

## SAFETY AND HEALTH

# STANDARD OPERATING PROCEDURE EMERGENCY ACTION PLAN (SOP #33)

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## EMERGENCY ACTION PLAN

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## **1.0 Purpose and Scope**

The purpose of this Emergency Action Plan is to establish procedures for safely and effectively managing an emergency event for CS Energy. All employees, supervisors, and managers are expected to follow the procedures outlined in this plan to ensure that employees and visitors are protected from any further harm during an emergency situation. Project-Specific Emergency Action Plan will be addressed through the Health and Safety Plan.

This Emergency Action Plan covers those designated actions managers and employees must take to ensure employee safety from fire, weather and other emergencies. This plan includes: methods to alert employees, emergency escape procedures and emergency escape route assignments; procedures to account for employees after emergency evacuation has been completed; rescue and medical duties for those employees who are to perform them; the preferred means of reporting fires and other emergencies; and individuals who can be contacted for further information about the plan.

This emergency action plan will be available to all employees to review.

## **1.1 Emergency Coordinator**

The goal of the Emergency Coordinator is to assist in the orderly evacuation of employees and visitors from a building or area during an emergency or assist with shelter in place procedures if warranted. The duties of the Coordinators are as follows:

- Be familiar with the content of this plan.
- Alert staff of emergency situations.
- Ensure that staff and visitors are appropriately evacuating the facility or area based on the escape route assignments (see Health and Safety Plan)
- Assist in the evacuation of employee and visitors, or alerting security, fire, and police personnel of the last known location of the individuals.
- Perform medical duties (First Aid/CPR/AED) as necessary to employees and visitors during emergency situations (Applicable to Certified Employee Only).
- Extinguish small fires with the use of a fire extinguisher.
- If instructed, account for all employees and visitors at the designated meeting location(s).

**The list of the Emergency Coordinators is located in the Emergency Contact List contained in the Site-Specific Safety and Health Plan for Jobsites and Appendix-A for the Edison Office.**

Emergency Coordinators will be trained and made aware of their duties so that they can assist in the safe and orderly emergency evacuation of employees. They shall be made aware of their responsibilities under this plan:

- Initially when the plan is developed;
- Whenever the employee's responsibility under the plan changes, and
- Whenever the plan is changed;

## **1.2 Employees**

The success of this Emergency Action Plan in times of emergencies hinges on employees knowing the procedures outlined in this plan and acting upon them in an appropriate manner.

- **Before an emergency:**
  - Become familiar with the contents of this plan to include who to report emergencies to, the assigned evacuation routes for the facility, and the designated meeting locations.
  - Actively participate in emergency drills and treat them as if they are real.
- **During an emergency:**
  - Assist an Emergency Coordinator if asked.
  - Listen and wait for directions on how and when to evacuate the facility from Emergency Coordinator, security, police, or fire personnel.
  - Report **any** emergencies such as a bomb threat or threats of violence to your supervisor immediately.
  - Follow the assigned escape route procedures to avoid crowding at the exits.
  - Report immediately to your designated meeting location upon evacuating the facility. Do not take any side trips.
  - Never go back into the facility to retrieve personal belongings.

## **2.0 Procedures**

### **2.1 Reporting Emergencies**

In the event of a fire or other emergencies pull the fire alarm (if applicable) and then call the **Emergency Response Number (911; in Edison Office, 9-911)**. If time allows, notify your supervisor and the Emergency Coordinator for your area or site. Be prepared to provide the responder with the nature and location of the emergency. Knowing the address of your location will be critical in ensuring a fast response.

### **2.2 Alarm System**

The alarm system (where applicable) provides warning so that employees can escape safely from the workplace or the immediate work area. Building fire alarm systems are continuously monitored for alarm by a contracted service. All fire alarms result in an automatic response by the Fire Department. For jobsites, an alarm/notification system must be set up and is typically identified in the Health and Safety Plan.

### **2.3 Evacuation Route and Assembly Area Map/First Aid Kits**

#### **2.3.1 Evacuation Routes and Maps**

The evacuation routes and assembly area maps are posted by every main exit, elevator and in the Health and Safety Plan. Employees are to become familiar with all evacuation routes and their assembly point. **Refer to your Health and Safety Plan** for evacuation maps. **For the Edison Office, refer to Appendix-A.**

#### **2.3.2 Location of First Aid Kits/ Automated External Defibrillator (AED)**

As noted on the evacuation maps, the First Aid Kits/AEDs are located in the kitchen area of each floor in the Edison Office. On job sites, the location of these items may vary but should be at the very least in the common area of the jobsite office. For larger jobsites, multiple units and multiple locations may be necessary. All Foreman and Superintendent Vehicles shall be equipped with a First Aid Kit. First Aid Kits and AED's must be maintained regularly according to the manufacturer's requirements. Only trained personnel may use this equipment.

#### **2.3.3 Designated Assembly Locations**

Once employees have evacuated the facility, they **must** meet in the designated meeting location/muster area to check in with the Emergency Coordinator and/or their supervisor who will be accounting for individuals. Those employees who do not show up to the designated meeting location will be presumed to still be in the building/on-site and fire and police personnel shall be notified of their absence immediately. Edison Office Muster areas are found in Appendix A of this document. Jobsite Muster areas are designated in the Health and Safety Plan.

### 2.3.4 Evacuation Drills

At least annually the entire employee population of the facility/site will participate in an evacuation drill. If at all possible, it is best to have the entire facility/site participate together in one drill, as it would in a real emergency. However, if a few employees are needed to remain behind to maintain a critical process, they should be walked through their own drill after their shift. It is important to note in a real emergency situation that all employees are to evacuate immediately.

### 2.4 Fire Emergency Procedures

- Remove anyone in immediate danger.
- Once an employee is alerted to the fire danger, he/she will go to the nearest exit, activate the fire alarm (if applicable) or the emergency notification system, exit the building/site according to the emergency action plan, and proceed directly to the designated assembly point/muster area.
- Confine the fire to the room/area by closing the door(s) to the area where the fire is located and by ensuring all doors leading to the main hallways are closed.
- Attempt to extinguish the fire only if you have received training on the use of portable fire extinguishers, the fire is in its beginning stage, and it can be extinguished safely. Employees must be trained on the proper use of fire extinguishers. At a minimum, the following **PASS** method should be used for a fire extinguisher:
  - Pull the pin to allow the fire extinguisher to be used;
  - Aim the fire extinguisher hose at the base of the fire;
  - Squeeze the handle to begin discharge of the fire extinguisher;
  - Sweep from side to side until the fire is extinguished;
- DO NOT use elevators; take the stairs.

### 2.5 Serious Injury

Emergency Medical Service (EMS) personnel and/or those individuals who are trained will provide first aid. Until rescue personnel arrive, administer first aid at the scene or, in the event of a complete evacuation, at a designated safe assembly area outside. Call the personnel trained in First Aid/CPR to provide the required assistance prior to the arrival of the professional medical help, refer to the **Emergency Contact List**.

