Executive Summary

For

Proposed Redevelopment Residential Building "Mayura Co.op. Housing Society"

on Plot Bearing C.T.S. No. 305/6, Govind Pariyani Lane, Valnai Village, Marve Road , Malad (West), Mumbai-400 064

by Developer

M/s. Reface Buildcon LLP

1. INTRODUCTION

1.1 Introduction of the Project

Proposed building is situated at on Plot Bearing C.T.S. No. 305/6, Govind Pariyani Lane, Valnai Village, Marve Road, Malad (West), Mumbai-400 064.There were 9 nos. of tenants residing in the building The structure being dilapidated, very old and unsafe for people residing in it, The Municipal Corporation of Greater Mumbai has issued the notice vide No. ACPN/354/BF-35/06/2019 dated 31/08/2019 followed by the guidelines issued by The Municipal Corporation of Greater Mumbai for the demolition of the building vide letter ACPN/5823/AEB& F dated 21/08/2020 . The said society is now being proposed to be redeveloped by **M/s. Reface Buildcon LLP** in to a residential building.

The proposed redevelopment structure comprises of Ground Stilt Floor +10 upper floors. The proposed redevelopment is for residential users. The land use of the existing plot is residential zone as per Development Plan Remarks. The plot is surrounded by the residential developments.

The cost of the project is Rs. 3.90 Cr. as per valuation report carried by certified registered valuer. Where as the total cost of the project including all other expenses shall be Rs. 8.75 Cr.

Developers
The developer of the project is Shri Nitin Bhosle & partners of M/s. Reface Buildcon LLP.

1.2 Purpose of the project:

Proposed redevelopment of Plot Bearing C.T.S. No. 305/6, Govind Pariyani Lane, Valnai Village, Marve Road , Malad (West), Mumbai-400 064.and thereby obtain CRZ-Environmental Clearance as per clause 33(7) of DCR – 1991 in force as on 6th January 2011. As per MoEF & CC vide Notification dated 6/1/2011, redevelopment of dilapidated and unsafe buildings in CRZ areas are permitted with special advantages, in which the project is planned as per DCR's in force as on 6/1/2011 and staircase/ lobby/ lift area is claimed free of FSI, as per clause 35(2)(c) of DCR 1991.

The proposal is submitted for prior CRZ clearance, as per the requirement of amended CRZ notification-2011 and the check list finalized by MCZMA vide Office Memorandum dated 02/07/2011.

Current development thus will help the existing tenant to get permanent, safe structure. At present they were residing in unsafe building. Demolished buildings Photos of the same are given below.

Figure 1: Demolished buildings Photographs

The project site s in CRZ area, CRZ-IA (50 m Mangrove buffer zone) 240.57 m^2 and CRZ II area 140.63 m^2 Hence the work is permitted subject to the approval of CRZ clearance. Thus the property attracts the CRZ legislation, which is reflected in CZMP plan. The site is super imposed on CZMP and independent report id prepared by Institute of Remote Sensing, Anna University, Chennai, (IRS, Chennai) the authorized agency of MoEF & CC

2 PROJECT DESCRIPTION

Proposed building is situated at on Plot Bearing C.T.S. No. 305/6, Govind Pariyani Lane, Valnai Village, Marve Road, Malad (West), Mumbai-400 064.There were 9 nos. of tenants residing in the building The structure being dilapidated, very old and unsafe for people residing in it, The Municipal Corporation of Greater Mumbai has issued the notice vide No. ACPN/354/BF-35/06/2019 dated 31/08/2019 followed by the guidelines issued by The Municipal Corporation of Greater Mumbai for the demolition of the building vide letter ACPN/5823/AEB& F dated 21/08/2020 . Copies enclosed as Annexure 1 and 2 respectively. The said society is now being proposed to be redeveloped by M/s. Reface Buildcon LLP in to a residential building.

As mentioned in the CRZ remarks issued by MCGM;

1. As per the sanctioned Development Plan of 1967 (C/21 to C/23) , the plot under reference

is in Residential Zone and is not reserved for any Public Purpose.

2. As per remarks of CZMP -2000 (C/13 to C/17) the plot under reference, shown bounded Blue on plan, thus partly falls in CRZ - II. Now, as per the Remarks of CZMP - 2011 the plot under reference, shown bounded Blue on plan, partly falls under 50mt Mangrove Buffer Zone CRZ_1A and partly falls under CRZ – II. As per DP 2034 remarks (C/07 to C/11), the plot u/r falls in Residential Zone, derives access from 9.15 mt wide
3. Existing Road with proposed widening.
4. The plot is situated on the Landward side of existing Road. The area of the plot as per P. R. card is 381.20 m^2.

