

ENVIRONMENTAL CLEARANCE

FORM I & FORM IA

**FOR
PROPOSED SRA SCHEME
“OM SHRI SWAMI SAMARTH CHS”
ON PLOT BEARING TIKKA NO. 2, CTS NO. 13A/1
AT KHARTAN PLOT, CHENDNI, THANE (W).**

**PROJECT BY
M/s. KAMRAN LIVE STOCK & REAL ESTATE PVT. LTD.
SHOP NO. 05, KRISHNAMRUT CHS. LTD., KHARKAR LANE,
NEAR PAREKH TRANSPORT, THANE (W)**

**PREPARED BY
M/s. FINE ENVIROTECH ENGINEERS
MAHIM, MUMBAI – 400016,
MAHARASHTRA**

**SUBMITTED TO
STATE LEVEL APPRAISAL COMMITTEE -II
ENVIRONMENTAL DEPARTMENT
MAHARASHTRA**

FORM 1

(I) BASIC INFORMATION

Sr. No.	Item	Details
1.	Name of the Project	Proposed SRA Scheme “Om Shri Swami Samarth CHS” on Plot Bearing Tikka no. 2, CTS No. 13A/1 at Khartan plot, Chendni, Thane (W).
2.	S. No. in the schedule	8 (a) – B
3.	Proposed capacity /area/ length/ tonnage to be handled/command area/lease area/number of wells to be drilled.	Total Plot Area: 8232.78 sq. mt. Net Plot Area: 6575.15 sq. mt. Total construction area -29337.6 sq.mt Please refer Annexure –I & II for Area Statement & Tenement statement.
4.	New/Expansion/Modernization	New Project
5.	Existing Capacity/Area etc.	Total Plot Area: 8232.78 sq. mt.
6.	Category of Project i.e., ‘A’ or ‘B’	B
7.	Does it attract general condition? If yes, please specify.	No.
8.	Does it attract specific condition? If Yes, please specify	No.
9.	Location	Please refer Annexure – III for Location Map & Annexure – IV for Google Image respectively.

	Plot/ Survey / Khasra No.	Plot bearing Tikka No. 2, CTS No. 13 A/1 at Khartan plot, Chendni, Thane (w)
	Village	Village Chendni
	Tehsil/Town	Thane
	District	Dist.Thane
	State	Maharashtra.
10.	Nearest Railway Station/Airport along with distance in kms.	Nearest Railway Station: Thane Railway Stn. Nearest Airport: Mumbai Airport
11.	Nearest Town, City, District Headquarters along with distance in kms.	Thane
12.	Village Panchayats, Zilla Parishad, Municipal Corporation, Local body (complete postal addresses with telephone nos. to be given)	Thane Municipal Corporation
13.	Name of Applicant	M/s. Kamran Live Stock & Real Estate Pvt. Ltd.
14.	Registered Address	M/s. Kamran Live Stock & Real Estate Pvt. Ltd. Shop No. 05, Krishnamrut CHS. LTD., Kharkar Lane, Near Parekh Transport, Thane (w)
15.	Address for correspondence:	M/s. Kamran Live Stock & Real Estate Pvt. Ltd. Shop No. 05, Krishnamrut CHS. LTD., Kharkar Lane, Near Parekh Transport, Thane (w)
	Name	Mr. Mustak S. Shaikh
	Designation (Owner/Partner/CEO)	Owner
	Address	M/s. Kamran Live Stock & Real Estate Pvt. Ltd. Shop No. 05, Krishnamrut CHS. LTD., Kharkar Lane, Near Parekh Transport, Thane (w)
	Pin Code	400 602
	Telephone No.	022-25387595
	Fax No.	--

16.	Details of Alternate Sites examined, if any. Location of these sites should be shown on a topo sheet.	Not Applicable
17.	Interlinked Projects	No
18.	Whether separate application of interlinked project has been submitted?	No
19.	If yes, date of submission	No
20.	If no, reason	No
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 Not Applicable Not Applicable CRZ clearance dated:24.9.2012
22.	Whether there is any Government Order/Policy relevant/relating to the site?	No
23.	Forest Land involved (hectares)	No
24.	Whether there is any litigation pending against the product and/or land in which the project is propose to 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 Not Applicable Not Applicable Not Applicable

- **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)	Yes	This is SRA project. The development as per development plan of Govt. of Maharashtra.
1.2	Clearance of existing land, vegetation and buildings?	No	...
1.3	Creation of new land uses?	Yes	SRA project. Please refer Annexure – V for Layout plan.
1.4	Pre-construction investigations e.g. bore houses, soil testing?	Yes	Geotechnical Investigation will be carried out.
1.5	Construction works?	Yes	Construction of residential building
1.6	Demolition works?	Yes	Already demolished.
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	Cut and fill or excavations reused for leveling (if suitable). Other waste disposed off through authorized contractor.

