



**Williamson County Fire Chiefs Association
Capitol Area Fire Chiefs Association
Central Texas Regional Procedures**



#06

**HIGH-RISE FIRE INCIDENTS
STANDARD OPERATING GUIDELINE**

**Adopted
December 6, 2023**

PURPOSE

On February 1, 2020 an Automatic Aid Agreement commenced between members of the Capitol Area Fire Chiefs Association (CAFCA) and the Williamson County Fire Chiefs Association (WCFA). Central Texas Regional Procedure #6 High-Rise Fire Incidents SOG is a cooperative effort between all members to ensure personnel and resources operate in a like manner across Williamson and Travis Counties. The foundations for this regional procedure is the Austin Fire Department A201 – High Rise Fires.

BACKGROUND

After September 11, 2001, firefighters and the general public have dramatically altered their views on high-rise emergencies and the actions to take if one occurs. The emergencies can include both fire and structural collapse. The public can be expected to immediately evacuate the structure: This means all stairwells may become “evacuation stairwells.”

High-rise fires may be controlled easily (and oftentimes prior to fire department arrival) by fire control systems and compartmentalization, or they may escalate and become catastrophic events. Any high-rise has the potential to present a serious rescue challenge; furthermore, there are unsprinklered residential towers in Austin that are especially vulnerable to emergencies.

Although high-rise buildings are engineered to withstand a great deal of stress and are usually compartmentalized to restrict spread of smoke and fire, all responding personnel should watch for falling debris and potential collapse indicators during their approach. Command needs to continually assess the building’s condition and consult with the on-scene Department Engineer

POLICY STATEMENT

- A. All Fireground Operations will be conducted utilizing the National Incident Management System (NIMS) and in accordance with NFPA 1561 Standard on Emergency Services Incident Management System and Command Safety.
- B. High-Rise procedures shall be utilized when a fire is reported in any structure that meets the definition of a high-rise according to the International Fire Code and International Building Code, which are buildings having occupied floors located more than 75 feet above the lowest level of fire department vehicle access (usually about seven or eight floors).
- C. The first arriving Company Officer shall state, as part of their initial size-up that high-rise procedures will be in effect. If there is evidence of a working fire upon arrival, or at any time during the investigation, the alarm should be upgraded to a multiple alarm.

The following guidelines should be followed at fires in high-rise structures, except where deviation can be justified by Fire Officers. Any significant deviation should be communicated to responding/on-scene units as soon as possible.

PROCEDURE

- A. All high-rise buildings in Travis and Williamson County should be marked in the CAD caution notes section as “***HIGH-RISE***” along with important information such as the number of floors, occupancy type, FDC location, lack of fire protection system feature (such as no sprinklers), etc. Dispatchers and Company Officers should utilize this CAD high-rise information to ensure the proper response and procedures are used at high-rise buildings.
- B. A High-Rise Alarm complement shall consist of four Engines, three Aerial Apparatus, one Rescue unit, three Battalion Chiefs (one of which will be assigned as the Incident Safety Officer (ISO). Jurisdictions that do not have a Rescue in their response plans will provide another apparatus to replace the Rescue. These resources are adequate for investigating a report of a high-rise fire and mitigating incipient fires. However, if evidence of a working fire is found, a second alarm must be requested to have the minimum amount of resources necessary to make an offensive fire attack in a high-rise building.
- C. Units arriving at the scene of a high-rise incident will normally assume the pre-assigned functional responsibilities by apparatus type and order of arrival as described below (refer to Figure 1). This is the Option 1 method of giving tactical assignments as described the Regional Structure Fire SOG. If a high-rise incident does not have the specific apparatus type in the response to fulfill all of the functional responsibilities, Command should modify the assignments but still ensure that all tactical assignments given by this SOG are accomplished (Option 2 in the Regional Structure Fire SOG).

Note: Even if the first arriving Company Officer reports that they are investigating, the high-rise functional assignments should still be assumed. Companies may need to deviate from the following assignments in extreme circumstances (e.g., the need for aerial rescue). In the event of deviation, Command is responsible for ensuring that the functional responsibilities are filled by other companies.

