

2017

Proposed by M/s Kaleidoscope Developers Pvt. Ltd

[RISK IMPACT ASSESSMENT]

For proposed “Kaleidoscope Township” an Integrated Township Project, Taluka: Mulshi,
District: Pune

atSr.No.125/5,126/1,126/2,126/3,126/4,127/1,127/3,127/4,127/5,128/1,128/3,128/4,128/5,129/2,129/5,129/6,131/1,131/3,131/6,131/7,132/1,132/2,133/1,133/2,133/3,133/4,133/5,134/1,135/1,135/2,135/3,136/1,136/2,136/3,137/1+2,138/1,138/2,138/3,138/4,138/5,140,141/1,141/2,141/3,141/4,141/5,142/1,142/2,142/5,142/6,142/7,143,144/1/2A,144/1/2B,144/1/2C,144/1/2D,144/2,144/3a,145/1,145/2,145/3,145/5,146/1,146/2,146/3,146/5,146/6,147/1,147/2,147/3,148,149/1,149/2,150/1,150/2,150/3,150/4,150/5,150/6,150/7,151/1,151/2,152/1,152/2,153/1,153/2,154/1,154/2,154/4,154/5/1,154/5/2,154/5/3,154/6,154/7,154/8,154/9,154/10,154/11,154/12,154/13,154/15,155/1,155/2,155/4,155/5,155/6,155/7,156/1,156/2,156/3,156/4,156/5,156/6,156/7,156/8,157,159,188/2,197/1,197/5,197/6,197/7,197/9,197/12,197/16,197/18,197/21,197/23,197/24,197/26,197/27,197/28,197/29,197/30,197/32,198,199,200,201,128/3,129/5,129/6,131/3,131/6,131/7,133/1,133/4,133/5,134/1,135/1,135/3,136/1,137/1+2,155/2,156/2,156/8,197/8,197/4,197/9,197/11,197/14,197/24,197/27,197/29,197/32,199,200,207,208,Village: Bhugaon, Taluka: Mulshi, District: Pune - 412115.

Environmental Impact Assessment

1 DISASTER MANAGEMENT PLAN

1.1 INTRODUCTION

The objective of Disaster Management Plan (DMP) is aimed at identifying the different natural and manmade potential disasters such as earthquake, flood, fire. etc that could impact the construction workers, occupants of buildings. executes emergency preparedness for relief operation and avoid loss of lives and property for following activities

- 1) Demolition of existing buildings.
- 2) Risk to human life due to construction activity
- 3) Operation Phase emergency due to flooding, fire, earthquake.

The disaster control procedure lays down the efforts to be made to prevent fatal accidents, physical harm or injury to personnel and damage to equipment facilities materials during demolition, land leveling and filling and construction phase and protection against natural or manmade calamities in operational phase.

1.2 OBJECTIVE OF DMP

- To minimize the effects of the accident on people and property;
- Effect the rescue and medical treatment of casualties;
- Safeguard other people, outside the project boundary;
- Evacuate people to safe areas with utmost care and with minimum casualties;
- Investigate and take steps to prevent recurrence of similar incidents.

1.2.1.1 Likely Hazards during Construction

Table 7-1: Hazards and mitigation during construction stage

Hazard	Mitigation
Objects falling from height	• Temporary baricading shall be made at every floor to avoid human and material object falling from height. • Nets shall be deployed at various levels beyond the building line. • Signage's to be displayed wherever lifting work is carried out.
Dust spread due to vehicular traffic	• Water shall be sprinkled on the roads which shall be used for carrying demolition waste. • The trucks carrying construction material shall be covered with Tarpaulin sheets to avoid spilling on roads • Barricading of the site to ensure that the entire dust does not spread in the immediate vicinity. • The workers on the site including the machine operators shall be provided with PPE to prevent inhalation of dust.

Environmental Impact Assessment

Health and Safety of workers	• Implementation of Health Safety programme. • Provision of PPE to the construction lworkers. • Training facility to do skilled task. • First Aid and doctor on call facility for accidents at site. • Regular medical camp to check the status of health of onsite worker.
Electric shock	• Danger signs to be displayed. • Electric equipment and substation equipment to be barricaded.
Fire	• Provision of onsite fire extinguisher. • Fire Siren/ Alarm to be used to inform the surrounding people regarding fire. • Emergency contact number availability with the supervisor on site.

PROJECT OVERVIEW

Integrated Township Project:

M/s Kaleidoscope Developers Pvt. Ltd. proposed “Kaleidoscope Township” an Integrated Township Project, Taluka: Mulshi, District: Pune

atSr.No.125/5,126/1,126/2,126/3,126/4,127/1,127/3,127/4,127/5,128/1,128/3,128/4,128/5,129/2,129/5,129/6,131/1,131/3,131/6,131/7,132/1,132/2,133/1,133/2,133/3,133/4,133/5,134/1,135/1,135/1,135/2,135/3,136/1,136/2,136/3,137/1+2,138/1,138/2,138/3,138/4,138/5,140,141/1,141/2,141/3,141/4,141/5,142/1,142/2,142/5,142/6,142/7,143,144/1/2A,144/1/2B,144/1/2C,144/1/2D,144/2,144/3a,145/1,145/2,145/3,145/5,146/1,146/2,146/3,146/5,146/6,147/1,147/2,147/3,148,149/1,149/2,150/1,150/2,150/3,150/4,150/5,150/6,150/7,151/1,151/2,152/1,152/2,153/1,153/2,154/1,154/2,154/4,154/5/1,154/5/2,154/5/3,154/6,154/7,154/8,154/9,154/10,154/11,154/12,154/13,154/15,155/1,155/2,155/4,155/5,155/6,155/7,156/1,156/2,156/3,156/4,156/5,156/6,156/7,156/8,157,159,188/2,197/1,197/5,197/6,197/7,197/9,197/12,197/16,197/18,197/21,197/23,197/24,197/26,197/27,197/28,197/29,197/30,197/32,198,199,200,201,128/3,129/5,129/6,131/3,131/6,131/7,133/1,133/4,133/5,134/1,135/1,135/3,136/1,137/1+2,155/2,156/2,156/8,197/8,197/4,197/9,197/11,197/14,197/24,197/27,197/29,197/32,199,200,207,208,Village: Bhugaon, Taluka: Mulshi, District: Pune -412115.

Corporation/ Jurisdiction:

Deputy Director Town Planning Pune and the collector, Pune.

PP:

M/s Kaleidoscope Developers Pvt. Ltd.
701, Rajyog CHS Shivaji Park Sakharam Keer marg Mahim Mumbai.

Total Plot Area: 4,11,140.32 Sq.m

Access:

The project site is accessible by 90.0 mt. wide Express Highway (Proposed) and Pune Kolad bypass 15.0 mt. wide



Existing capacity :

Vacant land

IDENTIFICATION OF HAZARD

EVENTS HAVING POTENTIAL FOR

EMERGENCY LEVEL 3/ DISASTER.

NATURAL CALAMITY.

1. Earthquake.
2. Cyclone.

FIRE/ EXPLOSION HAZARD.

1. LPG/ PNG at Kitchen.
2. Diesel spill at DG set.
3. Transformers & electrical.
4. Vehicles fire at parking.
5. AC and Combustibles at flats.

MAN MADE HAZARDS.

