



Houston Fire Department Life Safety Bureau (LSB)



LSB Standard No. 24, Rev. 05

Mid-Rise Atrium Fire Safety Plans

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LSB Standards are established in accordance with provisions of the City of Houston *Fire Code*. They are subject to the administrative sections covering alternative materials and methods, modifications, and the Board of Appeals.

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Mid-Rise Atrium Fire Safety Plans

Section 24.1 – General

24.1.1 Scope.

The provisions of this standard shall apply to all mid-rise atrium buildings that are located within the City of Houston.

24.1.2 Purpose.

The purpose of this standard is to provide guidance for all owners, managers, and occupants of mid-rise atrium buildings in the creation of fire safety plans required under the City of Houston *Fire Code* and *Building Code* and this standard.

24.1.3 General.

All mid-rise atrium buildings shall comply with applicable codes and ordinances that require alarm or sprinkler retrofit. (See Appendix I of the *Fire Code*.)

24.1.4 Fire Alarm System During Construction

During construction in or on any portion of an occupied mid-rise atrium building that may interfere with the operation of the fire alarm system, property management of the building shall provide Fire Wardens with temporary and acceptable measures of signaling a fire alarm within the building. Acceptable measures include whistles, public-address systems, bullhorns, air horn noise emitting canisters, or other measures approved by the Fire Code Official. Property management shall ensure that these temporary measures are universally applied within the building and that all building occupants are familiar with the temporary alarm signal.

The use of any such temporary device shall be introduced in training and included in the written Fire Safety Plan. This plan shall also include details of the planned transition into compliance with the alarm/sprinkler retrofit ordinance. Training in the temporary and alarm/sprinkler retrofit methods will be deemed satisfactory upon successful completion of a supervised fire drill by an approved training instructor.

24.1.5 Procedure for Mobility-Impaired Occupants

Mobility-impaired occupants may require special assistance in the event of an evacuation. Occupants not providing or requiring assistance should evacuate first to lessen the possibility of persons in need of assistance being bumped and/or falling down, thus slowing evacuation and/or causing injury. Occupants having mobility impairments, if unable to safely use the exit stairs, should seek a safe area near the fire exit/stairwell that is located farthest away from the fire. If fire conditions pose a personal threat, the Fire Warden or person assisting should enter into the fire exit stairwell with the mobility-impaired occupant and wait for the fire department. If fire conditions pose a personal threat in the stairwell, the Fire Warden or person assisting should move with the mobility-impaired occupant to a safe location. Fire Wardens shall notify the fire department the location of all mobility-impaired occupants who require special assistance.

Section 24.2 – Definitions

24.2.1 Fire Safety Coordinator.

The Fire Safety Coordinator is the representative of the owner or management company associated with a mid-rise atrium building who is mandated by the Fire Code Official to implement and manage all requirements of the Fire Safety Plan. The Fire Safety Coordinator is not required to be a tenant of the building and may manage more than one mid-rise atrium building, provided that all the Fire Safety Plan requirements are successfully implemented at each location.

24.2.2 Fire Safety Team.

The Fire Safety Team consists of the Fire Safety Coordinator and Fire Wardens that are specified in the approved Fire Safety Plan.

24.2.3 Fire Warden.

A dependable and responsible representative of a tenant in a high-rise or mid-rise atrium office building who will, when safe to do so, help direct the evacuation of occupants according to the approved fire safety plan.

24.2.4 Guest.

An occupant of a mid-rise atrium hotel.

24.2.5 Mid-Rise Atrium Building.

Mid-rise atrium buildings are buildings in which:

1. The highest floor used for human occupancy is 75 feet or less above the lowest level of fire department vehicle access; and
2. There exists an opening extending vertically that connects two or more stories other than enclosed stairways, elevators, hoistways, escalators, plumbing, electrical, air-conditioning or other equipment, which is closed at the top and not defined as a mall.