- Check the scene and the victim to determine the danger potential and the extent of the injury. Do not move a seriously injured victim unless there is an immediate danger such as fire, or other danger. Do not move victims of falls. If there is no immediate danger, do not move the victim and advise the bystanders the victim is not to be moved. If you must move the victim to avoid further injury, do it as quickly and carefully as possible. DO NOT put yourself in an unsafe situation to help someone else, as you yourself may become a victim requiring attention.
- Call the **Emergency Response Number (911; in Edison Office, 9-911)** immediately if the victim is unconscious, has trouble breathing or is breathing in a strange way; has pressure or pain in the chest or abdomen; is bleeding severely; has slurred speech; appears to have been poisoned; has injuries to the head, neck, or back; has possible broken bones or has fallen from an elevation.
- Keep the victim calm and as comfortable as possible. Administer First Aid/CPR if you have been trained in those areas. A First Aid kit should be used and precautions should be taken to minimize exposure to blood and other bodily fluids. Remain with the victim until emergency services personnel and security arrives. If you are exposed to bodily fluids, rinse with soap and water for at least 15 minutes and let the Emergency Coordinator know.

## 2.6 Bomb Threats

If you receive a bomb threat or discover a possible bomb or suspicious object(s) immediately notify your supervisor, the Safety and Health Department and the Facility Security Officer. The supervisor shall immediately notify the management team of the situation. In the event of a bomb threat by telephone:

- Get someone's attention and convey the nature of the call. Have them make the above notifications.
- Get as much information as possible from the caller. Ask the following questions:
  - Where is the bomb?
  - When is it going to explode?
  - What does it look like?
  - What kind of bomb is it?
  - What is the person's name or organization?
- Record the following information:
  - Date and time of call
  - Exact words of caller
  - Age, sex, adult, or child
  - Any speech pattern or accent



- Background noises
- For bomb threats by mail or for suspicious objects discovered:
  - Do not handle the letter, envelope, or package any further.
  - Notify the Safety and Health Department and the Facility Security Officer.
  - Notify your immediate supervisor or management team.
  - Evacuate the immediate area if instructed to do so.

## 2.7 Elevator Entrapment

Occasionally, elevators will malfunction and stop which results in the entrapment of a person or persons. If you are advised of such a situation do the following:

Make verbal contact with the person or persons in the elevator and advise them that you are aware of their entrapment and that elevator company and the fire department has been or will be notified immediately.

- Notify the elevator company and the Fire Department and report the location of the entrapment. Be sure to advise them of any other emergency information (such as whether a person in the elevator reports being injured or ill, hurt leg, trouble breathing, dizzy, smoke in or near the elevator, etc.)
- If possible, have someone continue communication with the people in the elevator until security or police personnel arrive on the scene.

## 2.8 Criminal Activity/Hostile Intruder

If you observe a crime in progress, behavior which you suspect is criminal or hostile behavior call the **Emergency Response Number (911; in Edison Office, 9-911)** to notify the Police. Report as much information as possible including:

- Activity
- Person's description
  - Height
  - Weight
  - Sex
  - Clothing
  - Weapons
- Location
- Direction of travel
- Vehicle
  - Color
  - Year
  - Make
  - Model

➤ License

**DO NOT APPROACH OR ATTEMPT TO APPREHEND THE PERSON(S) INVOLVED.**

Stay on the phone with the police dispatcher and provide additional information as changes in the situation occur until the first police officer or security officer arrives at your location.

**2.9 Armed Subjects, Active Shooter Situations**

An active shooter is a person who appears to be actively engaged in killing or attempting to kill people in a populated area; in most cases shooters use firearm(s) and there is no pattern or method to their selection of victims. These situations are dynamic and evolve rapidly, demanding immediate deployment of law enforcement resources to stop the shooting and mitigate harm to innocent victims. This section provides guidance to employee who may be caught in an active shooter situation and describes what to expect from responding police officers.

In general, how you respond to an active shooter will be dictated by the specific circumstances of the encounter, bearing in mind there could be more than one shooter involved in the same situation. If you find yourself involved in an active shooter situation, try to remain calm and use these guidelines to help you plan a strategy for survival.

- If an active shooter is outside your building, proceed to a room that can be locked, close and lock all the windows and doors, and turn off all the lights; if possible, get everyone down on the floor and ensure that no one is visible from outside the room. One person in the room should call the **Emergency Response Number (911; in Edison Office, 9-911)**, advise the dispatcher of what is taking place, and inform him/her of your location; remain in place until the police, or a supervisor known to you, gives the “all clear”. Unfamiliar voices may be the shooter attempting to lure victims from their safe space; do not respond to any voice commands until you can verify with certainty that they are being issued by a police officer.
- If an active shooter is in the same building you are, determine if the room you are in can be locked and if so, follow the same procedure described in the previous paragraph. If your room can't be locked, determine if there is a nearby location that can be reached safely and secured, or if you can safely exit the building. If you decide to move from your current location, be sure to follow the instructions outlined below.
- If an active shooter enters your office or work area, try to remain calm. Dial the **Emergency Response Number (911; in Edison Office, 9-911)**, if possible, and alert police to the shooter's location; if you can't speak, leave the line open so the

dispatcher can listen to what's taking place. Normally the location of a 911 call can be determined without speaking. If there is absolutely no opportunity for escape or hiding, it might be possible to negotiate with the shooter; attempting to overpower the shooter with force should be considered a very last resort, after all other options have been exhausted. If the shooter leaves the area, proceed immediately to a safer place and do not touch anything that was in the vicinity of the shooter.

- No matter what the circumstances, if you decide to flee during an active shooting situation, make sure you have an escape route and plan in mind. Do not attempt to carry anything while fleeing; move quickly, keep your hands visible, and follow the instructions of any police officers you may encounter. Do not attempt to remove injured people; instead, leave wounded victims where they are and notify authorities of their location as soon as possible. Do not try to drive off site until advised it is safe to do so by police or Emergency Coordinator.

Police officers responding to an active shooter are trained to proceed immediately to the area in which shots were last heard; their purpose is to stop the shooting as quickly as possible. The first responding officers will normally be in teams of four (4); they may be dressed in regular patrol uniforms, or they may be wearing external bulletproof vests, Kevlar helmets, and other tactical equipment. The officers may be armed with rifles, shotguns, or handguns, and might be using pepper spray or tear gas to control the situation. Regardless of how they appear, remain calm, do as the officers tell you, and do not be afraid of them.

Put down any bags or packages you may be carrying and keep your hands visible at all times; if you know where the shooter is, tell the officers. The first officers to arrive will not stop to aid injured people; rescue teams composed of other officers and emergency medical personnel will follow the first officers into secured areas to treat and remove injured persons. Keep in mind that even once you have escaped to a safer location, the entire area is still a crime scene; police will usually not let anyone leave until the situation is fully under control and all witnesses have been identified and questioned. Until you are released, remain at whatever assembly point authorities designate.

