>3</sup>/day</b>	
2.2 What is the capacity (dependable flow or yield) of the proposed source of water?	Detailed water balance chart & diagram is attached as <b>Annexure III</b>			
	<b>Source - Pune Municipal Corporation (PMC)</b>			
2.3 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)	<b>Sr.</b>	<b>Parameters</b>	<b>Unit</b>	<b>Drinking water</b>
	1.	pH	-	6.5-8.5
	2.	Color (units on Platinum Cobalt scale)	-	5
	3.	Odour	-	Unobjectionable
	4.	Turbidity	NTU	5
	5.	Total Hardness (as CaCO <sub>3</sub> )	mg/l	300
	6.	Chlorides	mg/l	250
	7.	Sulphates	mg/l	200
	8.	Fluorides	mg/l	1
	9.	Nitrates	mg/l	45
	10.	Lead	mg/l	0.05
	11.	Arsenic	mg/l	0.01
	12.	Cadmium	mg/l	0.01
2.4 How much of the water requirement can be met from the recycling of treated wastewater? (Give the details of quantities, sources and usage)	Treated water from STP will be used for flushing in toilet and gardening, vehicle washing.			
	Total sewage generated		<b>541</b>	m <sup>3</sup> /day
	Total STP capacity		<b>600</b>	m <sup>3</sup>
	Treated water recycled for flushing		<b>223</b>	m <sup>3</sup> /day
	Treated water for gardening		<b>25</b>	m <sup>3</sup> /day
	Sludge generated		<b>5</b>	m <sup>3</sup> /day
	Excess Treated Water to municipal sewer		<b>255</b>	m <sup>3</sup> /day
2.5 Will there be diversion of water from other users? (Please assess the impacts of the project on other existing uses and quantities of consumption)	No diversion is anticipated			
2.6 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)	sewage generation for proposed project will be 538 m <sup>3</sup> /day. The composition of waste water is given in the table indicating the quality of raw waste water before treatment.			
	Parameters	Values	Units	
	pH	7-8	mg/l	

		BOD	250-300	mg/l
		COD	450-600	mg/l
		O & G/ ABS	10-20	mg/l
		TSS	100-200	mg/l
		<b>Mitigation measures:</b> Domestic Effluent will be treated in the Two Sewage Treatment plant of capacity 300 m <sup>3</sup> /day capacity each. The treated sewage water will be reused for flushing & gardening. As per OLD EC we had proposed 2 STP of 178 m <sup>3</sup> /day capacity each.		
2.7	Give details of the water requirements met from water harvesting? Furnish details of the facilities created.	Surface runoff will be discharged in 30 no. of recharge pits of 2 x 1 m capacity.		
2.8.	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?	<p>Proposed development is in tune with D. P. of PMC. There is no change of land use.</p> <p>The project will have proper storm water drainage facility as per Storm Water Drain Remarks by concerned authority. So there will be no problem of water logging due to this project.</p>		
2.9	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)	<p>In the proposed development there will be no tapping of groundwater. Water demand for the construction as well as operational phase will be met from sources such as PMC.</p> <p>Rainwater harvesting scheme will be practiced for groundwater recharge, which will have a positive impact on the ground water table.</p>		
2.10	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)	<p>To prevent degradation and maintain the quality of water source, adequate control measures have been proposed to check the surface run-off, as well as uncontrolled flow of water into any water body.</p> <ul style="list-style-type: none"> <li>• Avoid excavation during monsoon season.</li> <li>• Rainwater harvesting can serve as a solution to water problem in worst case scenario.</li> </ul> <p>Following methods can increase efficiency of rainwater harvesting and recharging groundwater.</p> <ul style="list-style-type: none"> <li>• Catch drainage all along the periphery of plot to prevent surface runoff.</li> <li>• Reduce and filter surface runoff.</li> <li>• Use vegetated swales and depressions to reduce runoff.</li> </ul>		
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)	<p>During rainy season, after the rainfall some part of the rainwater percolates into the ground and joins ground water table, a part is retained as soil moisture, some part is lost in evapotranspiration and the remaining part overflows as storm water run off. The quantity of runoff reaching the sewers or drains is considerable as compared with sanitary sewage</p> <p>The project will have proper storm water drainage facility as per Storm Water Drain Remarks by concerned authority. So there will be no problem of water logging due to this project.</p>		
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 within the project premises. The unsanitary condition will be removed by means of providing readymade septic tanks & soak pits. Solid waste will be disposed off in municipal waste disposal system.		
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)	<p>The Sewage Treatment Plant (STP) is designed to treat the raw waste water generated from Residential building.</p> <p>Sewage Generation: <b>541 m<sup>3</sup>/day</b></p> <p>STP capacity: <b>600 m<sup>3</sup>/day (2 x 300)</b></p> <p>STP details are attached as <b>Annexure IV</b></p>		

