Executive summary

Proposed Redevelopment Project Of
Residential Building

Name Of Developer

(self-development of the society)

NEW LAXMI CO-OPERATIVE HOUSING SOCIETY LIMITED

PLOT NO. 707, 21ST ROAD, KHAR WEST, MUMBAI-400 025

Mumbai the capital of Maharashtra is also the financial capital and the most populated city of India. Mumbai has grown in recent decades for many residential and commercial developments. Diminishing of industrial zones and development of corporate offices, mall culture in very short period is one of the features of today's Mumbai. Mumbai has many old, dilapidated structures. They are very unsafe to retain. Many of them are in CRZ zones. Development of those by rehabilitant those tenants along with development of new flats to compensate the development charges will not be possible if Extra FSI is not used. Because of CRZ conditions the FSI restriction makes those structures unattended.

1.1 PREAMBLE

We are aware that there are constraints on the availability of open land within the city limits coupled with fast growing demand for houses and storage of housing stock. On the other hand, that there are thousands of ageing buildings which are dilapidated and have reached a stage where it is not possible to carry out structural repairs and rehabilitation as the same are not economically viable. The redevelopment of cess dilapidated building has become a necessity since the problem of old and dilapidated buildings in the city of Mumbai grows more acute with each passing year and with each passing monsoon more and more building become dangerous and unfit for habitation. Hence, **society** has identified business possibility in this field to provide space for accommodation. have identified dilapidated buildings for redevelopment namely **NEW LAXMI CO-OP HOUSING SOCIETY LTD** Building.

1.2 NEED OF PROJECT

Many buildings collapse each year, killing or injuring people. Many of these buildings are so run down that they are unrepairable and the only solution is to put them down totally and to reconstruct them. Government has floated various schemes wherein they have allowed incentive FSI for carrying out redevelopment schemes. Proposed redevelopment thus will help the existing tenants to get permanent, safe structure. At present they are residing in old building.

As per MCGM – Notice under section 353(B) of the Mumbai Municipal Corporation

Act Notice No: - **HW/DO1HW/098/354-MMC ACT/Date: - notice under section 354 of the Mumbai municipal corporation act. Notice no. HW248NO1/ 28-06-2019 Ref. no 94589 are given in**

In accordance to with the earlier D.C. Regulation 33(7) and Appendix - III to this regulation 33(7) as the above-mentioned property is affected by CRZ as per Govt. of India Notification issued under No. So -114(E) of 19.02.1991 Coastal Regulation Zone Notification 2011 issued under SO. 19(E) dated 06.01.2011 and Office Memorandum issued by MCZMA, Environment Department, Government of Maharashtra dated 02.07.2011, Notification No. TPB 4308/3224/CR-268/08/UD-11 dated 2nd March 2009. The proposed project needs to obtain prior permission from Maharashtra Coastal Zone Management Authority (MCZMA)for redevelopment.

Redevelopment of Residential Building at KHAR WEST, Mumbai

Table 1.2 Site structure photograps .

1.3 Applicability of CRZ Notification 2011

As the site under reference is affected by CRZ-II zone, it attracts the CRZ legislation as per 6th January 2011 notification for Coastal Regulation Zone (CRZ and the regulating activities in the CRZ). According to para 4(d) of CRZ notification 2011, the proposal for the construction in the areas falling in CRZ-II shall be approved by the concerned states or Union territory Planning authorities. In accordance with this notification one can obtain recommendations from the concerned MCZMA and subsequently CRZ clearance accord based on requisite documents like Form I, CZMP map, DP plan etc.

