

In-Station Training

TM 25-21 Smoke in the Area



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Purpose

Firefighters and fire officers generally have an impression of what they will find when arriving at an incident based on the call type, computer aided dispatch notes, and information provided by the dispatcher. In some cases, they find what they expect. In other cases, not so much.

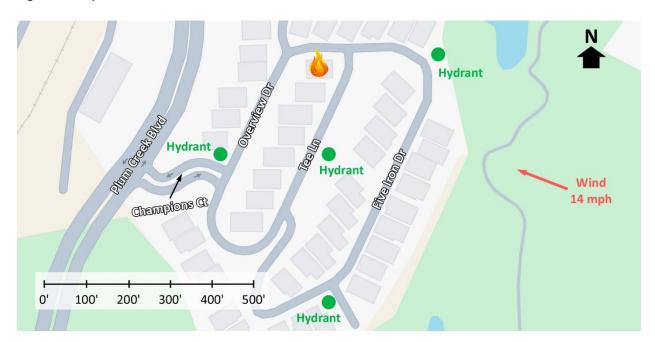
Learning Outcomes

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 1907 Tee Ln, Castle Rock, Colorado on Wednesday, March 26, 2025, at 21:40 (KVDR Fox 31, 2025; Hurst, 2025; Castle Rock Fire and Rescue Department, 2025; & Tac4 Fireground Archives, 2025). Review the map and photos (Figures 1-9) to gain an understanding of the building and area involved.

Figure 1. Map of the Incident Area



Note: Adapted from Google. (2025a). [Map, 1907 Tee Ln, Castle Rock, CO]. https://bit.ly/3Gqr3CH.

The closest hydrant is on Five Iron Drive and other hydrants in the neighborhood as illustrated in Figure 1. Streets in this neighborhood are narrow, single lane roads providing limited apparatus access as illustrated in Figure 2.

Figure 2. Overview Drive-Access to the Incident Location (typical of streets in the neighborhood)



Note: Adapted from Google. (2023a). [Street view Overview Drive, Castle Rock, CO]. https://bit.ly/42ZyHwx.

Figure 3. Aerial View



Note: Adapted from Google. (2025b). [Aerial view 1907 Tee Ln, Castle Rock, CO]. https://bit.ly/4jUfNNe.

Figure 4. Charlie/Delta Corner (from Five Iron Drive)



Note: Adapted from Google. (2023b). [Street view 1907 Tee Ln, Castle Rock, CO]. https://bit.ly/3RHIPnc. Side Delta (from Five Iron Drive)



Note: Adapted from Google. (2023c). [Street view 1907 Tee Ln, Castle Rock, CO]. https://bit.ly/42X1hO1.

Figure 5. Alpha/Delta Corner



Note: Adapted from Google. (2023d). [Street view 1907 Tee Ln, Castle Rock, CO]. https://bit.ly/4jtBYK9.

Figure 6. Side Alpha



Zillow. (2023). 1907 Tee Lane, Castle Rock, CO 80104. https://bit.ly/4cTM4Bz.

Figure 7. Alpha/Bravo Corner



Note: Adapted from Google. (2023e). [Street view 1907 Tee Ln, Castle Rock, CO]. https://bit.ly/3EKsgnK.

Figure 8. Side Bravo



Zillow. (2023). 1907 Tee Lane, Castle Rock, CO 80104. https://bit.ly/4cTM4Bz.

Figure 9. Side Charlie



Zillow. (2023). 1907 Tee Lane, Castle Rock, CO 80104. https://bit.ly/4cTM4Bz.

The temperature is currently 53° F with wind from the east southeast at 14 mph (Weather Underground, 2025). You are the company officer of an quint¹ company. It is Wednesday, March 26th, and you have been dispatched at 21:40 to 1938 Five Iron Drive as a single company for a report of smoke in the area. Engine and ladder companies have four-person staffing².



Time starts now! Answer the first eight questions within the next 10 minutes. Decide and put your answers in the form of communication you would have with your crew, other companies, and the first arriving command officer. Save discussion for after answering the first eight questions.

