

EXECUTIVE SUMMARY
REDEVELOPMENT OF RESIDENTIAL
PROJECT

AT

C. T. S. NO. 567/51 OF VILLAGE
JUHU, ANDHERI(W), MUMBAI

BY

M/S KSHETRA REAL ESTATE PVT. LTD.

1. INTRODUCTION TO THE REPORT

Proposed redevelopment of plot bearing C. T. S. No. 567/51 of Village Juhu, Andheri(W), Mumbai and thereby obtain CRZ-Environmental Clearance as per clause 33(6) of DCR – 1991 in force as on today. The scheme for the same is approved by MCGM under DCR 33(6) read with use of admissible TDR. There exists one structure on this property. The structure is declared dilapidated prior to 6.1.2011, and that structure is proposed to be redeveloped. The dilapidated structure comprises of Gr+ 1 stories. TDR and Fungible FSI is claimed on plot under reference..

The Plot is occupied by existing Ground + 1st upper floors structure occupying 01 existing tenants/ occupants. The structure was declared as dangerous by the office of Assistant Engineer, (Building and fact), K/ West Ward, Andheri (West), vide their notice under section 354 of MMC Act on 11/11/2009. As per MoEF Notification dated 6/1/2011, redevelopment of dilapidated, CESSSED 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 the date of granting approval and staircase/ lobby/ lift area is claimed free of FSI, as per clause 35(2)c of DCR 1991.

The present proposal contains redevelopment of existing authorised structure, abutting the Juhu beach, by extending the basement in seaward direction. However the new building line is within the seaward face of old structure. The plot under reference is in residential zone and as per 1993 DP, small strip of plot is reserved for "Private garden" and FSI advantage of the same is availed as per present DCRs as per MC's approval. Current development thus will help the existing tenants/ occupants to get permanent, safe accommodation in place of unsafe building.

This old dilapidated structure is now proposed to be developed into one building, comprising of Two Basement for Car Parking + Ground floor for entrance lobby, Fitness Centre, etc + 1st to 7th upper floors for residential use.

2. DESCRIPTION OF THE PROJECT

2.1 NATURE OF THE PROJECT

This is a proposal for development of residential building situated at C. T. S. No. 567/51 of Village Juhu, Andheri(W), Mumbai in CRZ-II belt, as the same is situated within 500 mtr. from Arabian Sea. The proposal is for redevelopment of dilapidated residential building, which is situated on the seaward side of existing Mukteshwar Temple Road.

The plot under reference is in residential zone and as per 1993 DP, small strip of plot is reserved for "Private garden". The FSI permitted on the plot under reference is 1.00 captive + 1.00 TDR use = 2.00 plus admissible fungible FSI. In the instant case, the subject plot has the structure, which is declared dilapidated, as declared by MCGM. Therefore, this plot will be allowed benefits of DCRs as in force as on the date of granting permission, in view of clause 8 V (c) of CRZ-2011 .

