



The Plano Fire Department offers this guide for use in preparing your facility should a fire or evacuation related emergency occur. The guide is based on the requirements of Chapter 4 of the International Fire Code as adopted by the City of Plano.

For assistance with natural, man made, or security disaster planning, please contact the Office of Emergency Management for the City of Plano.

Please contact the Plano Fire Department, Fire Prevention Division for information regarding this document.

It is our sincere hope that the information provided will be valued and practiced to better prepare you should an event occur at your facility.

Yours truly,

A handwritten signature in black ink that reads "David Kerr". The signature is written in a cursive style.

David Kerr
Fire Marshal
Plano Fire Department



**PLANO FIRE DEPARTMENT
FIRE PREVENTION DIVISION
GUIDE FOR EVACUATION PLANNING
TABLE OF CONTENTS**

Occupancy Ratings 3

Evacuation Plan Requirements 3

Fire Safety Plan Requirements 3

Emergency Evacuation Drills 5

Employee Training and Response Procedures 6

Hazard Communication 7

Use and Occupancy Related Requirements 8-11

Sample Fire Department Access Route 12

Sample Evacuation Drill Record 13

Sample Safety Evacuation Plan Review Check List 14 - 15



GUIDE FOR EVACUATION PLANNING

In accordance with the International Fire Code, an approved fire safety and evacuation plan shall be prepared and maintained for the following occupancies:

1. Group A: Places of assembly, such as theatres, restaurants, night clubs, bowling alleys, churches, funeral parlors, arenas, and stadiums.
2. Group E: Educational facilities, such as day care centers, elementary schools, middle schools, and high schools.
3. Group H: Buildings/structures that contain materials that support combustion, such as Class I, II, or III flammable liquids, combustibles, fibers, fireworks, flammable solids, corrosives, toxic materials, semiconductor fabrication facilities.
4. Group I: Institutional facilities such as assisted living facilities, convalescent facilities, group homes, half-way houses, social rehabilitation centers, hospitals, nursing homes, correctional facilities, detention centers, jails, and child care facilities.
5. Group R-1: Residential facilities such as boarding houses, hotels, and motels.
6. Group R-4: Residential occupancies that include buildings arranged for occupancy as residential day care/assisted living facilities which contain more than 5 but less than 16 occupants, excluding staff.
7. High Rise Buildings.
8. Group M: Mercantile such as department stores, drug stores, markets, gas stations, retailers, or wholesalers.
9. Covered malls exceeding 50,000 square feet (4,645m²) in aggregate floor area.
10. Underground buildings.
11. Buildings with an atrium and having an occupancy in Group A, E, or M.

Fire Evacuation Plans shall include the following:

1. Emergency egress or escape routes and whether evacuation of the building is to be complete, or where approved, by selected floors or areas only.
2. Procedures for employees who must remain to shut down critical equipment operations before evacuating.
3. Procedures for accounting for employees and occupants after evacuation has been completed.
4. Identification and assignment of personnel responsible for rescue or emergency medical aid.
5. The preferred and any alternate means of notifying occupants of a fire or emergency.
6. The preferred and any alternative means of reporting fires and other emergencies to the fire department or designated emergency response organization.
7. Identification and assignment of personnel who can be contacted for further information or explanation of duties under the plan.
8. A description of the emergency voice/alarm communication system alert tone and preprogrammed voice messages, where provided.

Fire Safety Plans shall include the following:

1. The procedure for reporting a fire or other emergency.
2. The life safety strategy and procedures for notifying, relocating, or evacuating occupants.
3. Site plan indicating the following:
 - The occupancy assembly point.
 - The location of fire hydrants.
 - The normal routes of fire department vehicle access.
4. Floor plans identifying the locations of the following:
 - Exits.
 - Primary evacuation routes.
 - Accessible egress routes.
 - Areas of refuge.
 - Manual fire alarm boxes.
 - Portable fire extinguishers.
 - Occupant-use hose stations.
 - Fire alarm annunciators and controls.
5. A list of major fire hazards associated with the normal use and occupancy of the premises, including maintenance and housekeeping procedures.
6. Identification and assignment of personnel responsible for maintenance of systems and equipment installed to prevent or control fires.
7. Identification and assignment of personnel responsible for maintenance, housekeeping and controlling fuel hazard sources.