1.9	Underground works including mining or tunneling?	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	Temporarily storage of construction materials provided at project site with all guidelines adopted for the same.
1.15	Facilities for treatment or disposal of solid waste or liquid effluents?	Yes	<p>During construction phase debris material used for leveling and other waste disposed off through authorized contractor.</p> <p>During operation phase domestic solid waste will be segregated properly and collected in different colored bins. Biodegradable waste will be composted and non biodegradable waste will be disposed by authorized contractor/agency.</p> <p>Sewage generated will be treated in sewage treatment plant with suitable technology. Treated sewage will be used for gardening and flushing purposes within the project premises. Balance treated water will be drain to municipal sewer line.</p> <p>Sludge generated in the STP will be used</p>

			as manure for gardening.
1.16	Facilities for long term housing of operational workers?	No	....
1.17	New road, rail or sea traffic during construction or operation?	No	....
1.18	New road, rail, air waterborne or other transport infrastructure including new or altered routes and stations, ports, airports etc?	No	....
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 form ground or surface waters?	No	....
1.24	Changes in water bodies or the land surface affecting drainage or run-off?	No	....
1.25	Transport of personnel or materials for construction, operation or decommissioning?	Yes	Proper mitigative measures provided so as to reduce any kind of impact generated by the same.

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?	No	....
1.28	Influx of people to an area in either temporarily or permanently?	Yes	Since this is residential development project, the influx of people will be on permanent basis.
1.29	Introduction of alien species?	No	....
1.30	Loss of native species or genetic diversity?	No	....
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):

3.

S.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	....
2.2	Water (expected source & competing users) unit: KLD	Yes	During construction phase: 100 m ³ /day During Operation phase: 380 m ³ /day Source – TMC water supply/ recycled water. Please refer Annexure – VI & VII for Water Budget Statement.
2.3	Minerals (MT)	No	....

2.4	Construction material – stone, aggregates, sand / soil (expected source – MT)	Yes	Raw material mostly includes Murum, sand, stones, cement, bitumen, and earthwork procured from authorized agency.
2.5	Forests and timber (source – MT)	No	....
2.6	Energy including electricity and fuels (source, competing users) Unit: fuel (MT), energy (MW)	Yes	Construction Phase: 1000 kW Operational Phase: Total connected load: 2844 KW Total Max. Demand: 1754 KW Source – MSEDCL Please refer Annexure – VIII for Power requirement & supply
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.

S. 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	....
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?	Yes	There will be a positive impact on the living conditions of the people after the

			proposed slum rehabilitation scheme.
3.4	Vulnerable groups of people who could be affected by the project e.g. hospital patients, children, the elderly etc.,	No	....
3.5	Any other causes	No	....

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

S.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	....
4.2	Municipal waste (Domestic and or Commercial wastes)	Yes	Biodegradable: 826 kg/day. Non biodegradable: 609 kg/day. Total Solid Waste: 1435 kg/day. Biodegradable wastes will be composted and the non biodegradable wastes will be disposed by authorized contractor. Please refer Annexure – IX for Solid waste management.
4.3	Hazardous wastes (as per Hazardous Waste Management Rules)	No	....
4.4	Other industrial process wastes	No	....
4.5	Surplus product	No	....
4.6	Sewage sludge or other sludge from effluent treatment	Yes	Sludge generated (30 kg.) from STP will be used as manure.
4.7	Construction or demolition wastes	Yes	Construction waste will be disposed off properly as per rules and regulations.
4.8	Redundant machinery or equipment	No	....

4.9	Contaminated soils or other materials	No	....
4.10	Agricultural wastes	No	....
4.11	Other solid wastes	No	....

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

S. 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	D.G Set will be run only in case of emergency and proper mitigative measures will be taken for the same.
5.2	Emissions from production processes	No	....
5.3	Emissions from materials handling including storage or transport	Yes	Vehicles use will be with EURO Engine whereas construction machinery use will be properly maintained.
5.4	Emissions from construction activities including plant and equipment	No	....
5.5	Dust or odours from handling of materials including construction materials, sewage and waste	Yes	Proper measures such as sprinkling of water on the ground to reduce the spreading of the dust particles. Proper waste collection system provided as per solid waste management rule to avoid any adverse impact on the environment.
5.6	Emissions from incineration of waste	No	....
5.7	Emissions from burning of waste in open air (e.g. slash materials, construction debris)	No	....
5.8	Emissions from any other sources	No	....

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

S.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	No	...
6.2	From industrial or similar processes	No	....
6.3	From construction or demolition	Yes	Proper mitigation measures provided in order to minimize the impact on Noise level. Proper acoustic enclosures provided to the heavy noise generating machinery and equipment with regular maintenance.
6.4	From blasting or piling	No	....
6.5	From construction or operational traffic	No	<p>Proper mitigation measures provided in order to minimize the impact on Noise level. Proper acoustic enclosures provided to the heavy noise generating machinery and equipment with regular maintenance</p> <p>During Operation Phase, the source of air and noise pollution is vehicular noise only. The vehicular parking will be restricted only in the adequate parking area provided, which would help in reducing noise and air pollution due to vehicular movement.</p> <p>The project proponent has proposed tree plantation management which will help to</p>

			enhance air quality. Please refer Annexure – X For Green belt development plan
6.6	From lighting or cooling systems	No	....
6.7	From any other sources	Yes	During power failure to mitigate the noise of D.G. sets while in operation D.G. sets will be enclosed in acoustic enclosures.