1. Command – The first arriving Officer shall assume Command. Command will be passed according to the Regional Incident Management System policy until the first arriving Battalion Chief assumes Command and establishes a Command Post. There are many factors to be considered when selecting a command post location for a high-rise incident. Locating the command post in the building lobby near the fire control room should be given serious consideration due to the ability to better communicate with companies inside the structure. However, if a command post inside the structure is not a good choice, the command post may be established outside and at a safe distance from the structure.
2. Should the incident evolve into a working fire, a safe perimeter should be established and maintained with consideration being given to the height of the structure and the probable landing zone of any falling debris. If the Command Post is located outside the structure, it should be located or relocated beyond this safe perimeter.
3. Division X Supervisor (X represents fire floor number) – The second arriving Battalion Chief should report to the Command for briefing. Then, one Chief will be Command and the other Chief will be assigned as the fire floor Division Supervisor. All of the companies working on the fire floor will be under the command of this Division Supervisor.

4. Initial Attack – The first arriving Aerial Apparatus or Rescue Unit will assume Inside Truck and serve as the Division Supervisor on the fire floor until the arrival of a Chief Officer. The first arriving Engine Company will assume Fire Attack 1. The second arriving Engine Company will assume Fire Attack 2. These three initial attack teams should work together and perform operations on the fire floor to locate and confine the fire.
 - a. All three initial attack teams should bring standpipe hose and equipment into the building with them. The Inside Truck is responsible for truck work on the fire floor including locating the fire, forcing entry for access to the fire, primary search in the fire area, salvage, etc. Fire Attack 1 and 2 should work together to deploy a hoseline and begin fire confinement and extinguishment.
 - b. The initial attack teams must comply with the Two-In/Two-Out as described in the Regional Structure Fire SOG. Normally this is accomplished by leaving two members in the Attack Stairwell, which is outside the IDLH atmosphere.
 - c. The first arriving initial attack team will respond to the Fire Control Room to check the fire alarm panel, obtain building keys, and obtain plug-in phones.
 - d. All operations depend on the conditions found and actions taken by the initial attack teams. Therefore, it is critical that the initial attack teams communicate their actions and give size-up reports from five locations:
 - i. The exterior upon arrival; including the number of stories and if fire/smoke is showing.
 - ii. The Fire Control Room; including the information obtained from the fire alarm panel.
 - iii. The Fire Attack Stairwell; including the designation of the Attack Stairwell and smoke conditions within that stairwell.
 - iv. The fire floor; including confirmation of the fire floor number, the fire/smoke conditions on that floor and actions being taken.
 - v. The fire room/apartment; including the fire room/apartment number and actions being taken.
 - e. Other information such as status of occupant evacuation, if elevators are being utilized, whether or not a sprinkler system is operating, etc. should also be conveyed.

Note: By definition, the Attack Stairwell becomes open to fire products; operations in this stairwell are inherently dangerous to both firefighters and civilians. Tests have proven that PPV fans can be used to pressurize the Attack Stairwell to prevent the products of combustion from entering. This is best accomplished by placing one fan blowing into the stairwell at the bottom and a second fan blowing into the stairwell three floors below the fire floor. To assist Command with determining the need for stairwell pressurization with PPV fans, the initial attack teams should advise Command of the smoke conditions within the stairwell.

Note: Hoselines should initially be placed on the floor of fire origin, and the fire should be attacked at that area. Secondary hoselines should then attack any extension on the floors above. Except in rescue circumstances, fire cut-off on floors above the origin floor should not be undertaken unless the fire below is under control.

5. Water Supply – The third arriving Engine Company will assume Water Supply. Water Supply will be responsible for:
 - a. Supplementing the sprinkler system;
 - b. Supplementing the standpipe system;
 - c. Establishing a hydrant water supply:

- i. This is usually accomplished by connecting two 3” hoses to the FDC and then laying out to a nearby hydrant. Additional 3” hoses should then be added to supply all inlets on an FDC.
 - ii. If the sprinkler or standpipe system requires 225 psi or more pressure, water supply to the FDC should be established utilizing threaded 3” supply hose and with two pumping apparatus in a tandem pumping operation.
- d. Determining the operational readiness of the fire pump:
 - i. Fire personnel assigned to check the operational readiness of the fire pump should do so and report their findings to Command, and should then report to Systems Control Unit. For more information, refer to Regional Policy #7, Sprinkler Systems and Fire Pumps.
 - ii. Fire personnel should be aware that carbon monoxide may build up in apparently “clear” basements; SCBAs should be worn and gas monitors should be carried and used.
- 6. Lobby Control Unit – The fourth arriving Engine Company will assume Lobby Control. This function will be established in the lobby or other location within the structure where ingress and egress can be controlled. Lobby Control will be responsible for:
 - a. Obtaining Knox Box keys if the initial attack teams have not obtained them.
 - b. Establishing entry/exit control at all building access points.
 - c. Determining access routes to be utilized throughout the incident (stairwells or elevators).
 - d. Ensuring stairwells are pressurized. If not, coordinate the use of PPV fans for pressurization.
 - e. Providing Companies entering the building with pertinent information about the building and incident and then direct the Companies to appropriate stairwell or elevator for their assignment.
 - f. Ensuring the capture of all elevators (refer to the Regional Policy #8, Use of Elevators). Coordinate the use of elevators for shuttling personnel and equipment up and down. Consideration should be given to assigning one member to operate an elevator.
 - g. Systems Control Unit activities until relieved of those duties.
- 7. Recon Group – The second arriving Aerial Apparatus or Rescue Unit will assume the function of Recon Group. This group is responsible for operations above the fire floor(s).
 - a. The Recon Group should use an Evacuation Stairwell and respond above the floor(s) to search for occupants and check for fire extension. Special consideration should be given to the area in the Attack Stairwell above the fire floor. Any occupants remaining in this dangerous location should be removed as soon as possible.
 - b. At residential high-rise buildings, aials may need to deviate from the guidelines if there are people in need of immediate rescue who are only reachable by ground or aerial ladder. The elderly are often found in these buildings, and egress must be protected. When there is an imminent threat to life, ladders should be placed and crews prepared to effect rescue. The methods for addressing occupant Life Safety in a high-rise building are Rescue, Evacuation and Protect-in-Place. Closing an apartment or hallway door may be all that is needed to initially protect the occupants.
 - c. A size-up of the conditions found should be conveyed by the Recon Group to Command. Because Recon is a functional group not limited to a specific geographic location within the building, it is important that Command know the location of the Recon Group at all times and be informed of changing conditions above the fire floor. Depending upon the conditions found, the Recon Group might need to assist with occupant evacuation or implement a strategy for defending the occupants in place.
 - d. Another consideration for the Recon Group is vertical ventilation. Ventilation should be closely coordinated with Operations and the Division Supervisor on the fire floor. Normally,

pressurization of the stairwells is preferred over vertical ventilation during fire attack. However, smoke removal from the stairwells may be necessary after the fire is under control.

Note: Stairwells in local high-rises are usually pressurized from the top down; be aware that smoke may bank to landings in the stairwell below the fire floor.

8. Logistics Section Chief / Systems Control Unit – The third arriving Aerial Apparatus or Rescue Unit Officer will assume Logistics and the driver will assume Systems Control Unit. The Logistics Chief is initially responsible for all activities that support fire attack, this includes Water Supply, Lobby Control and Systems Control. The firefighters on the Aerial Apparatus or Rescue Unit will be assigned to assist with these support functions as deemed necessary by the Logistics Chief.
 - a. The Systems Control Unit is responsible for staffing the Fire Control Room (FCR):
 - i. Report when the Fire Control Room is staffed.
 - ii. Check the fire alarm panel and report any changes from the initial size-up given by the initial attack teams.
 - iii. After Lobby Control has secured entry/exit points and prevented occupant re-entry, silence any audible alarms with Command approval.
 - iv. Operate communications equipment to calm and direct building occupants as necessary. As soon as possible, the building occupants should be advised to use the Evacuation Stairwell(s) and avoid using the Attack Stairwell.
 - v. If needed, assist with communication between the fire floor Division Supervisor and the Command Post.
 - vi. Control the buildings HVAC system as necessary. Determine if the system can be used for smoke removal.
 - vii. Establish communication with building personnel to coordinate the operation of the selected systems.
9. Interior Staging – The fourth arriving Aerial Apparatus or Rescue Unit will ascend with the RIC equipment and will assume Staging two floors below the fire floor. Since a RIC team is not assigned until a 2nd alarm, the fourth Aerial Apparatus or Rescue should also be prepared to act as the RIC team if needed.
 - a. The following stations should be established:
 - i. Division X – 2 (Fire Floor -2) Staging
 - ii. Division X – 2 (Fire Floor -2) Rehab
 - iii. Division X – 2 (Fire Floor -2) Reserve Equipment
 - b. Staging shall maintain a log of resources and Companies in that Interior Staging Area and the Companies in that Interior Rehab Area.
 - c. For incidents reported on the third floor or below, a Staging Area should only be established outside of the structure. This can usually be accomplished with the normal multiple alarm staging procedures and the fourth Aerial Apparatus or Rescue Unit can then be given a different assignment. Refer to the Regional Structure Fire SOG.
10. Medical Group – EMS units should be assigned as the Medical Group upon arrival. If medical monitoring is necessary in Rehab, an EMS unit may be assigned there also.
11. Support Personnel
 - a. On-Call Command Staff personnel may respond to all multiple alarm incidents. Their role will be dictated by the situation upon their arrival.