¹ A quint is fire apparatus that combines the capabilities of an engine and ladder company. A quint is equipped with a water tank, pump, hose, an aerial ladder and portable ladders. A quint typically has a smaller water tank than engine company apparatus. In this case, the quint has a 400 gallon water tank.

² If your first alarm deployment is different, use your own resource assignment and staffing with the first and second arriving resources typical for your agency (e.g., two engines vs. engine and ladder).

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

While responding, dispatch advises that a caller reports that they could smell smoke in the area to the west of this address.

Arriving in the area you initially do not find anything, but after continuing your investigation for approximately 25 minutes, you encounter heavier smoke than would be anticipated by a recreational fire in a fire pit or chiminea. You arrive at 1907 Tee Lane and observe smoke from the chimney and the eaves of the house. Watch the first 30 seconds of the incident simulation video (Hartin, 2025) and examine Figure 10, illustrating conditions on arrival.





Note: Adapted from Hartin, E. (2025) 10-minute training 25-21 incident simulation [Fire Studio 7 video].

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 would you give your crew?

Smoke is visible from the chimney (as observed on approach) and from the eaves on all sides of the main fire occupancy. You hear three engines, medic unit, and command officer dispatched to provide the balance of a first alarm assignment for a residential fire (if your resource determination included any additional resources, they will also be dispatched and will arrive after first alarm companies). Based on the location of the incident, you anticipate that an engine company and medic unit will arrive in approximately five minutes followed by the command officer.

- 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 advises that they and Medic 2 are Level 1 to the southwest at a hydrant on Tee Lane. State the tactical assignment you would give them exactly as you would transmit it.

As your crew forces entry and open the door on Side Alpha, you encounter smoke to the floor but as the door is opened inflow of air creates good visibility for approximately five feet inside the door, advancing a short distance into the house, smoke is to the floor. Scanning with the thermal imager (TI) there was no significant heat signature on the ceiling or in the living area on Floor 1.

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.



Reflect on your strategic decision-making and responses to questions one through seven before answering the next six questions. Give some thought to what cues, patterns, or anomalies (differences from conditions that you would anticipate) inform your answers.

8. What was the problem?

9.	What was getting in the way of achieving your tactical priorities?
10.	Was there anything in this incident that could have hurt or killed you (right now)?
11.	Was it reasonable to believe that the Main Fire Occupancy was occupied?
12.	Was there searchable space?
13.	If you believed it was reasonable that the building was occupied and there was searchable space, what could you do about it?
14.	What was your perception of the stage of fire development, burning regime (fuel or ventilation limited), and potential location of the fire? How did this influence your decision making?
nex	en to the first 03:45 of the <u>incident audio</u> (Tac4 Fireground Archives, 2025) before answering the it several questions. Note that the incident audio contains radio traffic from both dispatch and tical talk groups/frequencies and has had dead air space removed and as such is not in real time.
15.	After listening to this segment of incident audio, what questions or concerns come to mind? What additional information would you like to have if you were the officer on Quint 151 (or Battalion 151)?
16.	What action would you take to resolve those questions or concerns?
Bra	ng the TI you observe a heat signature on the wall from floor to ceiling to your left (towards Side vo), moving in that direction your right leg breaks through the floor. You fall to the floor and are oped, holding yourself from completely falling through the floor with your right arm and left leg.

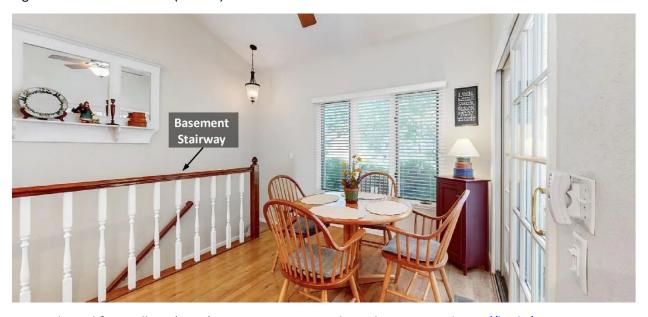
17. State the mayday message exactly as you would transmit it?

Listen to the incident audio (Tac4 Fireground Archives, 2025) from 03:45 to 07:30.