1. Bomb threat.
2. Terrorist attack.
3. Riot.

FIRE ENGINE MOVEMENT

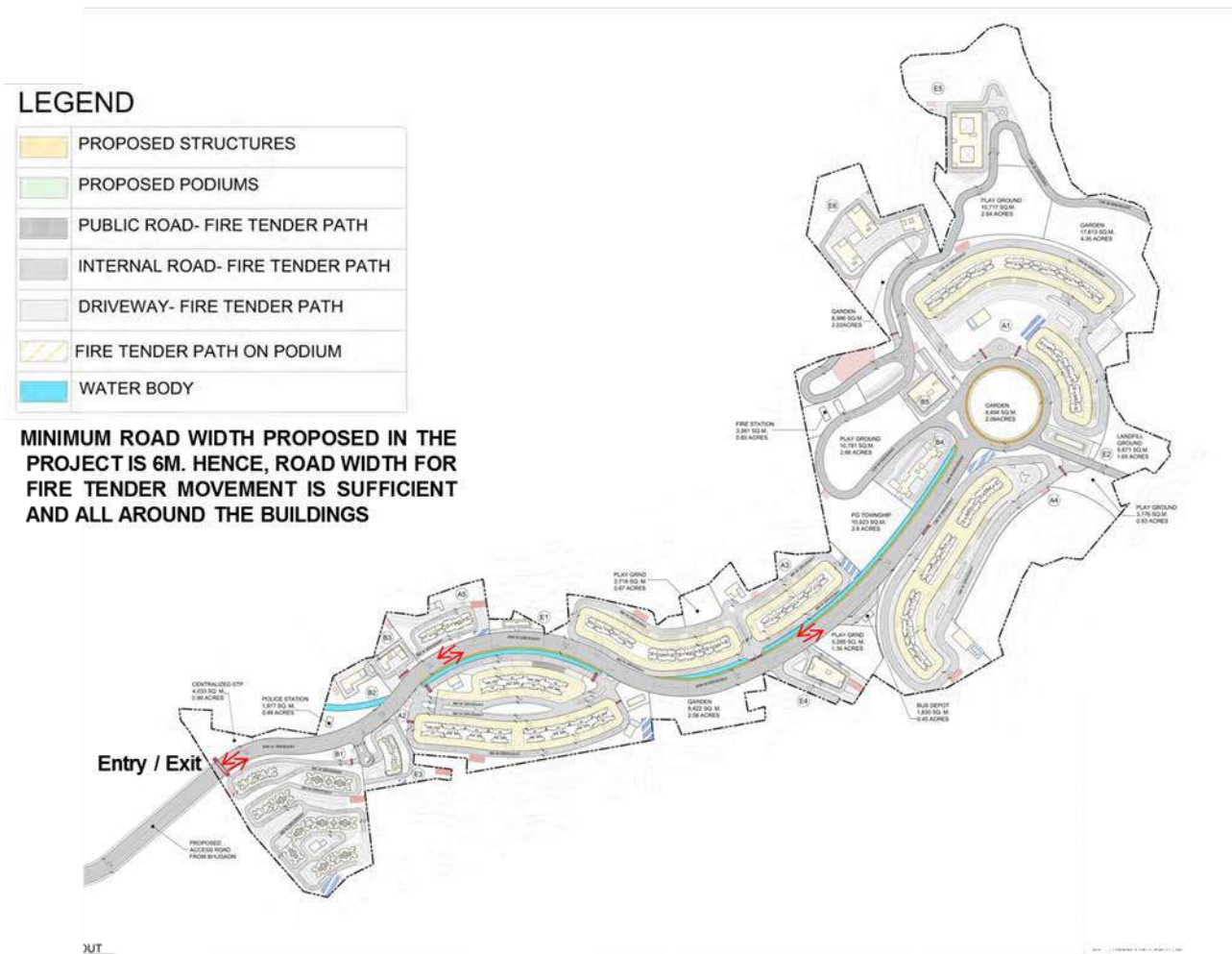


Figure 7-1 Proposed Fire Engine Movement Layout

1.3 MITIGATION STRATEGY—DEMOLITION, CONSTRUCTION AND OPERATIONAL STAGE

1.4 FLOODS

The following precautions would be taken:

- Cleaning of storm water drains periodically.
- Cleaning of sewer drains periodically.
- The plinth level are higher than the nearest road level in order to prevent rain water accumulated on surrounding roads from entering into the building.

Storm Water Layout

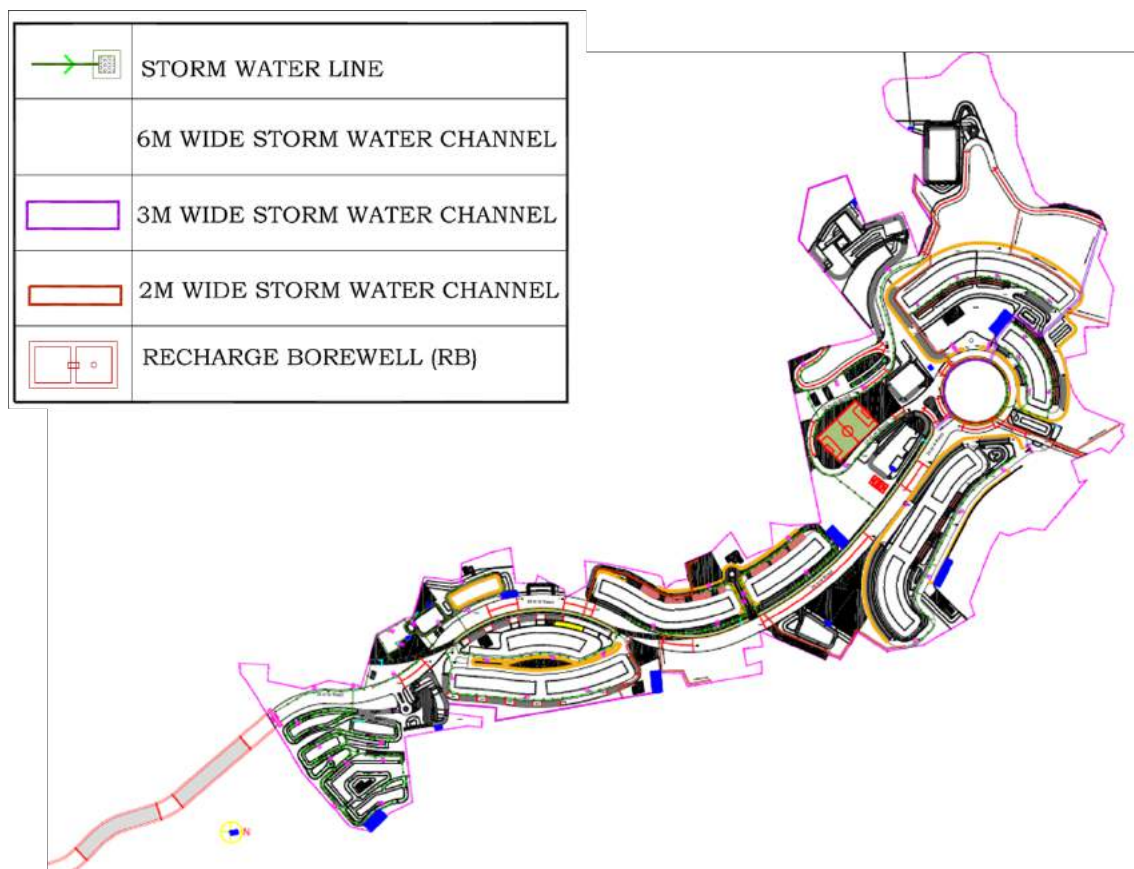


Figure 7-2 Proposed Storm Water Layout

1.4.1.1 Earthquake

As per the Seismic Zoning Map of India, Pune region falls under Seismic Zone-III. The structural design shall be certified as per IS code 456-2000 and IS 1893-2002 and ductile detailing is done as per IS 13920 -1993

Environmental Impact Assessment

1.4.1.2 Cyclones

Cyclones are caused by atmospheric disturbances around a low-pressure area distinguished by swift and often destructive air circulation. They are usually accompanied by violent storms and bad weather.

There is no history of any cyclone in this area. However in such an instance the occupants should be advised to stay in the shelter in tightly secured windows and doors. The glass of windows etc. should be covered with paper/cardboards to avoid glass breaking due to flying objects outside.

1.4.1.3 Thunderstorms & Lightning

Lightning is an atmospheric electrostatic discharge accompanied by thunder which typically occurs during thunderstorms and sometimes during volcanic eruptions or dust storms. It often leads to physical damage to the building and occupants. It can also lead to short circuits, failure of power supply and fire. Lightning arrestor systems is provided to abate the impact of lightning hazard.