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:

S.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	....
7.2	From discharge of sewage or other effluents to water or the land (expected mode and place of Discharge)	No	Sewage generated will be treated in Sewage Treatment Plant (STP). Treated sewage will be reused for flushing and gardening within the premises. Please refer Annexure – VII
7.3	By deposition of pollutants emitted to air into the land or into water	No	Water sprinkling provided at regular intervals during construction phase to reduce spreading of dust particles. Sewage treatment plant will be provided and treated sewage will be used for flushing and gardening purposes within the premises.
7.4	From any other sources	No	....

7.5	Is there a risk of long term build up of pollutants in the environment from these sources?	No
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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	....
8.2	From any other causes.	No	....
8.3	Could the project be affected by natural disasters causing environmental damage (e.g. floods, earthquakes, landslides, cloudburst etc)?	Yes	Proper Disaster Management plan will be prepared.

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.		Project is well planned with complete infrastructure of water supply, solid waste, sewage disposal, and electricity and communication networks, Fire fighting system, Parking bay, security and

	<ul style="list-style-type: none"> • Supporting infrastructure (roads, power supply, waste or waste water treatment, etc.) • Housing development • Extractive industries • Supply industries • Other 	<p>Yes</p> <p>Yes</p> <p>No</p> <p>No</p> <p>No</p>	<p>house-keeping services.</p> <p>Project involves residential development of buildings.</p> <p style="text-align: center;">—</p> <p style="text-align: center;">—</p> <p style="text-align: center;">—</p>
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	....

(II) Environmental Sensitivity

S.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	....

2	Areas which are important or sensitive for ecological reasons – Wet-lands, watercourses or other water bodies, coastal zone, biospheres, mountains, forest	Yes	CRZ clearance dated: 29.4.2012
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.	No	....
7	Defense installations	No	....
8	Densely populated or built-up area	No	....
9	Areas occupied by sensitive man-made land uses (hospitals, schools, places of worship, community facilities)	No	....
10	Areas containing important, high quality or scarce resources (ground	No	....

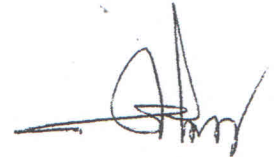
	water resources, surface resources, forestry, agriculture, fisheries, tourism, minerals)		
11	Areas already subjected to pollution or environmental damage. (Those where existing legal environmental standards are exceeded)	No	Area is not subjected to pollution or environmental damage.
12	Areas susceptible to natural hazard which could cause the project to present environmental problems (Earthquakes, subsidence, landslides, erosion, flooding or extreme or adverse climatic conditions)	No	....

"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 of the data and information submitted is 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: 14/6/2016.

Place: Thane

Authorized Signatory



M/s. Kamran Live Stock & Real Estate Pvt. Ltd.

FORM - 1A

(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			
(Attach panoramic view of the project site and the vicinity)			
1.1	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 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.	The proposed project is consistent with surrounding area.	
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.	Requirement	Details
		Total Plot Area	8232.78 sq. mt.
		Total Proposed BUA	29337.6 sq. mt.
		Water consumption	380 m ³ /day
		Power requirement	1000 kW
		Construction phase	Connected load: 2844 KW Max. Demand: 1754 KW Source – MSEDCL
		Operation phase	
		Connectivity	Thane Railway Stn
Nearest Railway	Mumbai Airport		
Nearest Airport			
Parking provided	151 nos.		
Please refer Annexure – II, VII & VIII.			

1.3.	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).	There is no permanent impacts will be there on the existing facilities, as the entire development is as per development plan of Govt. of Maharashtra.
1.4.	Will there be any significant land disturbance resulting in erosion, subsidence & instability? (Details of soil type, slope analysis, vulnerability to subsidence, seism city etc may be given).	As the entire development is as per development plan of Govt. of Maharashtra and there will not be any such issues arising out of this development.
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).	No Alteration to the natural drainage.
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.)	Excavated earth if found suitable will be used for back-filling etc. or will be disposed off in designated areas
1.7	Give details regarding water supply, waste handling etc during the construction period.	The water supply for domestic purpose will depend on TMC water where as tanker water will also be made available as and where required. The treated water from sewage treatment plant will be used for flushing, & gardening purpose within the project area that will result less consumption of raw water. Please refer Annexure –VII
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
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 generated which will be used as filling in the site and garbage will be handed over to authorized recycler / contractor for disposal. Please refer Annexure. IX for Solid waste management.

