

**EXECUTIVE SUMMARY**  
**FOR PUBLIC HEARING**  
**OF**  
**“Proposed Redevelopment Scheme”**  
**AT**

**C.S. No.: 5/600 of Malabar Hill-Cumbala Hill division at August Kranti Marg,  
“D-Ward”, Mumbai, State: Maharashtra.**



**BY**  
**Kalpavruksha Developers**

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## **1.0 Preamble**

Mumbai is the capital of Maharashtra is also the Financial Capital and the most populated city of India. Mumbai's saga of growth can be traced to the industrial revolution.

After independence imports dwindled and the industrial sector grew rapidly to meet local demand. Mumbai naturally attracted major number of manufacturing units and the volume for trade also grew tremendously. As a result of the rapid growth of commerce and industry, Mumbai continued to attract large number of persons seeking livelihood from all parts of the country. According to the 2011 census, the population of Mumbai was 12,479,608. Soon, the land within the city became scarce and the suburbs came into existence.

Rapid urbanization led to unplanned development and congested living conditions. A stage came when there was no more land available for housing and soon basic requirements such as parks, gardens, playgrounds necessary for healthy living disappeared. Due to scarcity of land of construction the cost of housing became so high that owning a house in Mumbai is dream for most wage earners.

In order to ease the situation Govt. of Maharashtra and the Municipal Corporation of Greater Mumbai (MCGM) brought changes in law to free the load looked up in closed industrial units for housing purposes. Such action will bring in well planned housing within reach of majority of Mumbai's residents.

## **2.0 Introduction to Project :**

The project proponents propose to redevelop the land located **at C.S. No.: 5/600 of Malabar Hill-Cumbala Hill division at August Kranti Marg, "D-Ward", Mumbai, State: Maharashtra.** The plot is situated in South Mumbai. As per the survey remark, the plot under reference is affected by C.R.Z. and it falls under C.R.Z. II zone. The existing "A" category building was declared dilapidated. The project proponent has developed a residential redevelopment of upto 8<sup>th</sup> floor on the said plot after getting C.C in 2010. Now they have proposed additional floors. The building comprises of ground to 7<sup>th</sup> floor (mechanical parking tower) + service floor + 1<sup>st</sup> to 14<sup>th</sup> Upper floors.

### **2.1 Project Location:**

The plot under consideration is located in the 'D' Ward of MCGM. The plot is located in residential zone (R-Zone) as per sanctioned Development plan of Mumbai.

Western railway line is situated towards eastern side of the plot within 1.50 Km. Kemps Corner flyover is on the east side of the plot. Chowpatti beach is within 2.00 km from the project site.

### **2.2 Site Description :**

The project site is flat land. The plot is on C.S. no 5/600 of Malabar Hill-Cumbala Hill division at August Kranti Marg in "D" Ward. The site is accessible by August Kranti Marg on the Northern side and by L.Jagmohandas Marg on the western side. Project is approved under redevelopment scheme.

The total available land area is 428.93 Sq. mt.

### 2.3 Proposal :

The project proponents have proposed to build 1 building. Project details are as given below:

**Table 1- Project Details**

|                                            |   |                                                                                                                                                                               |
|--------------------------------------------|---|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Project infrastructure</b>              | : | <b>“Proposed Redevelopment Scheme”</b><br>encompasses<br>Ground to 7 <sup>th</sup> Flr Mechanical Parking + Service<br>Floor +1 <sup>st</sup> to 14 <sup>th</sup> Upper Flrs. |
| <b>Area Break up</b>                       | : | Total plot area: 428.93 Sq. mt.<br>Built-up area as per FSI: 1072.307 Sq.mt.<br>Total construction built-up area : 3545.00 Sq. mt.                                            |
| <b>Vehicular Parking Details</b>           | : | 4W= 24 Nos.                                                                                                                                                                   |
| <b>Total estimated cost of the project</b> | : | ` 10.47 Crores                                                                                                                                                                |

### 2.4 Landscaping and Tree Plantation :

The project proponent has proposed to plant 5 nos. trees of inside open spaces and around the plot boundary.