18. Compare your mayday message to the mayday transmitted by the company officer of Quint 151. What were the similarities and differences. Did the message transmitted by the officer of Quint 151 clearly identify what he needed to resolve his entrapment in the floor? What did you identify as needs to resolve the mayday?

Additional Learning: The Castle Rock Fire and Rescue Department did an excellent job in reviewing this incident and sharing their experiences and lessons learned. Examine Figure 8 (Side Bravo) and Figures 11 through 14 and then listen to the Castle Rock Fire and Rescue Department <u>Firefighter Mayday-After Action Review</u> (Hurst, 2025).

Figure 11. Basement Stairs (Floor 1)



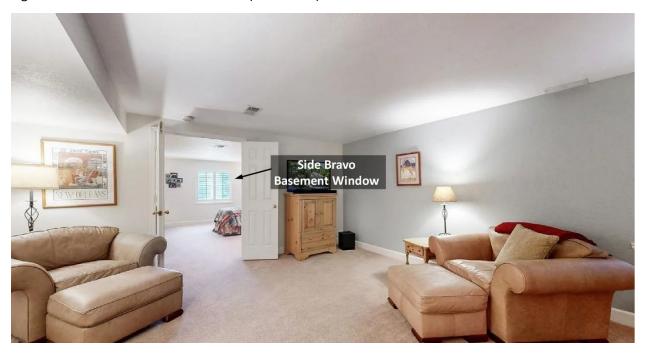
Note Adapted from Zillow. (2023). 1907 Tee Lane, Castle Rock, CO 80104. https://bit.ly/4cTM4Bz

Figure 12. Basement Family Room Window (Side Bravo)



V6D. (2024). 1907 Tee Ln Castle Rock, CO 80104 [Real Estate Sales Video]. Retrieved May 16, 2025, from https://bit.ly/4ISUuNQ

Figure 13. Basement Bedroom Window (Side Bravo)



Note Adapted from Zillow. (2023). 1907 Tee Lane, Castle Rock, CO 80104. https://bit.ly/4cTM4Bz.

Figure 14. Post Fire Floor 1.



Note: Adapted from Hurst, E. (2025). *Firefighter mayday-after action review* [Video]. https://bit.ly/43bVAf6.

Use the following questions and related references to extend the learning provided by the Castle Rock Fire and Rescue Department *Firefighter Mayday-After Action Review:*

In the after-action review, the officer of Quint 151 indicates that his first thought was that they were dealing with an attic fire (Hurst, 2025). Were there any anomalies in the fire behavior indicators that might have pointed to other than an attic fire (either in your size-up while completing the first segment of this 10-Minute Training or upon reflection)?

The officer of Quint 151 stated that "when we opened the door it was kind of, it was like the house took a breath and it was kind of like the area for the first five or six feet cleared out and we were able to see everything within the first few feet of the door" (Hurst, 2025). What may be indicated by smoke tunneling at the entry point? Watch this short video illustrating smoke tunneling (Fireside Training, 2021). A rapid in rush of air or a tunneling effect could indicate a ventilation limited fire (Kerber, 2010).

The officer of Quint 151 stated that he sounded the floor and given that he suspected an attic fire perceived that the floor was stable. He also stated that he used the thermal imager to check the ceiling but did not see a significant heat signature. He did not mention scanning the floor with the thermal imager, but may have done so. Is sounding the floor a valid method to determine structural stability? How might a scan with the thermal imager inform your assessment of the stability of a floor system? Watch the following two short videos discussing assessment of floor systems: Why Sounding the Floor is Unreliable in Modern Firefighting (Madrzykowski, Stakes, Dow, & Knight, 2025) and Tactical Consideration: Thermal Imagers - Structural Stability (UL FSRI) (2019).

The officer of Quint 151 did not transmit a follow-up report indicating that 360-degree reconnaissance had been completed and the presence or absence of a basement. The officer of Engine 152 indicated that he thought that the fire might have been in the basement based on his observation of smoke conditions. In incident video from Battalion 151's vehicle (08:23 in the after-action review video) Battalion 151 asks a company officer being assigned to safety if there is a basement. How could Battalion 151 have addressed the lack of information regarding the potential presence of a basement? What action could the officer of Engine 152 have taken when his suspicion was aroused that this may have been a basement fire?

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