

FORM 1 & 1 A

For

PROPOSED BUILDING of EYE HOSPITAL AND CANCER DAY CARE CENTER WITH SANATORIUM

At

C. S. No. 3/207 (pt) & 4/207 (pt) of Salt pans Division

Proposed By

SHANTILAL SANGHVI FOUNDATION

APPENDIX - I

(See paragraph – 6)

FORM 1

(I) BASIC INFORMATION

Sr. No.	Item	Details			
1	Name of the project/s	PROPOSED BUILDING OF EYE HOSPITAL AND CANCER DAY CARE CENTER WITH SANATORIUM			
2	S. No. in the Schedule	8 (a)			
3	Proposed capacity / area / length/tonnage to be handled / command area/lease area / number of wells to be drilled.	Total Plot Area	7,770.13		m ²
			Cancer Day Care Center (m ²)	Eye hospital (m ²)	Total Construction Area (m ²)
		FSI Area	21,911.88	17,799.40	39,711.28
		Non-FSI	7,559.17	8,349.7	15,908.87
		Total Construction Area	29,471.05	26,149.10	55,620.15
4	New / Expansion / Modernization	Detailed Area Statement is attached as Annexure I New			
5	Existing Capacity/ Area etc.	The initial approval was obtained for the eye hospital on 22-7-2014 for the plot having survey No. 3/207 (pt) for the area of 3,549.13 m ² with FSI area of 4,123.25 m ² . At that time total development potential was less than 20,000 m ² . Accordingly, we had started construction on the site as per the approvals received vide No. EB/5429/FN/A dated 22-7-2014 from Municipal Corporation of Greater Mumbai.			
6	Category of project i.e. A or B	B Category			
7	Does it attract the general condition? if yes, please specify	No			
8	Does it attract the specific condition? If yes, please specify	No			
	Location				
	Plot/Survey/ Khasra No.	C.S. No. 3/207 (pt) & 4/207 (pt) of Salt Pans Division			
	Village	Wadala			

Sr. No.	Item	Details
	Tehsil	Mumbai
	District	Mumbai
	State	Maharashtra
10	Nearest railway station/port along with distance in kms.	Wadala Railway Station Distance ~ 1.0 km
11	Nearest Town, city, District Headquarters along with distance in kms.	Mumbai
12	Village Panchayat, Zilla Parishad, Municipal Corporation, Local body (complete postal addresses with telephone nos. to be given)	Municipal Corporation of Greater Mumbai (MCGM)
13	Name of the applicant	Mr. Sanjog Deshmukh
14	Registered address	SHANTILAL SHANGVI FOUNDATION Regd. Office : F.P. 143, Ram Mandir Road, Vile Parle (East), Mumbai – 400 057
15	Address for correspondence:	Lawrence & Mayo House, 1 st floor, 276, Dr. D.N. Road, Fort, Mumbai- 400001
	Name	Mr. Sanjog Deshmukh
	Designation(Owner/ Partner/ CEO)	AUTHORISED SIGNATORY
	Address	Lawrence & Mayo House, 1 st floor, 276, Dr. D.N. Road, Fort, Mumbai- 400001
	Pin code	400001
	E-mail	sanjog.deshmukh@gmail.com shantilalsanghvi2@gmail.com
	Telephone No.	022-22198500 / 9920466890
	Fax No.	NA
16	Details of alternative sites examined, if any. Location of these sites should be shown on a toposheet.	Village-District-State 1. 2. 3. We are developing hospital project on our own land
17	Interlinked projects	Not Applicable
18	Whether separate application of interlinked project has been submitted?	No
19	If yes, date of submission	Not Applicable

Sr. No.	Item	Details
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 wild life (protection) Act, 1972? c) The CRZ Notification, 2011?	No No 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

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
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Sr.No.	Information/Checklist confirmation	Yes/No	Details thereof (with approximate quantities /rates, wherever possible) with source of information data
1.1	Permanent or temporary change in land use, land cover or topography including increase in intensity of land use (with respect to local land use plan)	No.	There will be no significant changes in existing land use pattern by proposed project. The proposed project is in accordance with the approved Development Plan of Town Planning authority.
1.2	Clearance of existing land, vegetation and buildings?	Yes	Clearance of existing structure / vegetation.
1.3	Creation of new land uses?	No	No creation of new land uses is envisaged There is no significant changes in existing land use pattern.
1.4	Pre-construction investigations e.g. bore holes, soil testing?	Yes	Pre-construction investigations will be done before construction.
1.5	Construction works?	Yes	Construction of Hospital project
1.6	Demolition works?	Yes	Existing structure will be demolished.
1.7	Temporary sites used for construction works or Housing of construction workers?	Yes	Temporary shelters & sanitation facilities for construction workers are required
1.8	Above ground buildings, structures or earthworks including linear structures, cut and fill or excavations	Yes	We are proposing 2 basement, therefore, the Excavation quantity will be approx. 26,118.12 m ³ .
1.9	Underground works including mining or tunnelling?	No	
1.10	Reclamation works?	No	NA
1.11	Dredging?	No	
1.12	Offshore structures?	No	
1.13	Production and manufacturing processes?	No	No such production or Manufacturing processes will be carried out.
1.14	Facilities for storage of goods or materials?	Yes	Raw materials required for construction shall be stored at the camp-sites during construction phase.