1.4 IDENTIFICATION OF PROJECT PROPONENT

New laxmi chs ltd. proposed redevelopment of a residential building on subjected land. The details of the project proponent are given in

Table-1.1: Details of Contact Person

Sr.No.	Particular	Details
1	Name of Developer	**New Laxmi CHS LTD.**
2	Name of Contact Person	**DILIP DEEPCHAND**
3	Designation of Contact Person	**CHAIRMAN**
4	Contact No	**9821061811**
5	Email	dlp.jog@gmail.com
6	Address	NEW LAXMI CHS PLOT NO 707 21ST ROAD KHAR WEST MUM 400052

1.5 LOCATION OF THE PROJECT

The proposed project admeasuring about **702.30 sq.m.** (as per PRC) and of plot area is situated on. **NEW LAXMI C.H.S. LTD., H-99/C-8 21ST ROAD, KHAR WEST, MUMBAI 400052. T**he Google image of the proposed site is given in Figure 1.2

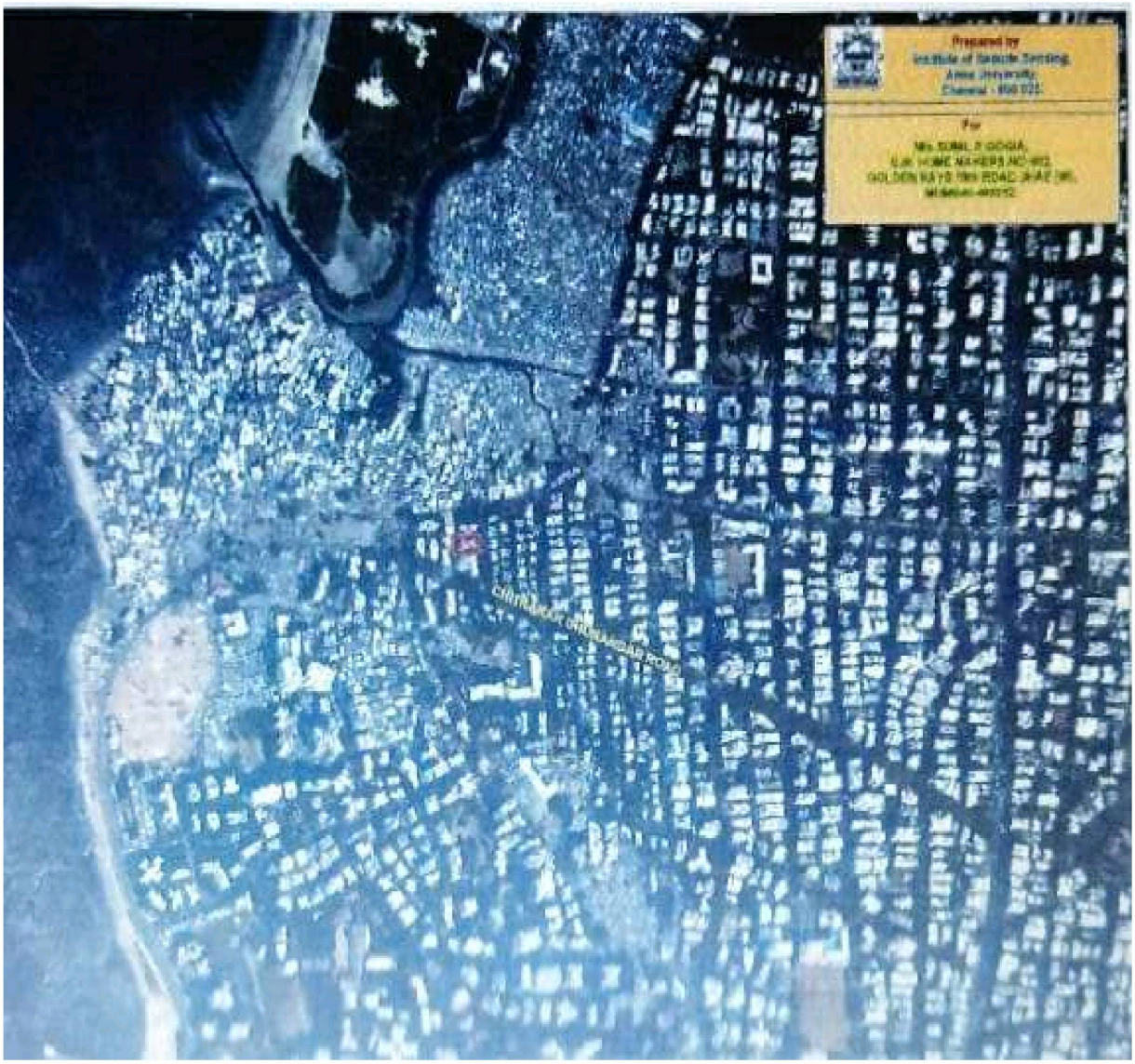
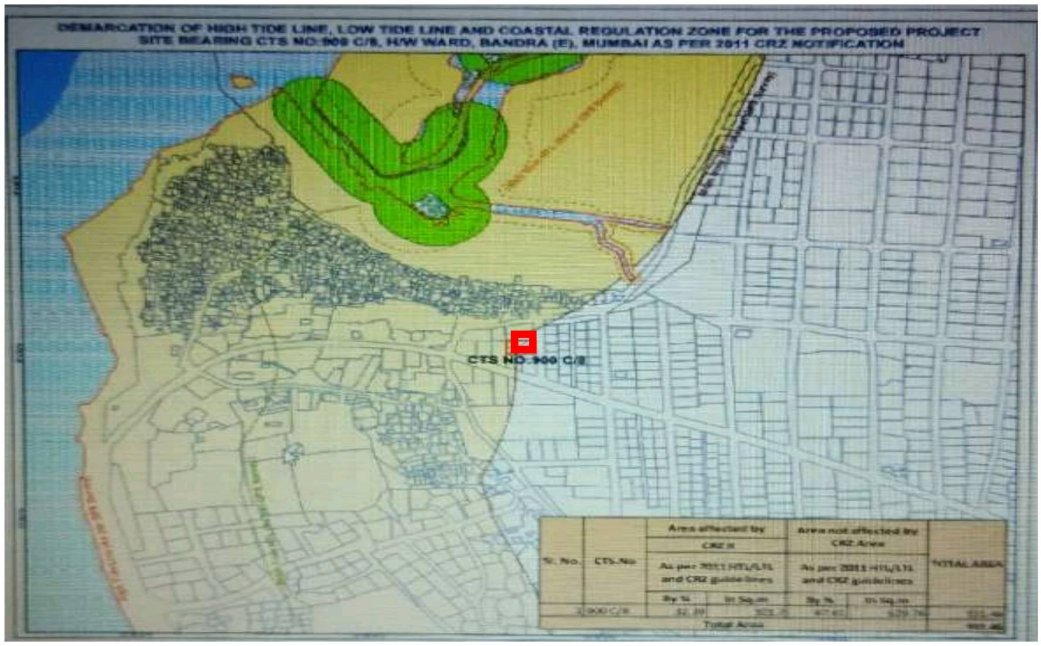
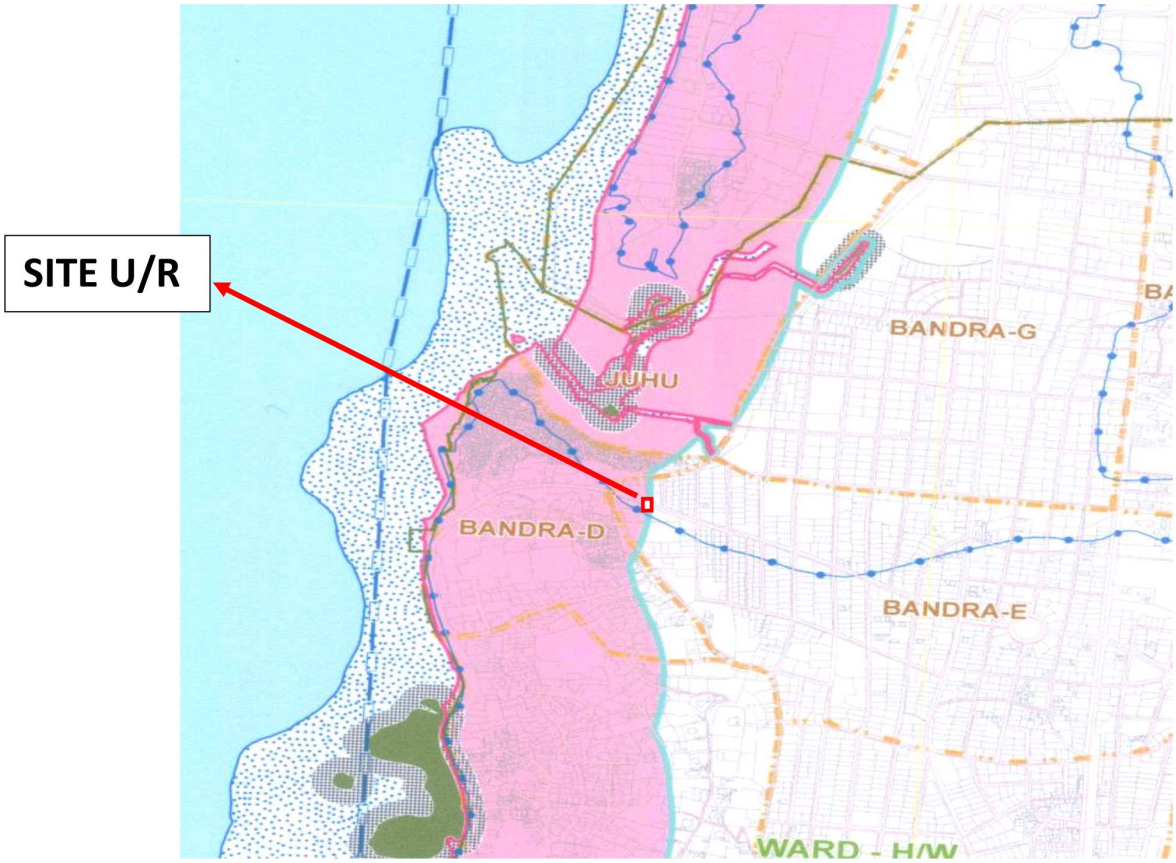