### 2.5 Utility Requirements :

#### 2.5.1 Water Requirement :

The total water requirement during construction is about 10-12 cu. m. per day (depending upon projects activity). This water requirement would be made available from Tankers.

During Operational Phase -

Net water requirement = 8 (From M.C.G.M.: 8)

#### 2.5.2 Sewerage :

The sewage generated from the entire project (5m<sup>3</sup>/day) shall be disposed to existing MCGM sewer line.

#### 2.5.3 Power Requirement:

**Source: Local Authority**

The total power requirement during construction is 50 KW. Standby DG set of capacity 75 kVA would be provided

### During Operational Phase –

| Component      | Capacity                   |
|----------------|----------------------------|
| Maximum Demand | 500 KW                     |
| D.G. Set       | 1 D.G. of capacity 125 kVA |

### 2.6 Solid Waste :

This is Redevelopment Scheme. Existing building already demolished. Debris and excavated material has been disposed by covered trucks to the authorized sites with permission from M.C.G.M. The solid waste generation due to workers dwelling on the site will be as follows:

#### During Construction Phase -

Garbage: 1.Biodegradable: 4 kg /day  
2.Non biodegradable: 2 kg /day

#### During Operational Phase –

Garbage: 1.Biodegradable: 13 kg /day  
2.Non biodegradable: 5 kg /day

Solid waste will be collected and segregated into non biodegradable and biodegradable garbage and will be handed over to M.C.G.M.

### 2.7 Occupancy Load for the project:

The proposed occupancy load for this project is calculated as per the National Building Code (NBC) -2005 – Part 4, Page 27, and Occupant Load. The detail breakup is given as follows:

**Table 2- OCCUPANCY LOAD**

| Sr. no. | Building    | No. of Flats | Criteria for Occupancy | Occupancy |
|---------|-------------|--------------|------------------------|-----------|
| 1       | Residential | 8 (Flats)    | 5 persons / flat       | 40        |

### 2.8 Energy Conservation and Non Conventional Energy Options:

- All the lamps shall be CFL lights which consume less power

### 3.0 Baseline Environmental Status

#### 3.1 Site Topography:

The project site is located at C.S. No.: 5/600 of Malabar Hill-Cumbala Hill division at August Kranti Marg, “D-Ward”, State: Maharashtra.

- Status of the Area** : It is located in a good locality with basic infrastructure in place, having various facilities viz. educational, medical, entertainment, economical, etc.
- Terrain** : Flat terrain.
- Climate** : The annual temperatures range from a high of 38°C (100°F) to a low of 11°C (52°F). The record high is 43°C (108°F) and record low is 7.4°C (45°F) on 1962-01-22.

The nearest Railway Station is Grant Road railway station and Air Port is Chatrapati Shivaji Terminus at Mumbai.

#### 3.2 Land use Pattern:

The plot is located within predominant residential development zone. Site is surrounded by residential and commercial establishments.

#### 3.3 Air Environment

The proposed project site is located at August Kranti Marg which has mixed land use pattern comprising residential and commercial premises.

The following locations were selected for the ambient air quality monitoring:

|               |   |                           |
|---------------|---|---------------------------|
| Location - I  | : | Base station-Project Site |
| Location- II  | : | Nr. Mount Blanck Bldg     |
| Location -III | : | Nr. Madhusagar Building   |

The Ambient Air quality at the site is presented in Table below.

**Table 3- AVERAGE AMBIENT AIR QUALITY AT DIFFERENT LOCATIONS  
AROUND THE PROJECT SITE**

**Period: 1<sup>st</sup> January -2012 to 31<sup>st</sup> March- 2012**

| <b>Monitoring Station</b> | <b>RSPM<br/>µg/m<sup>3</sup></b> | <b>SO<sub>2</sub><br/>µg/m<sup>3</sup></b> | <b>NO<sub>x</sub><br/>µg/m<sup>3</sup></b> |
|---------------------------|----------------------------------|--------------------------------------------|--------------------------------------------|
| Location - I              | <b>109</b>                       | <b>11</b>                                  | <b>32</b>                                  |
| Location- II              | <b>86</b>                        | <b>9</b>                                   | <b>14</b>                                  |
| Location -III             | <b>55</b>                        | <b>8</b>                                   | <b>24</b>                                  |

Values in µg/m<sup>3</sup> and averaged for 24 hours.