## 2.10 Earthquakes

Earthquakes are sudden rolling or shaking events caused by movement under the earth's surface. Earthquakes happen along cracks in the earth's surface, called fault lines, and can be felt over large areas, although they usually last less than one minute. Earthquakes cannot be predicted — although scientists are working on it!

All 50 states and 5 U.S. territories are at some risk for earthquakes. Earthquakes can happen at any time of the year.

### 2.10.1 Before an Earthquake

- If possible, contact Technical Support at +1-732-444-7046, Option #2 for instructions on how to prepare electronic equipment and data for safekeeping.
- Look around places where you spend time. Identify safe places such as under a sturdy piece of furniture or against an interior wall so that when the shaking starts, you can **Drop** to the ground, **Cover** your head and neck with your arms, and if a safer place is nearby, crawl to it and **Hold On**.
- Before an earthquake occurs, secure items that could fall and cause injuries.
- Store critical supplies (e.g., water, medication) and documents.
- Plan how you will communicate with others, including multiple methods.

### 2.10.2 During an Earthquake

- Stay where you are until the shaking stops. Do not run outside. Do not get in a doorway as this does not provide protection from falling or flying objects, and you may not be able to remain standing.
- **Drop** down onto your hands and knees so the earthquake doesn't knock you down. Drop to the ground.
- **Cover** your head and neck with your arms to protect yourself from falling debris.
  - If you are in danger from falling objects, and you can move safely, crawl for additional cover under a sturdy desk or table.
  - If there is low furniture or an interior wall or corner nearby, and the path is clear, these may also provide some additional cover.
  - Stay away from glass, windows, outside doors and walls, and anything that could fall, such as light fixtures or furniture.
- **Hold on** to any sturdy covering so you can move with it until the shaking stops. Stay where you are until the shaking stops.
- If you are operating a piece of equipment and you have a load suspended in the air, lower the load to the ground, stay seated in the operators cabin to avoid risk of falling debris and shut the machine down.

#### **If getting safely to the floor to take cover won't be possible:**

- Identify an inside corner of the room away from windows and objects that could fall on you. It is advisable to get as low as possible to the floor. People who use wheelchairs or other mobility devices should lock their wheels and remain seated until the shaking stops. Protect your head and neck with your arms, a pillow, a book, or whatever is available.

#### **If you are outside when you feel the shaking:**

- If you are outdoors when the shaking starts, move away from buildings, streetlights, and utility wires. Once in the open, **“Drop, Cover, and Hold On.”** Stay there until the shaking stops. This might not be possible in a city, so you may need to duck inside a building to avoid falling debris.

**If you are in a moving vehicle when you feel the shaking:**

- If you are in a moving vehicle, stop as quickly and safely as possible and stay in the vehicle. Avoid stopping near or under buildings, trees, overpasses, and utility wires. Proceed cautiously once the earthquake has stopped. Avoid roads, bridges, or ramps that the earthquake may have damaged.

### 2.10.3 After an Earthquake

- When the shaking stops, look around. If there is a clear path to safety, leave the building and go to an open space away from damaged areas.
- If you are trapped, do not move about or kick up dust.
- If you have a cell phone with you, use it to call or text for help.
- Tap on a pipe or wall or use a whistle, if you have one, so that rescuers can locate you.
- Once safe, monitor local news reports via battery operated radio, TV, social media, and cell phone text alerts for emergency information and instructions.
- Be prepared to “Drop, Cover, and Hold on” in the likely event of aftershocks.
- If needed, contact Technical Support at +1-732-444-7046, Option #2 for instructions on how to recover electronic equipment and data.
- Inspect your area, jobsite, and equipment for others in need of assistance, property damage, equipment damage, etc.
- Proceed to your job site’s designated safe zone.

### Listen to Local Officials

Learn about the emergency plans that have been established in your area by your state and local government. In any emergency, always listen to the instructions given by local emergency management officials.

## 2.11 Flood

This section explains what actions to take when you receive a flood watch or warning alert from the National Weather Service for your local area and what to do before, during, and after a flood.

### Basic Safety Tips

- Turn Around, Don’t Drown!
- Avoid walking or driving through flood waters.

- Just 6 inches of moving water can knock you down, and 2 feet of water can sweep your vehicle away.
- If there is a chance of flash flooding, move immediately to higher ground. Flash floods are the #1 cause of weather-related deaths in the US.
- If floodwaters rise around your car but the water is not moving, abandon the car and move to higher ground. Do not leave the car and enter moving water.
- Avoid parking along streams, rivers, and creeks during heavy rainfall. These areas can flood quickly and with little warning.

### **2.11.1 Flood Watch = “Be Aware.”**

Conditions are right for flooding to occur in your area.

#### **Steps to Take**

- Turn on your radio or go to [www.weather.com](http://www.weather.com) on your computer or laptop. You will receive the latest weather updates and emergency instructions.
- Know where to go. You may need to reach higher ground quickly and on foot.

#### **Prepare Your Jobsite**

- Contact Technical Support at +1-732-444-7046, Option #2 for instructions on how to prepare electronic equipment and data for safekeeping.
- Move furniture and important items to the highest possible floor. This will help protect them from flood damage.
- Disconnect electrical appliances such as refrigerators, toaster ovens, etc. and do not touch electrical equipment if you are wet or standing in water. You could be electrocuted.
- If instructed, turn off your gas and electricity at the main switch or valve. This helps prevent fires and explosions.
- Move equipment, tools, materials and rigging to high ground if possible.

### 2.11.2 Flood Preparation Checklist

	Contact Technical Support at +1-732-444-7046, Option #2 for instructions on how to prepare electronic equipment and data for safekeeping.
	Consider phone lines – redirection to cell phones or an answering service
	Maintain offsite inventory of equipment and assets
	Maintain and test standby emergency power units
	Determine whether portable heaters or other emergency equipment is needed
	Determine alternate ways to enter premises if water prohibits access
	Make sure heating equipment is in good condition and operating efficiently
	Inspect and test all necessary backup equipment such as generators, pumps and communication systems
	Verify all fire protection equipment is functional
	Fill fuel tanks of generators, fire pumps, company-owned vehicles and any other equipment that may be necessary for the event
	Maintain sprinkler protection systems in buildings
	Identify vendors and repair services that may be needed post-flood
	Close and latch exterior doors, windows and roof hatches
	Consider flood barriers such as sandbags for low lying areas
	Protect vital equipment and documents such as computers and other electronics by moving them off of the floor or to a higher level of the building
	Reinforce anchorage of office trailers and other items that may float away
	Move any water-reactive chemicals to a safe location
	Ensure pumps are in working condition
	Ensure employee safety
	Move vital business records, equipment and materials to another location or floors above. Only move IT equipment and electronic data as directed by Technical Support.
	Coat stationary equipment with rust preventative paint, if necessary
	Close the main gas valve to prevent leakage
	Anchor or weigh down buoyant materials
	Shut down boilers or furnaces
	Shut off electricity
	Fill sandbags for emergency use in areas that may have been overlooked
	Take inventory of equipment, tools, rigging, materials, etc.