Maintenance and Availability.

Fire safety and evacuation plans shall be reviewed or updated annually or as necessitated by changes in staff assignments, occupancy or the physical arrangement of the building. Additionally, these plans shall be made available in the workplace for reference and review by employees, and copies shall be furnished to the fire code official for review upon request.



EMERGENCY EVACUATION DRILLS

Frequency and Participation:

GROUP OR OCCUPANCY	FREQUENCY	PARTICIPATION
GROUP A	QUARTERLY	EMPLOYEES
GROUP E	MONTHLY	ALL OCCUPANTS
GROUP I	QUARTERLY ON EACH SHIFT	EMPLOYEES
GROUP R-1	QUARTERLY ON EACH SHIFT	EMPLOYEES
GROUP R-4	QUARTERLY ON EACH SHIFT	EMPLOYEES

- Fire and evacuation drills in residential care assisted living facilities shall include complete evacuation of the premises. Where occupants receive habilitation or rehabilitation training, fire prevention and fire safety practices shall be included as part of the training program.

Time and Record Keeping.

Drills shall be held at unexpected times and under varying conditions to simulate the unusual conditions that occur in case of fire. Records shall be maintained and shall include the following:

1. Identify of the person conducting the drill.
2. Date and time of the drill.
3. Notification method used.
4. Staff members on duty and participating.
5. Number of occupants evacuated.
6. Special conditions simulated.
7. Problems encountered.
8. Weather conditions when occupants evacuated.
9. Time required to accomplish complete evacuation.

Notification, Initiation, and Accountability.

Where a fire alarm system is provided, emergency evacuation drills shall be initiated by activating the fire alarm system. Notify the alarm company that a test is being conducted. As building occupants arrive at the assembly point, efforts shall be made to determine if all occupants have been successfully evacuated or have been accounted for.

Recall and Re-entry.

An electrically or mechanically operated signal may be used to recall occupants after an evacuation shall be separate and distinct from the signal used to initiate the evacuation. The recall signal initiation means shall be manually operated and under the control of the person in charge of the premises or the official in charge of the incident. No one shall re-enter the premises until authorized to do so by the official in charge.

EMPLOYEE TRAINING AND RESPONSE PROCEDURES

Employees shall be apprised of the fire hazards of the materials and processes to which they are exposed. Each employee shall be instructed in the proper procedures for preventing fires in the conduct of their assigned duties. Employees shall be familiarized with the fire alarm and evacuation signals, their assigned duties in the event of an alarm emergency, evacuation routes, areas of refuge, exterior assembly areas, and procedures for evacuation. Employees assigned to fire-fighting duties shall be trained to know the locations and proper use of portable fire extinguishers or other manual fire-fighting equipment and the protective clothing or equipment required for its safe and proper use.



HAZARD COMMUNICATION

Material Safety Data Sheets (MSDS) for hazardous materials shall be readily available on the premises. Individual containers of hazardous materials, cartons or packages shall be marked or labeled in accordance with applicable federal regulations. Buildings, rooms, and spaces containing hazardous materials shall be identified by hazard warning signs.

Persons responsible for the operation of areas in which hazardous materials are stored, dispensed, handled or used shall be familiar with the chemical nature of the materials and the appropriate mitigating actions necessary in the event of a fire, leak or spill. Responsible persons shall be designated and trained to be liaison personnel for the Fire Department. These persons shall aid the Fire Department in preplanning emergency responses and identification of the locations where hazardous materials are located, and shall have access to Material Safety Data Sheets and be knowledgeable in the site emergency response procedures.

Each facility housing hazardous materials shall provide to the code official a Hazardous Material Inventory Statement, a Hazardous Materials Management Plan, and Facility Closure Plan to terminate storage, dispensing, handling or use of hazardous materials.



USE AND OCCUPANCY-RELATED REQUIREMENTS

Group A – Assembly

Seating Plan: The fire safety and evacuation plans for assembly occupancies shall include a detailed seating plan, occupant load, and occupant load limit. Deviations from the approved plans shall be allowed provided the occupant load limit for the occupancy is not exceeded and the aisles and exit access-ways remain unobstructed.