From the above results we can conclude that all the parameters are within NAAQ standards,

**Table 4- NATIONAL AMBIENT AIR QUALITY STANDARDS**

| Sr. No. | Pollutants      | Time Weighted Average | National Ambient Air Quality Standards<br>G.S.R.826 (E), MoEF Notification dated 18 <sup>th</sup> November, 2009 |                            |                |
|---------|-----------------|-----------------------|------------------------------------------------------------------------------------------------------------------|----------------------------|----------------|
|         |                 |                       | Industrial and Mixed Area                                                                                        | Residential and Rural Area | Sensitive Area |
| 1.      | SO <sub>2</sub> | 24 hours              | 80                                                                                                               | 80                         | 80             |
| 2.      | NO <sub>x</sub> | 24 hours              | 80                                                                                                               | 80                         | 80             |
| 3.      | RSPM 10         | 24 hours              | 100                                                                                                              | 100                        | 100            |

**Table 5 - AVERAGE/ MAXIMUM AND MINIMUM METEROLOGICAL DATA**

**Period: 1<sup>st</sup> October -2011 to 31<sup>st</sup> December- 2011**

| Study period  | Temp (°C) |      | Predominant Wind direction | Avg. Wind speed (km/hr) |     |      | Relative Humidity (%) |      |
|---------------|-----------|------|----------------------------|-------------------------|-----|------|-----------------------|------|
|               | Max.      | Min  |                            | Max.                    | Min | Avg. | Max                   | Min. |
| October 2011  | 37.0      | 20.0 | NNW                        | 16.0                    | 0.0 | 5.0  | 96                    | 20   |
| November 2011 | 37.0      | 18.0 | NNW                        | 18.0                    | 0.0 | 5.0  | 91                    | 21   |
| December 2011 | 36.0      | 12.0 | NNW                        | 14.0                    | 0.0 | 4.0  | 98                    | 17   |

Source: Indian Meteorological Department 2011

### 3.4 Noise Environment:

Noise levels were measured at different location of the study area. The observations are presented as below;

**Table 6 - AVERAGE NOISE LEVEL AROUND THE PROJECT SITE**

**Period: 1<sup>st</sup> January -2012 to 31<sup>st</sup> March- 2012**

| Location number | Name of Location          | Day Time (dBA)Leq | Night Time (dBA) Leq |
|-----------------|---------------------------|-------------------|----------------------|
| Location - I    | Base station-Project Site | 59.3              | 48.5                 |
| Location- II    | Nr. Mount Blanck Bldg     | 63.5              | 51.2                 |
| Location -III   | Nr. Madhusagar Building   | 62.4              | 52.5                 |

Comparison of the ambient noise levels with the standards specified by CPCB reveals that the noise levels at all the locations are exceeding the specified limit of CPCB.

### 3.5 Soil Quality:

During the construction phase, ready mix construction method will be used for the construction, which will reduce stress on soil environment of the site.

During the operation phase landscaped areas and plantation will be maintained. No significant impact is expected on the soils on and around the site, by taking precautions.

Existing environmental setting of soil quality will not be affected.

### **3.6 Water Environment:**

There is no subsurface or surface water source on site.

### **3.7 Biological Environment:**

Major Trees in surrounding area are Palm, Jamun, Coconut, Bhend, Badam, Guava, Drumstick, Mango, Supari, Ber, Silk cotton, Wad etc. The tree plantation has been developed, mainly, by individuals or the Brihan Mumbai Municipal Corporation.

The birds in the vicinity include common city birds like Black Bulbul, Common Myana, Crow, Rock pigeon, Common Sparrow, Barn Owl, House Crow, Domestic Fowl and parakeets etc.