- b. Other support personnel (On-call Emergency Prevention Inspector, Fire Protection Engineer, etc.) will respond per individual section protocol. Upon arrival, the on-call Prevention Inspector should be assigned to the Systems Control Unit and Department Engineers should be assigned to the Planning Section as Technical Specialists.
12. 2nd Alarm – Should the High-Rise Alarm escalate to a 2nd alarm, additional tactical resources will be dispatched. The following positions should be filled (refer to Figure 2):
- a. Operation Section Chief and Planning Section Chief - The third and fourth arriving Battalion Chiefs should report to the Command Post for a briefing. Then, one Chief will be assigned as Operations and the other Chief as Plans.
 - b. RIC Group – The second arriving Rescue Captain will assume the function of the RIC Group Supervisor. Jurisdictions that do not have a Rescue in their response plan will provide another apparatus to fill assignment. The RIC Group Supervisor will respond to the Interior Staging Area below the fire floor, request at least one company in addition to the Rescue personnel to utilize as the RIC team(s), identify the best location(s) for the RIC team(s) and report when RIC is established.
 - c. Level 2 Exterior Staging Manager, Base Manager, and Exterior Rehab Manager – The officer from the first Engine arriving on the second alarm will assume the function of Staging Manager for the exterior Staging area. Personnel from this Company will also assume Base Manager and Rehab Manager for the exterior Rehab area. Refer to Regional Structure Fire SOG.
 - d. Backup – At least one Engine Company should be assigned to deploy a backup hoseline to protect the Fire Attack teams.
 - e. Evacuation Group – At least one Company should be assigned to assist and direct the evacuation of the occupants using the Evacuation Stairwell(s) and ensuring that the occupants evacuate to a safe location.
 - f. Command Staff Positions – the positions of Safety Officer and PIO should be assigned.
13. 3rd Alarm – Should the High-Rise Alarm escalate to a 3rd alarm, additional tactical resources will be dispatched. The following positions should be filled (refer to Figure 2):
- a. Logistics Support Branch / Medical Unit – The Support Branch and Medical Unit within Logistics should be established. This may best be accomplished by assigning a Chief Officer as the Logistics Chief and utilizing the Aerial or Rescue Captain as the Support Branch Director. The Medical Unit is responsible for overseeing the two Rehab Areas.
 - b. Ground Support Unit – A Ground Support Unit may be needed to transfer equipment from the Incident Base up to the floor where the Interior Staging Area has been established. Personnel assigned to the Ground Support Unit should be assigned at a rate of one person per two floors. Each person will carry equipment up two floors, pass it to the next person and return to their assigned landing for another load. If the operation is long, relief can be provided by doubling the assignment (two people per two floors), with the personnel alternating loads. Personnel assigned to this function may wear uniform footwear rather than firefighting boots.
 - c. Resource Unit – To assist the Planning Section Chief with tracking companies and ensuring accountability, a Resource Unit should be established.
 - d. Technical Specialist – Department Engineers should be assigned as Technical Specialists and report to the Planning Section Chief.
14. 4th Alarm and Greater – Should the High-Rise Alarm escalate to a 4th Alarm with fire attack necessary on multiple floors or with multiple patients, the following ICS positions may necessary:
- a. Fire Branches with Divisions based on floor assignments and Groups based on function.

- b. Medical Branch with a Treatment Unit and a Transport Group.
- c. Air Operations Branch with a Helicopter Coordinator and a Helispot Manager.
- d. Situation Unit to assist the Planning Section Chief preparing, posting and disseminating situation status information.