24.2.6 Mobility Impaired List.

A list, by name, impairment, and work location, of persons who may have some type of physical condition or hindrance that could encumber their self-evacuation from the floor of incident or the building in the event of an emergency or would need assistance of other personnel or an emergency service in the event of an emergency. Names of persons with a short-term illness or injury need not be placed on this list. Fire Wardens and building security personnel should, however, be knowledgeable of any person who may be in need of assistance in evacuating during an emergency.

24.2.7 Occupant.

Management, staff, tenants, residents, guests, or visitors.

24.2.8 Property Management.

The owner of a building or the authorized agent of the owner.

24.2.9 Resident.

Any person or persons who inhabit a mid-rise atrium condominium/apartment/dormitory building.

24.2.10 Tenant.

Lessee and their employee in a mid-rise atrium office/mercantile building.

Section 24.3 – General Requirements

24.3.1 Plan Submittal.

The process of obtaining approval of a Fire Safety Plan begins with creation of the Plan, which consists of three essential training elements to be conducted by persons, institutions, or companies approved by the Fire Code Official in accordance with established regulations. These training elements are:

24.3.1.1 Consultation.

There must be a consultation with property management prior to the submittal of an approved Fire Safety Plan. (See LSB Standard No. 23, Section 23.5 for further information.)

24.3.1.2 Training.

The property management and members of the Fire Safety Team shall be required to attend Mid-Rise Evacuation Training (MET) and become certified in emergency evacuation procedures. The training shall include but not be limited to: basic fire safety, instruction in the organization of fire drills, fire drill procedure, and similar activities. MET training shall be approved by the Fire Code Official and shall be conducted by persons, institutions, or companies approved by the Fire Code Official. Comprehension of training objectives may be established by achievement of a passing score on written examination, or by demonstrations of individual proficiency. MET certificates, issued upon successful completion of training, shall be valid for a period of five (5) years from the date of issuance.

24.3.1.3 Fire Drill.

A fire drill that is supervised by persons, institutions, or companies approved by the Fire Code Official must take place.

24.3.2 Possession of Fire Safety Plan.

The property management of any mid-rise atrium building shall possess and maintain an approved Fire Safety Plan that meets the requirements of established regulations and applicable city ordinances.

24.3.3 Required Fire Safety Plan Contents.

Fire Safety Plan for a Mid-Rise Atrium Building must contain the following:

1. The identity and contact information of the person or persons responsible for maintenance of facilities and essential personnel required to carry out the plan.

2. The identity and contact information of the responsible person designated as the Fire Safety Coordinator, along with an enumeration of the Coordinator's duties.
3. List of sufficient alternates for each Fire Safety Coordinator and Assistant Coordinator.
4. Procedures for reporting fires and/or fire alarms as approved by the fire code official.
5. Instructions for the fire alarm system operations.
6. Life-safety procedures.
7. Identification of the building's fire safety features.
8. Fire drill instructions and procedures.
9. Maps showing means of egress that comprise the vertical and horizontal ways of travel to a public way.
10. Maps that indicate those stairwell doors through which re-entry may be made into a corridor during emergency conditions. (May be combined with the former requirement on the same map.)
11. Maps must also show the location of each of the following components:
 - a. Fire alarm pull stations;
 - b. Fire extinguishers and fire hose cabinets;
 - c. Elevator lobbies;
 - d. Fire depository box;
 - e. Emergency generator;
 - f. Fire alarm annunciator panel;
 - g. Fire extinguishing systems;
 - h. Smoke removal controls;
 - i. Public-address system panels;
 - j. Means of two-way communication;
 - k. Fire command or central control room;
 - l. Elevator fire service recall location;
 - m. Stairwell identification;
 - n. Air handlers and mechanical and electrical service rooms; and,
 - o. Other emergency control or indicating systems.

Section 24.4 – Fire Safety Coordinator Duties and Responsibilities

24.4.1 Duty to Maintain Records.

It is the duty of the Fire Safety Coordinator to maintain training records for the Fire Safety Team, records of the maintenance of the fire safety system, records of the contents of fire depository boxes, and records of fire drills. These records shall be made available to the Fire Code Official upon request.