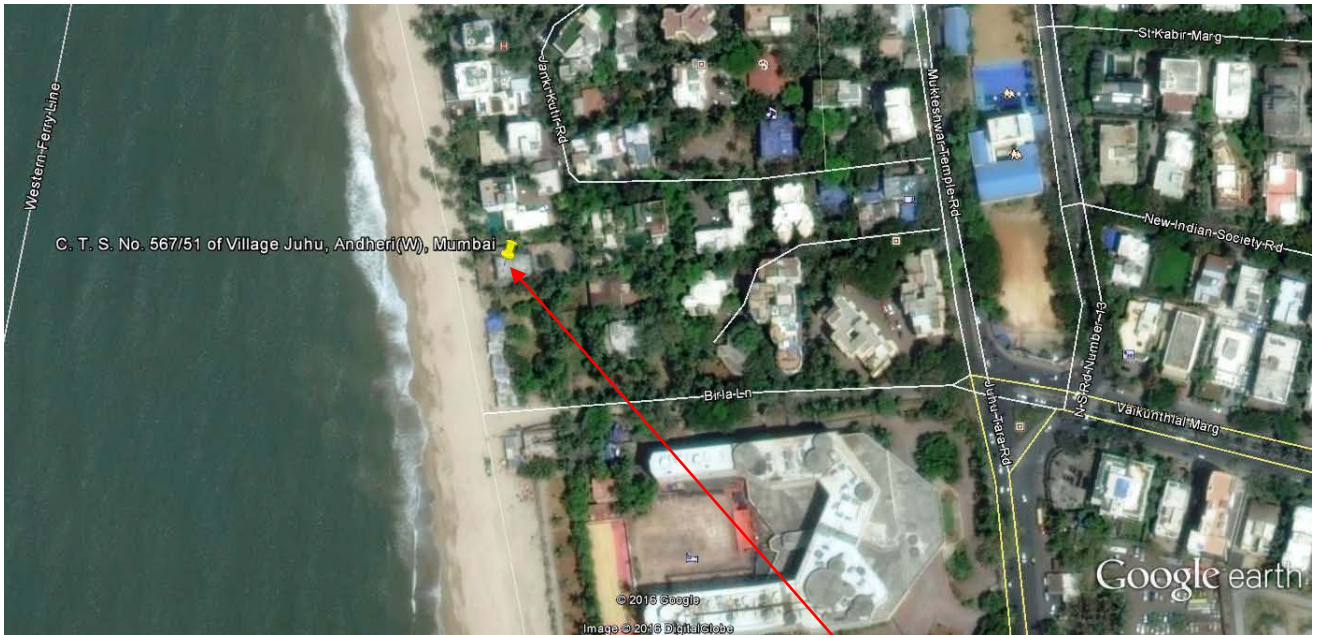
2.2 SIZE OF THE PROJECT

Area of the plot is 1007.30 sq mtr. Cost of the Project is Rs. 36,26,00,000/- (Rupees Thirty Six Crore Twenty Six Lakh Only).