Copy of the CRZ remarks issued by MCGM is enclosed **as Annexure 6.**

Environmental Setting of Proposed Project is given below table;

Table 1: Environmental Setting

S. No.	Particulars	Details
1.	**Latitude:** **Longitude:**	19°11'49.01"N 72°49'56.69"E
2.	**Present Land use at the proposed site**	**Residential zone as per D.P Remarks**
3.	**Transport Connectivity**	
	Road	New Link Road:0.15 km Marve Road:0.15km
	Railway Station	Malad West railway station:2.06 km Kandivali railway station2.18 km
	Airport	Juhu Airport: 10.95 km Chhatrapati Shivaji Maharaj International Airport: 12.40 km
4.	**Hospital**	Zenith Hospital:0.26 km Surana Hospital and Research Centre:0.67 km
5.	**school**	Gandhi Vidhya Madir High School: 0.50 km Soham Gandhi School V. B. S.: 0.54 km
6.	**College**	Nirmal College of Commerce and Science:1.41 km Shri T P Bhatia College of Science:1.56 km
7.	**Fire Station**	Malwani Fire Brigade:1.05 km Kandivali Fire Brigade:2.13 km
8.	**Seismic Zone**	Zone-III

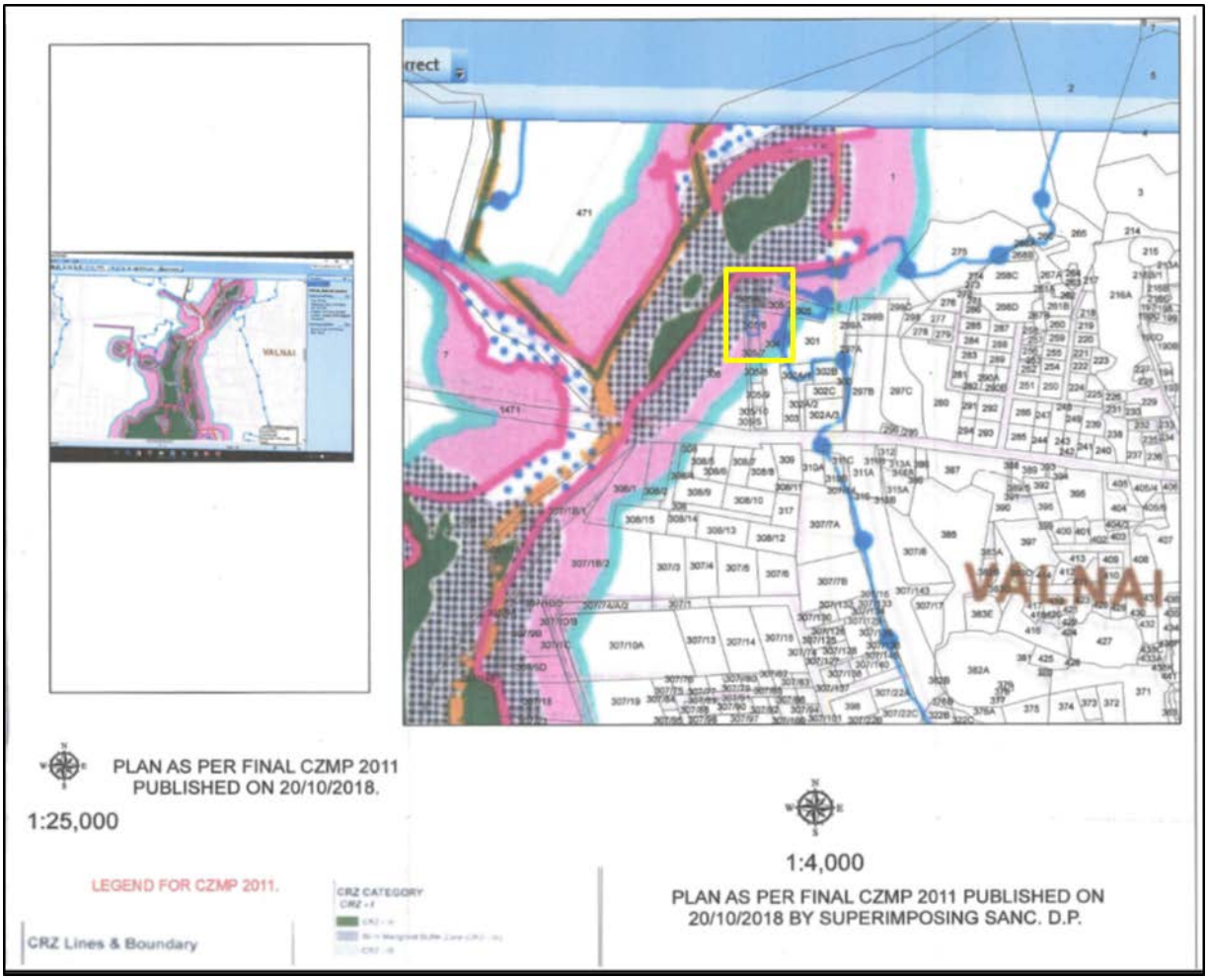

Figure 2: Plan as per final CZMP 2011 published on 20.10.2018

2.1 Size of the project

The proposed redevelopment of dilapidated building having plot is 381.20 m^2 for which 953.14 m^2 area is proposed for FSI purpose.