Announcements: In theaters, motion picture theaters, auditoriums and similar assembly occupancies in Group A used for non-continuous programs, an audible announcement shall be made not more than 10 minutes prior to the start of each program to notify the occupants of the location of the exits to be used in the event of fire or other emergency. Add Exception page 36.

Group E – Educational

The first emergency evacuation drill of each school year shall be conducted within 10 days of the beginning of class. In severe climates, the fire code official has the authority to modify the emergency evacuation drill frequency. Evacuation drills shall be conducted at different hours of the day or evening, during class change, when the students are at assembly, during recess or gymnastic classes, or during other times to avoid distinction between drills and actual fires. Outdoor assembly areas shall be designated and shall be located a safe distance from the building being evacuated to avoid interference with fire department operations. The assembly areas must be arranged to keep each class separate to provide accountability of all individuals.

Group H-5 – High Hazard

Plans and diagrams must be maintained in approved locations indicating the approximate plan for each area, the amount and type of HPM stored, handled and used, locations of shutoff valves for HPM supplying piping, emergency telephone locations of exits. The fire department must be informed of all major changes.

Responsible persons shall be designated the on-site emergency response team and trained to be liaison personnel for the fire department. These persons shall aid the fire department in preplanning emergency responses, identifying locations where HPM is stored, handled, and used and be familiar with the chemical nature of such material. An adequate number of personnel for each work shift shall be designated. Emergency drills of the on-site emergency response team shall be conducted on a regular basis but not less than once every three months. Records of drills conducted shall be maintained.

Group I-1 – Group Homes

The fire safety and evacuation plan shall include special staff actions including fire protection procedures necessary for residents and shall be amended or revised upon admission of any resident with unusual needs. Employees shall be periodically instructed and kept informed of their duties and responsibilities under the plan. Such instruction shall be reviewed by the staff every two months. A copy of the plan shall be readily available at all times within the facility.

Residents capable of assisting in their own evacuation shall be trained in the proper actions to take in the event of a fire. The training shall include actions to take if the primary escape route is blocked. Where the resident is given rehabilitation or habilitation training, training in fire prevention and actions to take in the event of a fire shall be a part of the rehabilitation training program. Residents shall be trained to assist each other in case of fire to the extent their physical and mental abilities permit them to do so without additional personal risk.

Emergency evacuation drills shall be conducted at least six times per year, two times per year on each shift. Twelve drills shall be conducted in the first year of operation. Drills are not required to comply with the time requirements. Emergency evacuation drills shall involve the actual evacuation of all residents to a selected assembly point.

Group I-2 – Hospitals

Drills are not required to comply with the time requirements. During emergency evacuation drills, the movement of patients to safe areas or to the exterior of the building is not required.

When emergency evacuation drills are conducted after visiting hours or when patients or residents are expected to be asleep, a coded announcement is allowed instead of audible alarms.

Group I-3 – Detained persons

Employees shall be instructed in the proper use of portable fire extinguishers and other manual fire suppression equipment. Training of new staff shall be provided promptly upon entrance on duty. Refresher training shall be provided at least annually. Group I-3 occupancies shall be provided with 24-hour staffing. Staffing must be within three floors or 300 feet horizontal distance of the access door of each resident housing area. The arrangement shall be such that the staff involved can start release of locks necessary for emergency evacuation or rescue and initiate other necessary emergency actions within 2 minutes of an alarm. **Exception:** Staff shall not be required to be within three floors or 300 feet in areas in which all locks are unlocked remotely and automatically.

Provisions shall be made for residents to be able to readily notify staff of an emergency. Keys necessary for unlocking doors installed in a means of egress shall be individually identifiable by both touch and sight.

Group R-1 – Hotels, Motels

A diagram depicting two evacuation routes shall be posted on or immediately adjacent to every required egress door from each hotel, motel or dormitory guestroom. Upon discovery of a fire or suspected fire, hotel, motel and dormitory employees shall perform the following duties:

1. Activate the fire alarm system, where provided.
2. Notify the public fire department.
3. Take other action as previously instructed.

Information shall be provided in the fire safety evacuation plan to allow guests to decide whether to evacuate to the outside, evacuate to an area of refuge, remain in place, or any combination of the three.

Group R-2 – Apartments

An emergency guide shall be provided which describes the location, function and use of fire protection equipment and appliances accessible to residents, including fire alarm systems, smoke alarms, and portable fire extinguishers. The guide shall also include an emergency evacuation plan for each dwelling unit. A copy of the emergency guide shall be given to each tenant prior to initial occupancy.