Sr.No.	Information/Checklist confirmation	Yes/No	Details thereof (with approximate quantities /rates, wherever possible) with source of information data
1.15	Facilities for treatment or disposal of solid waste or liquid effluents?	Yes	<ul style="list-style-type: none"> On site OWC is proposed for treatment of Biodegradable solid waste and the compost will be used as manure in garden. Non-Biodegradable waste will be handed over to authorized vendor for final disposal. Biomedical Waste generated during operation of hospitals will be properly segregated and handed over to authorized MPCB vendor for treatment. Onsite Sewage Treatment Plant (STP) is proposed to treat the generated sewage and reuse the treated sewage within project for landscaping and flushing.
1.16	Facilities for long term housing of operational workers?	No	The Project is Hospital with an estimated occupancy of 640 Nos. of Beds at Cancer day care center & Eye hospital.
1.17	New road, rail or sea traffic during construction or operation?	Yes	A temporary increase in traffic may result during construction phase due to transport of personnel/ materials/ equipment. During operation, based on occupancy road traffic will be additional.
1.18	New road, rail, air waterborne or other transport infrastructure including new or altered routes and stations, ports, airports etc?	No	It is intended to make maximum use of existing road network for mobilization of man and materials.
1.19	Closure or diversion of existing transport routes or infrastructure leading to changes in traffic movements?	No	There will not be any closure or diversion of existing transportation routes.
1.20	New or diverted transmission lines or pipelines?	No	New transmission as well as pipelines shall be required for facilitating various infrastructure utilities for the Hospital building.
1.21	Impoundment, damming, culverting, realignment or other changes to the hydrology of watercourses or aquifers?	No	No changes in the hydrology of watercourses /aquifers are envisaged.
1.22	Stream crossings?	No	There is no stream running around adjacent to the site.

Sr.No.	Information/Checklist confirmation	Yes/No	Details thereof (with approximate quantities /rates, wherever possible) with source of information data
1.23	Abstraction or transfers of water from ground or surface waters?	No	Tanker water may be used as one of the source of water for construction, for which necessary permission from regulatory authority should be obtained.
1.24	Changes in water bodies or the land surface affecting drainage or run-off?	No	The site shall be restored back to normal after construction and surface run off from site shall be channelized through storm water drains and utilized for ground water recharge hence no change in drainage pattern envisaged.
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	Only Construction workers will stay during construction phase and office personnel
1.29	Introduction of alien species?	No	The green belt as per the requirements of MoEF/CPCB will be developed. Only native species will be planted so no introduction of alien species is anticipated.
1.30	Loss of native species or genetic diversity?	No	No threat of species loss will occur
1.31	Any other actions?	No	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.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	Total Water demand will be 380 KLD The detailed water balance is attached as Annexure IV

2.3	Minerals (MT)	No	
2.4	construction material – stone, aggregates, sand / soil (expected source – MT)	Yes	Stone aggregates demand will be sourced from nearby local vendors
2.5	Forests and timber (source – MT)	Yes	Only door frames (if so planned)
2.6	Energy including electricity and fuels (source, competing users) Unit: fuel (MT), energy (MW)	Yes	<ul style="list-style-type: none"> • Total connected load: 4.5 MW • Source of Electricity: BEST
2.7	Any other natural resources (use appropriate standard units)	No	We are using the Ground Water via Bore Wells.

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

Sr.No.	Information/Checklist confirmation	Yes/No	Details thereof (with approximate quantities/rates, wherever possible) with source of information data
3.1	Use of substances or materials, which are hazardous (as per MSIHC rules) to human health or the environment (flora, fauna, and water supplies)	Yes	The expected hazardous wastes shall be lubricating oil & grease, required to prevent friction in mechanical parts and spent oils, drums etc. The quantities used shall be very low and these chemicals / materials shall be handled as per Hazardous waste handling (2008) rules.
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 affect 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 people's that are living surrounding the project site.
3.5	Any other causes	No	