They may occur singly, in clusters or in lines. Some of the most severe occur when a single thunderstorm affects one location for an extended time. Thunderstorms typically produce heavy rain for a brief period, anywhere from 30 minutes to an hour. Warm, humid conditions are highly favorable for thunderstorm development.

As a part of Mitigation, lightning arresters are provided on the terraces of all buildings and earthing is provided to all electrical utilities including Fire pumps motors

1.5 MAN-MADE DISASTER

1.5.1.1 Fire

Fire could take place through various means; one of them is through electrical fire. Hence, all the electrical works and material of the building would adhere to the standards. Regular maintenance and audit of the electrical systems would be carried out by external auditors.





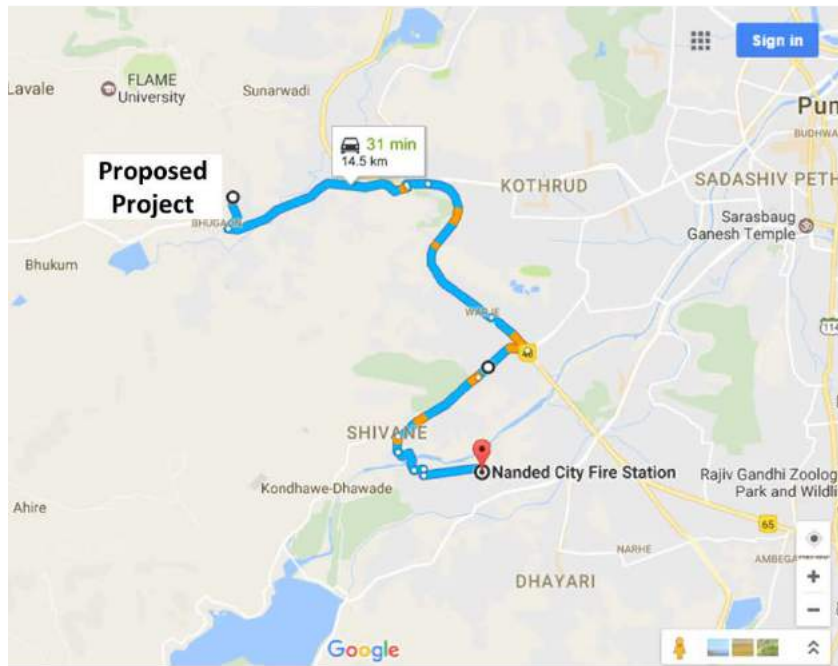
Figure7-3: Fire Alarm (Top Left), Fire Extinguisher (Top Right) & Fire Hose.

1.5.1.2 Mitigation measures proposed

- Fire Alarm system and Fire Hose located on each residential floor.
- Fire extinguishers located at all important locations.
- Common Assembly Point shall be demarcated and its location shall be displayed at the lift lobby for easy sighting.
- Mock drills shall be carried out with the help of Fire and Emergency Services, Pune.
- Refuge floors provided in the buildings shall be highlighted and kept empty at all times for emergency evacuation. The following resources shall be available on the Refuge Area.
 - Copies of the Disaster Management Plan.
 - Layout Plan of proposed project.
 - Information regarding Safety Equipment, Fire Fighting material.
 - A list of important telephone numbers like those of neighboring police station, Fire Brigade, Hospitals etc.
 - First Aid Kit

Figure 7-4 Evacuation plan

FIRE STATION RESPONSE : DISTANCE & TIME

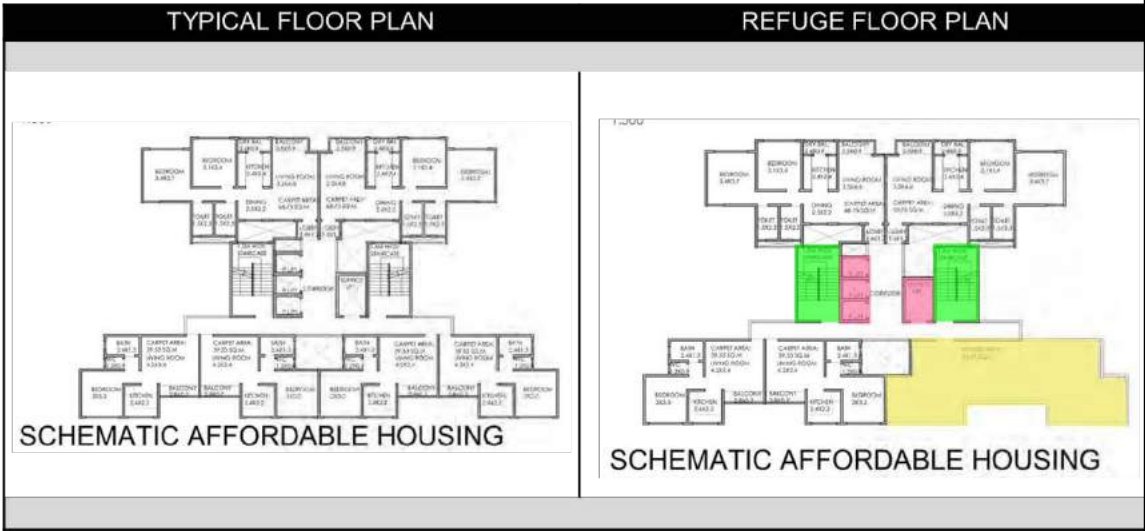


The Proposed Project is 14.5 km away from Nanded City Fire Station.

Contact Details of Nanded City Fire Station :

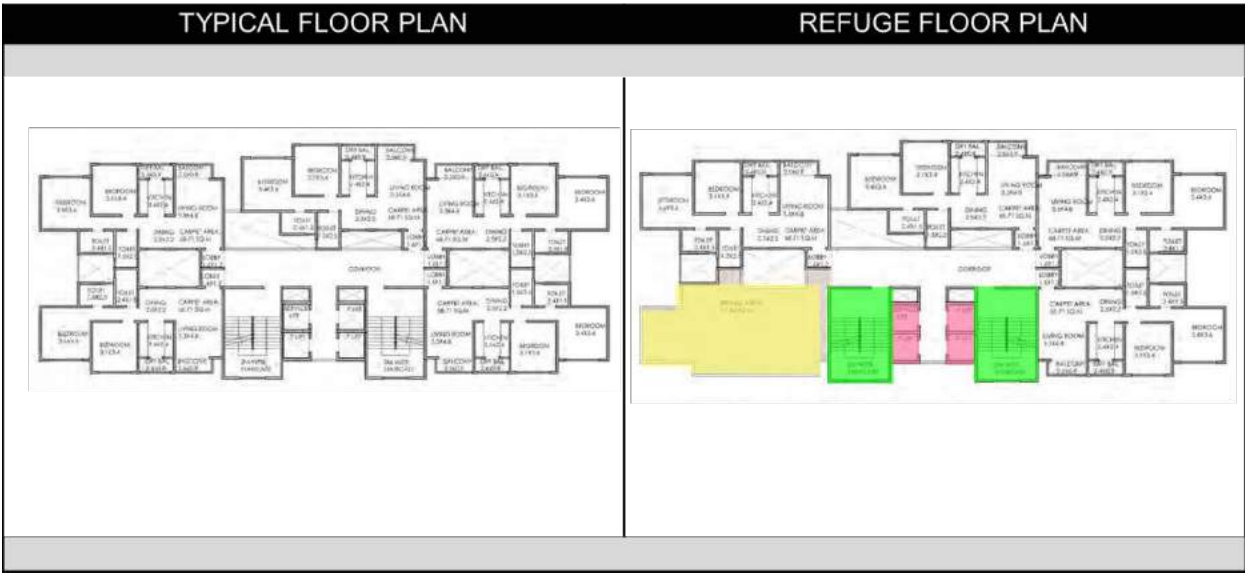
Note - Assuming minimum speed of fire engines as 20 km/hr and the time to reach is 31 min.