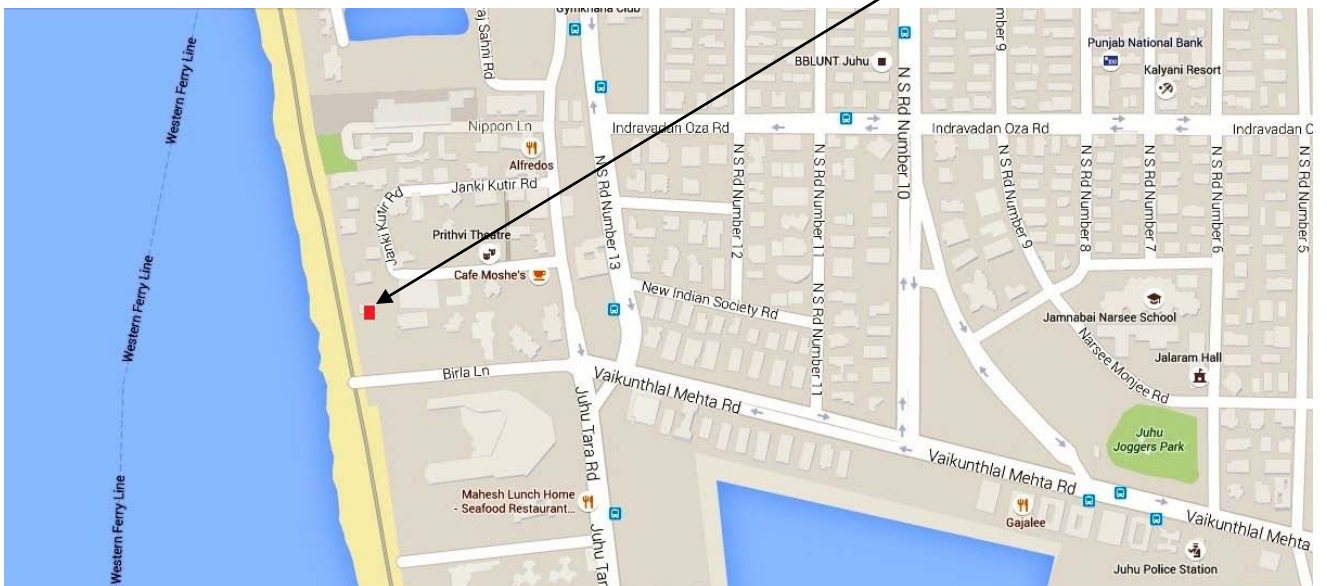
2.3 LOCATION

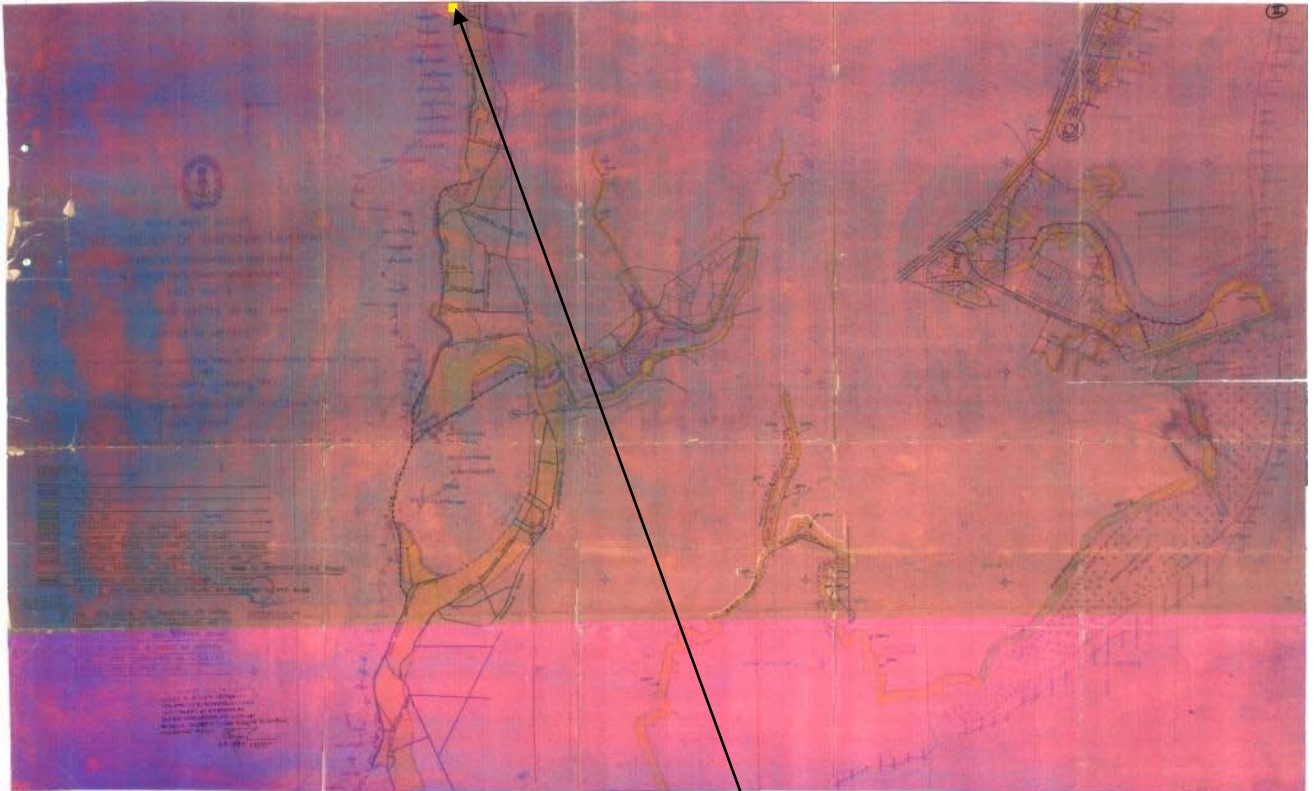
The C. T. S. No. 567/51 of Village Juhu, Andheri(W), Mumbai, is in the suburban part of the Mumbai city. The nearest railway station is Ville Parle Railway station located on western line at about 2.60 km away from the site. The Juhu Airport is about 1.5 km from the site under reference. The nearest bus stop is Juhu Hotel Bus Stop, which is 400 meters away from the site.

Google Earth Image of the site



SITE UNDER REFERENCE



CZMP Plan showing location of reference Plot

SITE UNDER REFERENCE

2.4 SITE DESCRIPTION

The site under reference is affected by CRZ-II zone and the property falls on seaward side of the existing Mukteshwar temple Road which is reflected in CZMP plan. 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. Total plot Area in CRZ is 1007.30 sq. mtrs. and the same area will be used for construction activity.