2.14	Give details of dual plumbing system if treated waste used is used for flushing of toilets or any other use.	Separate treated water tank connected with outlet of STP line which is directly connected to the flushing system.	
<b>3. VEGETATION</b>			
3.1	Is there any threat of the project to the biodiversity? (Give a description of the local ecosystem with it's unique features, if any)	There is no sensitive ecosystem present at site that will be disturbed by the project, as existing land use in surrounding area is Residential	
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 very scanty vegetation of grasses and shrubs along with very common fauna prevalent elsewhere in the area.	
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)	About <b>4,230 m<sup>2</sup></b> areas are provided for the development of Green belt in the premises. The green belt will be developed for control of pollution and aesthetic view of the complex.	
<b>4. FAUNA</b>			
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	Since the Proposed Project would not have any adverse impact on fauna hence mitigation measure not relevant	
<b>5. AIR ENVIRONMENT</b>			
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.	
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 <sub>2</sub> , SPM, NO <sub>x</sub> 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.		
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?	As Per OLD EC	<b>4 X 125 kVA</b>
		<b>Amendment</b>	1 x 250 kVA 1 x 62.5 kVA

Provide details.	<p>DG set will be used in construction and operation phase only in case of power failure.</p> <p>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.</p> <p>Noise emissions are expected from various construction equipment and machinery but will not result in an impact.</p>
<b>6. AESTHETICS</b>	
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?	Internal roads, footpaths/ pedestrian pathways have been planned within the proposed complex
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 department of town planning, 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.
<b>7. SOCIO-ECONOMIC ASPECTS</b>	
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 only 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 project comes in Residential area and has all basic infrastructural facilities as schools, medical establishments, shops, etc.
7.3 Will the project cause adverse effects on local communities, disturbance to sacred sites or other cultural values? What are the safeguards proposed?	No. The project will have positive impact on local communities.
<b>8. BUILDING MATERIALS</b>	
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)	The buildings will have Sewage Treatment Plant, Rainwater harvesting systems, Solar hot water system, Solar lighting in common areas and RG
8.2 Transport and handling of materials during construction may result in pollution, noise & public nuisance. What measures are taken to minimize the impacts?	<p>Adequate mitigative measures will be adopted. Construction equipment with idling control technologies will be used. Regular maintenance of the equipments will be carried out. The construction activities will be carried out during the daytime only. The workers exposed to high noise generating would be provided with earplugs earmuffs.</p> <p>As per Environmental Management Plan.</p> <p><b>Enclosed Annexure V</b></p>
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 fly ash is substituted in cement.

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: <b>2,358 kg/day</b>		
<b>9. ENERGY CONSERVATION</b>				
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?	As per OLD EC: <b>2.72 MW</b> Proposed Expansion would require <b>4.42 MW</b>  Source of power supply: <b>MSEDCL</b> DG Sets are provided as emergency backup.  Yes we have tried for minimum 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, one lift per building and fire pump in each building. DG Set capacity – 1 x 250 kVA & 1 x 62.5 kVA		
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?	High-quality reflective and double glass, used to reduce heat ingress.		
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 solar light can be utilized maximum for day time.		
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.	Solar street lights are proposed for common areas such as open spaces, pathways, RG etc. apart from solar hot water system for building.		
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, shading has been effectively used to reduce the cooling loads.		
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.	Yes, the rooms will be so dimensioned that effective air conditioning can be carried out. Public areas will be cooled by natural ventilation. The design of the building will be such that maximum use of natural ventilation can be achieved. The walls, roofs and openings will be so designed that influx of heat is minimum.		
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?	Heat emission from the proposed construction can be from the following sources: Heat absorbed from the concrete structures, heat generated from equipments/ appliances, and due to increased population in the proposed development. However the heat generated will not be significant and will be dissipated in the lush greens and open areas provided within. Hence it can be concluded that the heat island effect shall not be a concern for the proposed project.		
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 <sup>2</sup> /°C		
		Roof	0.409	Watts/hr/m <sup>2</sup> /°C
		Wall	0.431	Watts/hr/m <sup>2</sup> /°C
9.10	What precautions & safety measures are proposed against fire hazards? Furnish details of emergency plans.	The fire fighting system shall comprise of hydrant system and portable extinguishers. Smoke detectors will be provided along with manual call points. External yard hydrants shall be installed around all buildings in the complex in galvanized steel fire hose cabinet (weather proof). All external yard hydrants shall be at one meter height from finished ground level as per National Building Code. External fire hydrants shall be located such that no portion of any building is more than 45 m from a hydrant, and the external hydrants are not vulnerable to mechanical or vehicular damage.		