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

Sr.No.	Information/Checklist confirmation	Yes/No	Details thereof (with approximate quantities/rates, wherever possible) with source of information data
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4.1	Spoil, overburden or mine wastes	No		
4.2	Municipal waste (domestic and or commercial wastes)	Yes	Municipal Solid Waste	
			Total Solid Waste	419 kg/day
			Bio-Medical Waste	299 kg/day
4.3	Hazardous wastes (as per Hazardous Waste Management Rules)	No	Used oil from DG set will be given to authorised vendors.	
4.4	Other industrial process wastes	No	No, This is a Hospital (Cancer + Eye) project	
4.5	Surplus product	No	Not Applicable	
4.6	Sewage sludge or other sludge from effluent treatment	Yes	On the contrary of the sludge waste out from ETP is hazardous and need be taken away for disposal & will be given to authorised vendors.	
4.7	Construction or demolition wastes	Yes	Construction debris shall be generated during construction phase which used for levelling of low lying areas or base course of approach roads.	
4.8	Redundant machinery or equipment	No	No redundant machinery as the construction and other equipment's involved shall be transported out of the project area once the construction work is over.	
4.9	Contaminated soils or other materials	No	Not Applicable	
4.10	Agricultural wastes	No	Not Applicable	
4.11	Other solid wastes	No	The total Bio-medical waste generation will be 299 kg/day	

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

Sr. No.	Information/Checklist confirmation	Yes/No	Details thereof (with approximate quantities/rates, wherever possible) with source of information data
5.1	Emissions from combustion of fossil fuels from stationary or mobile sources	No	During Construction phase emission of Fossil fuels shall be from use of Construction machineries, vehicles and DG Sets. During Operation phase emission will be from use of DG sets on power break down and vehicles for transportation.
5.2	Emissions from production processes	No	No processes involving production.
5.3	Emissions from materials handling including storage or transport	Yes	Fugitive emission from handling such as sand, aggregates, cement etc.

Sr. No.	Information/Checklist confirmation	Yes/No	Details thereof (with approximate quantities/rates, wherever possible) with source of information data
5.4	Emissions from construction activities including plant and equipment	Yes	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, which can be minimized by the use of water sprays during construction.
5.6	Emissions from incineration of waste	No	Not Applicable
5.7	Emissions from burning of waste in open air (e.g. slash materials, construction debris)	No	Not Applicable
5.8	Emissions from any other sources	No	Not Applicable

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

Sr. No.	Information/Checklist confirmation	Yes/No	Details thereof (with approximate quantities/rates, wherever possible) with source of information data with source of information data
6.1	From operation of equipment e.g. engines, ventilation plant, crushers	Yes	Noise expected during operation of DG set shall be around 65 dBA however DG sets shall be used only as backup in case of power failure. Further proper acoustic measures shall be provided along with DG sets to reduce the noise and vibrations.
6.2	From industrial or similar processes	No	Not Applicable
6.3	From construction or demolition	Yes	There will be marginal increase in noise upto 65 dB (A) during construction work and it shall be localized to work site. The activities will be restricted to the daytime. Personnel protective equipment will be provided and their proper usage will be ensured for eardrum protection of the workers.
6.4	From blasting or piling	No	Open Foundation
6.5	From construction or operational traffic	Yes	Traffic during construction phase is negligible and during operation phase is more.
6.6	From lighting or cooling systems	No	No emission & heat will generate because refrigerant or coolant used is CFC free.
6.7	From any other sources	No	Not Applicable

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

Sr. No.	Information/Checklist confirmation	Yes/No	Details thereof (with approximate quantities/rates, wherever possible) with source of information data
7.1	From handling, storage, use or spillage of hazardous materials	Yes	Due to spillage of used oil from DG set
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. 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	The only emissions shall be from DG sets which shall be operated in case of power failure. Further adequate stack height shall facilitate dispersion of pollutants hence no risk of built of pollutants shall occur. Also the stack height will be in accordance with CPCB stipulations. The sewage will be treated and reused; hence no impact on land or water bodies is anticipated.

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

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

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

Sr. No.	Information/Checklist confirmation	Yes/No	Details thereof (with approximate quantities/rates, wherever possible) with source of information data
9.1	Lead to development of supporting facilities, ancillary development or development stimulated by the project which could have impact on the environment e.g.: <ul style="list-style-type: none"> • Supporting infrastructure (roads, power supply, waste or waste water treatment, etc.) • housing development • extractive industries • supply industries • other 	No	
9.2	Lead to after-use of the site, which could have an impact on the environment	No	Not Applicable
9.3	Set a precedent for later developments	No	Not Applicable
9.4	Have cumulative effects due to proximity to other existing or planned projects with similar effects	No	Not Applicable

(III) Environmental Sensitivity

Sr. No.	Areas	Name/ Identity	Aerial distance (within 15 km.) Proposed project location boundary
1	Areas protected under international conventions, national or local legislation for their ecological, landscape, cultural or other related value	No	Not Applicable