2.	WATER ENVIRONMENT	
2.1.	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.	Domestic Water Requirement : 247 m ³ /day Source: TMC Water Total Recycled Water – 133m ³ /day • Flushing – 130 m ³ /day • Gardening - 3 m ³ /day Please refer Annexure – VII for Water requirement & supply
2.2.	What is the capacity (dependable flow or yield) of the proposed source of water?	Water supply for domestic purpose will depend on TMC water. The treated waste water will be used for green belt development, and toilet flushing Please refer Annexure – VII for Water requirement & supply
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)	---
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)	Recovery from STP: 272 m ³ /day. Please refer Annexure VII
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
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)	Sanitary wastewater will be generated from the proposed Project. Sewage Generation – 302 m ³ /day. The sewage generated will be treated in STP based on MBBR technology of capacity-330 kld
2.7.	Give details of the water requirements met from water harvesting? Furnish details of the facilities created.	The proposed rain water harvesting also provided to have better water table so that requirement of water can be made within the project area.
2.8.	What would be the impact of the land use changes occurring due to the proposed	There is no change of land use. The project will have proper storm water drainage facility as per storm

	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?	water drain remarks by concerned authority. So there will be no problem of water logging due to this project.
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)	No any impact on ground water.
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)	Proper Storm drainage pattern will be provided and project boundary will be there. All along the road storm water drains would be provided to collect water during rains. They would be adequately sized to prevent over flooding of the site to avoid any adverse impact on the environment. The storm water collection system will be designed in such manner so that clean storm water from garden, parking areas, and roadways is used for recharging of ground water. The excess run off will be directed towards the nearest storm water drain.
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)	The project will have proper storm water drainage facility as per Strom Water Drain Remarks by concerned authority. So there will be no problem of water logging due to this project.
2.12.	Will the deployment of construction laborers particularly in the peak period lead to unsanitary conditions around the project site (Justify with proper explanation)	No there will be no deployment of construction laborers particularly in the peak period lead to unsanitary condition around the project site as adequate no. of construction worker camp will be provided with proper civil facilities.
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)	Sewage generated will be treated in sewage treatment plant of total capacity 330 kld Please refer Annexure VII

2.14.	Give details of dual plumbing system if treated waste used is used for flushing of toilets or any other use.	Yes, dual plumbing system with colour coding for all buildings shall be done as per standard practices.
3. VEGETATION		
3.1.	Is there any threat by the project to the biodiversity? (Give a description of the local ecosystem with its unique features, if any)	No, There will be no significant impact of the project on flora and other vegetation due to any of the pollution parameters during operational phase of 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.
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)	RG area -523.24 sq.mt Proposed Trees to be planted -20 nos. Please refer Annexure – X
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, There will be no significant impact of the project fauna due to any of the pollution parameters during operational phase of the project. No significant impact is envisaged on the local fauna during the operational phase of the project.
4.2.	Any direct or indirect impacts on the avifauna of the area? Provide details.	No
4.3.	Prescribe measures such as corridors, fish ladders etc to mitigate adverse impacts on fauna.	Not Applicable
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	No

	of the proposed constructions	
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.	There will not be any type of dust, smoke, odorous fumes or other hazardous gases generated.
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.	Entry points to the buildings have been worked out keeping in view the desired movement of vehicles.
5.4.	Provide details of the movement patterns with internal roads, bicycle tracks, pedestrian pathways, footpaths etc., with areas under each category.	The layout plan of the proposed site has developed an internal road network in such a manner that it will not only cater to building but also integrate the whole area of built masses and open spaces with a pedestrian dominated movement pattern.
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.	No
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 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.
6.	AESTHETICS	
6.1.	Will the proposed constructions in any way result in the obstruction of a view, scenic amenity or landscapes? Do the proponents take these considerations into account?	No, the proposed project will indeed increase the aesthetic value of the area.
6.2.	Will there be any adverse impacts from new constructions on the existing structures? What are the considerations taken into account?	No

6.3.	Whether there are any local considerations of urban form & urban design influencing the design criteria? They may be explicitly spelt out.	No
6.4.	Are there any anthropological or archaeological sites or artifacts nearby? State if any other significant features in the vicinity of the proposed site have been considered.	No
7.	SOCIO-ECONOMIC ASPECTS	
7.1.	Will the proposal result in any changes to the demographic structure of local population? Provide the details.	Yes, there will be positive impact on living conditions of the people.
7.2.	Give details of the existing social infrastructure around the proposed project.	The study area also has adequate water supply, storm water drainage, sewerage disposal system electricity supply and drinking water supply. The infrastructure facilities in the study area are adequately available and the proposed project will not pose any additional burden on it.
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
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)	Energy Conservation – a priority feature. <ul style="list-style-type: none"> • Advanced Building Management Systems (BMS) for energy conservation. • Proper signage's for Energy conservation wherever applicable. • For construction Ready Mix Concrete will be used to maximum possible extent. • Optimum use of fly ash in construction. • Use of Concrete Blocks containing at least 20% fly ash for construction. Please refer Annexure VIII for Power Requirement

8.2.	Transport and handling of materials during construction may result in pollution, noise & public nuisance. What measures are taken to minimize the impacts?	During construction phase vehicles carrying construction material covered by traps to avoid spilling and blowing by wind. Water sprinkling at regular intervals to reduce spreading of dust particles. Vehicular trips will not be in peak traffic hours. This will reduce the load on transport systems.
8.3.	Are recycled materials used in roads and structures? State the extent of savings achieved?	No
8.4.	Give details of the methods of collection, segregation & disposal of the garbage generated during the operation phases of the project.	During operation phase of the project segregation or sorting of waste at its source will be practiced in order to encourage reuse/ recycling and to minimise the negative effects of the waste and increase its economic value. Separate bins will be placed to collect bio degradable and non – biodegradable waste. The biodegradable waste will be composted whereas other will be given to given to authorized agencies. Please refer Annexure IX for Solid waste Management.
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?	Energy conservation program will be implemented through measures taken both on energy demand and supply. Power supply (source) - MSEDCL Power supply (capacity) - <ul style="list-style-type: none"> • Total Connected load: 2844KW • Total Max. Demand: 1754 KVA • Backup source - D. G. Set with Acoustic Enclosure Number and capacity of DG set: <ul style="list-style-type: none"> • Rehab - 1 x 180 KVA • Sale – 1 x 120 KVA Please refer annexure –VIII for Power requirement & supply