Figure 1.2:-Location of Proposed Project on Google Image

Figure 1.3:- Showing Location of Proposed Project on CZMP Map





DESCRIPTION OF PROJECT SITE

The proposed project has existing access road from Bandra east The environmental features are illustrated in given Table 1.2 given below.

Table-1.2: Environmental Setting of Proposed Project

1	Latitude	19 °04' 16.507" N
2	Longitude	72° 49' 18.936" E
3	Elevation above MSL	5.98m
4	Climatic Conditions	
5	Present land use at the proposed site	Residence
6	Transport Connectivity	Road
A	Nearest Highway	
B	Nearest Railway Station	Khar-west
C	Nearest Road	
7	Social Aspect	
A	Nearest School/College	
B	Nearest Hospital	
C	Nearest Fire Station	
D	Nearest Police Station	
8	Hills/Valleys	Nil
9	Ecologically sensitive zones within 15-Km distance	NIL
10	Seismic Zone	Zone – III

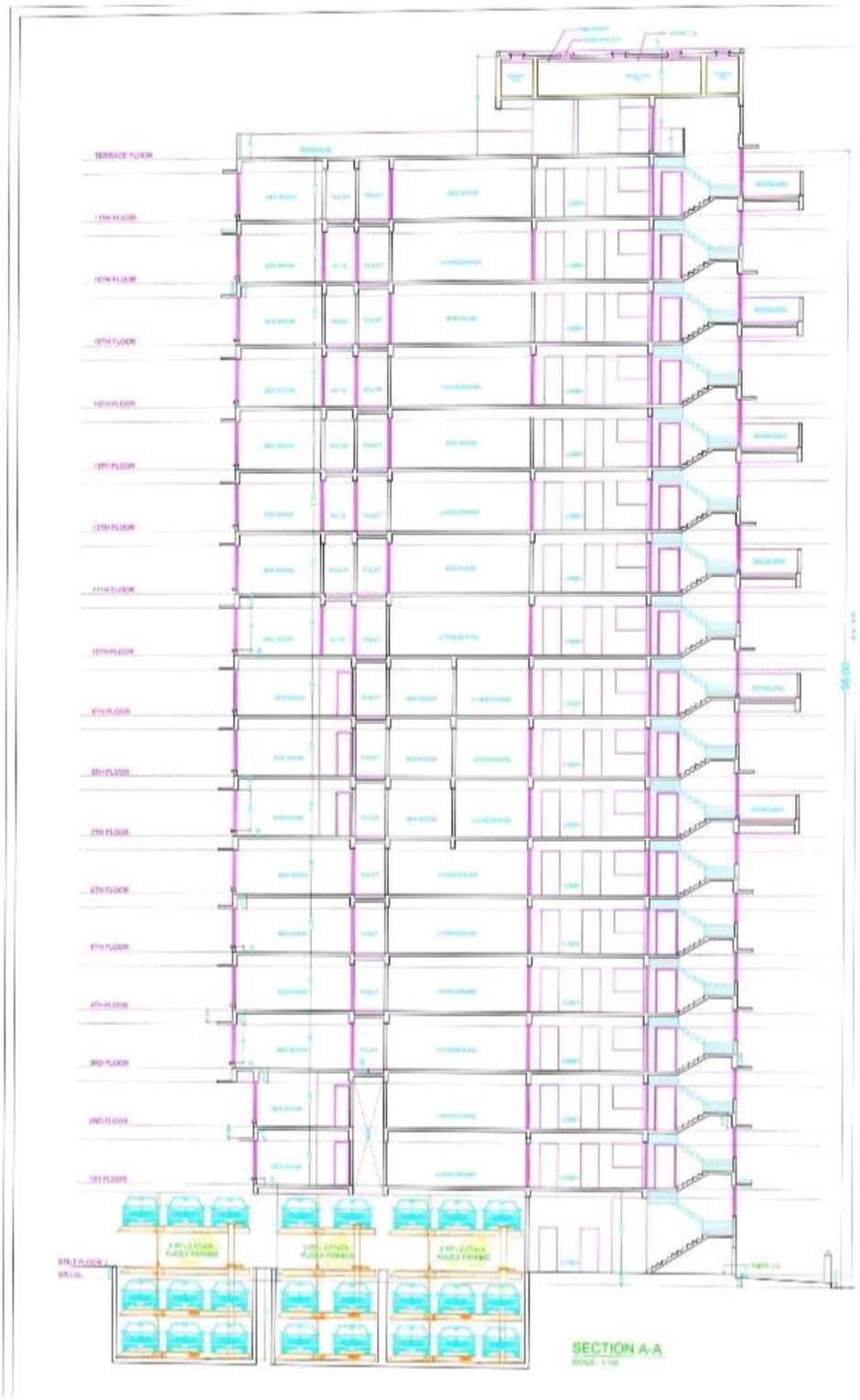
1.5 PROJECT LAYOUT

The proposed project is a redevelopment project which comprises of

Figure 1.4, 1.5 and 1.6 respectively

Figure 1.5: - Location plan of the Proposed site

Figure 1.5: - Block plan of the proposed site



Project configuration and Slit floor plan

BRIEF DESCRIPTION OF PROJECT

The brief description of the proposed project is given Table 1.3.

Table 1.3: Brief description of the project

#	Particular	Details
1	Project Type	Residential
2	Location	Khar danda
	CTS No	D900/C-8
	Village	Bandra -E
	Tehsil	Andheri
	District	Mumbai
	State	Maharashtra
3	Site fall under CRZ I/II/III	II
4	Distance of proposed building from HTL	500 mts
5	Proposed Plot Area	702.30
6	Permissible FSI	One
7	Permissible BUA	1
9	Total construction area	
10	No of Buildings	1
11	Configuration of proposed Buildings	G+17 upper floor
12	Population	75to 100 approx.
13	Water	BMC
a	Source	BMC
b	Total water requirement	16KLD
c	Total sewer generation	
d	Mode of Disposal	MCGM Sewer line
14	Solid Waste Generation	100 kg per day
15	Mode of Disposal	BMC