### 2.11.3 Flood Warning = "Take Action!"

Flooding is either happening or will happen shortly.

#### Steps to Take

- Move immediately to higher ground or stay on high ground.
- Evacuate if directed.
- Avoid walking or driving through flood waters. Turn Around, Don't Drown! Just 6 inches of moving water can knock you down and 2 feet of water can sweep your vehicle away.

### 2.11.4 After a Flood

- Return only when authorities say it is safe.
- Be aware of areas where floodwaters have receded and watch out for debris. Floodwaters often erode roads and walkways.
- Do not attempt to drive through areas that are still flooded.
- Avoid standing water as it may be electrically charged from underground or downed power lines.
- Stay away from powerlines building and any objects that may fall.

### 2.11.5 Post-Flood Checklist

	Photograph damage to your property for insurance purposes
	Provide search and rescue personnel the last location of any missing people
	Secure the site and provide watch services
	Check heating systems and water pipes
	Check electrical systems before re-energizing
	Clear roof drains and debris from roof
	Remove mud and silt
	Remove standing water
	Start fans and ventilation to begin the drying process
	Replace building wiring that was submerged
	Look for safety hazards such as live electrical wires, leaking gas, flammable liquids, etc.
	Restore fire protection systems
	Cover broken windows and damaged roof coverings
	Separate damaged goods
	Contact Technical Support at +1-732-444-7046, Option #2 for instructions on how to recover electronic equipment and data.



## 2.12 Severe Storms: Thunderstorms, Tornadoes and Hurricanes

When warned by the Weather Forecast, the Project Safety Manager will designate an observer to monitor real time weather radar and warn the site when appropriate.

### Some Terms to Know

- **Severe Thunderstorm Watch** - Tells you when and where severe thunderstorms are likely to occur. Watch the sky and stay tuned to NOAA Weather Radio, commercial radio or television for information.
- **Severe Thunderstorm Warning** - Issued when severe weather has been reported by spotters or indicated by radar. Warnings indicate imminent danger to life and property to those in the path of the storm.
- **Tornado Watch:** Tornadoes are possible; remain alert for approaching storms; watch the sky and stay tuned to NOAA Weather Radio, commercial radio or television for information. Keep an eye out for Hail or Heavy Rain followed by either a dead calm or a fast, intense wind shift; a loud, continuous rumble that does not fade after a few seconds; a visible funnel cloud that has not yet touched the ground.
- **Tornado Warning:** A tornado has been sighted or indicated by weather radar; take shelter immediately.
- **Tropical Disturbance:** A moving area of thunderstorms in the tropics that maintains its identity for 24 hours or more.
- **Tropical Depression:** Rotary circulation at the surface, highest constant wind speed of 38 miles per hour.
- **Tropical Storm:** Distinct rotary circulation, constant wind speed from 39 to 73 miles per hour.
- **Hurricane:** A tropical cyclone with winds of 74 miles per hour or greater, usually accompanied by heavy rain, thunder, lightning, coastal tidal surges and possible tornadoes.
- **Hurricane Watch:** Issued for a coastal area where there is a threat of hurricane conditions within 24 to 36 hours
- **Hurricane Warning:** Issued when hurricane conditions are expected/likely in a coastal area in 24 hours or less. Actions for life and property protection should begin immediately.
- **Flash Flood Watch:** A flash flood is possible.
- **Flash Flood Warning:** A flash flood is imminent. Take immediate action.

### 2.12.1 Thunder Storms

All thunderstorms are dangerous. Every thunderstorm produces lightning. While lightning fatalities have decreased over the past 30 years, lightning continues to be one of the top three storm-related killers in the United States. On average in the U.S., lightning kills 51 people and injures hundreds more. Although most lightning victims survive, people struck by lightning often report a variety of long-term, debilitating symptoms.

Other associated dangers of thunderstorms include tornadoes, strong winds, hail and flash flooding. Flash flooding is responsible for more fatalities – more than 140 annually – than any other thunderstorm-associated hazard.

### 2.12.2 Thunderstorm Preparation Checklist

	Postpone outdoor activities. Take shelter in a sturdy building. Avoid isolated sheds or other small structures in open areas.
	If a severe storm expected, Contact Technical Support at +1-732-444-7046, Option #2 for instructions on how to prepare electronic equipment and data for safekeeping.
	Secure outdoor objects that could blow away or cause damage.
	Get inside a home, building, or hard top automobile (not a convertible). Although you may be injured if lightning strikes your car, you are much safer inside a vehicle than outside. Remember, rubber-soled shoes and rubber tires provide NO protection from lightning. However, the steel frame of a hard-topped vehicle provides increased protection if you are not touching metal.
	Shut windows and secure outside doors. Stay away from windows and doors, and stay off porches.
	Avoid contact with anything metal— construction equipment, cars, trucks, all-terrain and off-road vehicles, C-Boxes, dumpsters, fences, etc.
	If you are driving, try to safely exit the roadway and park. Stay in the vehicle and turn on the emergency flashers until the heavy rain ends. Avoid touching metal or other surfaces that conduct electricity in and outside the vehicle.

If you are:	Then:
In a forest	Seek shelter in a low area under a thick growth of small trees.
In an open area	Go to a low place such as a ravine or valley. Be alert for flash floods.

On open water	Get to land and find shelter immediately.
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### 2.12.3 Tornadoes

Tornadoes are nature’s most violent storms. Spawned from powerful thunderstorms, tornadoes can cause fatalities and devastate a neighborhood in seconds. A tornado appears as a rotating, funnel-shaped cloud that extends from a thunderstorm to the ground with whirling winds that can reach 300 miles per hour. Damage paths can be in excess of one mile wide and 50 miles long. Every state is at some risk from this hazard. Some tornadoes are clearly visible, while rain or nearby low-hanging clouds obscure others. Occasionally, tornadoes develop so rapidly that little, if any, advance warning is possible. Before a tornado hits, the wind may die down and the air may become very still. A cloud of debris can mark the location of a tornado even if a funnel is not visible. Tornadoes generally occur near the trailing edge of a thunderstorm. It is not uncommon to see clear, sunlit skies behind a tornado.