9.2.	What type of, and capacity of, power back up to you plan to provide?	<p>Backup source - D. G. Set with Acoustic Enclosure Number and capacity of DG set:</p> <ul style="list-style-type: none"> • Rehab - 1 x 180 KVA • Sale – 1 x 120 KVA <p>Please refer Annexure –VIII for Power requirement & supply and energy saving measures details</p>
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?	Optimum use of Glass with sun control film.
9.4.	What passive solar architectural features are being used in the building? Illustrate the applications made in the proposed project.	---
9.5.	Does the layout of streets & buildings maximize 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.	---
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?	---
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.	---

9.8	<p>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?</p>	No any adverse impact of building activity.
9.9	<p>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.</p>	Brick Coba will be provided at roof level.
9.10	<p>What precautions & safety measures are proposed against fire hazards? Furnish details of emergency plans.</p>	<p>Proper fire fighting system will be provided. Following are the various fire protection systems proposed</p> <ul style="list-style-type: none"> • Refuge area will be provided • Underground water storage tank • Overhead water storage tank • Wet riser • Fire pump & Booster pump • External Hydrant • Fire alarm system • Portable fire extinguishers for each apartment
9.11	<p>If you are using glass as wall material provides details and specifications including emissivity and thermal characteristics.</p>	---
9.12	<p>What is the rate of air infiltration into the building? Provide details of how you are mitigating the effects of infiltration.</p>	---
9.13	<p>To what extent the non-conventional energy technologies are utilized in the overall energy consumption? Provide details of the renewable energy technologies used.</p>	Please refer Annexure –VIII for Power requirement & supply and energy saving measures details

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.
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ANNEXURE – I: AREA STATEMENT

Sr. No	Area Statement	sq.mt.	
1	Area of Plot	8232.78	
2	Deduction Area	
	a Road Set Back Area	57.63	
	b Proposed Road	....
	c Any Reservation (parking Area)	1600.00	
3	Balance Area of the plot (Area Leased out to Society)	6575.15	
4	Deduction for Recreational Ground (If Deductable)		
5	Net Area of the Plot (3)	6575.15	
6	Add back Area		
	a Road Set Back Area	57.63	
	b Parking Area	1600	
7	Total Area (5+a+b)	8232.78	
		Slum	CRZ
8	Floor Space Index Permissible	7487.78	745
9	Permissible Built Up Area	3.00 (22463.34)	1.25 (931.25)
10	Total Permissible Built Up Area	23394.59	
11	Floor Space Index Credit Available by development rights (Additional Area 15% area of Existing Tenant)	....
12	Permissible Floor Area (8 x9) +8	23394.59	
13	Proposed Area for Rehab	10863.66	
14	Proposed Area for Sale	12530.06	
15	Total Built Up Area Proposed	23393.72	

ANNEXURE – II

BUILDINGS DETAILS AND TENEMENT STATEMENT

Sr. No.	Type Of Building	Rehab Residential (no.)	Rehab Commercial (no.)	Balwadi (no.)	Welfare Center (no.)	Society Office (no.)	PAP (no.)	Sale Shop (no.)	Sale Flat (no.)	Sale Office (no.)	Mun. Purpose (no.)	Mun. Housing (no.)
1	R1	45	Nil	1	1	Nil	Nil	3	1	Nil	Nil	Nil
2	R2	46	1	Nil	1	1	Nil	6	Nil	Nil	Nil	Nil
3	R3	36	4	Nil	1	1	4	3	6	Nil	Nil	Nil
4	R4	36	7	Nil	1	1	2	1	Nil	Nil	Nil	Nil
5	R5	95	8	1	Nil	1	3	4	2	Nil	Nil	Nil
6	R6	11	4	2	Nil	Nil	5	Nil	6	Nil	8	8
7	R7	49	4	1	Nil	1	Nil	6	5	Nil	Nil	Nil
8	S1	Nil	17	Nil	Nil	Nil	Nil	9	116	35	Nil	Nil
9	S2											
10	S3	Nil	Nil	Nil	Nil	Nil	Nil	5	44	5	Nil	Nil
Total		318	45	5	4	5	14	37	180	40	8	8