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: <ul style="list-style-type: none"> <li>Aluminium windows with rubber gasket, so that the windows are sealed, will be provided.</li> <li>Summer cross section ventilation will be maximum.</li> </ul>
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.	Not Applicable
<b>10.</b>	<b>Environment Management Plan</b>	
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 <b>Annexure V</b>

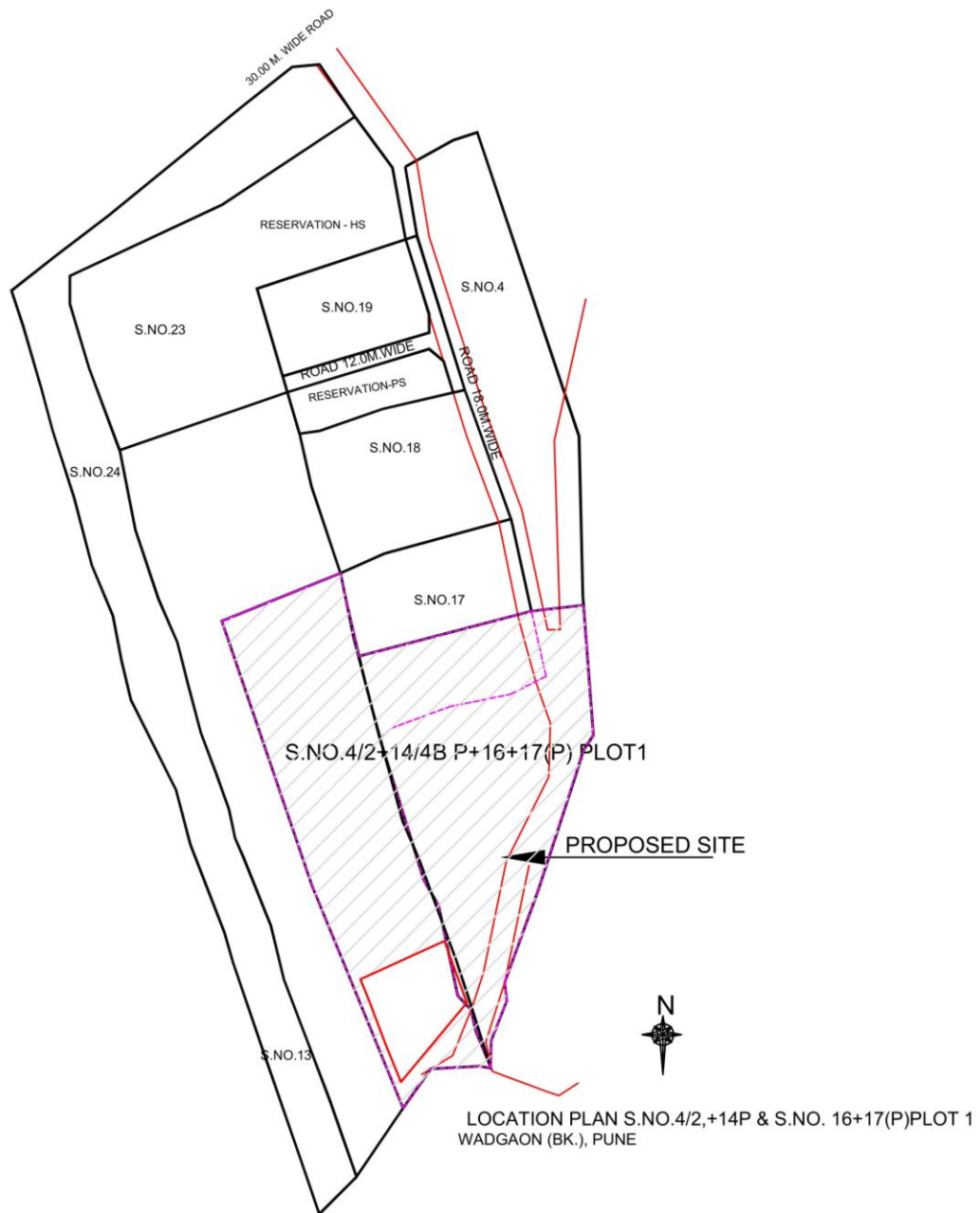
## Annexure I Area Statement

Details	Sanctioned as per EC (m <sup>2</sup> )	Amendment (m <sup>2</sup> )	Total (m <sup>2</sup> )
	<b>A</b>	<b>B</b>	<b>A + B</b>
Total plot area	54,628	-266.00	54,362.00
Deductions in Area			
Land Under Road	9,797.39	-571.544	9,225.846
Reservation	1,448.96	0.00	1,448.964
Deductions Area	0.000	1,377.343	1,377.343
Net Gross Area of plot	43,382.04	-1,072.193	42,309.847
Deductions for			
Open Space 10%	4,338.20	-107.215	4,230.985
