

Bedroom Fire Size-Up Considerations Sheet

Fire Engineering Simulation

Talk about this scenario on the
[Fire Engineering Training Community Web Site!](#)

This simulation gives you the option of using Positive Pressure Ventilation (PPV) during the attack phase or for ventilation after the fire is knocked down. If your department uses PPV or if you just want to discuss it, you can use this simulation for that purpose. You do not need to use PPV, it is just another option that you, as the trainer have. A good place to start regarding Positive Pressure Ventilation is the **Fire Engineering webcast by Kriss Garcia and Reinhard Kauffman** (available at http://www.fireengineering.com/display_article/311312/25/none/none/BRNIS/Positive-Pressure-Attack-for-Ventilation-and-Firefighting-Webcas).

Important: Individuals and departments who are interested in implementing PPV should seek training by fire officials well versed in its proper operation and avoidance of associated hazards. Improper use and monitoring of PPV can have serious consequences.

Building Size Up:

Some of this information would be common knowledge, based on your familiarity with the buildings in your area so make any changes needed to make this building match the ones in your district. For example, is it a joist or truss roof? Is it a one or two family house? You decide.

As instructor, you decide how much of the size up the student should be told and what he needs to discover for himself (a good reference on Building Size Up is Chief Michael A. Terpak's book [Fireground Size-Up](#)).

Construction:

- Platform frame with wood joists and roof rafters. Remember, you can say that this building has truss floors and roof if that is what you want to train on.
- The exterior of the building is stucco and stone.
- There is a door in the rear giving access to the ground level cellar.
- There are stairs leading to a wood deck giving access to the top floor from the rear of the building.
- There is a roll down garage door on the front extension on Side A. Is it used for parking vehicles or has the garage been converted in to living or storage space? Again it is your call.

Occupancy:

- It is a single family dwelling. If you have multi family dwellings or a mother-daughter arrangement in these buildings, you can use the occupancy configuration that matches your local conditions. The simulation contains no interior shots so the inside can be laid out however you describe it.
- The basement can contain an apartment, living space or be unfinished and wide open.

Apparatus & Staffing:

- Base this on what you realistically will respond with. Your staffing and available number and type of apparatus will affect what you can do as well as how and when you do it.

Life Hazard:

- There are no cars in the driveway, but there may be one in the garage.
- The sun is bright so it can be early morning or later in the day.
- If it is a weekend, people may be sleeping in and there is always the possibility of shift workers sleeping during the day. It is also possible that small children and their caretaker, the infirm or the elderly might be at home.

Terrain:

- The house is built on a hill sloping towards the rear creating two stories in the rear of the building.
- There is little shrubbery or trees to hamper laddering, ventilation or access to the windows.
- There is no overhead wiring to affect the laddering of the building.

Street conditions:

- The street in front of the building has a hill sloping down towards the B side.
- There are no parked cars in the street.

Weather: It is sunny, dry and calm.

Exposures: There are no exposure problems. The house is relatively isolated.

Dimensions:

- **Area:** The house is 50' x 60'.
- **Height:** The building appears to be a one story structure until you get a look at the B and C side of the building. The C side is two stories and the B side is 1 ½ stories. The cellar is actually at ground level in the rear of the building.

Location and extent of Fire:

- Upon arrival smoke is seen to be showing out of a rear bedroom window, and light smoke is coming out of the open front door.
- There is a fire in a rear bedroom. The fire may have been contained by the sheetrock ceiling or the ceiling may have failed or been previously compromised, resulting in fire extension into the attic.
 - The fire may or may not extend to the attic. We give you the option for fire extending through the roof and for venting the roof.
- The simulation shows no indication of a cellar fire.

Consider:

- Will you use positive pressure ventilation?
 - Do you operate the fan before you send your attack line into the building or do you use the fan to vent the smoke after the fire is knocked down?

- Do you need to ventilate the fire area or any other area? If so when? Do you vent before or after you start the fan and commit your interior team?
- Is anyone at home?
- It looks like the fire is on the first floor and there is no cellar involvement. That does not mean that no one has to check the cellar for fire. Consider the possibility of cellar involvement until the cellar is checked and proven clear. You must check all six sides of the fire for extension and for the possibility that the fire started in one of these six areas and extended to where you now see it.
- Is there an interior stairway from the first floor to the cellar? If so where is it?
- What size line do you stretch?
- What nozzle do you use?
- What preliminary do you transmit to the dispatcher?
- What help do you request?
- How are responding units deployed?
- How are individual firefighters deployed?
- What hazards do you perceive for possible victims and for your firefighters?

Actions:

- Transmit a preliminary signal to dispatch.
- Transmit progress reports to dispatch.
- Request assistance if necessary.
- Position your apparatus.
- Assign your firefighters.
- Establish a water supply.
- Decide on hose line size and nozzle.
- Stretch and position as many hose lines as needed.
- Place and operate fans according to their intended use.
- Ladder the building as needed.
- Force entry to the building.
- Confine and extinguish the fire.
- Check for extension.
- Search for life.
- Treat victims
- Overhaul the fire area.
- Leave the fire scene safe for occupants when you leave.
- Shut down utilities as needed.
- Relieve firefighters as needed.
- Certainly there are other considerations. Go to the forum and discuss them with others.

Using PPV during Fire Attack

If you choose to use PPV during fire attack, you must ensure adequate exhaust (2-3 times the size of the opening at which you place the blower) before starting the blower or having your crew make entry. Having the blower set close enough to leave a small void at the top of the attack entrance can give initial crews an indication of adequate or inadequate exhaust—dark smoke or flames may mean you do not have adequate exhaust. Again, do not use PPV unless you have been trained in its proper application by experienced personnel.