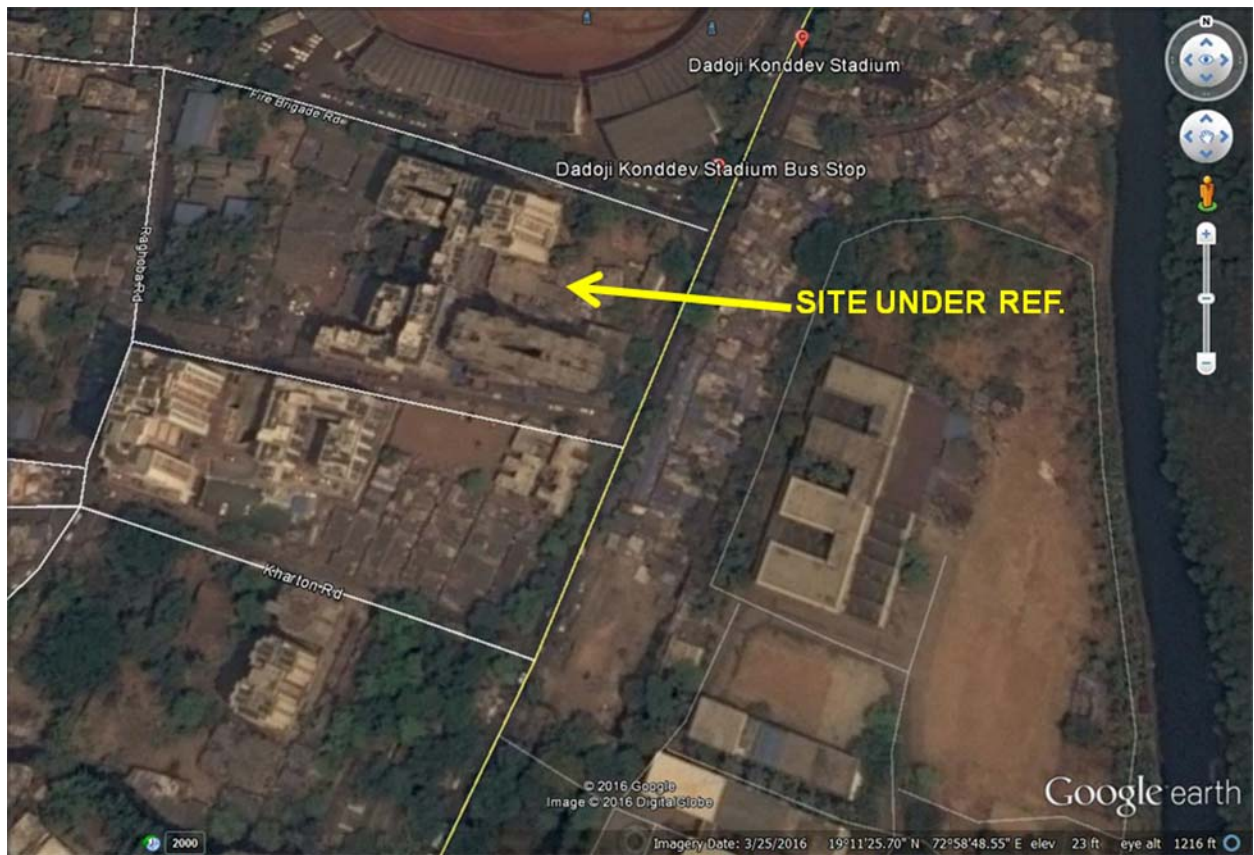
ANNEXURE – III

LOCATION PLAN



LAYOUT PLAN
SCALE N.T.S.

ANNEXURE – IV GOOGLE IMAGE



ANNEXURE –V

LAYOUT PLAN



ANNEXURE –VI

WATER REQUIREMENT & SUPPLY

During construction phase:

The total water required during construction phase will be 100 klpd.

During operation phase:

The total water required for operation phase will be 380 klpd.

WATER BUDGET

During Operation Phase	380 klpd.
• Domestic	247 klpd.
• Flushing	130 klpd.
• Landscaping	3 klpd.
Various uses	Drinking, Kitchen, toilets, urinal areas, landscaping & Firefighting etc.
WATER SUPPLY (SOURCE)	
• Domestic	Thane Municipal Corporation
• Flushing & landscaping	Recycled water from STP
• For Construction	Tanker water
Water Conservation Technique	<ul style="list-style-type: none"> • Arrangement of Rain water harvesting, • Reuse of STP treated water will reduce the demand of water requirement.

WATER BALANCE STATEMENT

Sr. No.	Component	Occupant Load	Criteria For Water Requirement		Water Requirement (lit/day)		Total (lit/day)
			Domestic	Flushing	Domestic	Flushing	
1.	Rehab Residential Tenements (318 nos.)	1590 nos.	90	45	143100	71550	214650
2.	Rehab Commercial (Shops -45 nos.)	90 nos.	20	25	1800	2250	4050
3.	Balwadi (5 nos.)	150 nos.	20	25	3000	3750	6750
4.	Welfare Center and Society office (9 nos.)	27 nos.	20	25	540	675	1215
5.	PAP (14 nos.)	70 nos.	90	45	6300	3150	9450
6.	Municipal Housing (16 nos.)	80 nos.	90	45	7200	3600	10800
7.	Sale Residential Tenements (180 nos.)	900 nos.	90	45	81000	40500	121500
8.	Sale Shop (37 nos.)	74 nos.	20	25	1480	1850	3330
9.	Sale office (40 nos.)	120 nos.	20	25	2400	3000	5400
Total (1+2+3+4+5+6+7+8+9)					246820	130325	377145
10.	Gardening	523.42 sq.mt	5 lit/sq.mt.		2617		2617
Total							379762