Sr. No.	Areas	Name/ Identity	Aerial distance (within 15 km.) Proposed project location boundary
2	Areas which are important or sensitive for ecological reasons - Wetlands, watercourses or other water bodies, coastal zone, biospheres, mountains, forests	No	NA
3	Areas used by protected, important or sensitive species of flora or fauna for breeding, nesting, foraging, resting, over wintering, migration	No	Not Available
4	Inland, coastal, marine or underground waters	Yes	Arabian Sea – 800 m
5	State, National boundaries	No	
6	Routes or facilities used by the public for access to recreation or other tourist, pilgrim areas	No	
7	Defence installations	No	
8	Densely populated or built-up area	Yes	Fully urbanised area
9	Areas occupied by sensitive man-made land uses (hospitals, schools, places of worship, community facilities)	Yes	Hospitals, schools, colleges, community facilities & places of worship are present around the Project site. These places fall under Municipal Corporation of Greater Mumbai
10	Areas containing important, high quality or scarce resources (ground water resources, surface resources, forestry, agriculture, fisheries, tourism, minerals)	No	
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,	No	

Sr. No.	Areas Name/ Aerial distance (within 15 km.) Identity Proposed project location boundary
subsidence, landslides, erosion, flooding or extreme or adverse climatic conditions)	

(IV). Proposed Terms of Reference for EIA studies
Not Applicable

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

Date: 13.12.2016

Place: Wadala, Mumbai

Mr. Sanjog Deshmukh

SHANTILAL SHANGVI FOUNDATION

Lawrence & Mayo House, 1st floor, 276, Dr. D.N. Road,
Fort, Mumbai- 400001

NOTE:

- 1) The projects involving clearance under Coastal Regulation Zone Notification, 1991 shall submit with the application a C.R.Z map duly demarcated by one of the authorized agencies, showing the project activities, w.r.t C.R.Z (at the stage of TOR) and the recommendations of the State Coastal Zone management Authority (at the stage of EC). Simultaneous action shall also be taken to obtain the requisite clearance under the provisions of the C.R.Z Notification, 1991 for the activities to be located in the CRZ.
- 2) The projects to be located within 10 km of the national Parks, Sanctuaries, Biosphere Reserves, Migratory Corridors of Wild Animals, the project proponent shall submit the map duly authenticated by Chief Wildlife Warden showing these features vis-avis the project location and the recommendations or comments of the chief Wildlife thereon. (at the stage of EC)
- 3) All correspondence with the ministry of Environment & Forests including submission of application for TOR/Environmental Clearance, subsequent clarifications as may be required from time to time, participation in the EAC meeting on behalf of the project proponent shall be made by the authorised signatory only. The authorised signatory should also submit a document in support of his claim of being an authorised signatory for the specific project.

APPENDIX - II

(See paragraph 6)

FORM-1 A (only for construction projects listed under item 8 of the Schedule)

CHECK LIST OF ENVIRONMENTAL IMPACTS

(Project proponents are required to provide full information and wherever necessary attach explanatory notes with the Form and submit along with proposed environmental management plan & monitoring programme)

1. LAND ENVIRONMENT			
(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.	<p>The existing land use will not get altered from the project. As per the zoning structure the land is reserved for Hospital purpose.</p> <p>Proposed development is in line with D. P of MCGM. Following documents are attached as supporting documents.</p> <p>1. Conceptual Plan and Detailed Building Details are attached as ANNEXURE V</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.	Total Plot Area	7,770.13	m ²
	Cancer day care centre (m ²)	Eye hospital (m ²)	Total Construction Area (m ²)
	FSI Area	21,911.88	17,799.40
	Non-FSI	7,559.17	8,349.7
	Total Construction Area	29,471.05	26,149.10
			55,620.15

	Water Consumption		
	Total Water Consumption	380	KLD
	Energy Consumption		
	Total Energy Consumption	4.5	MW
	Parking Provided		
	Details	Parking (Nos)	
	Ambulance	02	
	Parking Required (4W)	355	
	Parking Provided (4W)	481	
	Connectivity	Proposed site is accessible by 18 m & 8.25 m wide Road Location plan is attached as ANNEXURE VI	
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).	The proposed hospital project will be beneficial for the people/ patients.	
1.4.	Will there be any significant land disturbance resulting in erosion, subsidence & instability? (Details of soil type, slope analysis, vulnerability to subsidence, seismicity etc may be given).	<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.</p>	
1.5	Will the proposal involve alteration of natural drainage systems? (Give details on a contour map showing the natural drainage near the proposed project site)	The proposed development is planned in such a manner that it will not alter the existing drainage pattern within the campus.	

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)	Cutting and filling for construction activity are balanced, so no transportation of earth will be required
1.7	Give details regarding water supply, waste handling etc during the construction period.	Supply Source: Municipal Corporation of Greater Mumbai
1.8	Will the low lying areas & wetlands get altered? (Provide details of how low lying and wetlands are getting modified from the proposed activity)	No wet lands and low-lying areas on the site.
1.9	Whether construction debris & waste during construction cause health hazard? (Give quantities of various types of wastes generated during construction including the construction labour and the means of disposal)	No health hazard. Minor quantity of construction debris will be generated which will be sent out side.