16	Power	Adani
a	Requirement	
b	Source	ADANI
17	Project cost	13.56.93.750.00
18	Parking Details (no of parking's)	24

2.0 DESCRIPTION OF THE ENVIRONMENT

2.1 METEOROGICAL

Relative Humidity	Temperature	Rainfall
Climate of district Mumbai can be generally classified as warm and moderately humid. Relative humidity ranges from 32% in April to 82% in july	Annual Mean Maximum Temperature: 36◦c Annual Mean Minimum Temperature:16.5◦ c	Total Mean Annual Rainfall: 2567 mm

2.2 AMBIENT AIR QUALITY

The range of average values of the pollutants is as below.

parameters	Range of Pollutants Present	Unit
SO_2	19.0 - 29.0	µg/m3
NO_x	26.5 – 42.0	µg/m3
RSPM	78.0-168.0	µg/m3

2.3 NOISE LEVEL

DAY Time Noise Levels [(L_{Day})]

The noise levels ranged between 48.20 dB(A) to 74.60 dB (A).

Nighttime Noise Levels (L_{night})

The noise levels ranged between 25.99 dB(A) to 51.15 dB(A).

2.4 WATER QUALITY

Ground Water Quality:

Parameters	Units
pH	7.8
Suspended Solids	40.0 mg/L
TDS	280 mg/L
Conductivity	300 µs/cm
Chloride	302mg/L
Hardness	200 mg/L

2.5 DEMOGRAPHY AND SOCIO- ECONOMIC PROFILE

Ward	Area	Land Area	Households	Population	Density/Km^2
H/W	Khar-w	**702.30 sq.m.** (as per PRC)			Approx.

3.0 ANTICIPATED ENVIRONMENTAL IMPACTS & MITIGATION MEASURES

3.1 WATER SUPPLY AND WASTEWATER MANAGEMENT

Construction Phase:

Water Supply:

During construction phase, water will be supplied by MCGM for drinking and other domestic purposes of the construction labors and by tankers to be used for construction. Total water requirement during the construction phase is about 50 cmd. Water will be utilized for domestic use of construction laborers and for construction activity.

Wastewater generation:

Wastewater during the construction phase will be sewage generation, estimated as **8 cmd (80% of water supplied).** The details of Water Requirement and Waste generation during Construction Phase are given in Table 1.4.

Table 1.4: Water Requirement and Waste generation during Construction Phase

Sr. No.	Purpose	Source	Quantity (cub .m/day)	Wastewater generated (cub .m/day)
1.	Domestic use of construction workers	MCGM	10	8 (@80% of water supply)
2.	Construction activity	Tanker water	40	--
	Total		**50**	**8**

Management:

1. Temporary toilets would be made available for construction workers. It would be directly connected to the existing municipal sewer line for disposal of wastewater.
2. Care will be taken to ensure that the water used for construction purposes does not accumulate on the site to prevent breeding of mosquitoes.

Operation Phase:

Water supply:

During operation phase, water supplied by MCGM will be used for domestic purpose and for other purposes like flushing, gardening etc.

Water requirement

The average water consumption for residential buildings has been calculated as 135 liters per capita per day (90 liter for domestic purposes and 45 liter for flushing) (as prescribed by the Central Public Health and Environmental Engineering Organization or CPHEEO). During operation phase, water supplied by MCGM would be used for domestic purpose and for other purposes like flushing & gardening etc. The details of Water Requirement and Waste generation during Operation Phase are given in Table 1.5. Water Balance is given in figure 1.6 respectively.

Table 1.5: Water Requirement during Operation Phase

Purpose	Quantity (KLD)
Total water requirement	16
Domestic water requirement	10.43
Flushing water requirement	5.57
Landscape water requirement	0.8
Total sewage generation	13.60

3.2 SOLID WASTE GENERATION AND MITIGATION MEASURES

Construction stage:

During the construction stage, construction waste would be generated which would include debris, concrete, steel and other metals, bricks, pallets, packaging and paper products, railings, door and window casings, fixtures, tiles, furnishings etc.

Operation stage

During operation phase, solid waste will be generated @ 0.4 Kg/ day for residential purposes. The details of solid waste generated during operation phase are given in Table 1.6.