ESCAPE ROUTES (AFFORDABLE HOUSING BUILDING 1 & 2bhk)



Exit Lift Refuge Area

ESCAPE ROUTES (AUTISTIC 2BHK BUILDING)



Exit Lift Refuge Area

ESCAPE ROUTES (AUTISTIC 3BHK BUILDING)

TYPICAL FLOOR PLAN

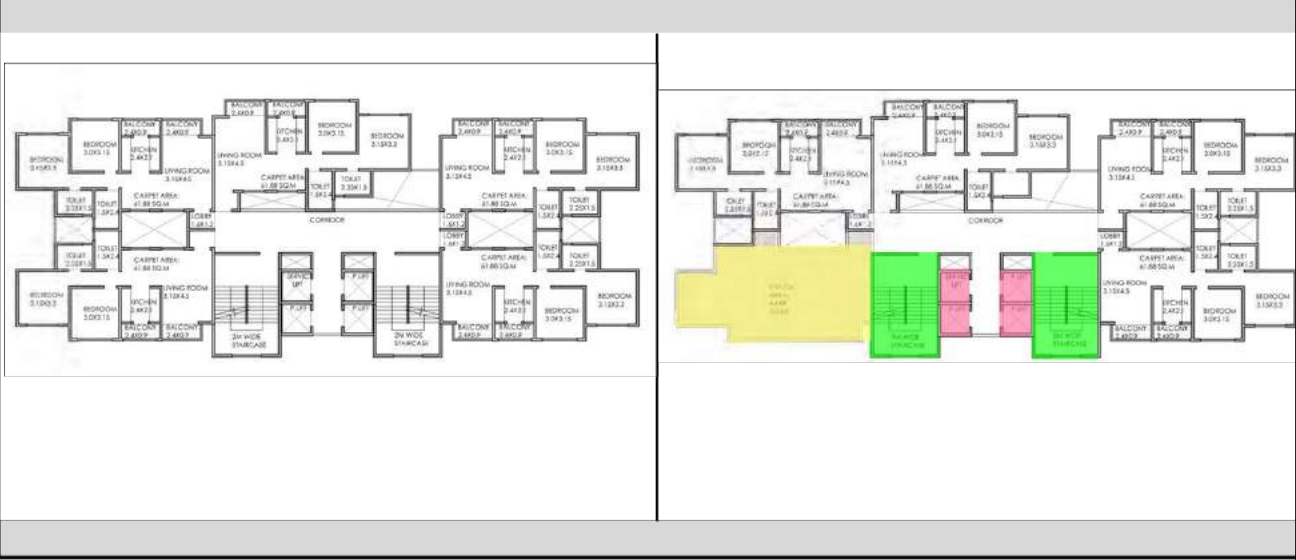
REFUGE FLOOR PLAN



ESCAPE ROUTES (SEMI LUXURY 2 BHK BUILDING)

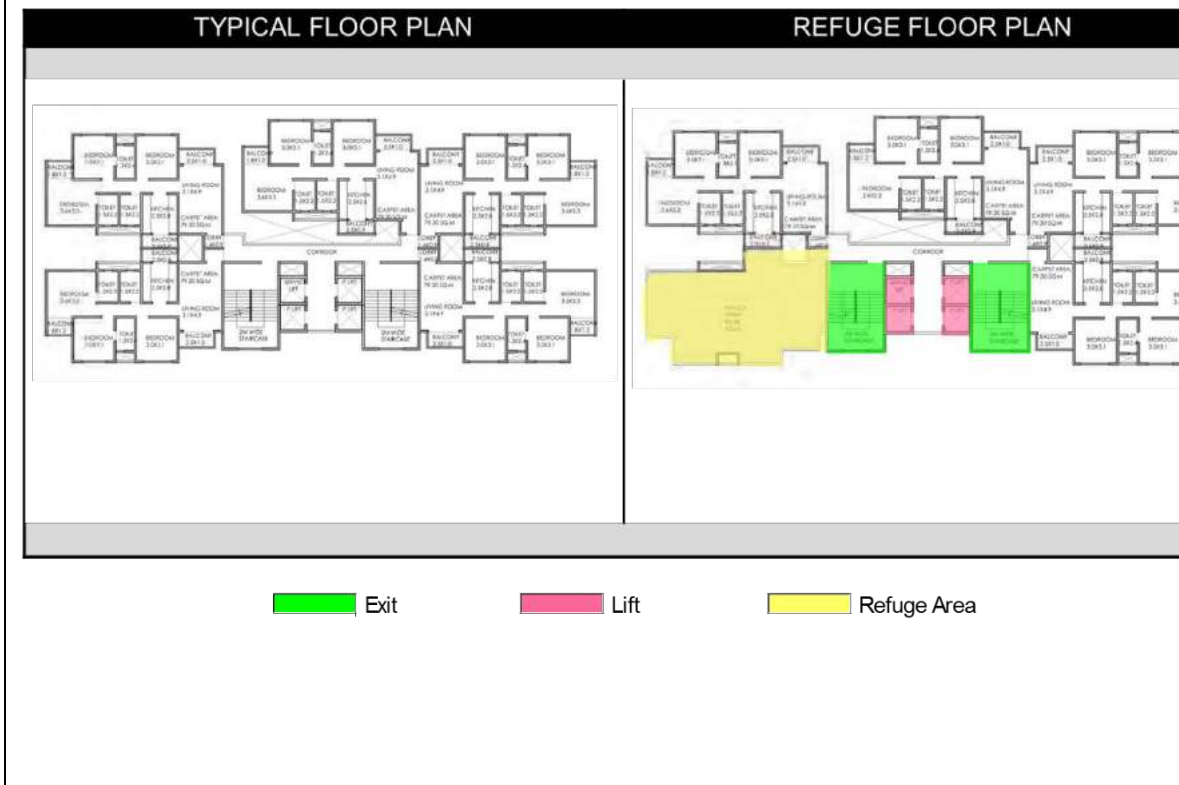
TYPICAL FLOOR PLAN

REFUGE FLOOR PLAN

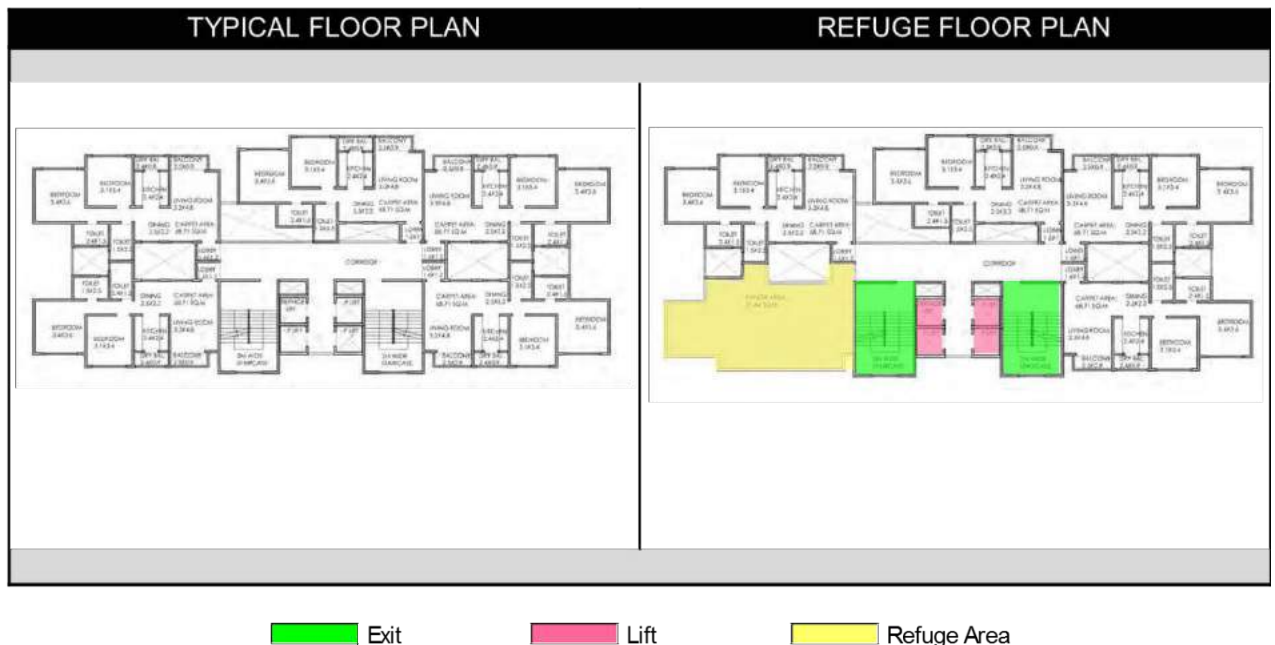


Exit Lift Refuge Area

ESCAPE ROUTES (SEMI LUXURY 3BHK BUILDING)