ANNEXURE – VII

SEWAGE GENERATION, TREATMENT & REUSE

Total Sewage Generation	302 klpd
STP Capacity	330 klpd
STP Technology	MBBR Technology
Recycled Water	272 klpd
Sludge Generated	30 kg/day
Balance water to drain	During Dry Season – 139 klpd During Wet Season – 142 klpd

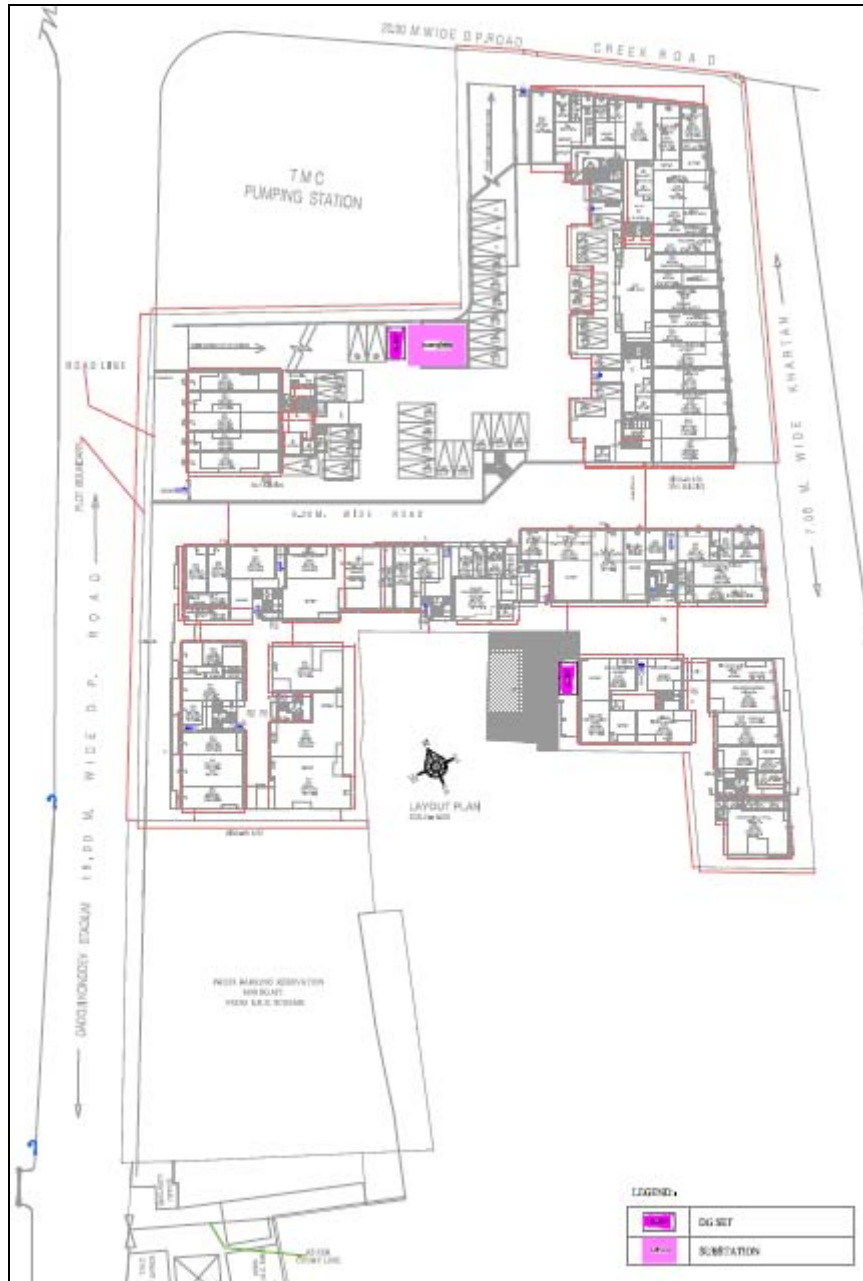
ANNEXURE – VIII
POWER REQUIREMENT FOR THE PROJECT

Building	Details	Source (Power Supply)
Connected Load IN KW	2844	MSEDCL
Demand Load IN KW	1754	