24.4.2 Duty to Notify Acting Safety Coordinator.

It is the duty of the Fire Safety Coordinator to notify a management representative when the Fire Safety Coordinator is or will be unavailable so that the representative may serve as an "Acting" Fire Safety Coordinator. The Acting Fire Safety Coordinator must be capable of managing and implementing the Fire Safety Plan. The Fire Safety Coordinator

must supervise the training and related activities of the Acting Fire Safety Coordinator and must be able to provide a summary of such to the Fire Code Official upon demand for his approval.

24.4.3 Distribution of Plans.

The Fire Safety Coordinator must distribute the applicable parts of the approved Fire Safety Plan to all tenants, contract employees, residents, and property management or their representatives, as approved by the Fire Code Official.

24.4.4 Fire Drills.

The Fire Safety Coordinator must be familiar with the approved Fire Safety Plan and conduct a fire drill at least every six (6) months. Upon survey of the conditions, the Fire Code Official may require additional drills as he deems necessary. A written record of each such drill shall be kept on the premises and shall be readily available for fire department inspection.

24.4.5 Implementation of Training Programs.

Fire Safety Coordinators must implement an approved training program that covers fire prevention and emergency procedures. Such training should include instruction and materials to enable each trainee to be familiar with the Fire Safety Plan, the location of exits, and the location and procedures for activating approved alarm devices and pull stations, if applicable. At the minimum, this training shall include the following people: building maintenance personnel, security personnel, custodial personnel, concierge, housekeeping, kitchen personnel, laundry personnel, doormen, managers on duty, PBX operators, and such other specialized personnel as the Fire Code Official deems applicable to each building.

24.4.6 Fire Depository Box (FDB).

Fire Safety Coordinators shall be responsible for the installation of a FDB and its contents. (See LSB Standard No. 6, "Fire Depository Boxes" for further information.)

24.4.7 Fire Safety Assistance List (Hotels).

Fire Safety Coordinators shall maintain a current guest Fire Safety Assistance List at the front desk and ensure that it is updated daily.

24.4.8 Duty to Assist the Fire Code Official.

Fire Safety Coordinators have a duty to provide facilities and assistance as needed by the Fire Code Official to obtain approval for a Fire Safety Plan.

24.4.9 Approved Method of Reporting Fires by Phone.

The Fire Safety Coordinator shall instruct PBX operators, off-site alarm monitoring companies and answering services on how to properly notify the Houston Fire Department when a fire, the smell of smoke, or a fire alarm is reported to them. PBX operations, off-site alarm monitoring companies and answering services outside of the local City of Houston/Harris County "9-1-1" service area shall call the Houston Fire Department Office of Emergency Communications emergency telephone number (713) 884-3143. On-site callers may dial "9-1-1" to report an emergency.

24.4.10 Reporting Individuals Who Neglect Responsibilities.

The Fire Safety Coordinator must notify the tenant when any employee or individual within the tenant's control is neglecting their responsibilities as laid out in the Fire Safety Plan. If the tenant fails to correct the condition, the owner or person in charge of the building shall notify the Fire Code Official.

24.4.11 Fire and Life-Safety Systems.

The Fire Safety Coordinator must understand the purpose and operation of all fire and life-safety systems located in the building that are under the control of the building owner or property manager.

24.2.12 Training.

Training shall be in accordance with regulations established by the Fire Code Official.

24.2.13 Further Duties.

Any further duties or responsibilities of the Fire Safety Coordinator shall be in accordance with regulations established by the Fire Code Official.

24.2.14 Fire and Life-Safety Plan.

The Fire Safety Coordinator shall be familiar with the Fire Safety Plan, the location of exits, and the location and operation of all available fire systems. The Fire Safety Coordinator shall review the Fire Safety Plan every six (6) months and update the plan where necessary.

Section 24.5 – Tenant Duties and Responsibilities

24.5.1 Compliance with Approved Fire Safety Plan.

Each tenant shall be required to comply with the approved Fire Safety Plan.