Internal Roads	325.00	0.00	0.00
Amenity Space 15%	6,507.30	+88.024	6,595.324
M.S.E.B. Sub Station/ Transformer	605.00	0.00	605.00
Total Deduction	11,775.50	-344.191	11,431.309
Net Area of Plot	31,606.53	-727.992	30,878.538
Addition for FSI			
D.P. Road	9,797.39	-1,713.460	8,083.93
Amenity Area	6,507.30	+88.024	6,595.324
TDR (0.40)	5,530.30	+225.791	5,756.091
Internal Road	325.00	0.00	0.00
M.S.E.B. Substation	605.00	0.00	605.00
Slum TDR (0.2)	6,321.30	-145.592	6,175.708
Total Addition for FSI	29,086.31	-1,870.257	27,216.053
Total Built up Area	60,692.85	-2,598.259	58,094.591
FSI Permissible	2.00	-0.119	1.881
Permissible Built up Area	63,213.06	-5,118.469	58,094.591
Proposed Built up Area	60,609.21	-2,766.191	57,843.019
Permissible FSI	63,213.06	-5,118.469	58,094.591
Prop.FSI area	60,609.21	-2,766.191	57,843.019
Non FSI area	44,200.79	+29,311.89	73,512.68
<b>Total construction area in m<sup>2</sup></b>	<b>1,04,810.00</b>	<b>+26,545.699</b>	<b>1,31,355.699</b>