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.	Enclosed as ANNEXURE IV		
2.2	What is the capacity (dependable flow or yield) of the proposed source of water?	The proposed water demand will be met from Municipal Corporation of Greater Mumbai		
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)	Water will be sourced by MCGM		
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, gardening.		
		Total sewage generated	352	KLD
		Total STP capacity	400	m ³

	Treated water recycled for flushing	101	KLD
	Treated water for gardening	6	KLD
	Sludge generated	4	KLD
	Excess treated water to sewer lines	242	KLD
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)	The total sewage of about 352 KLD will be generated from the complex. 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
		Mitigation measures: Domestic Effluent will be treated in the Sewage Treatment plant of capacity 400 m ³ . The treated sewage water will be reused for flushing, gardening purpose.	
2.7	Give details of the water requirements met from water harvesting? Furnish details of the facilities created.	The project activity shall have rainwater harvesting only of rainfall on terraces. Surface rain water will be connected to the storm water drainage system	
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?	Proposed development is in tune with D. P of MCGM 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>	<p>We will be using the groundwater for construction purposes in the proposed development. Water demand for the construction as well as operational phase will be met from sources such as MCGM.</p> <p>Rainwater harvesting scheme will be practiced for groundwater recharge, which will have a positive impact on the ground water table.</p>
<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> <p>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>	<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"> • Avoid excavation during monsoon season. • Rainwater harvesting can serve as a solution to water problem in worst case scenario. <p>Following methods can increase efficiency of rainwater harvesting and recharging groundwater.</p> <ul style="list-style-type: none"> • We are proposing Rainwater harvesting tank, percolation pit is proposed for excess water. • Reduce and filter surface runoff. • Use vegetated swales and depressions to reduce runoff. <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 evaporation and the remaining part overflows as storm water runoff. 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 no be problem of water logging due to this project.</p>
<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)</p>	<p>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.</p>

2.13 What on-site facilities are provided for the collection, treatment & safe disposal of sewage? (Give details of the quantities of wastewater generation, treatment capacities with technology & facilities for recycling and disposal)	The Sewage Treatment Plant (STP) is designed to treat the raw waste water generated from Hospital building.
2.14 Give details of dual plumbing system if treated waste used is used for flushing of toilets or any other use.	Yes, we will provide dual plumbing system for the Hospital.

3. VEGETATION

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.
3.2 Will the construction involve extensive clearing or modification of vegetation? (Provide a detailed account of the trees & vegetation affected by the project)	Changes in the vegetation will follow the TREE NOC.
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 1125.00 m ² 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.

4. FAUNA

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

5. AIR ENVIRONMENT

5.1	Will the project increase atmospheric concentration of gases & result in heat islands? (Give details of background air quality levels with predicted values based on dispersion models taking into account the increased traffic generation as a result of the proposed constructions)	The Project will result in negligible increase in the atmospheric concentrations of gases due to D.G. operations (back up power only) and the increased traffic. The proposed activity will not result in the formation of any heat islands, as it does not involve any significant change in the land use pattern or the concreting of areas.		
5.2	What are the impacts on generation of dust, smoke, odorous fumes or other hazardous gases? Give details in relation to all the meteorological parameters.	Diesel generator sets operated for back-up power supply are identified as the only major sources of gaseous and particulate emission. Impact of vehicular is not significant. SO ₂ , SPM, NO _x and CO emissions are expected due to fuel combustion in generator sets.		
5.3	Will the proposal create shortage of parking space for vehicles? Furnish details of the present level of transport infrastructure and measures proposed for improvement including the traffic management at the entry & exit to the project site.	Detail	No. of parking provided	Unit
		Ambulance	04	Nos.
		4 Wheelers	481	Nos.
5.4	Provide details of the movement patterns with internal roads, bicycle tracks, pedestrian pathways, footpaths etc., with areas under each category.	Internal roads, footpaths/ pedestrian pathways have been planned within the proposed complex		
5.5	Will there be significant increase in traffic noise & vibrations? Give details of the sources and the measures proposed for mitigation of the above.	Considering the addition of vehicles due to the proposed project with the existing roads and vehicles plying on them, there will be marginal increase in the noise levels but will not result in an impact.		
5.6	What will be the impact of DG sets & other equipment on noise levels & vibration in & ambient air quality around the project site? Provide details.	DG set will be used in construction and operation phase only in case of power failure. The DG Sets shall be as per the guide lines laid down by EPR for specific noise emission standards. Measures shall be taken for reduction of noise by using acoustic enclosures. Noise emissions are expected from various construction equipment and machinery but will not result in an impact.		