Veer Jijamata Udyan is located at a distance of 3 km from the project site. It has a number of shady trees with some botanically important species such as Amherstria nobilis, Colvillia racemosa, Adansonia digitata, Browhea coccinea, Lagerstroemia rosea and other varieties, Malalencia lencodendron, varieties of Cassia, etc. The Udyan contains about 1,800 trees belonging to about 150 species. The garden has a nursery, rich in collection.

The garden has a nursery, rich in collection. The Zoo in the park occupies an area of about eight ha and it contains over 1,200 specimens of mammals, birds, reptiles etc. In the snake park, there are two hundred snakes in natural environments. The animals kept in the Zoo include lions, tigers, bears, panthers, etc., besides different types of monkeys, deer, hippopotamus, elephants etc.

There will be no impact on Veer Jijamata Udyan due to the construction activity of the proposed project. **(Source: Greater Bombay Gazetteer).**

The project proponent has proposed a landscape development plan which includes about 5 trees of local varieties.

### **Agriculture / Livestock:**

There is no agricultural activity in the vicinity of the proposed area.

## **4.0 Environmental Impacts Assessment & Mitigation Measures**

### **4.1 Land Environment:**

The project will help in improving the overall aesthetic value of the area as it is a planned residential development and the project proponent have proposed organized open spaces within the site. The structures are also proposed in a way which would improve the architectural value of the area.

#### **4.1.1 Solid Waste**

##### **Construction Phase:-**

There was existing dilapidated building on the site which was demolished. Debris generated disposed to the authorized site through the authorized contractor with permission from M.C.G.M. The solid waste generation due to workers dwelling on the site segregated and disposed suitably.

##### **Operation Phase:-**

During operation phase total 18 kg of solid waste will be generated per day. After segregation & collection of bio-degradable and non -biodegradable waste garbage will be handed over to M.C.G.M.

### **4.2 Air Environment :**

##### **Construction Phase:-**

The project will contribute in higher dust levels during construction phase. Precautions which would be taken to reduce dust generation are mentioned as follows:

- Ready mix concrete will also reduce the trucks trips as compared to on – site concrete batching point.
- Dust covers will be provided on trucks that would be used for transportation of materials prone to fugitive dust emissions.
- Water sprinkling on ground and new construction will be done at regular intervals to reduce spreading of dust particles.

##### **After Completion:-**

The proposed project will not have any direct impact on air environment after completion. To ease the traffic congestion project proponent will provide adequate car parking arrangement.

### **4.3 Noise Environment :**

##### **Construction Phase:**

During construction phase, sources of noise pollution will be operation of machinery like compressors, compactors, cranes etc. as well as transportation vehicles. This will cause nuisance to the occupants of the nearby area. The project proponent has agreed to take precautions to control noise pollution as mentioned under.

- High noise generating construction activities would be carried out only during day time.
- Installation, use and maintenance of mufflers on equipment
- Workers working near high noise construction machinery would be supplied with ear muffs/ear plugs.
- Plantation of trees will start in middle of construction phase.

#### **Operation Phase:**

The proposed project is residential development hence the only source of noise is vehicular noise. The project proponents have proposed proper traffic arrangement which would help in reducing noise levels.

The project proponent has proposed to plant 5 nos. trees of inside open spaces and around the plot boundary.

#### **4.4 Water Environment:**

The total water requirement during construction is about 10-12 cu. m. per day and after project completion the water requirement would be 8 cu. m. per day. Water would be supplied by MCGM

Also the project proponent has proposed the rainwater harvesting system.

Rain water harvesting shall be done with the help of rain water harvesting unit of 10000 liter capacity.

#### **4.5 Biological Environment :**

Total 5 trees will be planted on the site. Thus after project is completed there would be more organized open space and more green cover for peoples recreation which will improve aesthetic environment.

#### **4.6 Socio – economic Environment**

The proposed project involves demolition of existing dilapidated building and in place of it they have constructed a new residential building. There will be influx of around 40 Nos. of persons. It is a well developed area of city having all modern amenities. Civil structures, School, Colleges, Hospitals, Recreation facilities, Markets, etc. are available in the area to a reasonable degree.

The proposed project will create employment generation for skilled and semiskilled local people during construction phase and post project will also generate additional employment for the poor strata of society by way of maid/servants, sweepers, security guards, etc.