Town / Tehsil	: Mumbai
District	: Mumbai Suburbs
State	: Maharashtra
Latitude	: 19° 06' 19.42" N
Longitude	: 72°49' 28.14" E

2.5 PROPOSED DEVELOPMENT

2.5.1 AREA

	Description	CRZ II Area
1.	Area of the Plot	1007.30 Sq. mtrs.
2.	Deductions for	
	a) Road set back area	0.00 Sq. mtrs.
	b) Proposed Area	0.00 Sq. mtrs.
	c) Any Reservations	0.00 Sq. mtrs.
	Total (a+b+c)	0.00 Sq. mtrs.
3.	Balance area of plot (3-4)	1007.30 Sq. mtrs.
4.	Deduction for 15% Recreational garden / 10% amenity space (if deductible)	0.00 Sq. mtrs.
5.	Net area of plot (three minus four)	1007.30 Sq. mtrs.
6.	Additions for F.S.I index 100% set back handed over to MCGM	0.00 Sq. mtrs.
	2(a) 100% for DP Road	0.00 Sq. mtrs.
	2(b) 100% for set back	0.00 Sq. mtrs.
7.	Total area (5+6)	1007.30 Sq. mtrs.
8.	Permissible Floor Area	2014.60 Sq. mtrs.
9.	FSI Credit available by Development Rights	1007.30 Sq. mtrs.
	9(b) 0.33% as per DCR 32	0.00 Sq. mtrs.
	9c) % as per DCR 33	0.00 Sq. mtrs.
	9d) Other	0.00 Sq. mtrs.

10.	Permissible Floor Area plus 9 above	2014.60 Sq. mtrs.
11.	Proposed Built Up Area	1569.91 Sq. mtrs.
12.	Fitness Centre Area counted in FSI	73.32 Sq. mtrs.
13.	Total built up area proposed	1643.23 Sq. mtrs.
14.	F.S.I. consumed (15/7)	1.631 Sq. mtrs.
B)	Details of Residential /Non Residential Area	
1)	Purely Residential Built Up Area	1569.91 Sq. mtrs.
2)	Remaining Non Residential Built Up Area	0.00 Sq. mtrs.
C)	Details of FSI availed as per DCR 35(4)	
1.	Fungible Built Up Area component proposed vide DCR 35 (4) for purely Residential = Or (B1 x 0.35)	549.47 Sq. mtrs.
2.	Fungible Built Up Area component proposed vide DCR 35 (4) for purely Residential = Or (B2 x 0.20)	0.0 Sq. mtrs.
3.	Total Fungible Built Up Area vide DCR 35 (4) = (C1 + C2)	549.47 Sq. mtrs.
4.	Total Gross Built Up Area Proposed (13 + C3)	2119.38 Sq. mtrs.

PROJECT DEVELOPMENT DETAILS

Proposed development		
1	Existing Structure	Ground Floor + One upper floors
2	Structure of Building	Two Basement + Stilt + 1 st to 7 th upper floors including parking area.

3	Tenements existing	01 nos.
4	Tenements proposed	04 nos. (Rehab+ Sale)
5	Height of Building from Ground level	23.90 Meters
6	Parking required as per MCGM	20 Nos
7	Parking provided	22 Nos
8	Emergency Power supply (D.G. Nos. x KVa	1 no. 35 KVa
9	Area required for D.G sets	5 sq. mt
10	Salient features of the project	
	<ul style="list-style-type: none"> • Earthquake Resistance Building structure • Rain water Harvesting System in the complex • Provision of Solar water heating system. • Eco-Friendly Measures • Optimum use of Timber 	

2.5.2 UTILITIES

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

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i) **WATER:** (Expected Consumption – total 35 cum/day)

For worker - 7 KLD

For construction - 10 KLD

Note: The actual quantity of water may depends upon the actual construction requirement.

Water Balance (Operation Phase)

Sr. No.	Component/ Head	Occupants	Water Requirement		Remarks
			Domestic	Flushing	
1	Total residential population	37	3.33	1.665	@ 90/45 lpcd
2	Total floating population*	20	0.4	0.50	@ 20/25 lpcd
4	Car washing	22	0.22CMD		22 cars (@10L per car)
5	Total Quantity of Water Required	6.115 CMD			For a total population of 57 person.
6	Total Waste Water generation	2.94 CMD			3.19 CMD to grey water Treatment plant (capacity 4.00 CMD) after 1.5% evaporation losses
7	Sludge generated	0.06 CMD			-
8	GWTP treated recycled water	2.93 CMD			-

* - Floating population consists of drivers, servants, security personnel, etc.