6. AESTHETICS

6.1	Will the proposed constructions in any way result in the obstruction of a view, scenic amenity or landscapes? Are these considerations taken into account by the proponents?	The proposed land use of the site would be mainly Hospital project 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.

7. SOCIO-ECONOMIC ASPECTS

7.1	Will the proposal result in any changes to the demographic structure of local population? Provide the details.	No. Majority of the labour will be recruited locally and 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 doesn't come in Agricultural area.
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.

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	Yes the building materials with high embodied energy will be used
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	the selection of building materials and their energy efficiency)	
8.2	Transport and handling of materials during construction may result in pollution, noise & public nuisance. What measures are taken to minimize the impacts?	Adequate 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. As per Environmental Management Plan.
8.3	Are recycled materials used in roads and structures? State the extent of savings achieved?	Fly ash in cement concrete. Typically 20- 25 % of 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: 419 kg/day Bio medical Waste generated: 299 kg/day

9. ENERGY CONSERVATION

9.1	Give details of the power requirements, source of supply, backup source etc. What is the energy consumption assumed per square foot of built-up area? How have you tried to minimize energy consumption?	Source of power supply: BEST DG Set will be provided as emergency backup.		
		Total Energy Consumption	4.5	MW
		Total DG Set Capacity	3X1,250	kVA
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.		
		Total	3X1,250	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?	Laminated Glass for Hospital Building. Specifications such as colouring, resistance to fire, ultraviolet filtering and other technologies that can be embedded in or with the interlayer.		
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 utilised 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.	No														
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. Currently all rooms except general wards are fully air conditioned. The design of the building will be such that maximum use of cross ventilation can be achieved for general wards – 1 st floor. 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.	<table><tr><td colspan="4">U value in Watts/hr/m²/°C</td></tr><tr><td>Roof</td><td></td><td>0.409</td><td>Watts/hr/m²/°C</td></tr><tr><td>Wall</td><td></td><td>0.44</td><td>Watts/hr/m²/°C</td></tr></table>			U value in Watts/hr/m ² /°C				Roof		0.409	Watts/hr/m ² /°C	Wall		0.44	Watts/hr/m ² /°C
U value in Watts/hr/m ² /°C																
Roof		0.409	Watts/hr/m ² /°C													
Wall		0.44	Watts/hr/m ² /°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"> Aluminium windows with rubber gasket, so that the windows are sealed, will be provided. Summer Cross section ventilation will be provided - 1st floor.
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

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

ANNEXURE I
Area Statement

	Eye hospital (m²)	Cancer Day Care Centre (m²)	Total (m²)
FSI Area	21,911.88	17,799.40	39,711.28
Non-FSI	7,559.17	8,349.7	15,908.87
Total Construction Area	29,471.05	26,149.10	55,620.15

ANNEXURE II
Building Details

Proposed Building Details:

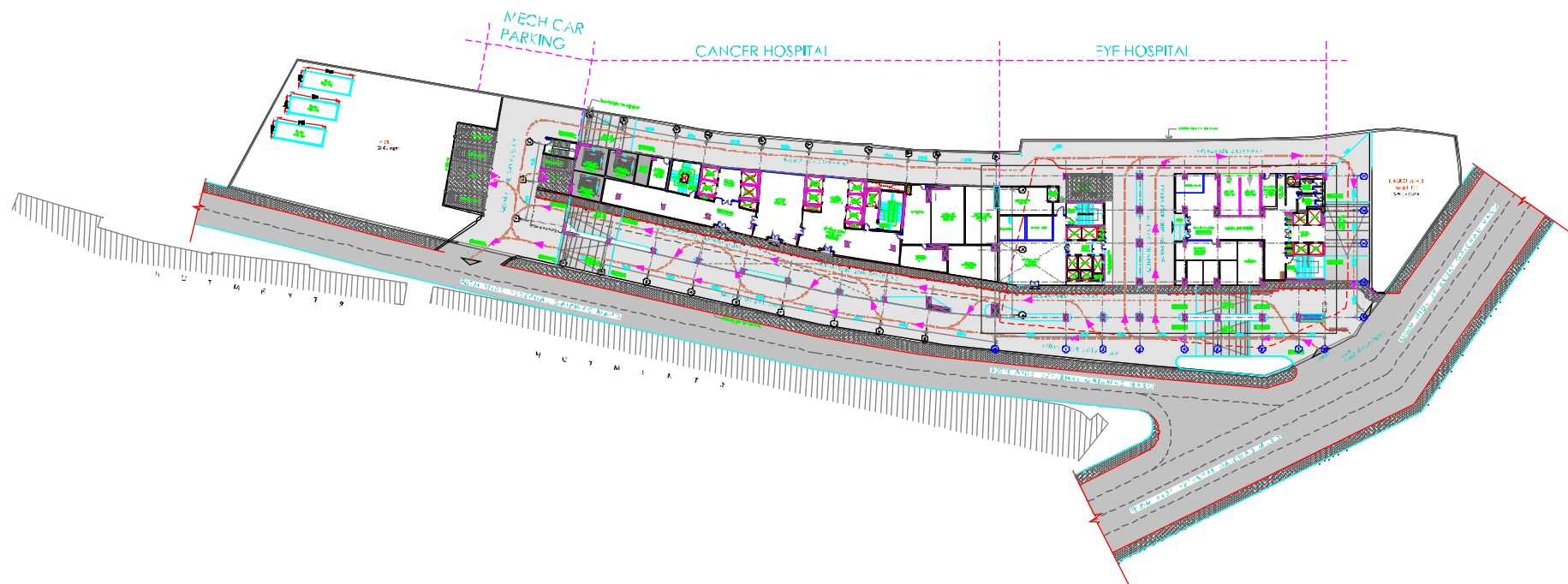
Sr. No.	Description	Building Configuration	Building Height (upto terrace level)
1.	Proposed Building (Eye Hospital)	2B+G+15 th upper floors	60.00 m
2.	Proposed Building (Cancer day care centre Hospital)	2B+G+15 th upper floors	60.00 m