24.5.2 Availability of Fire Wardens.

Upon request of property management, all tenants shall make employees available for training as Fire Wardens. These potential Fire Wardens must be responsible and dependent and must also complete certification training in the implementation of the Fire Safety Plan. (See LSB Standard No. 23, "Mid-Rise Atrium Fire Safety Plan Approval" for further information on required training.) Fire Wardens must be provided for each tenancy on each floor. Should the area of a tenancy exceed 7,500 square feet of occupiable space, a Fire Warden shall be assigned for each 7,500 square feet or part thereof. Each floor of a building shall have a minimum of two (2) Fire Wardens.

24.5.3 Duties in the Event of Fire or Fire Alarm.

In the event of a fire or fire alarm, the Fire Warden shall:

1. Ensure that the fire department has been notified immediately, regardless of the size or nature of the fire or fire alarm.
2. Report any known conditions on the fire floor or alarm floor to the fire department upon their arrival.
3. Direct tenants to evacuate the building using the safest exit/stairwell.

Exception: If the building is protected one hundred percent with an approved automatic sprinkler system and has an operable public-address system throughout the building, prepare to evacuate by proceeding to a stairwell. If there is evidence of fire or an announcement to evacuate is made, proceed to a safe location outside of the building.

4. Be familiar with the location of all exits/stairwells. Based upon the location of the fire and any information available, select the safest exit/stairwell to use for evacuation. If the chosen exit/stairwell is affected by smoke, choose another.
5. Follow any and all instructions given by the fire department.
6. Verify that mobility-impaired occupants who are present on the floor have arrived at or near the fire exit/stairwell that is located farthest away from the fire and stay with them if no other person is assisting them. If fire conditions pose a personal threat, enter into the fire exit stairwell with mobility impaired occupants and wait for the fire department. If fire conditions pose a personal threat in the stairwell, move with the mobility-impaired occupants to a safe location. Notify or have someone notify the fire department of the location of all mobility-impaired occupants who have required special assistance in evacuating the affected areas of their location.

24.5.4 Distribution of Fire Safety Plan.

The applicable parts of the approved Fire Safety Plan shall be distributed by the tenants to all their employees.

24.5.5 Occupants Needing Special Assistance.

It is the duty of the tenant to advise the Fire Safety Coordinator of any occupants who may need special evacuation assistance so that the Mobility Impaired List can be updated in the fire depository box.

24.5.6 Drill Participation.

When fire drills are conducted, all persons who are subject to a fire drill shall participate in the drill.

Section 24.6 – Fire Drills

24.6.1 Required Frequency.

A fire drill shall be conducted at least every six (6) months.

24.6.2 Notification.

Prior to the fire drill, all occupants shall be notified of the date and time scheduled for the fire drill.

24.6.3 Participation.

When fire drills are conducted, all persons who are subject to the fire drill shall evacuate using the stairs. All persons unable to use the stairs shall submit a written notice and request to the Fire Safety Coordinator in advance of the scheduled drill to be exempted

from evacuation requirement. Persons who are not required to evacuate using the stairs will be required to relocate to the stairwell, unless specifically exempted.

Exception: If the building is protected one hundred percent with an approved automatic sprinkler system and has an operable public-address system throughout the building, all persons subject to the fire drill shall prepare to evacuate by proceeding to a stairwell. If there is evidence of fire or an announcement to evacuate to evacuate, all persons subject to the fire drill shall proceed to a safe location outside of the building.

24.6.4 Additional Fire Drills.

Upon a survey of the conditions, the Fire Code Official may require additional drills.

24.6.5 Records of Completed Fire Drills.

A written record of completed fire drills shall be kept on the premises and shall be readily available for the Fire Code Official's inspection.

References

1. City of Houston *Fire Code*
2. Life Safety Bureau (LSB) Standard No. 06, "Fire Depository Boxes"
3. Life Safety Bureau (LSB) Standard No. 23, "Mid-Rise Atrium Fire Safety Plan Approval"

All reference materials used under this Life Safety Bureau standard shall be in accordance with the most current adopted City of Houston *Construction Code*.