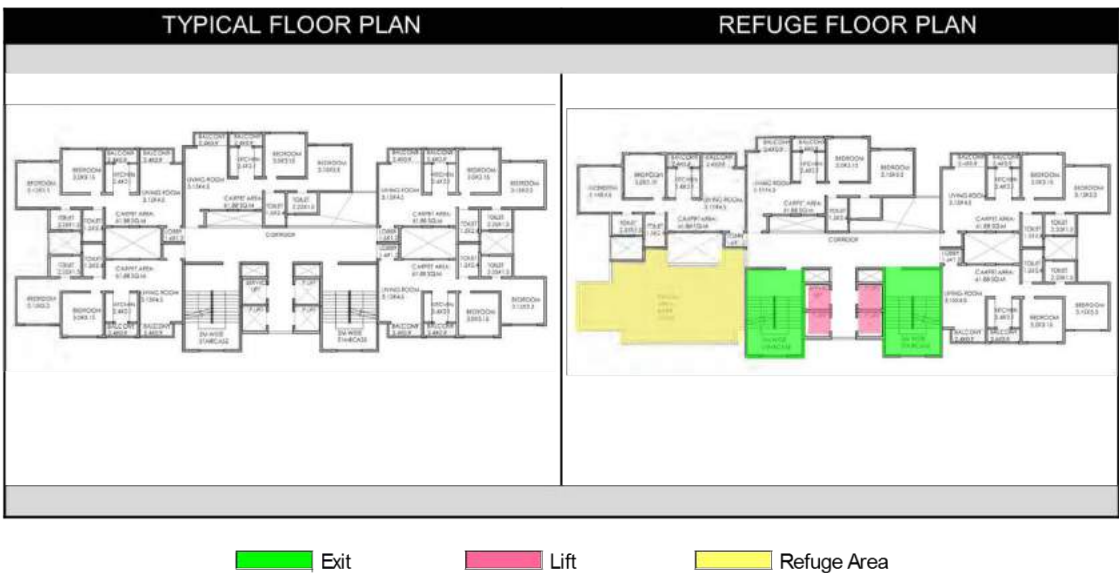
ESCAPE ROUTES (LUXURY SECTOR 2BHK BUILDING)



ESCAPE ROUTES (LUXURY SECTOR 3BHK BUILDING)

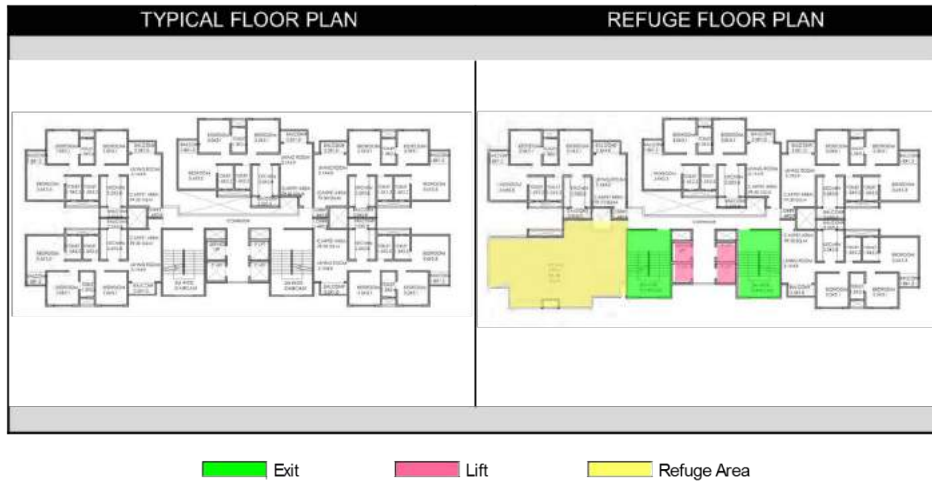


ESCAPE ROUTES (SEMI LUXURY SECTOR02 2BHK BUILDING)

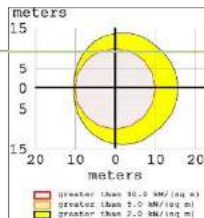
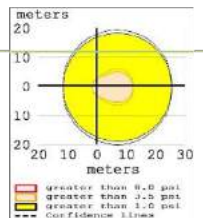


Environmental Impact Assessment

ESCAPE ROUTES (SEM LUXURY SECTOR02 3BHK BUILDING)



RISK ASSESSMENT AND FIRE EXPLOSION

IDENTIFICATION OF HAZARDS			CONSEQUENCE ANALYSIS																																																											
Potential Fire/ Explosion Events	Construction Phase	Operation Phase	(Worst Possible Scenario)																																																											
1 Diesel fire at DG set.	✓	✓	LPG JET FIRE	LPG CYLINDER EXPLOSION																																																										
2 LPG cylinder fire/ explosion.	✓	✓																																																												
3 AC, refrigerators units fire.	✓	✓	<table><tr><th rowspan="2">SR. NO.</th><th rowspan="2">ACCIDENT SCENARIO</th><th colspan="2">FLAMMABLE VAPOR CLOUD (LEL)</th><th colspan="3">BLAST OVER PRESSURE (psi)</th><th colspan="3">THERMAL RADIATION (kW/m²)</th></tr><tr><th>60 %</th><th>10 %</th><th>8</th><th>3.5</th><th>1</th><th>10</th><th>5</th><th>2</th></tr><tr><td>1.</td><td>Diesel Pool Fire.</td><td>-</td><td>-</td><td>-</td><td>-</td><td>-</td><td>11</td><td>12</td><td>13.5</td></tr><tr><td>2.</td><td>LPG Gas Jet Fire.</td><td><10</td><td>19</td><td>-</td><td>-</td><td>-</td><td><10</td><td><10</td><td><10</td></tr><tr><td>3.</td><td>LPG Cylinder Release & Jet Fire.</td><td>14</td><td>45</td><td>-</td><td>-</td><td>-</td><td><10</td><td><10</td><td><10</td></tr><tr><td>4.</td><td>LPG Cylinder Explosion.</td><td>-</td><td>-</td><td>NA.</td><td>12</td><td>26</td><td>-</td><td>-</td><td>-</td></tr></table>		SR. NO.	ACCIDENT SCENARIO	FLAMMABLE VAPOR CLOUD (LEL)		BLAST OVER PRESSURE (psi)			THERMAL RADIATION (kW/m²)			60 %	10 %	8	3.5	1	10	5	2	1.	Diesel Pool Fire.	-	-	-	-	-	11	12	13.5	2.	LPG Gas Jet Fire.	<10	19	-	-	-	<10	<10	<10	3.	LPG Cylinder Release & Jet Fire.	14	45	-	-	-	<10	<10	<10	4.	LPG Cylinder Explosion.	-	-	NA.	12	26	-	-	-
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4.	LPG Cylinder Explosion.	-	-	NA.	12	26	-	-	-																																																					
4 Vehicles fire.	✓	✓																																																												
5 Transformer fire/ explosion.	✓	✓																																																												
6 Gas cylinders for cutting set fire/ explosion.	✓	-																																																												
7 Paint/ thinner fire at store.	✓	✓																																																												