The plot under reference is on Landward side of existing road. The proposal for redevelopment of existing Dilapidated society building. The land is situated in Residential zone as per 1967 DP and as per DCPR 2034. As the building was in Dilapidated condition and falls in CRZ. DCPR 2034 is applicable to the proposal u/r.

The plans for proposed Society building with of 2 FSI for plot under reference will be processed as per DCPR 2034.

Details of FSI /Free of FSI area as permissible as per D. C. Rules as on 1967, as per plans and information submitted by Architect.

Table 2: Area Details

Bldg.	Total construction Area	Built up area for FSI + Fungible FSI purpose	BUA claimed free of FSI for purposes like Staircase, Lift lobby, Head room, OHT.	Height of building
1	1273.15 m^2	953.14 m^2	320.01 m^2	31.85 m

2.2 Location of the Project

The plot bearing C.T.S. no.305/6 of village Valnai in P/N Ward, Mumbai. The plot is situated on the Landward side of existing Road. The nearest railway station is Malad (W) 2.06 km. The plot is located around 31.38 meters away from Mangroves and from the High Tide Line as per the map issued by IRS, Chennai.

Google Location of the proposed project is given below;

Figure 3: Google image of the proposed project

DP Remark of proposed Plot

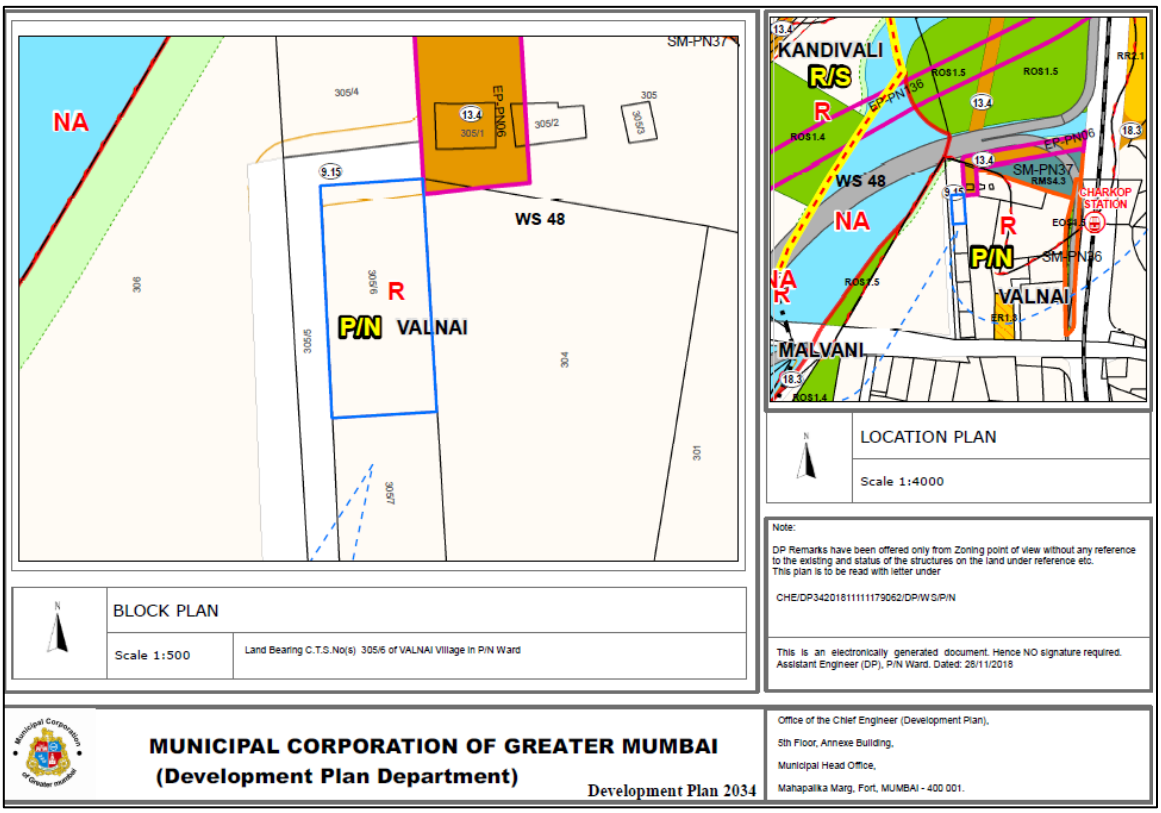

Figure 4: DP Remark of proposed Plot

CZMP Plan showing location of reference Plot

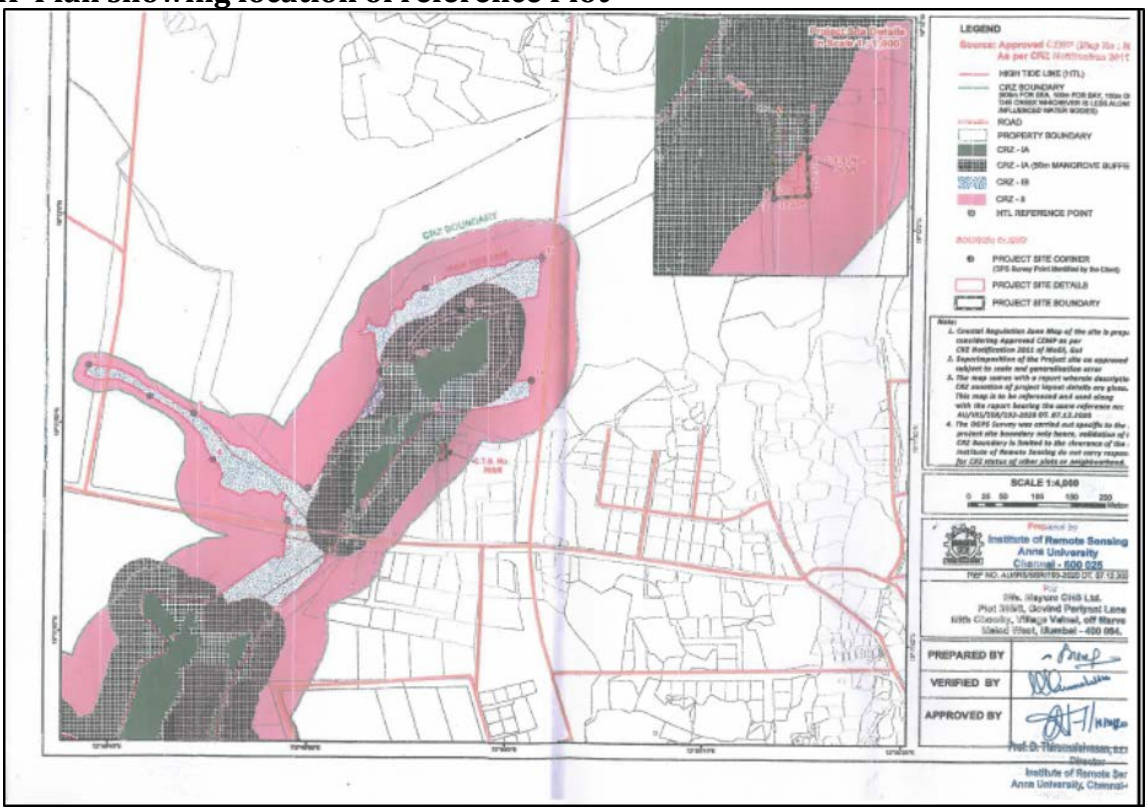

Figure 5: CZMP Plan showing location of reference Plot

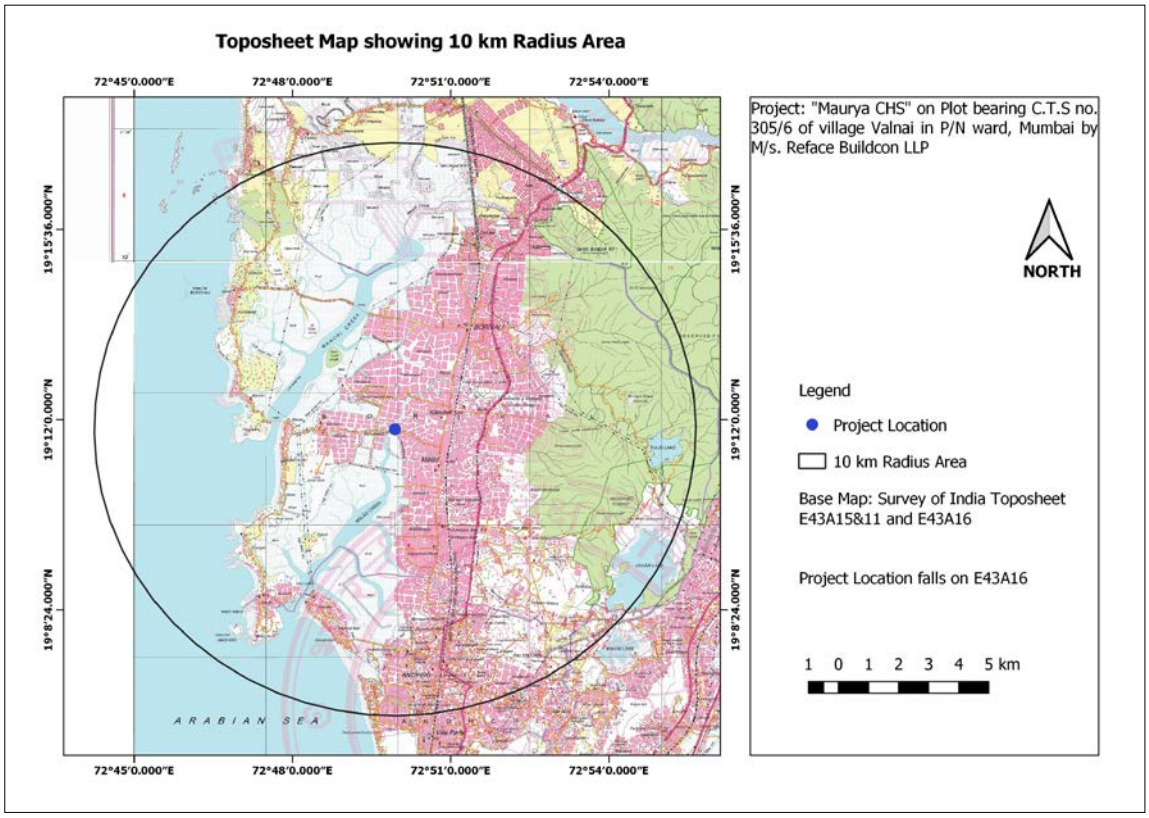

Figure 6: Toposheet of project site

2.3 Site Description

The project site s in CRZ area, CRZ-IA (50 m Mangrove buffer zone) 240.57 m^2 and CRZ II area 140.63 m^2 Thus property attracts the CRZ legislation as per CRZ 2011.

The development site does not fall or contain the environmentally sensitive areas as specified in the coastal Regulation zone notification

2.4 Proposed Development

Table 3: Area Statement

S. No.	Details	Area (m^2)
1	Total /Gross plot area	381.20
2	Deduction- Reservation/Road	28.16
3	Plot area under Development	353.04
4	Permissible built up area as per zonal	353.01
5	Built up area due to additional FSI on payment of premium	176.52
6	Permissible Builtup area	706.08
7	Fungible compensatory area as per regulations	247.13
8	Proposed Fungible area	247.06
9	Total BUA including Fungible area	953.14

Proposed redevelopment of dilapidated structure

Table 4: Project details

S. No.	Description	Details
1	Structure/ Building	Proposed 1 Building with G + 10 Floors
2	Tenements existing	9
3	Tenements Proposed	20 Nos.
4	Height of Building	31.85 m
5	Power Requirement	Connected Load : 400kVA Maximum Demand : 200kW DG Set : 40kVA
6	Salient features of the project	• Earthquake Resistance Building structure • Rain water Harvesting System in the complex • Energy Conservation; Provision of Solar water heating system. • Eco-Friendly Measures • Optimum use of Timer