Group R-4 – Assisted Living

The fire safety and evacuation plan shall include special staff actions, including fire protection procedures necessary for residents, and shall be amended or revised upon admission of a resident with unusual needs. Employees shall be periodically instructed and kept informed of their duties and responsibilities under the plan. Such instruction shall be reviewed by the staff at least every two months. A copy of the plan shall be readily available at all times within the facility.

Residents capable of assisting in their own evacuation shall be trained in the proper actions to take in the event of a fire. The training shall include actions to take if the primary escape route is blocked. Where the resident is given rehabilitation or habilitation training, training in fire prevention and actions to take in the event of a fire shall be a part of the rehabilitation program. Residents shall be trained to assist each other in case of fire to the extent their physical and mental abilities permit them to do so without additional personal risk.

Emergency evacuation drills shall be conducted at least six times per year, two times per year on each shift. Twelve drills shall be conducted in the first year of operation. Drills are not required to comply with the time requirements. Emergency evacuation drills shall involve the actual evacuation of all residents to a selected assembly point and shall provide residents with experience in exiting through all required exits. All required exits shall be used during emergency evacuation drills. **EXCEPTION:** Actual exiting from windows shall not be required. Opening the window and signaling for help shall be an acceptable alternative.

Covered mall buildings.

A lease plan shall be prepared for each covered mall building. The plan shall include the following information:

1. Each occupancy, including identification of tenant.
2. Exits from each tenant space.
3. Fire protection features, including the following:
 - Fire department connections
 - Fire command center
 - Smoke management system controls
 - Elevators and elevator controls
 - Hose valve outlets
 - Sprinkler and standpipe control valves
 - Automatic fire-extinguishing system areas
 - Automatic fire detector zones
 - Fire barriers

A copy of the lease plan shall be submitted to the fire code official for approval and maintained on site at all times. The lease plans shall be revised annually or as often as necessary to keep them current.

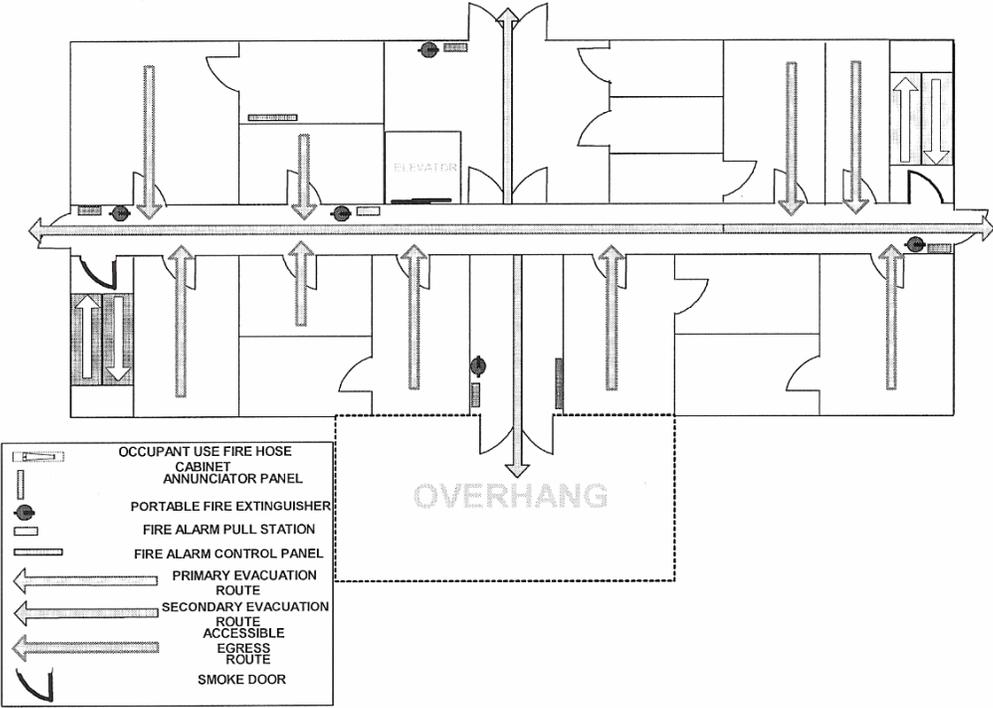
Each occupant space provided with a secondary exit to the exterior or exit corridor shall be provided with identification by business name and/or address. Letters and numbers shall be posted on the corridor side of the door, be plainly legible and shall contrast with their background. **EXCEPTION:** Tenant identification is not required for anchor stores.