SN	SCENERIO	VULNERABLEZONE	IMPACT
1	Fire of combustibles LPG/ PNG/ AC/ Fridge/ vehicles fuel at the building.	Flammable vapour cloud of 60 % of lower flammability level likely up to 14 m radius from the location . significant Thermal radiations up to 11 m	Exposure to Thermal radiations burn injury, fatality likely within the vulnerable zone.
2	DG set Diesel release followed by fire/ explosion.	Dow Radius of exposure 4.7 m (proper spill control strategy considered). Thermal radiations 11 m	Direct impact on the exposed persons in terms of Thermal radiations, burn injury and fatality within the vulnerable zone. Property Damage factor 11% within The 4.7 m radius

RISK ASSESSMENT

SN.	SCENARIO	VULNERABLE ZONE	IMPACT
1	CYCLONE	All structures.	Direct impact in terms of Injury, fatality, loss of property and long term local and wide spread impacts on the residents.
2	EARTH QUAKE	All structures.	Direct impact in terms of Injury, fatality, loss of property and long term local and wide spread impacts on the residents.
3	SECURITY THREAT	Stampede at staircase while evacuation. during	Direct impact on occupants in terms of Injuries, trauma and fatality likely during evacuation. Long term trauma on the residents

RISK MITIGATION RESOURCES

1.	Early Warning System	: Fire detection and alarm at fire Control room system, Automatic Smoke detector system especially at lift machine room & electric meter room, Auto water sprinkler with Thermal Detector. CO, LPG/ PNG leak detector system. CCTV security system.
2.	Fire Protection & Fire Fighting	: Fire water Underground & Over head storage tank, Fire hydrant system (fire water pumps [Diesel and electric], fire hydrants, wet risers, hoses), Portable Fire extinguishers CO ₂ , DCP, Foam, sand buckets type, Automatic Water sprinkler system, Emergency power DG set, Mechanical Ventilation system, Two hours Fire Resistant Doors, Fire lift, pressurized Fire chute.
3.	Emergency Communication	: Ensure effective emergency communication during evacuation to avoid panic and stampede. Siren/ bell with clearly defined emergency alarm code for fire, evacuation and all clear. Intercoms & Cell phones, Two way radio, Hand held loud speaker, Efficient Public address system for entire building with standard Building management system. Voice evacuation system will be additional advantage.
4.	Signages	: Signs at lift landings, Floor numbering signs, Stair and elevator identification signs, Stair reentry signs, Floor layout plans, Escape route near each change of direction in the route, Assembly point, Emergency Control Centre (ECC), First aid, Danger at electrical rooms, Exit signs at each exit door, escape route direction signs.
5.	Search & Rescue Kit	: Torch with battery, Whistles, Ropes-Nylon (800 m), Ladder, Search light, Two way radio, Manual Siren, Metal Cutting set, Hand tools (Axe, shovel), Portable Mega Phone. Barricade tape, Flags, First Aid Box, signages, Stretcher, Portable Gas Detector, Reflective jackets.
6.	Personnel Protective Equipments (PPE)	: Safety Helmet, Safety Goggles, Safety Shoes/ Boots, Masks, SCBA, Life jackets Full Body Harness.
7.	Flood	: Dewatering pump Life jackets, Floats, Ring buoys, flood contour map.
8.	Cyclone	: Lightening arrestor.
9.	Air Crash	: Red indication light at top.
10.	DMP	: Copy of DMP at ECC, Fire Audit, Structural Audit, Mock Drill, Fire Drill, Periodic DMP awareness programs, Construction workers, utility operators, Watch & Ward, fire & security personnel safety training, Tenement induction process, Mock Drill and Fire Drill.

Environmental Impact Assessment

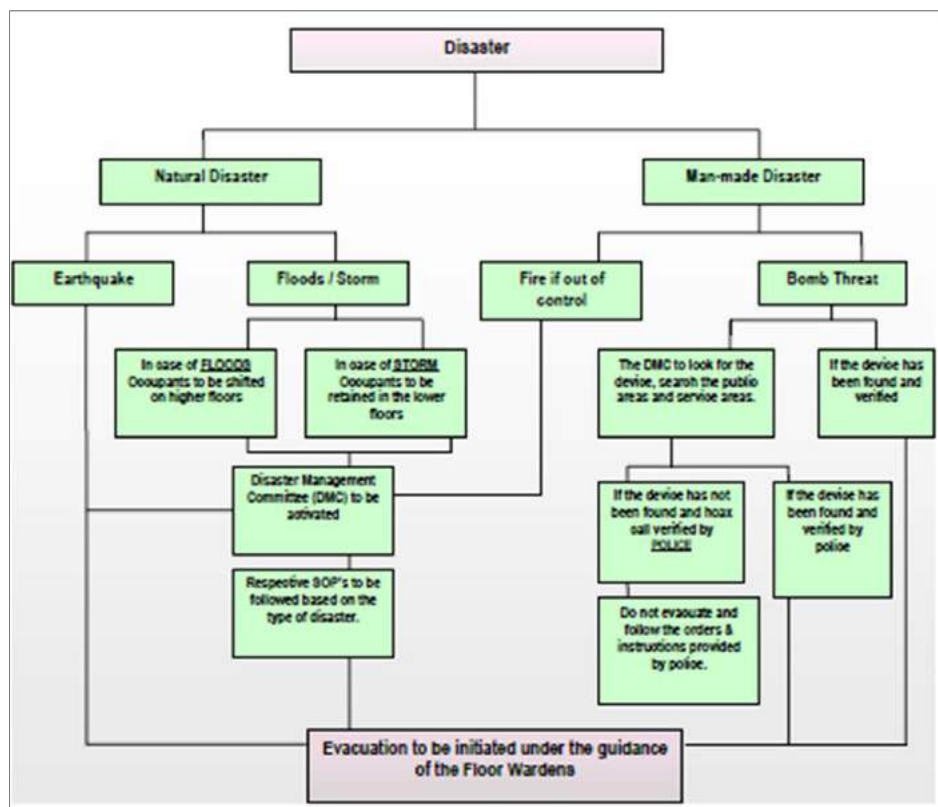
1.5.1.3 Diesel Generators

In case of emergency, diesel generators of Cumulative capacity will backup for electric supply for the common area lighting and utilities like elevators, water pumps, fire lifts, fire pumps & Sewage Treatment plant etc.

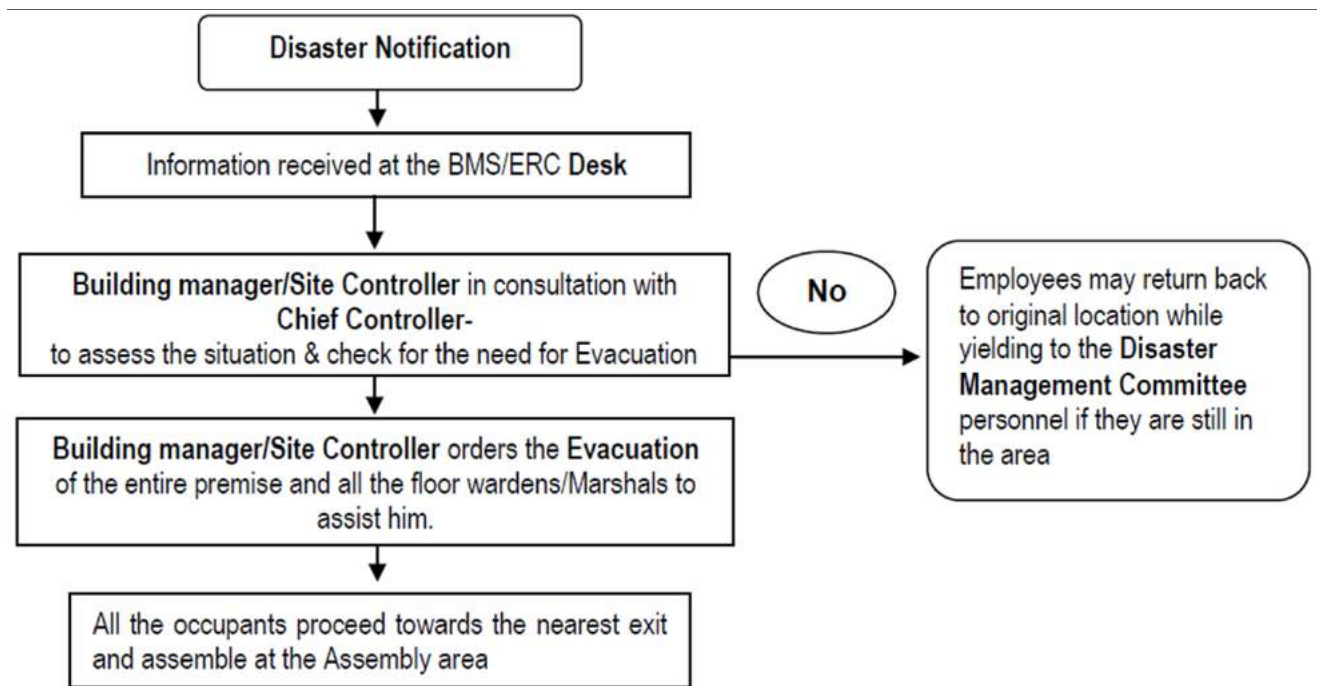
- Provision of Independent electrical circuits for critical equipments as per Norms
- Also as per specific requirement of Fire fighting department the Electric supply for Fire pumps, booster pumps, sprinkler pumps will be on independent circuit.