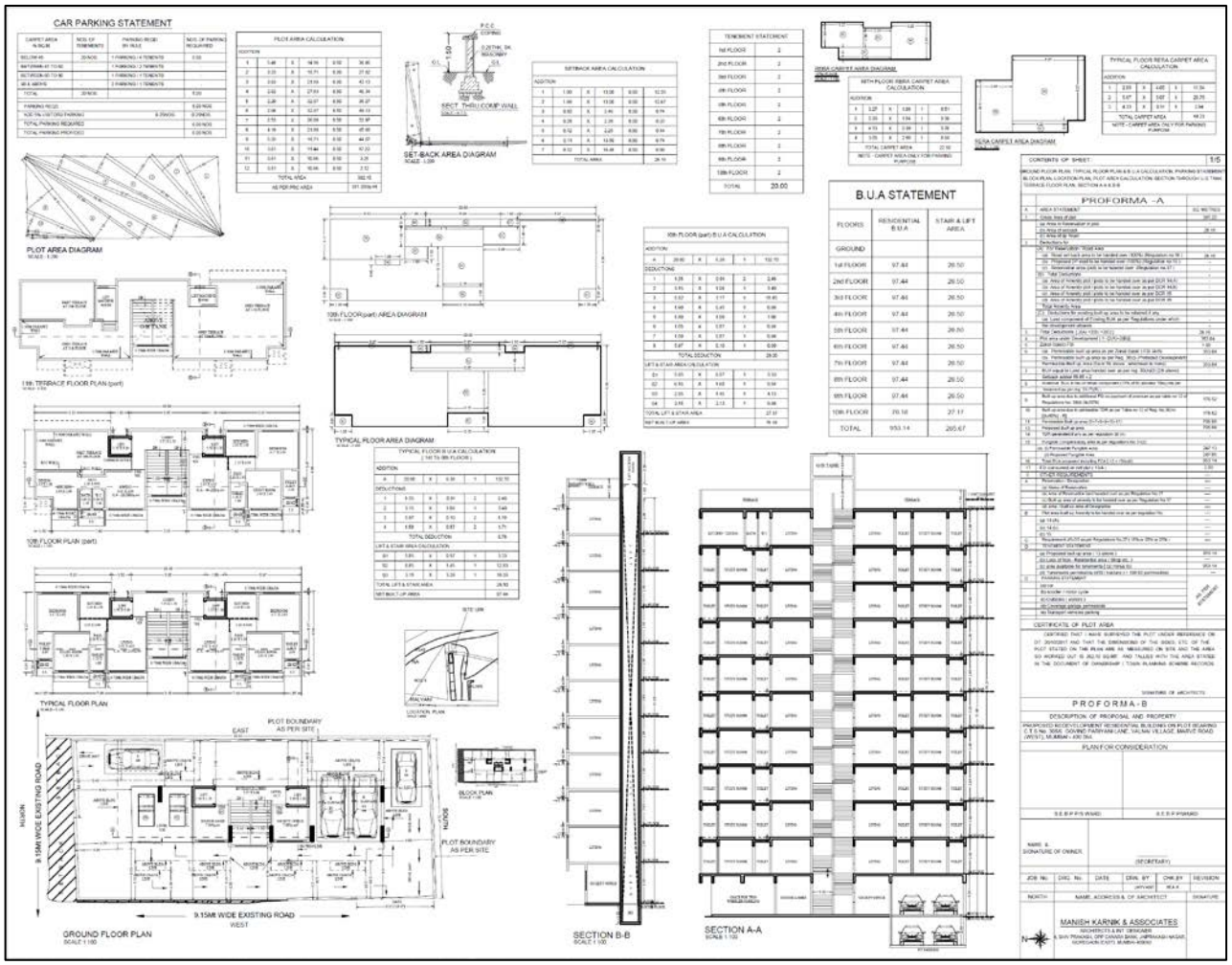

Figure 7: Project Layout

2.5 Utilities

The Utilities required during the construction phase area water, power, fuel and Labour.

2.5.1 Water

i) **WATER: During Construction Phase**
(Expected Consumption – total 35 m^3/day)

For Construction activities: 30 cum/day & For Domestic use: 5 m^3/day

S. No.	Consumption	Input	Loss	Sewage (m^3 / day)
1	Construction Activities-tanker water	30	30	-
2	Domestic (50 Site Workers)	5	1	4
	TOTAL	**35**	**31**	**4**

ii) **WATER: During Operational Phase**

Sr. No.	Particulars	Water Demand (m^3 / day)			Sewage generation (m^3 / day)
		Domestic	Flushing	Total	
		90 Lit/person /day	45 Lit/person /day	135 Lit/person /day	
1	BLDG 1(20 tenements-100 population)	9.00	4.5	13.5	12.00
	Total	**9.00**	**4.5**	**13.5**	**12.00**

Source: - Water will be available from Municipal Corporation of Greater Mumbai (MCGM) for domestic use and from Tanker for construction purpose

2.5.2 Power

DURING CONSTRUCTION
An Electricity supply of all above will be available from Adani Power . It is mainly required for some
construction equipment, general lighting etc.

All Fire & Safety measures will be taken as appropriate and will be supervised by the Authority.

DURING OPERATION
Maximum Demand: 200kW
Connected Load:400kW
DG set: 40kVA
The electricity supply will be available from Adani Power.

2.5.3 Man Power

During Construction Phase:

(Expected Manpower – about 50)
Approximately 50 persons will be working during the peak time of construction phase. These persons will be on the project site during 0900 hrs. Except Security Personnel, who will be on the field round the clock for twenty – four hours.

During Operational Phase:

There will be about 100 persons residing in the building. 10 % will be visitors, drivers and security staff.

3 DESCRIPTION OF ENVIRONMENT

3.1 Air Pollution

The proposed project site is located at Govind Pariyani Lane, Valnai Village, Marve Road (West), Mumbai.

Source: - The source of Air Emissions is from the use of some equipment like concrete pumps, mixers, etc. These equipment consume Diesel as fuel during their operation. Carbon Monoxide, Oxides of Nitrogen and Particulate Matter etc. will be the major pollutants.

Fugitive Emissions i.e. Emissions from construction activities will mainly consist of dust. Movement of Heavy & light vehicles, for loading and unloading of Construction Materials, transporting people, will also add on to source of emissions.

As per secondary data, the Ambient Air Quality at various locations were collected and monitored.

Interpretation:
The results show that concentrations of all the pollutants are within the prescribed limits in the study area.

The results are ranges
PM_{10}- 51.15 to 71.11 µg/m^3, $PM_{2.5}$-14.97 to 29.94 µg/m^3,SO2 – 12.83 to18.28 µg/m^3, NOX-15.66 to21.07, and CO 1.12 to 1.84 mg/m^3

3.2 Noise Environment

Noise levels were measured at different location of the study area.