1] Source: - Water will be available from Mumbai (MCGM) for domestic use and from Tanker for construction purpose

2] Storage: - Water for construction will be stored in open tank.

Drinking water will be stored in HDPE tank.

ii) POWER**DURING CONSTRUCTION**

(Expected Consumption- about 0.3 MW)

1] An Electricity supply of 0.3 MW will be available from BEST. It is mainly required for some construction equipments, general lighting etc.

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

DURING OPERATION

1] Total Energy consumption: 0.65 MW

2] The electricity supply will be available from BEST/ TATA/RELIANCE.

iii) FUEL**DURING CONSTRUCTION PHASE**

Estimated energy shall be used.

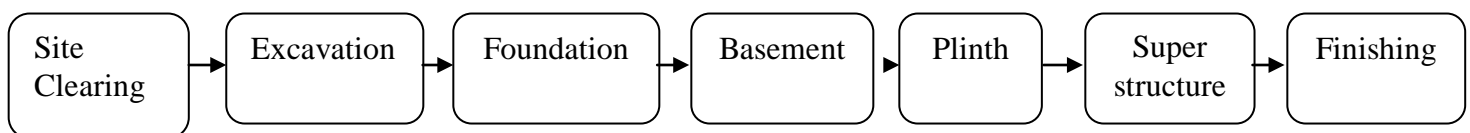
DURING OPERATION PHASE

Diesel will be required to run the D. G. Set in case of power failure. As per guidelines from concerned authorities & in emergency case only.

1. Storage: Diesel and oil will be stored As per guidelines from concerned authorities.
2. Fire and safety measures will be taken as per the guidelines from concerned authority.
3. All Safety and fire precautions will be followed.

2.6 CONSTRUCTION PROCEDURES

The outline of the construction procedure is described below schematically-

**Note:**

1. Parameters and Quality will be strictly adhered to as per the drawing approved by MCGM. Applicable regulations of government authorities will be followed.

2. Necessary safety precaution will be observed as per the guidelines during the construction phase. Personal Protective Equipment (PPE) will be provided to the personnel involved in the construction activities.
3. Site barricading 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 emission of fugitive in atmosphere. Jute barricading along plot boundary shall be provided to minimize noise level from construction activities.
6. The safety and security officers shall supervise the site.

3. ENVIRONMENTAL CONCERNS

3.1 AIR POLLUTION

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.

Parameter	Permissible Range	CPCB Limits	AVG Range Before Activity
SPM ($\mu\text{g}/\text{m}^3$)	100 ~ 200	200	80-100
RSPM ($\mu\text{g}/\text{m}^3$)	50 ~ 100	100	20-30
SO ₂ ($\mu\text{g}/\text{m}^3$)	50 ~ 80	80	10-15
NO _x ($\mu\text{g}/\text{m}^3$)	40 ~ 80	80	5-10

Ref: 24 Hourly values as per Central Pollution Control Board, National Ambient Air Quality Monitoring, Notification 11th April, 1994, Schedule 1.

3.2 AIR POLLUTION MITIGATION

Sr. No.	Source	Mitigation	
1.	Vehicle	i]	Vehicles coming to the site will be ensured to be in good condition having PUC.
		ii]	Public awareness to use Green Fuel will be done.
2.	Solid Waste	i]	Proper segregation and collection of waste will be ensured.
		ii]	Location of loading and unloading will be fixed.
		iii]	Good Housekeeping practices will be ensured at the premises.
3.	Construction Activities	i]	Noise / Dust nuisance preventions by barricading site up to 5.0 meter height.
		ii]	Water sprinkling on dry site, sand.
		iii]	Construction equipment with regular maintained

3.3 WATER POLLUTION

1] **Use** : - Water for domestic purpose will be procured from MCGM i.e. drinking water for staff and laborers working on the field whereas bore well water/Tanker water will be used for various constructions activities like, Concreting, Plastering , Flooring & Finishing etc.

2] **Effluent** : - There will be no generation of effluent 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 Effluent will be generated due to the persons working on the site who will require water for drinking, cleaning, bathing etc.

3] **Treatment & Disposal** :-The Domestic Effluent generated in construction phase will be disposed off in existing MCGM Sewer.