ANNEXURE III

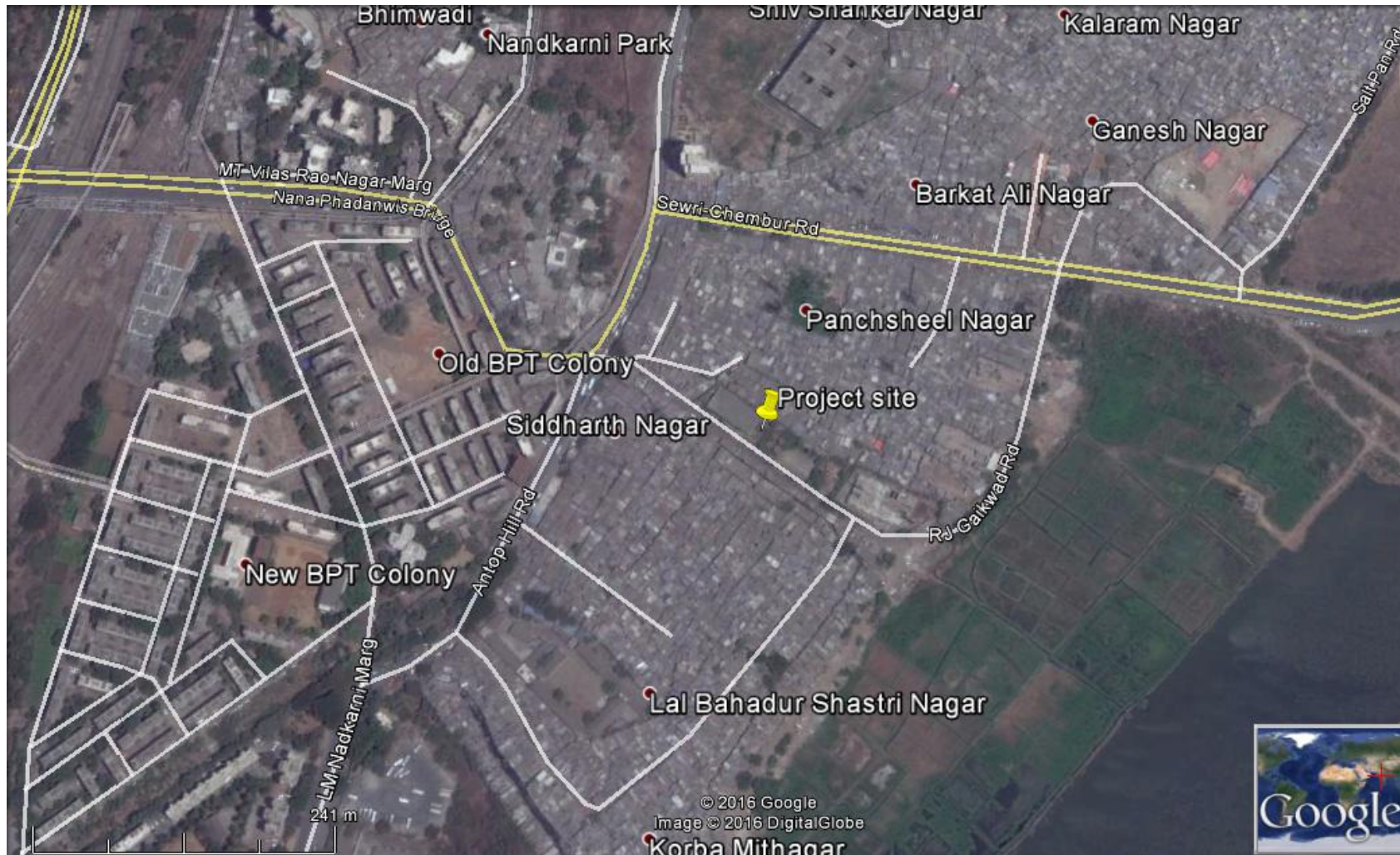
Water Balance

Particulars	No. of Units	Occupancy	Population	Water Requirement Basis (lit/day)	Water Demand m ³ /day
Cancer Day Care Centre Beds	580	1	580	450	261
Eye Hospital Beds	60	1	60	450	27
Rooms (Doctors)	5	2	10	135	1
Patients Relatives	580	1	580	90	52
Hospital Staffs (Eye + Cancer)	550	1	550	45	25
Floating Population	300	1	300	45	14
Total			2080		380
Sewage Generation			90% of Domestic water+ 100% of Flushing		352
Sludge			1% of Sewage Generation		4
Recycling for Flushing					
Cancer Day Care Centre Beds	580	1	580	90	52
Eye Hospital Beds	60	60	60	90	5
Rooms (Doctors)	5	2	10	45	0.5
Patients Relatives	580	1	580	30	17
Hospital staff	550	1	550	30	17
Floating Population	300	1	300	30	9
Total			2080		101
Gardening		1,125.00		5l/m ²	6
Excess Treated Water to Sewer Lines					242

ANNEXURE IV Conceptual Plan



ANNEXURE V
Location Plan



ANNEXURE VII**Environmental Management Plan during Construction Phase**

Sr. No.	Environmental Components	Predicted Impacts	Probable source of Impact	Mitigation Measures	Remarks
CONSTRUCTION PHASE					
1.	Ambient Air Quality	Negative impact inside construction site premises. No negative impact outside site.	Dust emissions from excavation, air emissions from machinery and other construction activities at site.	Dust reduction measures such as road watering. Periodic maintenance of construction equipment. Use of good quality fuels. Use of Personal Protective Equipments	Impacts are temporary during construction phase. Impacts will be confined to short distances, as coarse particles will settle within the short distance from activities.
2.	Noise	Negative impact near noise generation sources inside premises. No significant impact 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	Reutilization and recycling of construction debris	

			from labour camp.	Waste from labour camps will be collected and composted on site. Non compostable waste will be transported to landfill site. Topsoil will be conserved and used for landscaping in functional phase.	-
5.	Aesthetics	Minor negative impacts	Construction activities and Excavation	The impacts will be compensated by extensive tree plantation and gardening in the use phase.	Short term impact restricted only in the initial stages of construction.