Interpretation:
Noise levels at are observed to be above limit. The major source of noise in the commercial and residential area is due to vehicular traffic whereas, noise in the area of Kokilaben Dhirubhai Ambani Hospital is due to schools like 'Gyan Kendra Higher Secondary School' and 'Podar Jumbo Kids'. As 'Fame Malad' movie theatre is in the vicinity of 'Hyper City Market', noise level is higher due to continuous movement of public. Higher noise level in the area of 'Care Hospital' is due to 'Malvani' bus depot which is nearby to the hospital. Higher noise level in 'Yagna Nagar' area is due to 'Versova' Municipal School. However, noise level at project site is within limit in the nighttime.

3.3 Soil Quality:

Interpretation:
Organic carbon content is good for top soil preservation. Top soil can be used for development of R.G. area and plantation.

3.4 Water Environment:

3.4.1 Ground Water

Interpretation:
The quality of ground water shows that all the parameters are well within the prescribed limit as per IS 10500-2012 and water is suitable for drinking purposes.

3.4.2 Surface Water:

Interpretation:
Samples from these stations showed slightly polluted water and classified as "Class 'C'" that can be used for Drinking water source after conventional treatment and disinfection.

4 MITIGATION MEASURES:

4.1 Air Pollution Mitigation

S. No.	Source	Mitigation
1	Vehicle	• All the vehicles coming to the site will be ensured to be in good condition having PUC. • Public awareness to use Green Fuel will be done.
2	Solid waste	• Proper segregation and collection of waste will be ensured. • Location of loading and unloading will be fixed. • Good Housekeeping practices will be ensured at the premises.
3	Construction Activity	• Noise / Dust nuisance preventions by barricading site up to 5.0 meter height by GI Sheets • Water sprinkling on dry site, sand. • Maximum use of electrical driven construction equipment with regular maintenance.

4.2 Noise Pollution Mitigation

S. No.	Source	Mitigation
1	Near Residential Areas	i] Site Barricading by corrugated tin sheets will be done to protect the surrounding area. ii) Construction Activity will be carried out during daytime only.
2	Nearby Traffic	i] All the vehicles coming to the site will be ensured in good condition, having Pollution Under Check (PUC). ii] Smooth Roads will be maintained in a project site.
3	Construction Equipment	i] All the equipment will be run during daytime only. ii] Lubricants will be applied to all the equipment at proper interval. iii] Acoustic Enclosure will be provided for all the Equipment

4.3 Water Pollution

During Construction Phase:

Source: Tanker water will be used for various constructions activities like, Concreting, Plastering Flooring & Finishing etc.

Sewage: - There will be no generation of sewage from construction activities as the water used for concreting; Plastering, Flooring and Finishing etc. will get evaporated during drying or curing time.

All the construction activities are physical in nature. The Domestic sewage will be generated due to the persons working on the site who will require water for drinking, cleaning, etc. The Domestic sewage generated in construction phase will be disposed off in existing MCGM Sewer.

During Operational Phase:

Source: - The MCGM water will be used for domestic purpose i.e. drinking water for staff and laborers working on the field whereas

Sewage Generation/ Effluent: Waste Water generated during operation phase will amount to 12.0 m^3/day of which will be treated in the Sewage Treatment Plant. The treated water will be used for flushing and gardening.

Treatment & Disposal: -
STP will be proposed for treatment of waste water. During operational phase it will be recycled and remaining treated waste water will be disposed of existing sewer line.

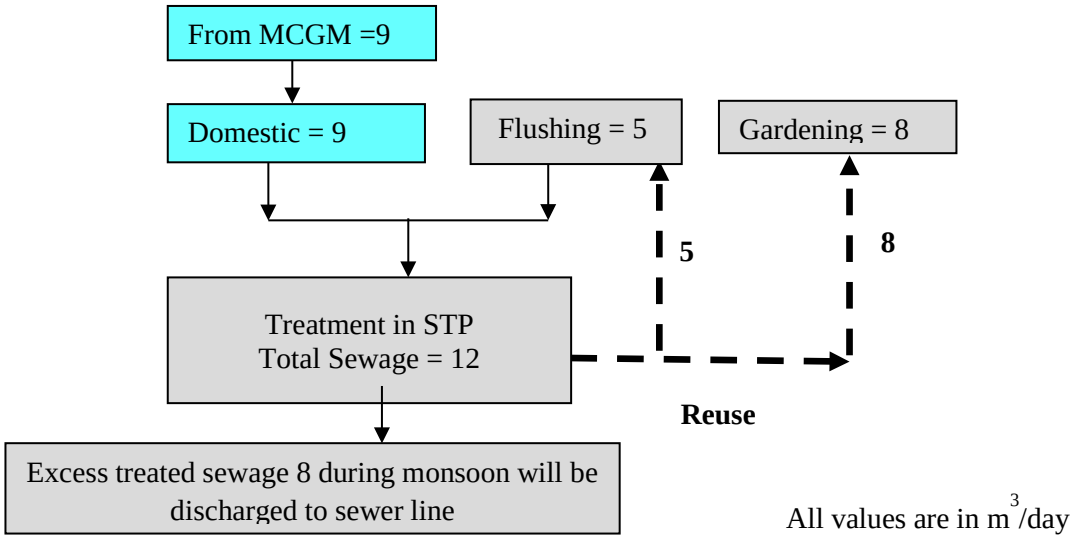

Figure 8: Water Balance

4.4 Solid Waste

During Construction Phase:

The dilapidated structure is already demolished by following the guidelines issued by the municipal Corporation of Greater Mumbai.