The main solid waste generated from the proposed project is due to consumption of food materials, plastic, packing material and paper. The solid waste will be segregate at the site and recyclable material will be sold out through vendors. Biodegradable waste would be transferred to mechanical composting units within the premises and rest will be disposed of into the garbage collecting vehicles of the local authorities.

Sr. No.	Waste Type	Collection and Storage	Method of Disposal
1.	Organic waste	Manual collection & storage at ground level.	Treatment in mechanical composting units provided at the ground level within the premises. The manure generated

			will be used for gardening.
2.	Inorganic waste	Manual collection & storage in closed rooms at ambient temperature	Disposed to the municipal waste collection system and recyclable waste to be taken away by private contractor for resale.

Proposed method for Solid Waste Management

Table 1.6: Solid Waste Generated during Operation Phase

	Quantity (Kg/Day)
Total Solid waste generated (@0.4 kg/Person/ Day)	52
Bio-degradable waste generated @60%of total waste	31
Non-Biodegradable waste generated @40% of total waste	21

3.3 POWER REQUIREMENT

During Construction Phase:

Power required for the general purpose will be approx. 100 KW & shall be taken from local authority from the existing connection.

During Operational Phase:

For the proposed high rise building the average electrical load consumption per day is 737.63 KVA while the average annual consumption is 4235 KVA.

Transformers will be as per BEST Norms.

The same will be operated for essential power requirements such as fire lifts , water pumps, and passage lighting etc. As in Mumbai there is hardly any power failure is observed.

The building will have following energy saving measures.

- Light fixtures will be used with energy saving CFL & T5 fluorescent tube with electronic chocks.
- Selection of Energy efficient equipment's (BEE STAR RATED).
- All vertical fenestrations will be as per ECBC.

3.4 AIR & NOISE POLLUTION & CONTROL MEASURES

The sources of air vehicular movement and honking. By implementing appropriate mitigation measures these effects are expected to become insignificant.

3.5 FIRE FIGHTING MEASURES

For protection of the facility against fire, all the units will be equipped with any one or a combination of the following firefighting systems:

- Smoke detector, and smoke alarm system
- Fire Detection and alarm system; and
- Different types of fire extinguishers.
- Precautions will be taken as per NBC & C.F.O NOC.

For storage of water for firefighting in case of emergency, a firewater underground sump will be provided. This will serve the firefighting needs of the project.

4.0 ENVIRONMENTAL MONITORING PROGRAMME

4.1 Environmental monitoring

The post project monitoring to be carried out at the project site will be as mentioned below:

- **Air Pollution and Meteorological Aspects**
  Both ambient air quality and stack emissions shall be monitored. The ambient air quality shall be monitored once in three months by engaging the services of the laboratory approved by SPCB/ MOEF.
- **Wastewater quality**
  The wastewater generated from sanitation shall be monitored once in a month for physio - chemical characteristics and results reported to SPCB. The treated water from STP shall be monitored once in a month of physio-chemical characteristics and results.
- **Noise levels**
  Noise levels shall be monitored once in three months.

Environmental Monitoring Plan

During Construction Phase				
	Item	**Parameters**	**Frequency**	**Location**

1.	Ambient Air Quality	SPM, RSPM, SO_2,NOX, HC & CO	Quarterly	At major construction area. (Total 1 station)
2.	Noise Level	Equivalent noise Level dB(A)	Daily	At major construction area. (Total 1 station)
3.	Drinking	Analysis of water for physical, chemical,	Quarterly	Municipal supply

	water	Biological parameters.		

During Operation Phase				
	Item	Parameters	Frequency	Location
1.	Ambient Air Quality	SPM, RSPM, SO_2, NOX, HC & CO	Quarterly	Total 1 station
2.	Noise Level	Equivalent noise Level dB(A)	Quarterly	Total 1 station
3.	Drinking Water	Analysis of water for physical, chemical, biological parameters	Quarterly	Municipal supply

5.0 Environment Health and Safety

All the safety and security measures shall be observed at constructions site. Safety precautions will be observed as per the guidelines during the construction phase. Personal Protective Equipment's (PPE) will be provided to all the personnel involved in the construction activities. The project authorities will ensure use of safety equipment's for workers during execution process. The safety and security officers shall supervise the site. Proper training will be given to workers and authorities to handle the hazard situation.