**Look for the following danger signs:**

- Dark, often greenish sky
- Large hail
- A large, dark, low-lying cloud (particularly if rotating)
- Loud roar, similar to a freight train.
- If you see approaching storms or any of the danger signs, be prepared to take shelter immediately as follows:

If you are in:	Then:
A structure (e.g. residence, small building, school, nursing home, hospital, factory, shopping center, high-rise building)	<ul style="list-style-type: none"> <li>➤ Go to a pre-designated area such as a safe room, basement, storm cellar, or the lowest building level. If there is no basement, go to the center of a small interior room on the lowest level (closet, interior hallway) away from corners, windows, doors, and outside walls. Put as many walls as possible between you and the outside. Get under a sturdy table and use your arms to protect your head and neck.</li> <li>➤ In a high-rise building, go to a small interior room or hallway on the lowest floor possible.</li> <li>➤ Put on sturdy shoes.</li> <li>➤ Do not open windows.</li> </ul>

<p>A manufactured home or office</p>	<ul style="list-style-type: none"> <li>➤ Get out immediately and go to a pre-identified location such as the lowest floor of a sturdy, nearby building or a storm shelter. Mobile homes, even if tied down, offer little protection from tornadoes.</li> </ul>
<p>The outside with no shelter</p>	<p>If you are not in a sturdy building, there is no single research-based recommendation for what last-resort action to take because many factors can affect your decision. Possible actions include:</p> <ul style="list-style-type: none"> <li>➤ Immediately get into a vehicle, buckle your seat belt and try to drive to the closest sturdy shelter. If your vehicle is hit by flying debris while you are driving, pull over and park.</li> <li>➤ Take cover in a stationary vehicle. Put the seat belt on and cover your head with your arms and a blanket, coat or other cushion if possible.</li> <li>➤ Lie in an area noticeably lower than the level of the roadway and cover your head with your arms and a blanket, coat or other cushion if possible.</li> </ul> <p>In all situations:</p> <ul style="list-style-type: none"> <li>➤ Do not get under an overpass or bridge. You are safer in a low, flat location.</li> <li>➤ Never try to outrun a tornado in urban or congested areas in a car or truck. Instead, leave the vehicle immediately for safe shelter.</li> <li>➤ Watch out for flying debris. Flying debris from tornadoes causes most fatalities and injuries.</li> </ul>

### 2.12.4 Hurricanes

The Project Manager is responsible for these preparation and implementation of these plans. All line managers will assist the Superintendent as directed. The Project Manager will decide when to prepare the project for a hurricane or tropical storm.

**The site will not be occupied during the storm if it is in the hurricane path.**

Preparations will be made in time for personnel to prepare for the storm at their homes.

### 2.12.5 Hurricane Preparation Checklist

<b>GENERAL CHECKLIST</b>	
	Ensure that the project office is outfitted with a portable, battery operated weather band radio and extra batteries.
	Contact Technical Support at +1-732-444-7046, Option #2 for instructions on how to prepare electronic equipment and data for safekeeping.
	Develop, maintain and distribute a list of emergency telephone numbers and email addresses for employees and authorities.
	Organize a Damage Survey and Repair Team. This team will be the first on the site to assess damage after the storm and make the site safe enough for the return of the entire workforce.
	Prepare a system to inform employees of when to return to work. (A company website with a bulletin or discussion board, etc.)
	Identify and avoid long-term material storage in areas prone to flooding.
	Identify vulnerable work in progress and determine how to best protect it from damage whether by boarding up windows, sand bags, capping pipes, buried incomplete underground, etc.
	Develop a list, procure and store supplies necessary for preparing the site for a hurricane.
	Keep the project free from an accumulation of debris and scrap material that can become windblown hazards. This will reduce the amount of time necessary to complete preparations on the job site in the event of a hurricane emergency.
	Ensure that fuel supplies, de-watering pumps and generators are adequate for repairs after the storm.
	Be prepared to anchor or restrain everything that could blow away with netting for dumpsters, banding and banding tools for lumber, form work, scaffold planks, port-a-johns, etc. Look and see what will fly, then restrain it.
	Be alert to job conditions that require advance attention or special material so as to reduce emergency preparation time.
	Check the supplies against the inventory list stockpiled at the beginning of the hurricane season.
	Ensure that all loose scrap material is gathered up and disposed of in the dumpsters.
	Ensure that the dumpsters are emptied. If the dumpster service is unable to pull the dumpsters they shall be securely covered with nets to prevent the debris in them from becoming windblown hazards.
	Ensure that all loose forming materials are neatly stacked and banded.
	Ensure that all materials, tools, sheds, gang boxes, and small equipment that can be damaged by rising water are removed from excavations and low areas prone to flooding.
	Ensure that continuous berms are installed at excavations.

	Remove any non- essential barricades.
	Anchor essential barricades.
	Ensure that incomplete underground piping and storm drain systems are protected against the infiltration of sand and silt.
	Ensure that all equipment is relocated out of excavations.
	Lower and secure mobile crane booms.
	Raise the hook, trolley in and allow tower cranes to weathervane.
	Top off the fuel tanks of all equipment and ensure fill caps are properly secured.
	Ensure dewatering, standby, and diesel powered equipment is ready to operate. Operate this equipment as conditions warrant.
	Identify vulnerable material and work in progress and determine how to best protect it from the effects of flooding.
	Ensure that all meter pits are outfitted with pumps so as to prevent damage to electronic equipment from rising water.
	Ensure that all electronic equipment in storage is protected from rising water, as directed by Technical Support.
	Ensure backup electrical generator power as required.
	Turn off the power and water to the office trailers. Check with Technical Support prior to shutting off power to electronic equipment.
	Ensure that critical project documents are protected from damage. Move them to a permanent structure if necessary.
	Backup computer files as directed by Technical Support.
	Be prepared to board up windows or put storm shutters in place. Have strong bracing for outside doors. Stock sandbags for doors etc.
	Stock non-perishable foods that can be eaten without cooking or with little preparation if the site is to be occupied.
	Be prepared to supply fuel tanks for de-watering pumps, portable generators and vehicles during the storm and remobilization after the storm.
	Be prepared to anchor or restrain or dismantle and band anything that might blow away. <ul style="list-style-type: none"> <li>➤ Loose tools and lumber should be tied down or placed in storage containers.</li> <li>➤ Tie erected formwork together to make it more resistive to high winds.</li> <li>➤ Scaffold planking is to be dismantled, bundled and banded.</li> <li>➤ Ensure that all office and storage trailers are tied down securely.</li> <li>➤ Anchor portable toilets or have them picked up.</li> <li>➤ Procure netting adequate to cover dumpsters that could not be emptied.</li> </ul>
	Review the system to inform employees of when they are to return to work.
	Prepare the Damage Survey Team. This team should include infrastructure, electrical and mechanical contractors and any others whose work is in the critical path for site remobilization.
<b>72-HOUR CHECKLIST</b>	
	Confirm that all emergency contact information is current (i.e.) phone numbers, email addresses etc.