Normal debris, waste concrete, soil, broken bricks, waste plasters etc. will be collected properly and will be reused for land filling in the premises.

During Operational Phase:

Total solid waste will be about 45 kg per day out of which 27 kg/day will be the biodegradable waste, treated in vermi compost pits at site and 18 kg/day will be the non-biodegradable waste will be handed over to MCGM for further treatment and disposal. E waste, if generated will be collected separately and handed over to Authorized recyclers.

5 SITE ALTERNATIVES

The project is the reconstruction of the existing dilapidated building for existing residents. Hence no site alternatives are considered.

6 ENVIRONMENTAL MONITORING PROGRAMME

6.1 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 MoEF&CC / accredited by NABL.

Wastewater Quality

The wastewater generated from sanitation shall be monitored once in a month for physico-chemical characteristics and results reported to SPCB. The treated water from STP shall be monitored once in a month for physico-chemical characteristics and results.

Noise Levels

Noise levels shall be monitored once in three months.

Table 5: Environmental Monitoring Plan

	During Operational Phase			
S. No.	**Item**	**Parameters**	**Frequency**	**Location**
1	Ambient Air Quality	SPM,RSPM,SO2 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 Water	Analysis of water for physical, chemical, biological parameters.	Quarterly	Municipal supply
	During Operational Phase			
1	Ambient Air Quality	SPM,RSPM,SO2 NOX , HC & CO	Quarterly	1 station
2	Noise Level	Equivalent noise Level dB (A)	Quarterly	1 station

3	Drinking Water	Analysis of water for physical, chemical, biological parameters.	Quarterly	1 station

Environmental Monitoring Cost:

Fund allocation shall be done for the EMP during construction and operation.

7 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, earth quake 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 for fire fighting.
- 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
- Provision of Refuge Area
- Fire escape staircases, fire lift & fire safety doors as per DC Regulations and in the line with NBC 2016

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.

7.1 ENVIRONMENTAL, 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 (PPE) will be provided to all the personnel involved in the construction activities.

The project authorities will ensure use of safety equipment 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 ON SITE

- 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.
- All the safely precaution will be observed as per the guidelines during the construction phase. Personal Protective Equipment (PPE) will be provided to all the personnel involved in the construction activities.
- Site barricading by corrugated tin sheets up to height of 6.50 mtr will be done to protect the surrounding area of the project site from nuisance/ dusting.
- All electrical connections & cables will be checked by authorized persons to ensure the safety of workers on field.
- 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.
- The safety and security officers shall supervise the site.
- Safety helmets will be mandatory to all the persons present on the site during the construction activities.
- Hand gloves and dust masks will be provided to persons handling construction materials during the operation.
- Safety belts will be provided to the persons working at height during the operation.
- Safety nets will be arranged at a height at about 5.0 mtrs when the structures get raised above the required height from the ground.

7.2 Traffic Management

During Construction Phase:

- Storage and Godown area will be properly identified.
- There will be about adequate wider space for movements of vehicles and parking.
- The area for loading and unloading will be located at proper demarcated location in the premises.
- Thus, the traffic management on the project site will be easily and smoothly monitored without any hindrance to the regular flow of traffic on the main road.

During Operational phase

- The parking space will be provided in basement and under stilt / parking floors. There is sufficient car parking space in the building on all sides; there will be smooth movements of cars.
- There will be 6.0 mtrs wide approach road to the building from municipal road for movements of vehicles and parking.
- Traffic Management Plan system will be approved from concern MCGM Authority.
- Thus the traffic management will be easily and smoothly monitored without any hindrance to the regular flow of traffic on the main road.

7.3 Landscape and Green Belt

Adequate land will be available for open spaces and other non-building purposes area will be taken for green cover / lawn development in the proposed facility. Suitable plant species of local varieties will be planted with adequate spacing and density for their fast growth and survival.

7.4 Connectivity (Traffic and Transportation Road/Rail/Metro/Water ways etc)

Proposed project is well connected by road network. The nearest railway station is Malad.

7.5 Drinking Water Management

Drinking water facilities will be provided by MCGM.

8 PROJECT BENEFITS

The proposed redevelopment of dilapidated structure will provide good living condition for the tenants affected.

- The surrounding area will also be developed from residential point of view.
- It will provide employment opportunities to the local people in terms of labour during construction and services personnel during operational phase.
- Modern sanitation and infrastructure facilities will have minimal impact on living condition of local people.
- The project will improve living standard and welfare of the area and local people.