Safety Measures Onsite

1) Parameters and Quality will be strictly adhered to as per the approved architectural design data/map. All the regulations of government authorities will be followed.
2) All the safely precaution will be observed as per the guidelines during the construction phase. Personal Protective Equipment's (PPE) will be provided to all the personnel involved in the construction activities.
3) Site barricading by corrugated tin sheets up to height of 5.0 mtr will be done to protect the surrounding area of the project site from nuisance/ dusting.
4) All electrical connections & cables will be checked by authorized persons to ensure the safety of workers on field.
5) Water sprinkling will be done, wherever required to reduce the dusting in atmosphere. Jute barricading along building / plot boundary shall be provided to minimize noise level from construction activities.
6) The safety and security officers shall supervise the site.
7) Safety helmets will be mandatory to all the persons present on the site during the construction Activities.
8) Hand gloves and dust masks will be provided to persons handling construction materials during the operation.
9) Safety belts will be provided to the persons working at height during the operation.
10) Safety nets will be arranged at a height at about 5.0 mtr when the structures get raised above the required height from the ground.

6.0 Additional Studies

Disaster Management Plan

This provision is applicable in the present case only to safety and fire hazard because it is a small residential unit. The only hazards envisaged here are from fire either due to short circuit or gas cylinder in the kitchen of individual houses. There are no other manmade disasters expected. We have not considered here the natural disasters like flooding, earthquake etc.

Normal safety plans and precautions are expected to be in place as per CFO and MCGM guidelines. To maintain the ecological balance and check any probable harmful effect, proper EMP, good housekeeping around project site, have been suggested.

The fire safety measures followed will be:

- Underground and overhead water storage tank
- Exit sign & Emergency escape route sign shall be provided
- Fire pumps, sprinkler pumps with jockey pumps to be provided
- Pressurized wet risers at mid-landing in the duct adjoining each staircase with hydrant outlet and hose reel on each floor
- Portable extinguisher and bucket filled with sand shall be kept in Electric meter room, Lift machine room and entire parking.
- Automatic smoke detection & Fire alarm system
- Fire escape staircases, fire lift & fire safety doors as per DC Regulations and in the line with NBC 2005

The Disaster Management Plan studies include:

- Identification of the major hazards to people and the environment.
- Assessment of the risks
- Develop warning system wherever possible.
- Develop manpower and measures to prevent / control the risks.
- Make advance preparations to face the disaster, minimize the losses, provide help to affected people.
- Planning to recover from the effects of the hazard.

7.0 PROJECT BENEFITS

The project proponent seems to be safety conscious and alert about good housekeeping .and is environment friendly. We may conclude as under:

- Proposed Redevelopment project is in juhu. area of Mumbai. The site under reference is affected by CRZ-II zone. Thus, property attracts the CRZ legislation, which is reflected in CZMP plan.
- The proponents are following all the Firefighting safety rules and regulations as prescribed by M.C.G.M and CFO regulations.

- Ambient Air quality of the project site will be within the permissible limit as prescribed by National Ambient Air Quality Standards.
- Grey water Recycling Plant is proposed for treatment of grey water generated from proposed project. Black water generated from proposed project will be directly connected to the existing Municipal sewer line.
- Solid waste will be collected and segregated and kept separately for wet and dry garbage. Dry garbage will be sorted into recyclable and nonrecyclable. Recyclable dry garbage will be disposed to authorized recycling agencies and nonrecyclable will be sent to land fill sites by the municipality. Wet garbage will be treated by
- Air, water, Noise, soil parameters will be studied during construction as well as after construction to minimize the environmental impact by taking proper precautionary measures.
- No significant impact is seen on flora and fauna.
- Fly -ash will be used in concrete work.
- Total 8 trees will be planted along with landscape development to improve microclimate.
- The project will generate employment opportunities during construction stage and at operational phase.
- Proposed buildings have considered energy efficient lighting.

Thank you