DG REQUIREMENT FOR THE PROJECT

Building	DG Size
Residential	Rehab - 1 x 180 KVA Sale – 1 x 120 KVA

DG SET AND SUBSTATION LAYOUT



ENERGY SAVING MEASURES

Sr. No	Items	Conventional case (Kwh)	Units saved		Load on Normal Elec. supply (kwh)	Total Energy saving	ECBC Compliance Pt.	Requirement	Compliance Met By
			Load on Solar (kwh)	Energy saving equipments (kwh)					
	Energy Saving Parameters								
1	Ext. Road-60% Lighting on Solar	4.9	4.0		0.9	82%	7.2.1.4	Exterior lighting to be within specified limits	1) All lights on LED & 60% Light Poles on solar system. 2)Time switch to operate in evening hours
2	Lobby/Staircase-60% On PV Panels	5.9	2.5		3.4	42%			
3	Parking (Podium lvl)	2.7		0.3	2.3	13%			
4	Lift-Regenerative Types	60.0		18	42	30%	-	-	Regenerative Type Lift system that would save 20% energy
5	Solar Hot Water system	480	240		240	50%	6.2.1	SHW for minimum 20% design capacity	Total hot water requirement met through Centralized solar system.
	Conventional Loads								
6	Plumbing System Load	62			62		8.2.2	Energy efficient motors	Pumps shall be of class 1 category giving high efficiency (60%+)& less losses as per IS2615.
7	STP	22			22		8.2.4	Energy Metering	All water Pumps for Monitoring
8	Flats	800			800		8.2.5.1	Cable sizing to min. losses	Electrical cables of derated capacity to avoid heating during working thereby saving the current losses.
9	OWC	7.5			7				
	Total	1,445	247	18	1,180				

Overall Saving for the Project	18.3%
Total Load put on Solar against Normal Load	17.1%
Total Load put on Solar other than SHW system	0.5%
Total Load put on Energy saving eqmts. against Normal Load	1.3%
Total Units saved based on Unit Consumption - (Kw)	265
Total Units saved based on avg 12 working hours - (Kw/day)	372
Total Units saved annually - (kwh/Yr)	135,821
Annual savings in Rs with Electrical cost @Rs.5/unit	679,107

Sr. No	Summary of Solar Installations	Sale	Rehab	
1.1	Hot water Solar Panels	62	124	nos.
1.2	Area for Hot water Solar Panels	1692	3364	sq.ft
2.1	LED lights used for Staircase & Lobby	244	-	nos
2.2	LED Lights put on PV Panels	147	-	nos
2.3	PV Panels required (8.1amp rating)	21	-	nos
2.4	Total area for PV Panels	23	-	sqft
3.1	LED lights used for Road & Landscaping	70	55	nos
3.2	Pole Lights put on Solar Panels	42	33	nos

ANNEXURE – IX SOLID WASTE MANAGEMENT

During Operation Phase	:	1435 kg/day
Biodegradable Waste – Quantity	:	826 kg/day
Non Biodegradable Waste –Quantity	:	609 kg/day
Biodegradable -Type	:	<u>Organic</u> : Tea Leaves, Eggshells, Old Food, and Vegetable Peels.
Non biodegradable - Type	:	<u>Recyclable</u> : Paper, bottles, glass, note books, safety pins, caps of mineral water bottles etc.
Other	:	PET mineral water bottles, nitrogen sealed packaging for chips, tetra packs, thermocole, carbon paper, plastic coated visiting cards, sachets.
Collection & Segregation	:	Provision will be made for segregation of the biodegradable and the non-biodegradable wastes and they will be stored in different colored bins.
Disposal	:	Biodegradable waste will be composted whereas other will be given to authorized agencies.

SOLID WASTE GENERATION

Sr. No.	Component	Occupant Load	Criteria For Water Requirement		Water Requirement (lit/day)		Total (lit/day)
			Domestic	Flushing	Domestic	Flushing	
1.	Rehab Residential Tenements (318 nos.)	1590 nos.	0.3	0.2	477	318	795
2.	Rehab Commercial (Shops -45 nos.)	90 nos.	0.075	0.175	7	16	23
3.	Balwadi (5 nos.)	150 nos.	0.075	0.175	11	26	37
4.	Welfare Center and Society office (9 nos.)	27 nos.	0.075	0.175	2	5	7
5.	PAP (14 nos.)	70 nos.	0.3	0.2	21	14	35
6.	Municipal Housing (16 nos.)	80 nos.	0.3	0.2	24	16	40
7.	Sale Residential Tenements (180 nos.)	900 nos.	0.3	0.2	270	180	450
8.	Sale Shop (37 nos.)	74 nos.	0.075	0.175	5	13	18
9.	Sale office (40 nos.)	120 nos.	0.075	0.175	9	21	30
Total (1+2+3+4+5+6+7+8+9)					826	609	1435

ANNEXURE – X
GREEN BELT DEVELOPMENT
RG AREA STATEMENT

Sr. No.	Particular	Details
1.	R.G. 1 (On Ground)	151.33sq.mt
2.	R.G. 2 (Elevated RG Area above podium)	372.09 sq.mt
	Total R.G. Area	523.42 sq.mt
3.	Proposed Trees to be planted	20 nos.

NAME OF SPECIES OF TREES TO BE PLANTED

Sr. No.	Common Name	Scientific Name	Important Features
1	Neem	<i>Azadiracta indica</i>	Large tree, good for roadside plantation
2	Karanj	<i>Pongamia pinnata</i>	Shady tree.
3	Sita Ashok	<i>Saraca asoka</i>	Shady tree with red-yellow flowers.
4	Apta	<i>Bauhinia racemosa</i>	Small tree with small white flowers, Butterfly host plant
5	Mango	<i>Magnifera indica</i>	Fruit bearing tree, Bird attracting

LANDSCAPE LAYOUT