Figure 7-5 Location of D.G.Set & Meter room

DISASTER RESPONSE PLAN



STEPS IN EVACUATION PLAN



COMMON RISK MITIGATION MEASURES

- Lights during Late Night Hours
- DG set for Emergency power (DG set will be of silent type with acoustic enclosure.)
- Barricade during construction phase.
- Access from all sides for fire fighting to all buildings.
- Public Address System at ECC, Addressable fire alarm system.
- PPE & RESCUE EQUIPMENTS: Search Light, Safety Net, Safety Belt, Mask, Helmet, Earplugs, Rope, Gas Cutter/ Hammer/ Life jackets at Security Office of the complex.
- Fire Drill, Mock Drill and Community awareness drive.
- Glass break fire on each floor alarm at ground floor.
- Two Hour Fire resistant door.
- Water sprinkler at stair case, lift lobby, parking and Water Curtain for façade system.
- Design Code: NBC Code & DC Regulations.

SOPS FOR EACH DISASTER AND FOR EVACUATION WHEN NECESSARY

■ **Earthquakes**

- Search for a safe place
- Check for the evacuation routes
- Intimate and co-ordinate with the Team appointed
- If caught inside stand with their backs against a strong indoor wall
- If caught outside run to an open space away from trees, buildings and electric lines
- If in a moving vehicle stop and stay inside
- Communicate the assessment findings to other Task Force groups
- Establish a distribution centre or community
- Prioritize the elderly persons, pregnant women, children and injured persons
- Make immediate repairs to broken or burst pipes.
- Coordinate with the sanitation group to ensure sufficient water availability

■ **Cyclones**

- Remain in shelter
- First Aid team to provide primary health care
- Conduct a general hazard assessment
- Clear debris and fallen trees
- Assess the Drinking water supply and available water resources

COMMON RISK MITIGATION MEASURES

- Earthquake resistant design of structures. IS 456 – 2000 & IS 1893 – (Part I) – 2002.
- Fire detection and alarm system.
- Smoke detector at meter room and at each floor.
- Coverage under Lightning arrestor
- Watch & ward Guards and CCTV coverage.
- Prohibition of smoking signs.
- LIFT: ARD system for Lift (Auto Rescue Device), Intercom, Fire Alarm, Fire Resistant Door.
- Water removal arrangement from lower level floors to outside storm drain.
- Safety instructions and signage display.
- Work Permit System during construction phase.
- Supervision of construction work.

SOPS FOR EACH DISASTER AND FOR EVACUATION WHEN NECESSARY

■ Fire

- Move towards the designated refuge areas.
- Intimate and co-ordinate with the Team appointed.
- If possible the fire extinguishers provided at designated places can be used.

■ Flood

- Arrangement for safe evacuation of the occupants
- Intimation to the external authorities as mentioned in this plan
- Guide the way towards safe evacuation of the building.
- Arrange for relief and rehabilitation space
- Arrange for medical assistance, food.
- Occupants should not drive during flood
- Occupants should not move closer to any electrical pole or line while evacuation process
- Switch off the main power supply of the building

SOPS FOR EACH DISASTER AND FOR EVACUATION WHEN NECESSARY

▪ **Unrest**

- Adequate precautions to be taken for work sites close to areas prone to political / communal unrest.
- Information can be obtained from television, radio, newspaper / any other Sources.
- Assemble at emergency assembly point
- Declaration of emergency situation by Project Manager, Construction Manager.
- Evacuation of workmen & staff from emergency assembly point to a safe shelter by time office.
- Security arrangement to be ensured in coordination with local police station.
- In case of military aggression, air raids, additional arrangements e.g. Military protection / bunkers may be required.
- Arrangement for flood, drinking water & medical aid by package I/c
- District emergency authority.
- In case of short notice, all the identified persons to contact themselves act as mentioned above.
- After the emergency is over, the normal situation is to be declared by Project Manager, Construction Manager.
- Staff, workmen, & family to be rehabilitated.

SOPS FOR EACH DISASTER AND FOR EVACUATION WHEN NECESSARY

■ **Bomb threat**

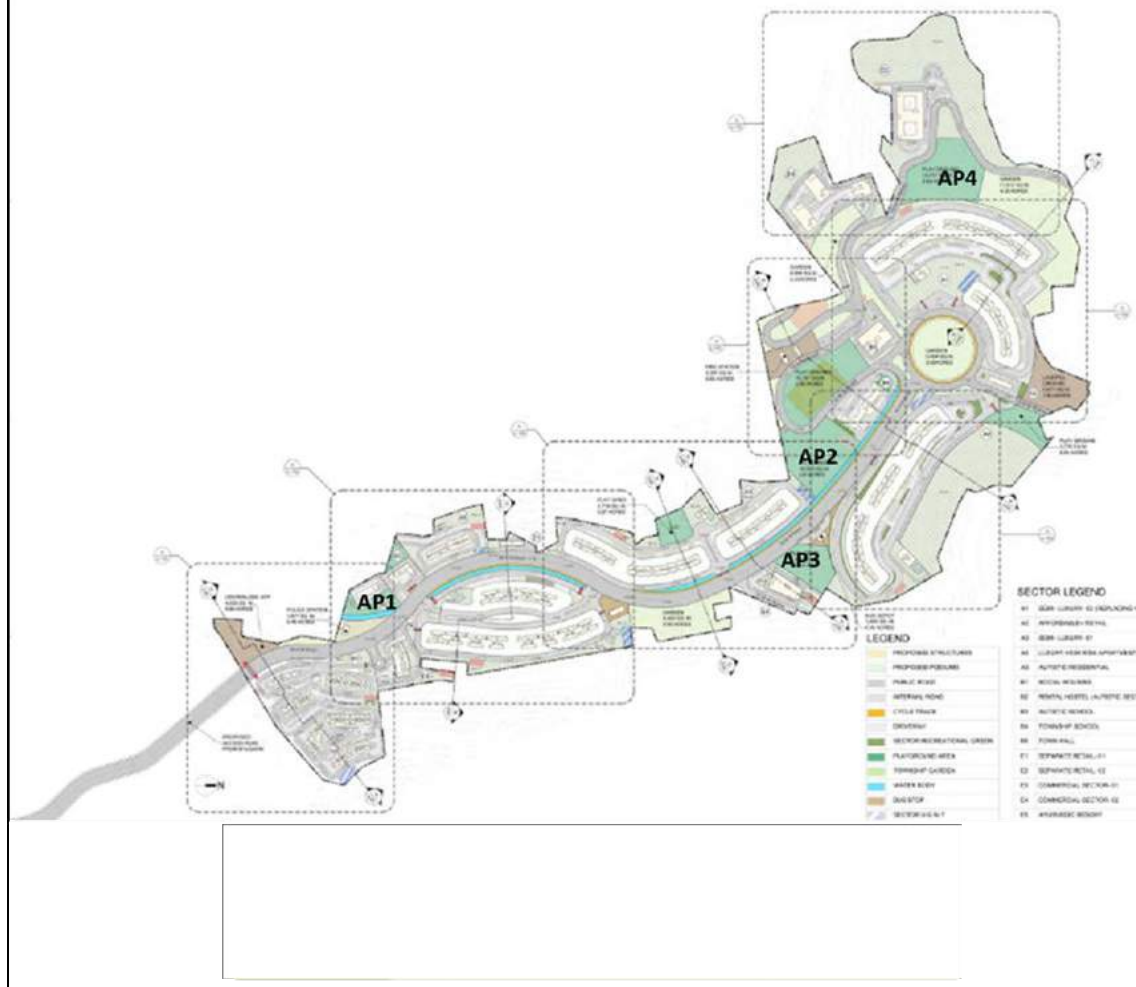
- Immediately on receipt of a bomb threat, the recipient will inform the Site Controller / Chief Security Officer/Chief controller or whoever next in hierarchy is present in the building at that time. **All bomb threats must be treated as real and handled as such.**
- Site controller will immediately inform the **Chief Controller/Dy. Chief Controller** and, in consultation with him, inform the **police, fire-fighting and the bomb disposal authorities and arrive at a decision to evacuate the property.**
- If it has been decided to evacuate the property immediately, actions contained in the **SOP on Evacuation** will be initiated
- If the location of the alleged bomb has not been indicated by the caller, zone-wise search parties under the respective Zone-Wardens will be instructed to carry out a search . If the location of the alleged bomb has been indicated by the caller, nominate a team under the Chief Security Officer to reach the location, search for the alleged bomb and if the bomb or an unattended object is noticed, take the following actions :-
 - Organise a cordon of the affected area from a safe distance.
 - Carry out local evacuation of the affected area by removing all persons from there.
 - Keep the alleged bomb/object under constant observation.
 - Continue reporting the situation to the Chief Controller.
 - Hand over the situation to the police and the bomb disposal personnel on their arrival.
 - Carry out total evacuation, if ordered.