This project will have overall positive impact as this area will be now converted into well organized complex with green features such as rain water harvesting, additional tree plantation, etc which will have better living conditions.

## **5.0 Disaster management Plan & General Safety Measures**

The project proponents shall be following all the safety rules and regulations as prescribed by MCGM.

### **5.1 Fire Fighting & Safety Measures :**

- As per CFO regulation
- Adequate underground and overhead separate water storage tanks.
- Portable fire extinguishers of IS Specification.
- Inter-communication system
- Wet risers system

### **5.2 Seismic Environment & Precautions**

As per the Seismic Zoning Map of India, Mumbai region falls under Zone - III.

The project proponent shall appoint qualified structural design consultants, duly registered with the MCGM, to ensure that the design confirms to the best practices and the prevailing IS codes.

## 6.0 Environment Management Plan

The Environment Management Plan would consist of all mitigation measures for each 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.

### ENVIRONMENTAL IMPACT AND MANAGEMENT PLAN FOR THE PROJECT

#### EMP for Construction Phase

| Sr. no. | Environmental Component           | Activity                                                                                                                                                                                                                  | Impacts                                                                                                                                                                                                                        | Precautionary measures                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
|---------|-----------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1       | Ambient Air Quality & Noise level | <ul style="list-style-type: none"> <li>➤ Site Clearance</li> <li>➤ Excavation</li> <li>➤ Construction of Structures</li> <li>➤ Heavy vehicle traffic</li> <li>➤ Use of DG Set</li> <li>➤ Open burning of waste</li> </ul> | <ul style="list-style-type: none"> <li>➤ Increased level of dust &amp; other air pollutants</li> <li>➤ Increased Noise level</li> </ul>                                                                                        | <p><b>For controlling air pollution :</b></p> <ul style="list-style-type: none"> <li>* Water Sprinkling</li> <li>* Cover on trucks</li> <li>* Use of RMC instead of preparing concrete at site</li> <li>* Vehicles with valid PUC</li> <li>* <b>DG sets:</b> CPCB approved</li> </ul> <p><b>For controlling noise pollution :</b></p> <ul style="list-style-type: none"> <li>* Barricades along the site periphery</li> <li>* Ear Plugs for workers</li> <li>* CPCB approved D.G. sets</li> <li>* No noisy work in night shifts.</li> <li>* Power operated machines</li> </ul> |
| 2       | Water                             | <ul style="list-style-type: none"> <li>• Use of fresh water for Construction activity / labours</li> <li>• Wastewater generation</li> <li>• Disposal of site Run off into SWD</li> </ul>                                  | <ul style="list-style-type: none"> <li>• Stress on the water supply in the vicinity</li> <li>• Sedimentation</li> <li>• Pollution of nearby water courses</li> <li>• Unhygienic condition for surrounding residents</li> </ul> | <ul style="list-style-type: none"> <li>• Use of tanker water for construction. No burden on municipal supply</li> <li>• Temporary toilets for labor</li> <li>• Construction water will be channelized properly and will be treated</li> <li>• Precaution to avoid</li> </ul>                                                                                                                                                                                                                                                                                                   |