## Annexure II Conceptual Plan



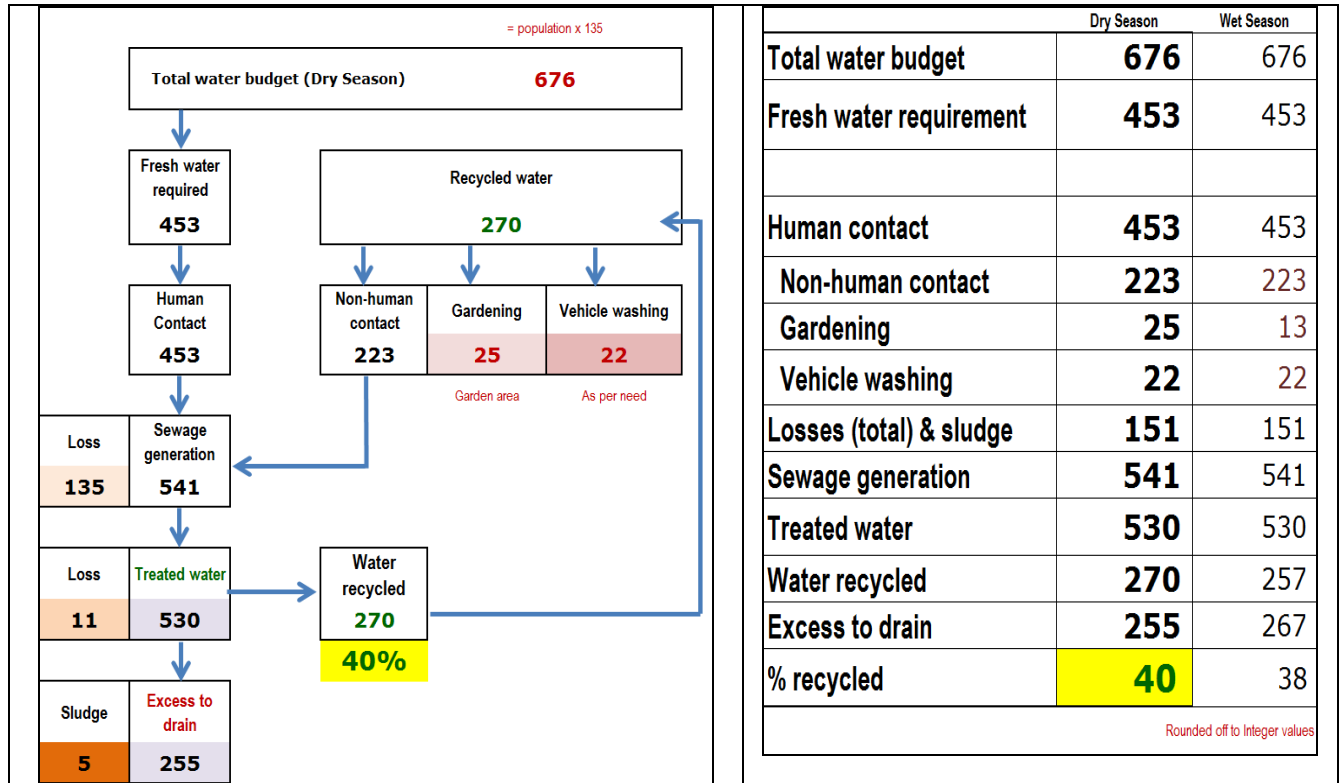
## Location plan



**Tenement statement**

<b>Building type</b>	<b>Tenements (no.)</b>	<b>Population (no.)</b>	<b>Height (m)</b>
Building A	64	320	36.00
Building B	117	585	30.20
Building C	54	270	30.20
Building D	54	270	30.20
Building E	86	430	36.00
Building F	64	320	36.00
Building G	86	430	36.00
Building H	86	430	36.00
Building I	86	430	36.00
Building J	86	430	36.00
Building K	86	430	36.00
Building A1	64	320	36.00
Raw House	6	30	10.65
<b>Total</b>	<b>939</b>	<b>4,695</b>	

### Annexure III Water Balance



## Annexure IV Sewage Treatment Plant

Calculation for STP Capacity:

Total estimated population = 5005 persons

Total Water demand = 676 m<sup>3</sup>/day

Total sewage generation = 541 m<sup>3</sup>/day

**STP Proposed: 2 x 300 m<sup>3</sup>/day capacities**

**The expected characteristics of raw sewage and Treated sewage are given below-**

Sr.	Parameters	Raw Sewage	Treated Sewage
1	pH	6.5 - 7.5	7.0 - 8.5
2	Suspended Solids	100 – 200 mg/l	<1 mg/l
3	BOD (3 days 28°C)	280 – 350 mg/l	5 mg/l
4	COD	500 – 600 mg/l	<40 mg/lit
5	Oil & Grease	30 – 60 mg/l	-
6	Total Coli form		<2

Expected Treatment:

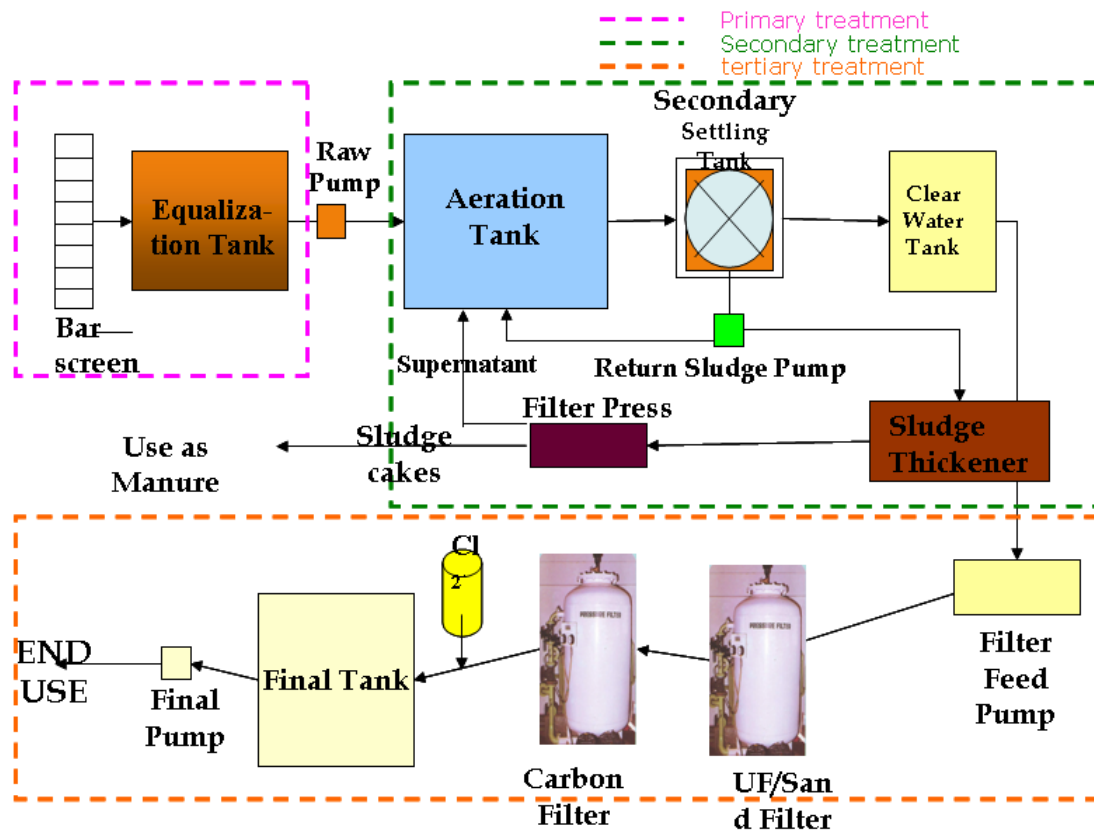
- The Sewage from the building along with waste would be treated in sewerage treatment plant.
- The sewerage treatment plant shall be designed to treat combined sewage (i.e. soil and waste water). The treatment plant shall be compact type with minimum 2.4 m headroom above maximum water level (plat form level) for maintenance. The process of treatment shall be divided into three parts
  - (a) Primary Treatment
  - (b) Secondary Treatment
  - (c) Tertiary Treatment
- The treatment shall be extended aeration with Activated Sludge Process. The air shall be distributed through diffused aeration system sing coarse bubble and fine pore diffusers. After the tertiary treatment treated effluent is used for landscape irrigation & toilet flushing purpose.

## Units and its function

Name of the Unit	Purpose
Bar Screen Chamber	For removing unwanted floating materials
Equalization Tank	To even out the flow variations, and continuous uniform mixing operations with coarse bubble.
Aeration Tank	Activated Sludge Process For developing the bacterial culture, which stabilizes the waste aerators.
Secondary clarifier/Plate settler	To separate out the solids from the treated sewage, And to separate clear supernatant water, Clarifloculator has been proposed with flash mixer to add coagulant to allow more settlement of fine particles.
Intermediate Tank	To collect the supernatant clear water from the settling tank for further treatment.
Filter Press	A Sludge holding tank has been provided with filter press for dewatering sludge. Sludge cakes shall be used as manure.
Pressure Sand Filter	To filter out minute suspended solids if any in the treated water.
Activated Carbon Filter	To remove color and Odor if any in the filtered water.
Final holding tank	To collect the final treated water from the outlet of Activated carbon filter for reuse



## STP Flow Sheet



## Annexure V

### Environmental management plan during construction phase

Sr. No.	Environmental Components	Predicted Impacts	Probable source of Impact	Mitigation Measures	Remarks
<b>CONSTRUCTION PHASE</b>					
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 on ambient 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
<b>FUNCTIONAL PHASE</b>					
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.	DG sets will be used only in case of Power failure.
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 flushing and gardening.
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 at source.
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-
<b>FUNCTIONAL PHASE</b>					
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.	