	Contact Technical Support at +1-732-444-7046, Option #2 for instructions on how to prepare electronic equipment and data for safekeeping.
	Verify that all erosion and sediment control devices are in place and meet adequate standards.
	Verify that all storage and office trailers are correctly tied down.
	Confirm all pumps and generators are in working order.
	Prioritize work-plan to minimize any open excavations, loose formwork.
	Schedule trash dumpsters to be emptied
	Ensure that the jobsite weather radio is working and has back up batteries.
	Ensure there is sufficient supply of banding, clips, duct tape, tarps and sandbags as well as the manpower to accomplish preparations.
	Ensure that there is sufficient room to lay crane booms down. Refer to crane operator's manual for specific information related to proper procedure and wind speed.
<b>48-HOUR CHECKLIST</b>	
	Review 72 hour Checklist
	Contact Technical Support at +1-732-444-7046, Option #2 for instructions on how to prepare electronic equipment and data for safekeeping if not already done.
	Notify owners of unsecured trailers and storage containers to anchor them or remove them from the site.
	Review all scaffolding. Remove, stack and band planks, secure scaffolding or take it down. Verify that all equipment is fueled and all storage cans topped off and secure to prevent contamination of soil or wetlands.
	Begin banding loose materials.
	Review site drainage patterns and relocate materials stored in sheet low lands.
	Ensure all hazardous materials cannot contaminate water (hurricanes can produce 20 – 30 inches of rain). Store materials high and dry.
	Remove screening on fences, signs etc.
	Ensure there are enough computer disks to back up files.
<b>24-HOUR CHECKLIST</b>	
	Review 48 hour checklist
	Contact Technical Support at +1-732-444-7046, Option #2 for instructions on how to prepare electronic equipment and data for safekeeping if not already done.
	Document the status of the project with pictures and store them in a dry secure place.
	Back-up all computer files as directed by Technical Support.
	Secure all windows with plywood or tape and move all items vulnerable to water damage away from windows.
	Lower crane booms or follow manufacturer's instructions for securing booms. Refer to crane operator's manual for specific information related to proper

	procedure and wind speed.
	Remove or anchor all trailers and storage containers.
<b>12-HOUR CHECKLIST</b>	
	Review 24-hour checklist
	Turn off water, power, gas, etc. at source.
	Take pictures of any changes to the construction site conditions.
	Evacuate site.

### 2.12.6 Post-Hurricane Checklist

	Assemble the Damage Survey Team. The Damage Survey Team will inspect the job site, identify and document the damage, prioritize repairs, complete Job Hazard Analysis and Safe Plans of Action, and then initiate repairs with a skeleton remobilization crew of skilled tradespersons.
	Class A hazards will have priority and must be abated before calling in the whole workforce to resume construction.
	Do not touch loose or dangling wires. Report such damages to the electrical Contractor, the utility company or police officers.
	Stay clear of disaster areas where we may hamper first aid or rescue work. Be prepared to offer assistance with equipment.
	Stay alert as to prevent any fires. (Water pressure will be low).
	Complete preparations for the return of the full workforce.
	Implement the system to inform employees to return to work.
	Be aware that we may need to care for some of our employees. Call the local hospital and report persons needing assistance.
	Contact Technical Support at +1-732-444-7046, Option #2 for instructions on how to recover electronic equipment and data.



## 2.13 Winter Storms

Winter storms can be devastating and can affect more than those living in Northern climates. In recent history, freezing pipes and snow collapse losses have occurred in many Southern states. **Reference SOP#20 – Heat and Cold Stress Management for Cold Weather Related Injuries and Illnesses Procedures**

**DO NOT DRIVE TO WORK OR MAKE EMPLOYEES DRIVE TO WORK IF THE ROADS ARE IN POOR CONDITION OR IF A STATE OF EMERGENCY HAS BEEN ISSUED.**

If you do come to work, first let someone know your destination and when you get there. Ensure adequate clothing is worn. Wool clothing is warmest and should be layered to be most effective. Wear a hat and gloves. Avoid getting clothing wet.

### Some Terms to Know

**Winter Weather Advisory** - Winter weather conditions are expected to cause significant inconveniences and may be hazardous. When caution is used, these situations should not be life threatening. The NWS issues a winter weather advisory when conditions are expected to cause significant inconveniences that may be hazardous. If caution is used, these situations should not be life-threatening.

**Winter Storm Watch** - A winter storm is possible in your area. Tune in to NOAA Weather Radio, commercial radio, or television for more information. The NWS issues a winter storm watch when severe winter conditions, such as heavy snow and/or ice, may affect your area but the location and timing are still uncertain. A winter storm watch is issued 12 to 36 hours in advance of a potential severe storm. Tune in to NOAA Weather Radio, local radio, TV, or other news sources for more information. Monitor alerts, check your emergency supplies, and gather any items you may need if you lose power.

**Winter Storm Warning** - A winter storm is occurring or will soon occur in your area.

**Blizzard Warning** - Sustained winds or frequent gusts to 35 miles per hour or greater and considerable amounts of falling or blowing snow (reducing visibility to less than a quarter mile) are expected to prevail for a period of three hours or longer.

**Frost/Freeze Warning** - Below freezing temperatures are expected.

**State of Emergency** – the Governor declares a State of Emergency when he/she believes a disaster has occurred or may be imminent that is severe enough to require State aid to supplement local resources in preventing or alleviating damages, loss, hardship or suffering. **Employees are encouraged to stay off of the roads and work from home, if possible, until the State of Emergency is lifted.**

### 2.13.1 Winter Storm Preparation Checklist

	Perform maintenance on all vehicles and equipment to include Antifreeze, Battery, Ignition System, Brakes, Exhaust, Fuel and Air Filters, Heater and Defroster, Lights and Hazard Lights, Oil, Thermostat, Windshield Wipers and Tires
	Ensure adequate snow removal equipment is on site and available. This should include rock salt, calcium chloride or similar to combat icy conditions
	Ensure first aid kits are stocked and available
	Empty water tanks that may freeze – open faucets and shut off water supply if possible
	Ensure heating equipment is functional
	Do not use gas or diesel powered equipment indoors
	Ensure backup electrical generators are functional
	Maintain ventilation for kerosene and similar fired heaters
	Clear fire hydrants in and around your jobsite/office and mark them for ease of identification
	Relocate equipment indoors if possible
	Secure all flammable liquids
	Anchor portable buildings and trailers
	Secure scaffolds and cranes.
	Brace signage
	Shut down all non-critical non-essential electrical equipment. If the storm is expected to be severe, Contact Technical Support at +1-732-444-7046, Option #2 for instructions on how to prepare electronic equipment and data for safekeeping.
	Take photos of site conditions

### 2.13.2 Post-Winter Storm Checklist

	Assess any damages and notify supervisor, take photos
	Secure the site
	Clear snow and ice from driveways, walkways, stairways, doorways and roof access locations – if snow load is a concern, clear snow from roofs
	Check heating and water supply systems
	Close water faucets
	Cover any broken windows and roof coverings
	Separate any damaged goods
	Clear roof drains
	Rotate workers to avoid cold stress related injuries and illnesses
	Check electrical equipment before re-energizing
	Be aware of live electrical wires, leaking gas, flammable liquids and other safety hazards
	Contact Technical Support at +1-732-444-7046, Option #2 for instructions on how to recover electronic equipment and data, if necessary.