|   |                                                                                                                             |                                                                                                                                                                                                                                                                                                                        |                                                                                                                                                                                                          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
|---|-----------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|   |                                                                                                                             | <ul style="list-style-type: none"> <li>• Water logging</li> </ul>                                                                                                                                                                                                                                                      |                                                                                                                                                                                                          | water logging during construction                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| 3 | Soil                                                                                                                        | <ul style="list-style-type: none"> <li>• Preconstruction and excavation debris</li> <li>• Storage of construction material / chemicals</li> <li>• Transportation of hazardous material</li> <li>• Residual paints Solvents/bituminous material etc. operation / maintenance Generation of garbage by labour</li> </ul> | <ul style="list-style-type: none"> <li>• Loss of good fertile soil</li> <li>• Soil erosion, Soil contamination due to mixing of construction material/ accidental spillage of chemicals /oils</li> </ul> | <ul style="list-style-type: none"> <li>• Recycle of Debris as far as possible in construction area.</li> <li>• Debris has been disposed off to authorized sites/ recognized landfill sites</li> <li>• Proper and Separate storage of construction material</li> <li>• Storage of all petroleum products closed containers.</li> <li>• Transportation, storage and handling, disposal of HW as per their guidelines and handing it over to authorized agencies.</li> <li>• Use of electrically operated machines.</li> <li>• Segregation of waste at Source</li> </ul> |
|   | Even after taking precautions if soil is found to be contaminated, it shall be removed and disposed off to authorized site. |                                                                                                                                                                                                                                                                                                                        |                                                                                                                                                                                                          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| 4 | Ecology                                                                                                                     | <ul style="list-style-type: none"> <li>• Site clearance, Construction of structures</li> </ul>                                                                                                                                                                                                                         | <ul style="list-style-type: none"> <li>• Disturbing natural flora and fauna</li> <li>• Loss of vegetation from chemical spills from vehicles</li> </ul>                                                  | <ul style="list-style-type: none"> <li>• Plantation of local tree species on the periphery of site</li> <li>• Plantation of trees will start in mid of construction phase</li> <li>• Regulation of vehicular trips and speed and proper maintenance of machinery</li> </ul>                                                                                                                                                                                                                                                                                           |
| 5 | Safety & Hygienic Measures                                                                                                  | Construction work Labor                                                                                                                                                                                                                                                                                                | <ul style="list-style-type: none"> <li>• Positive impact : Employment generation</li> <li>• Safety and hygiene at site may be affected during construction</li> </ul>                                    | <ul style="list-style-type: none"> <li>• Adequate drinking water, toilet and bathing facilities</li> <li>• Personal protective and safety equipment will be provided</li> <li>• First aid facility</li> <li>• Regular health check up</li> <li>• Regular pest control at site</li> </ul>                                                                                                                                                                                                                                                                              |

|  |  |  |  |                                                                                                           |
|--|--|--|--|-----------------------------------------------------------------------------------------------------------|
|  |  |  |  | <ul style="list-style-type: none"> <li>• Educational and awareness program for safety measures</li> </ul> |
|--|--|--|--|-----------------------------------------------------------------------------------------------------------|

### EMP for Operation Phase

| Sr. no. | Environmental Component           | Activity                                                                                                                                                         | Impacts                                                                                                                                                                                             | Precautionary Measures                                                                                                                                                                                                                                                                                                                                                                                              |
|---------|-----------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1       | Ambient Air Quality & Noise level | Increased vehicular trips,<br>Use of DG sets                                                                                                                     | <ul style="list-style-type: none"> <li>• Traffic congestion</li> <li>• Air pollution</li> <li>• Increase in noise level</li> </ul>                                                                  | <ul style="list-style-type: none"> <li>• Adequate Parking provision; well organized traffic management plan for Smooth flow of vehicles</li> <li>• Regular PUC check-up for vehicles</li> <li>• DG sets: As per CPCB norms, Proper Maintenance, Use of Low sulphur fuel</li> <li>• Acoustic Enclosures for DG sets</li> <li>• Plantation of trees will reduce air pollution and also act as noise buffer</li> </ul> |
| 2       | Water                             | <ul style="list-style-type: none"> <li>• Increased Demand of natural water,</li> <li>• Generation of waste water</li> <li>• Increased paved structure</li> </ul> | <ul style="list-style-type: none"> <li>• Stress on existing water supply,</li> <li>• Pollution of water bodies</li> <li>• Increased run off from site</li> </ul>                                    | <ul style="list-style-type: none"> <li>• Use of water saving practices</li> <li>• Rain water harvesting</li> <li>• Plantation of less water consuming trees</li> </ul>                                                                                                                                                                                                                                              |
| 3       | Land                              | <ul style="list-style-type: none"> <li>• Solid waste generation</li> <li>• Transportation of hazardous material</li> <li>• Increased paved structure</li> </ul>  | <ul style="list-style-type: none"> <li>• Improper disposal of waste,</li> <li>• accidental spillage of hazardous chemicals leads to soil contamination</li> <li>• Increased run off from</li> </ul> | <ul style="list-style-type: none"> <li>• Waste minimization recovery and reuse</li> <li>• Segregation at source for all solid waste streams</li> <li>• Proper disposal of degradable and non biodegradable waste.</li> <li>• Transportation, storage and handling, disposal of HW as per their guidelines and</li> </ul>                                                                                            |