SOPS FOR EACH DISASTER AND FOR EVACUATION WHEN NECESSARY

■ **Terrorism**

- On receiving the information regarding a **Terrorist attack** in the building the BMS/Site Controller must be informed.
- **Seal all access points** to the building and order for the **people to gather at the assembly point** in the building and activate disaster management team in operation.
- He would inform as per hierarchy and wait for the instructions, will call the police/call for the **Ambulance and for the Fire Brigade.**
- The Chief controller will be informed immediately.
- The following steps should be followed
 - Review emergency evacuation procedures.
 - Know where the fire exits are located.
 - Keep fire extinguishers in working order. Know where they are located and how to use them
 - Training for first aid should be given.

EVACUATION DIAGRAM

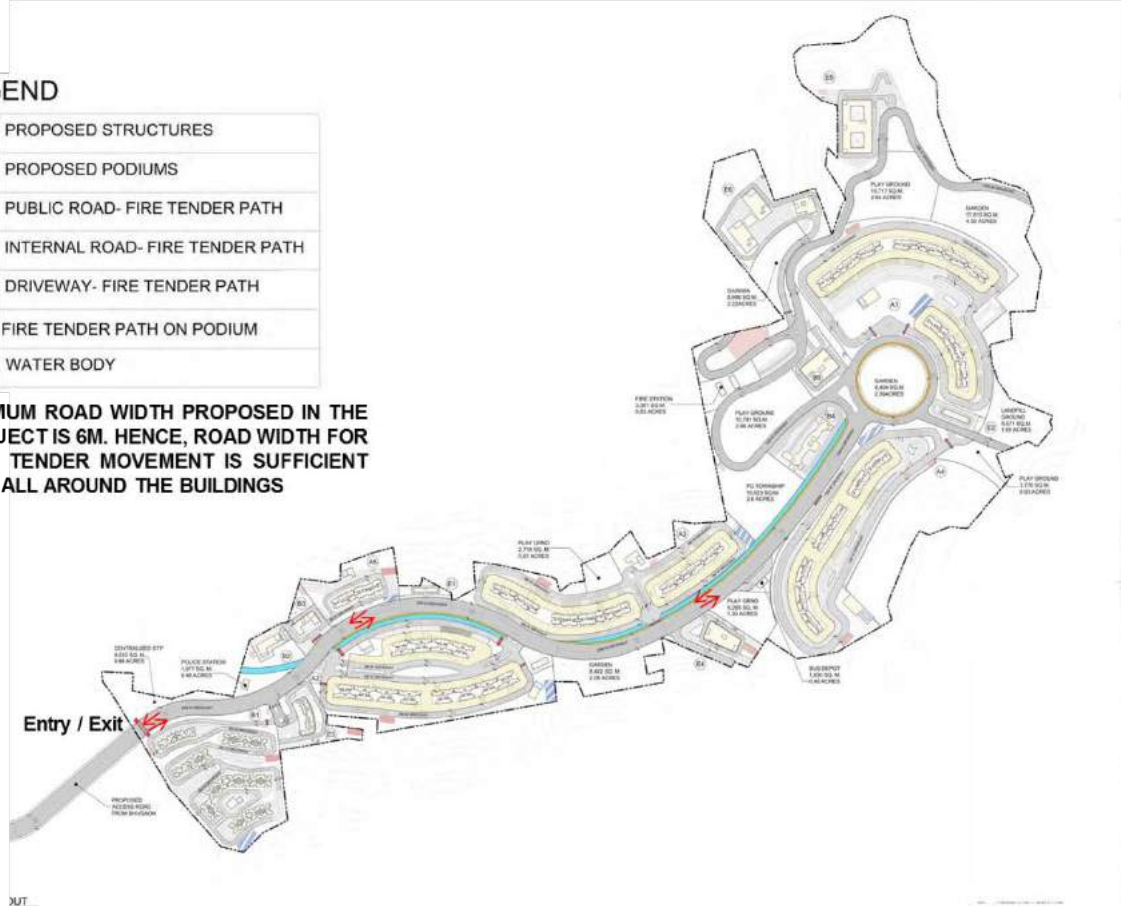


EVACUATION DIAGRAM

LEGEND

	PROPOSED STRUCTURES
	PROPOSED PODIUMS
	PUBLIC ROAD- FIRE TENDER PATH
	INTERNAL ROAD- FIRE TENDER PATH
	DRIVEWAY- FIRE TENDER PATH
	FIRE TENDER PATH ON PODIUM
	WATER BODY

MINIMUM ROAD WIDTH PROPOSED IN THE PROJECT IS 6M. HENCE, ROAD WIDTH FOR FIRE TENDER MOVEMENT IS SUFFICIENT AND ALL AROUND THE BUILDINGS



1.5.1.4 DMP costing

BLOCK ESTIMATION	
Services Details	Costing
CCTV Security System.	1.61 Crores
Emergency Power (DG Set).	4.59 Crores
Lightening Arrestor.	21.4 Crores

DIRECTORIES : EMERGENCY CONTACT NUMBERS

S. No.	DESCRIPTION	CONTACT NUMBER
FIRE BRIGADE		
1	Hinjewadi fire station Phase One	020-22933101
2	Hadapsar Fire Brigade Station	020-26870207
POLICE		
1	Police Control.	100
2	Paud Police Station	020-22943133
3	Police Station Hinjewadi	020-22934622
4	Dehu Police Station	020-27671288
5	Hadapsar Police Station	020-26996577
MEDICAL ASSISTANCE (Hospitals, Ambulance)		
1	Mulshi Millennium Hospital	020-33013263
2	Hinjewadi Hospital	020-64732525
3	Aditya Birla Memorial Hospital	020-40707777
4	Shree Hospital	020-27282077
5	Sanjeevani Hospital	020-67250000
ADMINISTRATION/ REGULATORY AGENCIES		
1	Collector, Pune	020 2612 2114
2	Rapid Action Force Camp,	09850681822
3	Sub-Divisional Officer,	020-26123523
4	Tahsildar, Mulshi, Pune	020-22943121