4] **Rain Water Harvesting** : The plot is already covered with dilapidated Ground floor + One upper floor structure and same will be developed in Two Basement + Ground + 1st to 7th Upper Floor for

Residential Building. The plot area is 1007.30 sq mtrs, which is very small. Hence roof rain water harvesting is proposed in the project. The permeable paver blocks are proposed along with 1 Recharge pit to increase the percolation of rain water into the soil rather than flowing to the drain.

5] Storm Water Discharge:

Storm water drains will be constructed for proposed facility as per the norms. The recharge pits and Rain water recharge pits will help to reduce the run off and reduce the load on external storm water drain.

3.4 NOISE LEVEL MITIGATION

1]

Sr. No.	Source	Mitigation
1.	Near Residential Areas	i] Site Barricading will be done to protect the surrounding area. ii) Construction Activity will be carefully planned and carried out accordingly.
2.	Nearby Traffic	i] All the vehicles coming to the site will be ensured in good condition, having Pollution Under Check (PUC).
3.	Construction Equipments	i] Regular maintenance to all the equipment at proper interval for efficient working ii] Appropriate PPE to be provided to workers

2] It is evident from the nature of operation (i.e. construction) that the Concentration of suspended particulate matter would be higher than the other two parameters.

3] Control of Emission: - Proper precaution will be taken to reduce the particulate matter by water sprinkling on the dry site area, barricading the periphery by corrugated tin Sheets of 5.0 mtrs height to protect the surrounding area from dusting. Also it will be ensured that the vehicles will carry PUC certificate. To minimize air pollution efforts shall be made by use of equipments, which are electric power driven.

3.5 SOLID WASTE

1] The solid waste generated during operation phase is proposed to be segregated as biodegradable & non-biodegradable waste within the premises.

2] Solid waste transfer station shall be proposed for collection, sorting, segregation, storage & transportation of biodegradable and non-biodegradable waste.

Calculation for quantum of solid waste to be generated in the building:

- Total no of persons = 57 persons
- Total Residential Population= 37 persons
- Total Non Residential Population = 20 persons
- Generation of Total waste per person of residential population = 0.6 kg/ capita per day (as per As per assessment of per capita Waste Quantity – a) Residential Refuse : 0.3 to 0.6 kg/ capita per day, of NBC 2016)
- Generation of Total waste per person of Commercial population = 0.2 kg/ capita per day (as per As per assessment of per capita Waste Quantity – b) Commercial Refuse : 0.1 to 0.2 kg/ capita per day, of NBC 2016)
- Thus total solid waste generation, for residential population will be 37×600 gms/person/day = 22.20 Kg
- Thus total solid waste generation, for Commercial/ Non Residential population will be 20×200 gms/person/day = 4.00 Kg
- Thus solid waste generated in the project will be 26.20 kg/day.
- Generation of organic waste = 40% of total waste (as per guidelines in As per assessment of per capita Waste Quantity, of NBC 2016)
- So total organic waste generated by the occupants = $26.20 \times 40\%$ = 10.48 Kg by all occupants of the building.
- Total inorganic waste generated will be 15.72 kg/ day.

Measures for treatment of Solid Waste Generated on the site

- Segregation of non biodegradable and biodegradable garbage on site.
 - The wet waste will either given to MCGM /authorized treatment unit.
 - Non- biodegradable garbage: Segregated into recyclable and non-recyclable waste.
 - Recyclable waste: Handed over to recyclers
 - Non-recyclable waste: Handed over to M.C.G.M.
-

- GWTP Sludge (Dry sludge): Used as manure within the premises for plants.
- We will provide two bins of each capacity 5 kg at every landing.
- The debris generated due to demolition and excavated material shall be partly reused on site and partly shall be disposed off to authorized Landfill sites with permission from M.C.G.M.

3.6 DEMOLITION WASTE AND CONSTRUCTION WASTE MANAGEMENT

As per the G.S.R. 317(E), dated 29.03.2016, Construction and Demolition Waste Management Rules, 2016,

“(4) Duties of the waste generator -

(1) Every waste generator shall prima-facie be responsible for collection, segregation of concrete, soil and others and storage of construction and demolition waste generated, as directed or notified by the concerned local authority in consonance with these rules.

(4) Every waste generator shall keep the construction and demolition waste within the premise or get the waste deposited at collection centre so made by the local body or handover it to the authorized processing facilities of construction and demolition waste; and ensure that there is no littering or deposition of construction and demolition waste so as to prevent obstruction to the traffic or the public or drains.