| Sr. no. | Environmental Component                                                                                                    | Activity                         | Impacts                                                                                                                                                                        | Precautionary Measures                                                                                                                                                                                      |
|---------|----------------------------------------------------------------------------------------------------------------------------|----------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|         |                                                                                                                            |                                  | site                                                                                                                                                                           | handling it over to authorized agencies.<br>• Storm water drainage of adequate capacity                                                                                                                     |
|         | Even after taking precautions if soil is found to be contaminated, it shall be removed and disposed off to authorized site |                                  |                                                                                                                                                                                |                                                                                                                                                                                                             |
| 4       | Ecology                                                                                                                    | Introduction of new tree species | <ul style="list-style-type: none"> <li>Disturbing natural flora and fauna</li> <li>Increased exposure to anthropogenic activities.</li> </ul>                                  | <ul style="list-style-type: none"> <li>Plantation of local tree species</li> </ul>                                                                                                                          |
| 5       | Safety & Hygienic Measures                                                                                                 | Influx of people                 | <ul style="list-style-type: none"> <li>Stress on all utilities, risk and danger due to natural and manmade disaster</li> <li>Positive impact: Employment generation</li> </ul> | <ul style="list-style-type: none"> <li>Emergency preparedness plan and Disaster management plan will be Prepared and explained with the help of local NGO's and surrounding people and authority</li> </ul> |

Note: Environmental Monitoring Plan will be prepared based on Environmental management Plan. All environmental parameters will be studied as and when required and based on analysis result mitigation measures will be implemented.

#### **Hazardous Waste Management Plan:**

##### **Construction Phase:**

Environmental Management Plan for Hazardous Waste Generation

| Sr. No. | Source of Hazardous Waste Generation | Mitigation Measures                                                                                                                                                                                                                |
|---------|--------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1       | Leakages and spillage oil or fuel    | <ul style="list-style-type: none"> <li>* Contaminated soil if any, shall be disposed off to authorized disposal Site.</li> <li>* Bituminous materials /any other chemicals shall not be allowed to leach into the soil.</li> </ul> |
| 2       | Residual Paints/Solvents             | --do--                                                                                                                                                                                                                             |

Other hazardous wastes, if any, shall also be handled in the similar way through authorized dealers only.

**Operational Phase**

| <b>Sr. No.</b> | <b>Source of Hazardous Waste Generation</b> | <b>Mitigation Measures</b> | <b>Disposal</b>                                        |
|----------------|---------------------------------------------|----------------------------|--------------------------------------------------------|
| 1.             | Waste Oil from D.G Sets                     | -                          | Waste oil will be handed over to authorized recyclers. |

## CONCLUSION

The project proponents & developers **M/s. KALPAVRUKSHA DEVELOPERS** seem to be safety conscious and alert about good housekeeping and are environment friendly.

We may conclude as under:

1. **“Proposed Redevelopment Scheme”** is a residential complex coming at August Kranti Marg, Mumbai.
2. The proponents are following all the Firefighting safety rules and regulations as prescribed by M.C.G.M. and CFO regulations.
3. The proposed building will be designed to meet requirements of seismic zone III.
4. Rain water harvesting will be provided.
5. Ambient Air Quality of the project site will be within the permissible limit as prescribed by National Ambient Air Quality Standards.
6. Solid waste will be collected and kept separately for biodegradable and non-biodegradable garbage and will be handed over to M.C.G.M.
7. Noise is expected to be on higher side during construction phase. In the operational phase it will be mainly due to the vehicular movement but will be maintained within the prescribed limits.
8. No significant impact is seen on flora and fauna.
9. The project will generate employment opportunities during construction stage and also during operational phase. The standard of living of local people due to employment is likely to improve, so we may say that it is positive socio-economic impact.

In short we can say that this project has no negative impact on environment.

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