

Alton Fire & Rescue Department Standard Operating Guidelines (SOG)

SOG 2.2.4 Forcible Entry & Ventilation (Reference SOP 2.2.4)

PURPOSE: To insure safe entry and efficient mitigation in a fire involved structure.

SCOPE: Structural fire operations

SPECIFICS:

- Forcible Entry and Ventilation provide support and enable both fire control and rescue operations.
- Ventilation of a building containing fire controls the spread of fire and enables entry to effect search and rescue operations.
- The Incident Commander at such a scene should take whatever steps necessary to effect appropriate ventilation of a building and entry.

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Alton Fire & Rescue Department

Standard Operating Procedures (SOP)

SOP 2.2.4 Forcible Entry & Ventilation

PURPOSE: To insure safe entry and efficient mitigation in a fire involved structure.

SCOPE: Structure fire operations

SPECIFICS:

A building is ventilated principally for two reasons:

- To prevent mushrooming
- To gain (and maintain) entry
 - Vertical ventilation, as close to directly over the fire as possible, is the most effective form of ventilation in working interior fire situations.
 - The timing of ventilation becomes extremely important and must be coordinated with fire attack activities - ventilation should be provided in advance of attack lines. Portable radio communications between engine and ladder companies facilitate this interaction.
 - Fire will naturally burn out of holes in roofs, regardless if you cut the hole or if the fire does. If the fire burns through the roof (defensive ventilation), it will generally do so in the best location-directly over the fire.
 - If ladder companies cut the roof they must locate ventilation holes in a manner that will support rescue activities and fire confinement. If vent holes are cut in the wrong places, the fire will naturally be channeled to them and expand loss.
 - When you cut a hole in a roof, cut a big one.
 - Buildings are ventilated to alter interior conditions. The best operating position to determine if a building requires ventilation and the location and timing of that ventilation is from the interior sector. Interior and roof forces must communicate in order to coordinate the effort effectively.
 - Do not operate hose lines, particularly ladder pipes, down ventilation holes.
 - Operate roof hose lines only for the purpose of protecting personnel and external exposures unless Command orders a coordinated roof attack.
 - Effective topside ventilation will tend to keep roofs intact longer and roof conditions become extremely important to ventilation activities.
 - If ladder crews cannot get on the roof to ventilate because of fire conditions/roof profile, Command should consider this a marginal situation.
 - Hose line crews can probably get inside and stay inside longer than ladder crews can stay on the roof.

Recognition of Existing and Potential Damage Sources

- All firefighting activities have the potential to damage property and contents.
- The key to successful salvage is to distinguish between excessive damage, and damage that is required to reduce potential fire damage.
- Aggressive loss control activities reduce the damage incurred during firefighting operations.

Type, Value and Location of Contents

- Replacement price and value should be primary considerations when performing salvage operations. (Business records, for example, have extremely high value to business owners while their price represents only the paper they are printed on. Pictures, wall paintings, family mementos, etc., may have very high personal value to the property owner).

Estimate of Required Resource

- An early request for manpower and salvage equipment can significantly reduce loss.
- The first company assigned to salvage should consider the size-up factors and request sufficient resources to stabilize the situation.

Salvage Equipment

- Common salvage equipment includes salvage covers and boxes, rolled plastic, hall runners, brooms and squeegees. In addition, the loss control unit is equipped with a large assortment of these standard items as well as other specialized salvage equipment.
- Where salvage covers must be left on scene, arrangements should be made for pickup later. Command or the loss control officer should schedule a return walk through by the Fire Department to insure post-incident damage is not occurring.

Customer Service

- Command and/or the loss control officer should meet with the property owner or responsible party, to determine/identify the salvage priorities. The earlier this can be done, the greater the opportunity to identify high value/priority items or areas.
- In some cases, when safe to do so, allowing the property owner/occupant to be escorted through the building by Fire Department personnel can be of great assistance to the loss control operation.

BOWSTRING TRUSS/ARCHED ROOF CAUTIONS

- For bowstring/arched roofs:
 - When fire is in the attic/truss space, and it is safe to do so, quickly search the building and implement a defensive strategy.
 - When crews are unable to locate the fire, and it is safe to do so, quickly search the building and implement a defensive strategy.
 - When fire involves a room and contents, with no evidence of extension to the attic/truss space — implement a quick, aggressive, offensive strategy.

RESIDENTIAL ROOFS

- For interior and/or attic fires in single family residences with **slate roofs** fire fighters are prohibited from going to the roof. Any other structure with truss construction requires a careful evaluation of fire conditions/roof profile prior to committing personnel to the roof.
- Forcible entry involves a trade-off in time versus damage; the faster you force-the more damage you do. The more critical the fire, the less important forcible entry damage becomes and vice versa. If the fire is progressing and you must go in and attack from the unburned side, don't waste time.
- The provision of access many times will determine if the fire is cut off and extinguished or not. These access-oriented activities generally involve pulling ceilings, opening up concealed spaces and voids, and the activities required to get fire attack efforts in to operate on hidden fire. Such operations beat up the fire building and must be done in a timely, well-placed manner. In such cases, do not hesitate—if you size up fire working inside a concealed space, get ahead of it, open up and cut it off.
- Beware of the premature opening of doors, holes, access efforts, etc. before lines are placed and crews are ready to go inside. Good timing requires effective communication between engine and ladder companies.

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