## **2.14 Extreme Heat**

**Reference SOP#20 – Heat and Cold Stress Management for Hot Weather Related Injuries and Illnesses Procedures**

**APPENDIX – A**  
**EDISON OFFICE EMERGENCY CONTACTS AND EVACUATION MAPS**

<b>Figure 1 – Edison Office Emergency Contact List</b>		
<b>Fire Department (Emergency) / EMS / Ambulance</b> Edison Fire Department 100 Municipal Blvd. Edison, NJ 08817	<b>9-911</b> 732-248-7500 (Non-Emergency)	
<b>Police Department</b> Edison Police Department 100 Municipal Blvd. Edison, NJ 08817	<b>9-911</b> 732-248-7400 (Non-Emergency)	
<b>Hospital (Emergency Injuries)</b> Robert Wood Johnson Hospital (ER) 1 Robert Wood Johnson Pl. New Brunswick, NJ	<b>9-911</b> 732-828-3000	
<b>Occ. Physician (Non-Emergency Injuries)</b> U.S. Healthworks 16 Ethel Rd. Edison, NJ 08817	732-248-0088	
<b>Emergency Contact</b>	<b>Extension # 732-520-xxxx</b>	<b>Cell Phone #</b>
<b>Edison Office of Emergency Management</b>	732-404-8669	
<b>PSEG – Electric/Gas Service</b>	800-436-PSEG / 800-436-7734	
<b>American Water</b>	800-272-1325	
<b>MSE Central Monitoring – Fire Alarm</b>	888-673-2677	
<b>Poison Control</b>	800-222-1222	
<b>CHEMTREC (Hazardous Materials Info)</b>	800-424-9300	

