



In-Station Training

TM 24-05 Residential Fire-Vacant Building



Author

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Purpose

The terms abandoned, vacant, and unoccupied are often used somewhat synonymously, but mean different things. “These structures pose additional and sometimes unique risks because of the potential for firefighters to encounter unexpected and unsafe building conditions, such as dilapidation, decay, damage from previous fires and vandals, and other factors, such as uncertain occupancy status” (Smith, 2021).

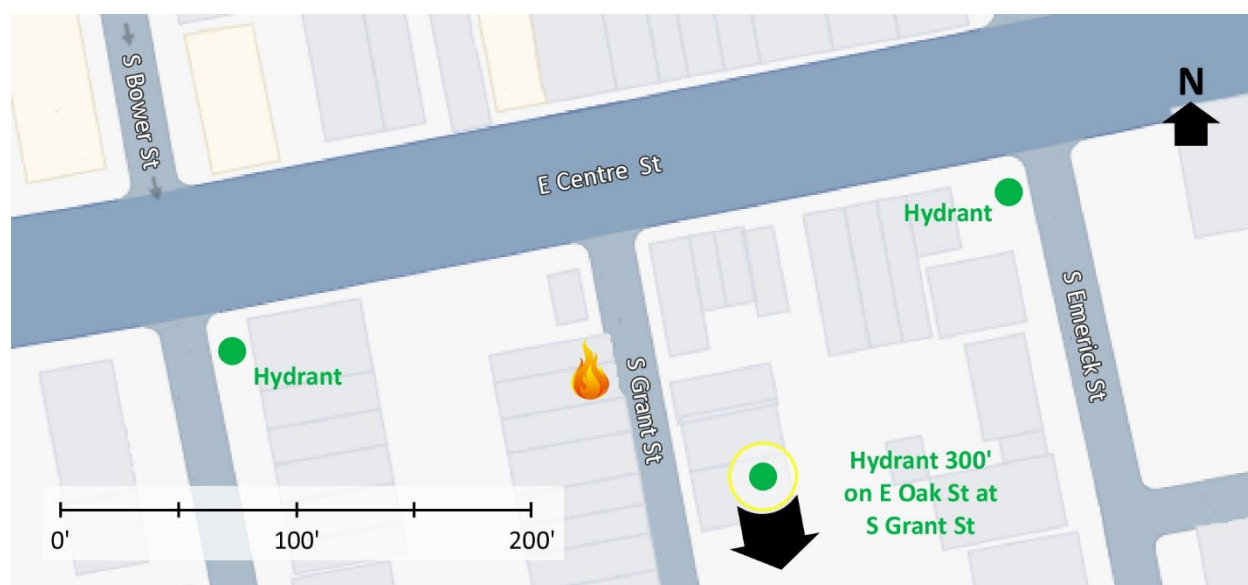
Learning Outcomes

Firefighters and officers perform an effective size-up, select an appropriate strategy, and implement tactics based on the strategic decision-making model.

Conducting the Drill

This incident involved a residential fire at 4 South Grant Street in Shenandoah, Pennsylvania on March 2, 2023, at 01:45 (The Shenandoah Sentinel, 2023 & Lindenmuth, 2023). Review the map and photos (Figures 1-5) to gain an understanding of the area and building involved.

Figure 1. Map of the Incident Area



Note: Adapted from Google. (2023a). [Map, 4 South Grant Street, Shenandoah, PA].
<https://bit.ly/3NJF7I6>.

Figure 2. Aerial View



Note: Adapted from Google. (2023b). [Aerial view, 4 South Grant Street, Shenandoah, PA].
<https://bit.ly/3GZpDvO>.

The closest hydrants are at the intersections of East Centre Street and South Bower Street and South Emerick Streets. An additional hydrant is located on East Oak Street at South Grant Street as illustrated in Figure 1.

Figure 3. Alpha/Bravo Corner



Note: Adapted from Google. (2012a). [Street view, 4 South Grant Street, Shenandoah, PA].
<https://bit.ly/3RGHhcP>.

Figure 4. Side Alpha



Note: Adapted from Google. (2012b). [Street view, 4 South Grant Street, Shenandoah, PA].
<https://bit.ly/3vk5rSV>.