Unoccupied tenant spaces shall be:

1. Kept free from the storage of any materials.
2. Separated from the remainder of the building in accordance with the International Fire Code.
3. Without doors or other access openings other than one door that shall be kept key locked in the closed position except during that time when opened for inspection.
4. Kept from combustible waste and broom-swept clean



SAMPLE EVACUATION MAP



EMERGENCY EVACUATION DRILL RECORD

Date: _____ Facility Address: _____ Time of Day: _____

Type of Evacuation: _____
(i.e., Scheduled, Unscheduled, Training, Actual Fire, Other Emergency)

Notification Method: _____

Supervising Employee: _____

Staff Person(s) Present: _____

Fire Department Participation: Yes/No Fire Officer: _____

Security/Fire Alarm Monitoring Company notified: _____ Y _____ N

Public Safety Communications Notified: Yes/No Dispatcher: _____

Time Alarm Initiated: _____ Time Evacuation Completed: _____ Total Time: _____

Number of Occupants Evacuated: _____ Weather Conditions: _____

SPECIAL/UNUSUAL CONDITIONS SIMULATED

COMMENTS/OBSERVATIONS

FIRE SAFETY/EVACUATION PLAN REVIEW CHECK LIST

DOES THE FIRE SAFETY/EVACUATION PLAN CLEARLY ADDRESS THESE ITEMS?

The name and address of the business/facility?	YES	NO
Has a site plan been provided, which clearly identifies:	YES	NO
Post-evacuation assembly points?	YES	NO
Location of Fire Hydrants?	YES	NO
Normal Routes of Fire Department Vehicle Access?	YES	NO
Have floor plans been provided which clearly identify:	YES	NO
All emergency exits?	YES	NO
Primary evacuation routes?	YES	NO
Secondary evacuation routes?	YES	NO
Accessible egress routes?	YES	NO
Areas of refuge?	YES	NO
Manual fire alarm pull stations?	YES	NO
Portable fire extinguishers?	YES	NO
Hose stations?	YES	NO
Fire Alarm Control Panels?	YES	NO
Fire Alarm Annunciator Panels?	YES	NO
Are life safety strategies and the need for total vs. partial building evacuation, protect in place tactics and strategies identified?	YES	NO
Are specific instructions provided for employees who must remain in place to operate crucial equipment prior to evacuation?	YES	NO
Is there a specific post-evacuation accounting procedure for employees and occupants?	YES	NO
Are personnel responsible for rendering medical aid identified?	YES	NO
Is the primary means of egress of occupant notification in the event of a fire or emergency identified?	YES	NO
Is the secondary means of occupant notification in the event of a fire or emergency identified?	YES	NO
Is the primary means of reporting a fire or emergency identified?	YES	NO
Is a secondary means of reporting a fire or emergency identified?	YES	NO
Is a description of the fire alarm's alerting system (bells, horns, strobes) And the pre-programmed voice message (if equipped) provided?	YES	NO

What are the duties of specific personnel during a fire/emergency and How they may be contacted in the event of a question?	YES	NO
Has a list of major fire hazards associated with the use and occupancy of the premises been provided?	YES	NO
Is there a description of the housekeeping/maintenance procedures during a fire/emergency event?	YES	NO
Is a list of personnel responsible for maintenance, housekeeping and controlling fuel hazards (if applicable) provided?	YES	NO
Is a list of personnel responsible for maintaining fire prevention and control systems provided?	YES	NO
Are there records of emergency evacuation drills including:	YES	NO
Name and title of person conducting the drill	YES	NO
Date and time of drill	YES	NO
Notification method used	YES	NO
Staff members on duty and participating	YES	NO
Number of occupants evacuated	YES	NO
Special conditions simulated	YES	NO
Problems encountered	YES	NO
Weather conditions	YES	NO
Time required to achieve total evacuation	YES	NO
Have annual employee fire safety plan training records been included?	YES	NO