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# **Disaster Management Planning of Residential cum Commercial Complex**

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## Disaster Management Planning

### Objectives:

- Disaster Management Planning Objectives
- Disaster Management Planning of Residential Society Complex
- On-site and off-site Emergency Planning

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## Major Objectives of Disaster Management

The overall objective of a disaster management plan is to make use of the combined resources created or available at the site and/or off-site services to achieve the following:

- Prevent Disasters
- Minimize the effects of the accident on people and property;
- Initiate the rescue and medical treatment of casualties;
- Safeguard other people
- Evacuate people to safe areas with care
- Inform and collaborate with statutory local and state authorities;
- Provide credible information to news media;
- Bring the incident under control;
- Preserve relevant records and equipment for the subsequent enquiry into the cause and circumstances of the emergency;
- Investigate and take steps to prevent recurrence of similar incidents.

## Disaster Management Plan for Residential cum Commercial Complex

### Disaster: Fire Outbreak

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 will be carried out by external auditors.

**Mitigation Measures:** Fire extinguisher equipment will be evaluated periodically to ensure that it is in working conditions by Security Manager. If any faulty equipment is observed then it will be repaired or replaced by Society. Proper evacuation plan will be chalked for the building. The map for the evacuation plan will be provided to all the occupants. For each building we will be providing the following Fire fighting equipment:

- Fire pump
- Fire Hydrant system
- Automatic fire alarm system
- External hydrants
- Potable fire extinguisher
- Fire escape masks
- Water curtain system provided



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## Disaster Management Plan for Residential cum Commercial Complex

### Disaster: Malfunctioning of Lifts

Due to technical snap or power failure lifts could get stuck in between floors, or the wire could snap and the lift may fall down the shaft.

**Mitigation Measures:** Regular maintenance of lifts and other Building Management Systems has to be conducted. There should be a specific committee appointed for maintaining the systems during the operation phase.





## Disaster Management Plan for Residential cum Commercial Complex

### Disaster: Power Failure

Power failure to a building will have a serious impact on its operations, particularly if the failure occurs during normal operating hours when the building is fully occupied. They can be caused due to Manmade/ Technical Fault or as a result of Natural Events.

**Mitigation Measures:** Buildings have emergency and standby power systems to provide safety and comfort to building occupants during interruptions in their normal power supply.

- Society will be providing 5DG Set for the proposed residential cum Commercial project. The capacities are 3x75 KVA, 1X700 KVA & 1X 500 KVA as a backup for electrical supply for elevators, common lighting areas, fire fighting equipment, STP
- We will be providing independent electrical circuits for critical equipment like fire pumps, sprinkler pumps.
- UPS will be used as a backup to protect computers, telecommunication instruments, data loggers etc.

## Onsite Emergency Planning for Residential cum Commercial Complex

For the incidents which could affect people and the environment inside the building, onsite emergency plan includes:

- Display of the emergency phone nos. (Includes phone number and address of nearby hospital, fire station, police station, public help service etc.)
- Periodical maintenance and checking of all equipment.
- Training to all occupants for different type of emergencies
- Preparation of the building emergencies manual
- Training program for the tenants, security guards, housekeeping staff and other stake holders of the building.
- Evacuation plan, floor plan, site plan, elevation marked with refuge area etc.
- Fire & emergencies drill programmers
- We will Preparation of Posters, other templates, showing emergency preparedness for children and building occupants.
- Updating the plan to improve effectiveness.
- Each building has the following Inventory resources equipment like overhead and underground storage tank, portable fire extinguisher on each floor, fire hydrant system, fire alarm and smoke detection system, fire or emergency exits and 2 assembly points

## Off-site Emergency Planning for Residential cum Commercial Complex

- List of nearest clinics, hospitals, police station and fire stations to be maintained by the society
- **Role of Local Authority:** It will be the responsibility of the local authority to ensure that all those organizations which will be involved off site in handling the emergency, are well versed with their roles and responsibility. Sufficient staff and appropriate equipment arrangement shall be the responsibility of respective person. Rehearsals for off-site plans will be organized by the local authority.
- **Role of Fire Authority:** such as explosions and toxic release. Fire authorities in the region will be appraised about the location of all stores of flammable materials, water and foam supply points, and fire-fighting equipment. They will be involved in onsite emergency rehearsals both as participants and on occasion, as observers of exercise involving on-site personnel.
- **Role of Fire Brigade and Fire Station Officers:** They are responsible for firefighting operations in the affected area, rescue operations, transport of injured to the hospitals on a priority, evacuation of persons from the affected area, ensure safety from electrical installations or power supply at disaster site, clearing of roads or pathways due to uprooted trees, salvage operations, co-ordinate for rescue operations in house collapses, communicate to fire brigade control room details on the field activities.



## Summary:

- In order to assess a hazard or a disaster whether natural or man-made risk assessment, vulnerability analysis and disaster management planning has to be carried out
- In the current scenario, residential cum commercial complex has been chosen as the platform where disaster assessment is being carried out
- Risk assessment involves identification of hazard, identification of people involved, evaluation of hazard, record and plan for the disaster accordingly, review the assessment from time to time
- Vulnerability analysis is carried out for all those areas which cannot withstand the after-effects of disaster
- Disaster management Planning involves the following steps like Mitigation, Preparedness, Response and Recovery where each of these steps might not happen in a precise order

## Things to do Ahead:

Based on the risk assessment, vulnerability analysis and disaster management planning for a residential cum commercial Complex, similar hazard assessment can be carried out by the students for the following as an assignment:

- Hospital
- Supermarket
- Children's Amusement Park
- Office Building

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# School of Basic and Applied Sciences

Course Code : MEV313

Course Name: Disaster Management

## References:

1. Risk Assessment and Disaster Management Plan – Ameya hometowns
2. National Disaster Management Authority, Ministry of Home Affairs, Government of India, May 2016

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**Thank You !!!**

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