Figure 5. Side Delta



Note: Adapted from Google. (2012c). [Street view, 4 South Grant Street, Shenandoah, PA].
<https://bit.ly/3GXsk13>.

The temperature is currently 34° F with no appreciable wind from the north (Weather Underground, 2023). You have been dispatched to 4 South Grant Street for a report of a possible residential fire at 01:45. You are the company officer or AIC of the first arriving engine and have a staffing level of three.

1. What critical factors would you consider when dispatched and during response and what conversations would you have with your crew while responding?

Dispatch provides an update indicating multiple callers reporting a fire in a vacant house. You hear a command officer and another engine with typical staffing for your agency go enroute. You will arrive from the west on East Centre Street. The second engine will arrive from the same direction six minutes after you, followed by the command officer. All other units dispatched on the first alarm will arrive after the command officer.

Watch the first 00:30 of the [incident video](#) (The Shenandoah Sentinel, 2023) and examine Figure 6 illustrating conditions on arrival.

Figure 6. Conditions on Arrival



Note: Adapted from The Shenandoah Sentinel. (2023). **Pre-arrival* house fire - Shenandoah - 3/2/2023* [video]. <https://bit.ly/48gQ5x5>

2. State your initial radio report (IRR) exactly as you would transmit it to dispatch.

3. What specific actions would you take (as the company officer) immediately upon arrival and exiting the apparatus and what task orders you would give your crew?

You observe a glow through the windows on Floor 1 Side Alpha and a small volume of smoke is visible from Floor 2, Side Charlie.

4. Would you change the action you are taking or modify the assignments given to your crew? If so, what task orders would you provide?
5. State your update report exactly as you would transmit it to dispatch.
6. Engine 2 arrives and reports that they are Level 1 on a hydrant at South Bower and East Centre Streets. State the tactical assignment you would give them exactly as you would transmit it.
7. Based on the anticipated effectiveness of your tactical operations, state your conditions, actions, and needs (CAN) report that you would provide to the first arriving command officer as part of command transfer to IC #2.

Watch the [incident video](#) (The Shenandoah Sentinel, 2023) from 01:30 to 02:15.

8. The quick hit made by the first arriving company was effective at darkening the fire. What would have improved the effectiveness of this initial water application?

Watch the [incident video](#) (The Shenandoah Sentinel, 2023) from 02:15 to 03:10.

9. The fire on Floor 2 re-entered the growth stage after the quick hit and the first arriving company repeated exterior application of water several times prior to entry into Floor 1. What factors likely impacted the effectiveness of exterior water application and regrowth of the fire on Floor 2?

Watch the [incident video](#) (The Shenandoah Sentinel, 2023) from 03:12 to 05:00.

10. The companies operating at this incident shifted to a defensive strategy at some point during the incident. What factors may have influenced this decision?

11. How could the companies operating at this incident have reduced their risk while operating defensively? The IC is ultimately responsible for the safety of the firefighters and officers working at the incident, but what actions could individual firefighters and officers take to manage the risk of defensive operations?

Additional Learning: What do the terms abandoned, vacant, and unoccupied mean? An unoccupied building is one that (obviously) does not have occupants, but it is furnished, and occupants could return at any time. A vacant building has neither occupants nor furnishings. Vacant buildings that have significant damage and are unlikely to be repaired may be considered abandoned.

The choice of offensive or defensive strategy necessitates consideration of the rules of engagement and risk profile of the building. This is always the case but requires careful consideration when dealing with vacant and particularly with abandoned buildings (think about building condition and structural stability).

The International Association of Arson Investigators (IAAI) and United States Fire Administration (USFA) Abandoned Building Project developed a presentation titled [Fire Department Operations in Abandoned Buildings](#) (IAAI & USFA, n.d.) along with the [IAAI Field Manual Evaluation of Vacant and Abandoned Properties](#) (IAAI, 2000). Take some time to review these materials and consider the varied risks presented by vacant and abandoned buildings in your response area.

References

- Google. (2012a). [Street view, 4 South Grant Street, Shenandoah, PA]. Retrieved January 5, 2024, from <https://bit.ly/3RGHhcP>.
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