ENVIRONMENTAL MANAGEMENT PLAN DURING FUNCTIONAL PHASE

Sr. No.	Environmental Components	Predicted Impacts	Probable Source Of Impact	Mitigation Measures	Remarks
FUNCTIONAL PHASE					
1.	Ambient Air Quality	Minor Negative impact	Particulate and gaseous emissions from DG sets and vehicle movement	Use of low sulphur good fuel Periodic maintenance of DG sets Use of CNG/LPG as a fuel should be encouraged.	DG sets will be used.
2.	Noise	Minor negative impact inside premises.	Noise from vehicle movement and operation of diesel generator sets during power failure.	Housing of DG sets in buildings with appropriate acoustics. Traffic management measures to reduce noise Appropriate trees which will act as noises barriers will be planted in the premises and along roadside.	--
3.	Water	No significant adverse impact	Oil/ fuel and waste spills in vehicle parking area. Discharge of sewage. Discharge of contaminated storm water	Sewage water will be treated and recycled. Rainwater harvesting and recharge of groundwater aquifer is proposed. Good housekeeping and storm water management will be followed.	Recycled water will be used for gardening and flushing purpose.
4.	Land	No negative	Storage and	Treatment and	Segregation of

Sr. No.	Environmental Components	Predicted Impacts	Probable Source Of Impact	Mitigation Measures	Remarks
		impact	disposal of solid wastes. Discharge of sewage. Fuel and material spills.	reuse of sewage water. Integrated waste management and spill control plan Dry garbage will be sent for recycling and wet garbage will be composted.	dry and wet garbage before will be done before disposal.
5.	Biological	Overall Positive impact	Habitat disturbance	Green spaces inside the premises will help to compensate the earlier effect from vegetation. Landscaping and extensive plantation in the premises.	Landscaping will help in reducing any adverse impacts on air and noise quality.
6.	Socio-economic	Overall positive impact	Increased job opportunity in household maintenance and ancillary services.	--	Positive and long term impact-
FUNCTIONAL PHASE					
7.	Traffic Pattern	No significant Impact	The complex is likely to add moderately to the traffic flow considered during peak hour.	Traffic Management practises will be employed. Adequate parking space will be provided in the premises.	