(5) Every waste generator shall pay relevant charges for collection, transportation, processing and disposal as notified by the concerned authorities;”

The project proponent will apply to the The Collector and District Magistrate Office, Mumbai City and the Solid Waste Management Department, M.C.G.M., for “Permission for handling, transportation & dumping” of debris and construction waste generated under “Debris Management Plan” for the project and dump the demolition and construction waste at said the permission letter given by MCGM.

The following care will be taken-

1. The developer will barricade along the boundary of the plot to sufficient height (i.e. Minimum 20 ft.) so as to avoid escape of dust particles, as well as deposit to spreads on street/ footpath, drains, etc

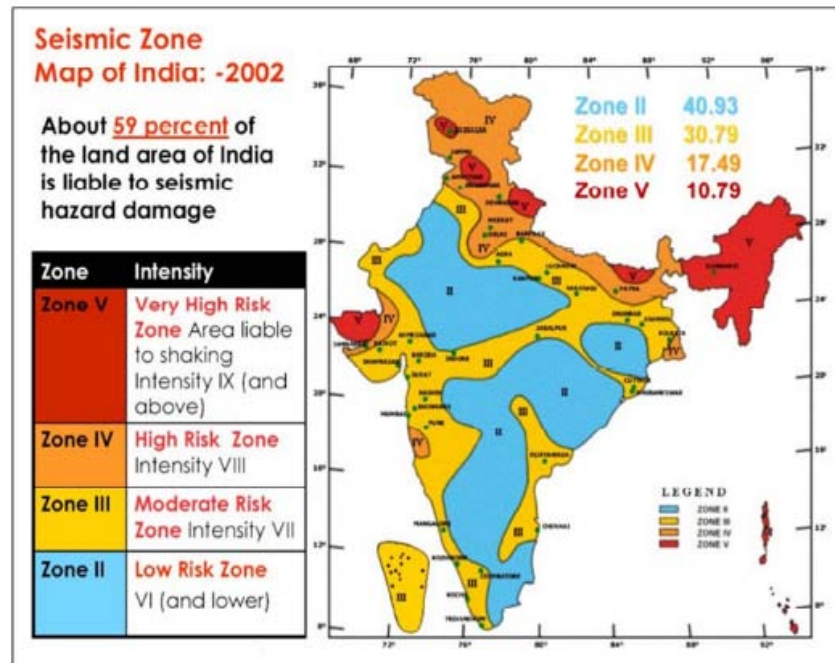
2. The developer will make arrangement to cover the vehicles deployed, to be covered by tarpaulin or other suitable material.
3. Designated transport Contractor and designated vehicles with given numbers, on the permissions, with designated path will be followed.

3.7 SEISMICITY:

Seismic zone map was initially based on the amount of damage suffered by the different regions of India because of earthquakes. Following are the varied seismic zones of the nation,

- Zone - II: This is said to be the least active seismic zone.
- Zone - III: It is included in the moderate seismic zone.
- Zone - IV: This is considered to be the high seismic zone.
- Zone - V: It is the highest seismic zone.

Proposed project and Study Area comes under Seismic Zone III.



4.0 PROJECT SCHEDULE AND COST ESTIMATES

The Proposed Project is Redevelopment project and will be started as soon as required government NOC's and CRZ Clearance is received to start the work.

5.0 TRAFFIC MANAGEMENT

5.1 CONSTRUCTION PHASE

- Storage and Godown area will be properly identified, as per requirement.
- 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.

5.2 OPERATIONAL PHASE

- About 22 cars are expected to be accommodated in the premises. The parking space will be provided in basement (pit parking), stilt & 14 parking levels. There is ample space in the building on all sides for 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.
- Thus the traffic management will be easily and smoothly monitored without any hindrance to the regular flow of traffic on the main road having width of 27.45 m.

6. ENVIRONMENTAL, HEALTH AND SAFETY

6.1 SAFETY MEASURES ON SITE

1. Parameters and Quality will be strictly adhered to as per the drawings approved by MCGM. Necessary regulations of government authorities will be followed.
2. Necessary safety precaution will be observed as per the guidelines during the construction phase. Appropriate Personal Protective Equipments (PPE) will be provided to all the personnel involved in the construction activities.
3. Site barricading up to height of 5.0mtr 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.

7. BENEFITS OF THE PROJECT

- 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.