**Office Address:**

2045 Lincoln Highway, Edison, New Jersey 08817

Figure 2 – Edison Office 1<sup>st</sup> Floor Evacuation Plan

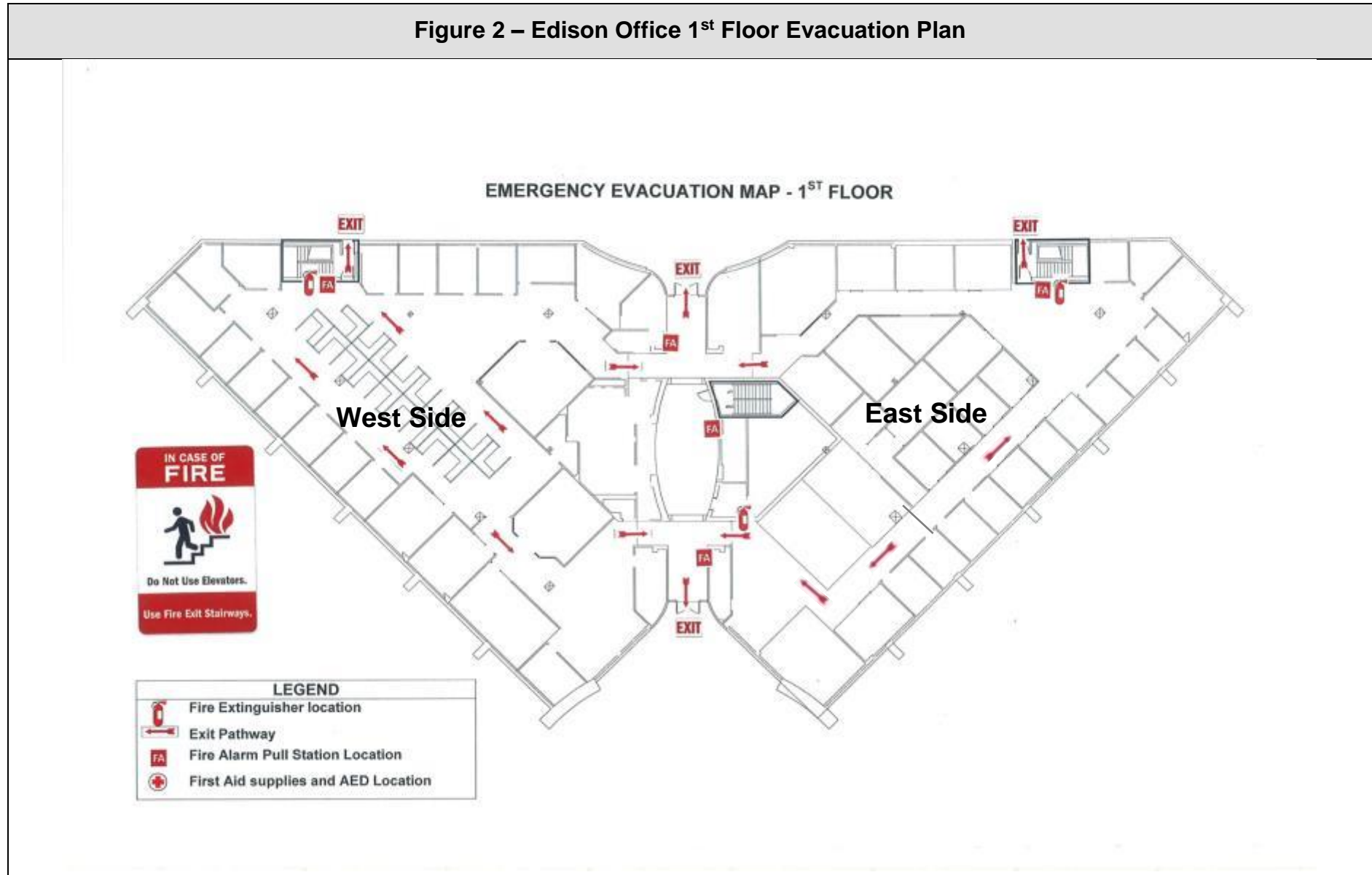


Figure 3 – Edison Office 2<sup>nd</sup> Floor Evacuation Plan

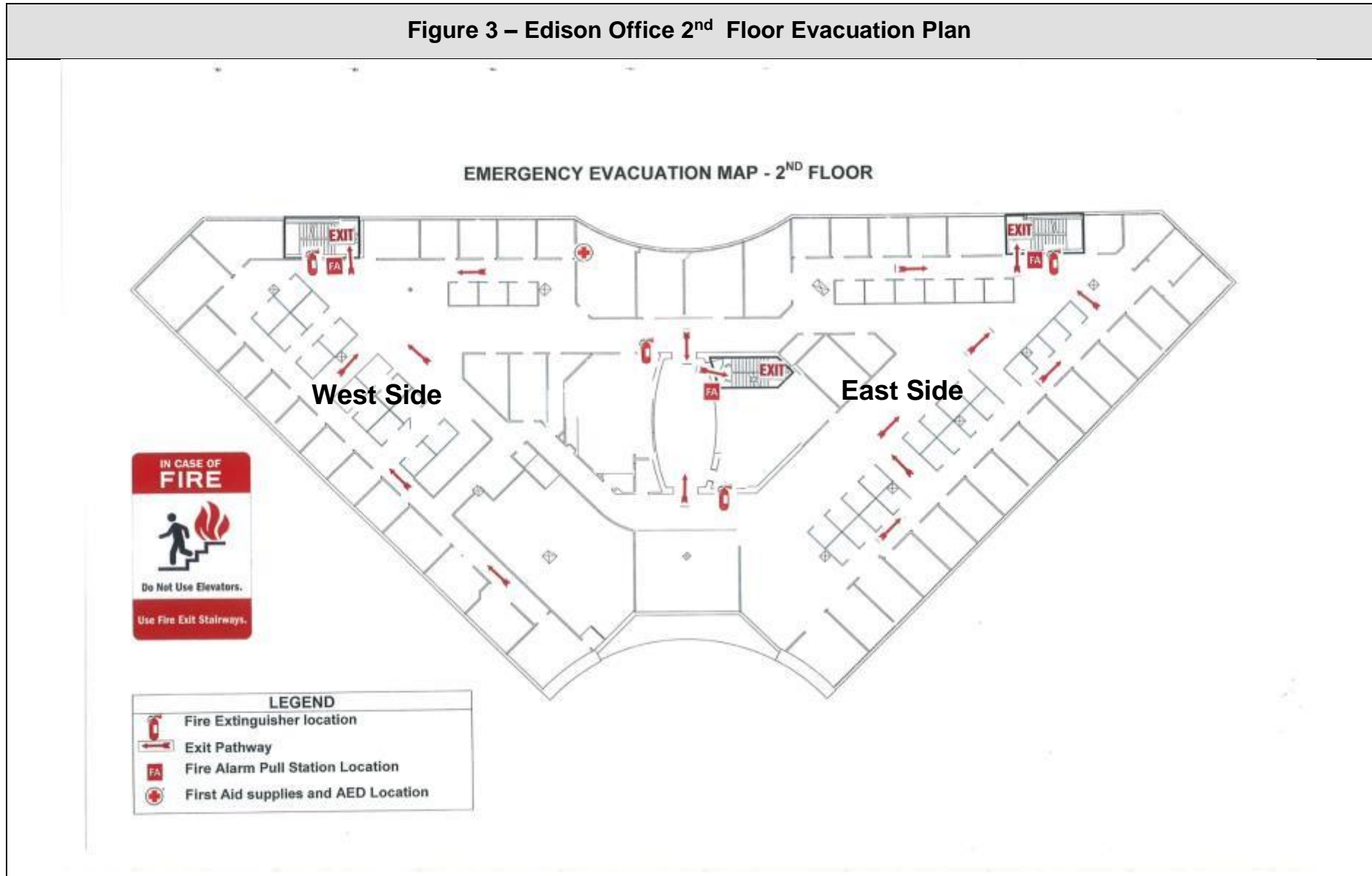
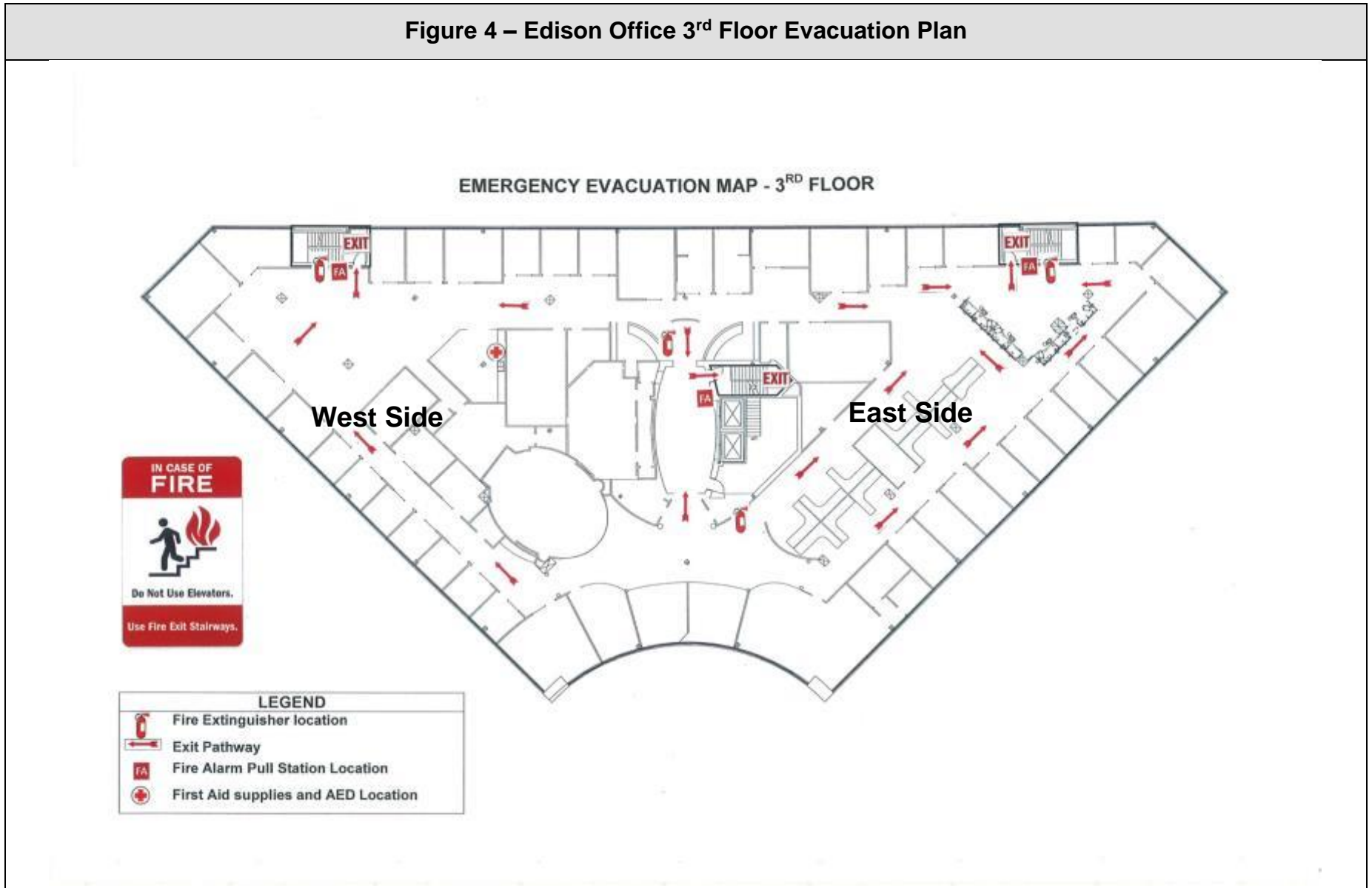


Figure 4 – Edison Office 3<sup>rd</sup> Floor Evacuation Plan





**Figure 5 – Edison Office Designated Meeting Locations/Muster Areas**