15. General Procedures

- a. As with any large-scale incident, heavy radio traffic on the primary channel can be expected. In order to reduce the radio traffic on the primary channel, the following uses of additional channels should be considered:
 - i. All Companies responding on a multiple alarm and reporting to either Staging Area should use the assigned alternate channel. Only after given an assignment to a Division or Group should Companies switch to the primary tactical channel. Refer to the Regional Radio Communications policy.
 - ii. Upon upgrading to a 2nd alarm, the Logistics Section and all Companies reporting to Logistics should switch to the assigned alternate channel.
 - iii. Upon upgrading to a 4th alarm, an additional set of channels should be requested for use by Command, Community Services Group (CSG), etc.
- b. Additional Companies should be directed from the Level 2 Exterior Staging Area to the Interior Staging Area two floors below the fire floor as early as practical. Companies may be held available in this Staging Area to relieve members working on the fire floor or above or they may be assigned On-Deck in a Division. A rule of thumb is to have two companies in reserve for each company committed to the fire attack. Also, a minimum of one Engine Company should be held in reserve at the Level 2 Exterior Staging Area.
- c. Companies reporting for an assignment inside a high-rise structure should carry as much equipment as possible to the lobby. An equipment pool can then be established and later transferred to the Interior Staging Area. This will minimize the time required to retrieve equipment needed later in the incident. Priority should be given to standpipe hose and equipment, spare air cylinders, hand lights, and forcible entry tools.
- d. The Safety Officer or Staging Manager may recommend that members in the Interior Staging Area, or operating below, be allowed to remove all or part of their Personal Protective Equipment. It must be kept available should conditions change within the structure.
- e. Some jurisdictions are requiring FF Air Replenishment Systems in all new high-rise structures and in some mid-rise structures due to their size. These are SCBA refilling systems similar to a standpipe which can be used to refill SCBA bottles while inside the structure and are typically found in stairwells. Use of FF Air Replenishment Systems will be determined by the jurisdiction requiring the system.

Figure 1: High-Rise Alarm - 1st Alarm Assignments Option 1

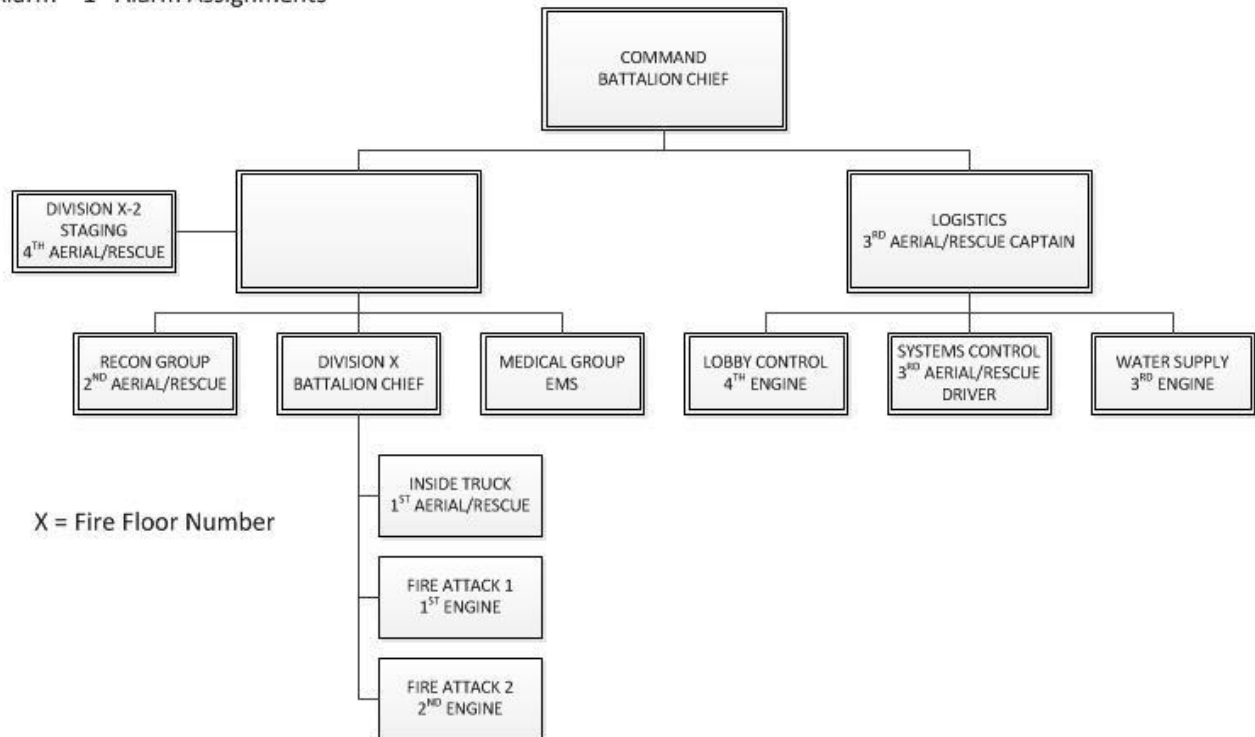
High-Rise Alarm – 1st Alarm Assignments

Figure 2: High-Rise Alarm – 2nd and 3rd Alarm Option 1