



In-Station Training

TM 24-43 Residential Fire-Under Renovation



Author

Chief Ed Hartin

Purpose

Fires in buildings under construction or major renovation can be significantly different than fires occurring in completed buildings. Depending on the stage of construction or renovation compartment linings (walls and ceilings) may not be complete, providing an avenue for rapid fire spread, exposing unprotected structural support systems.

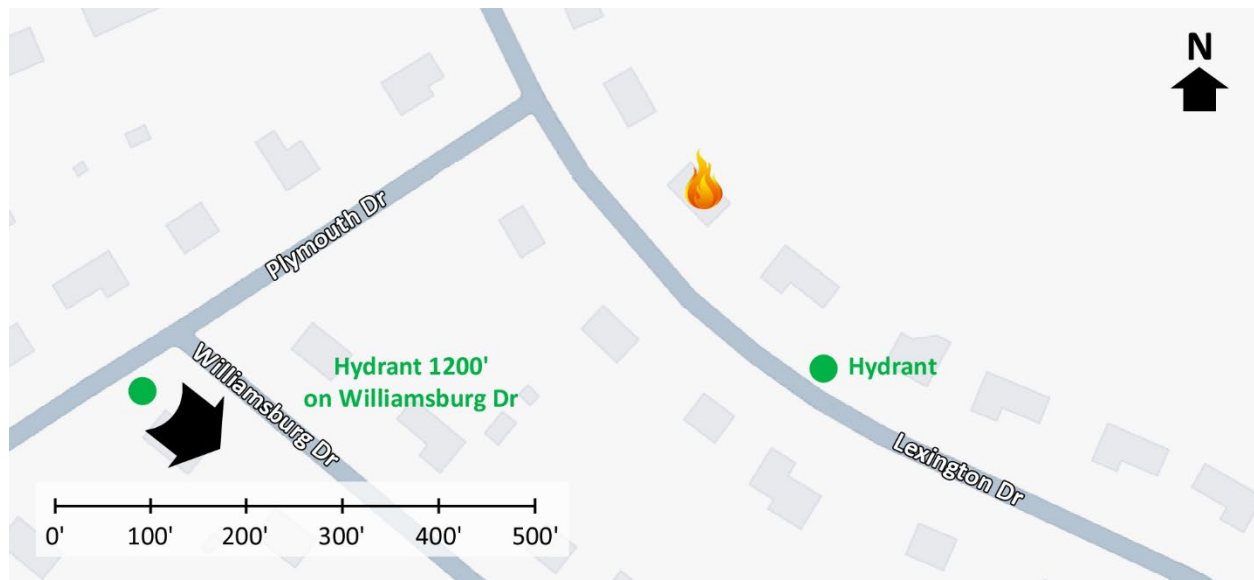
Learning Outcomes

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 776 Lexington Drive in Brick Township, New Jersey on September 26, 2024, at 08:08 (Jersey Shore Fire Response, 2024; Larsen, 2024, & Murdoch, 2024). 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. (2024a). [Map, 776 Lexington Drive, Brick Township, NJ].

<https://bit.ly/4012OTi>.

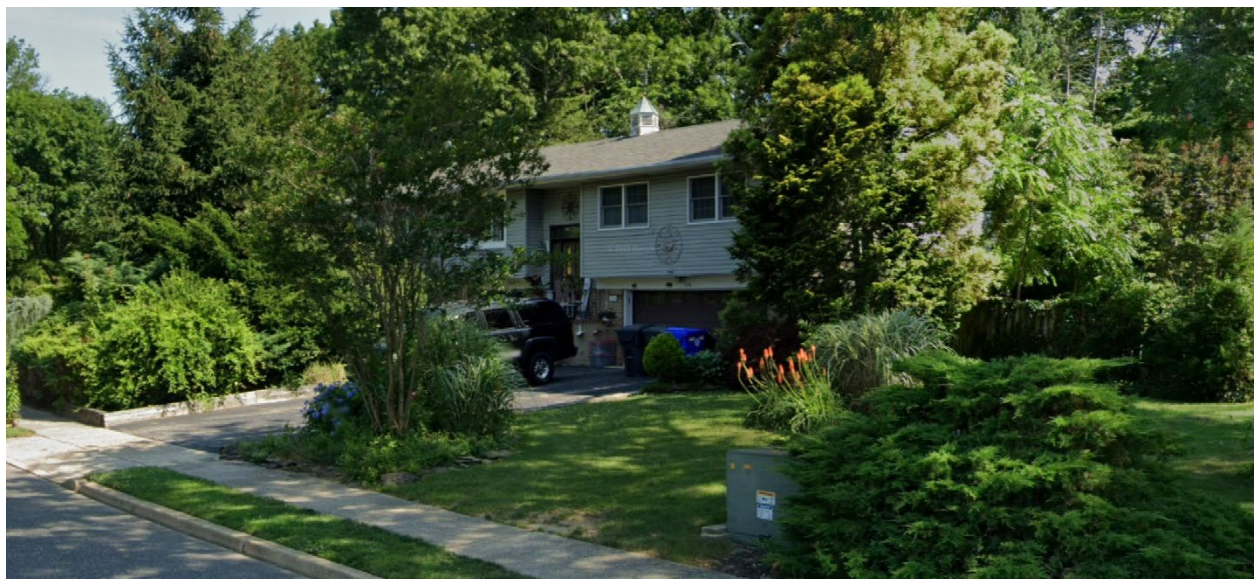
Figure 2. Aerial View



Note: Adapted from Google. (2024b). [Aerial view 776 Lexington Drive, Brick Township, NJ].
<https://bit.ly/3U7YgGZ>.

The closest hydrant is located on Lexington Drive just to the southeast of the incident location illustrated in Figure 1.

Figure 3. Alpha/Delta Corner on Approach



Note: Adapted from Google. (2022a). [Street view 776 Lexington Drive, Brick Township, NJ].
<https://bit.ly/3BQKr9k>.

Figure 4. Side Alpha



Note: Adapted from Google. (2022b). [Street view 776 Lexington Drive, Brick Township, NJ]. <https://bit.ly/3BLpxJ2>.

Figure 5. Alpha/Bravo Corner



Note: Adapted from Google. (2022c). [Street view 776 Lexington Drive, Brick Township, NJ]. <https://bit.ly/3YkCrpW>.

The temperature is currently 65° F with wind from the east at 6 mph (Weather Underground, 2023). You have been dispatched at 08:08 to 776 Lexington Drive for a residential fire. You are the company officer or AIC of the first arriving engine and have your company's typical staffing.

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

You hear a command officer, three other engines, and an advanced life support ambulance with typical staffing for your agency go enroute. You will arrive from the southeast on Lexington Drive. The second engine will arrive from the same direction four minutes after you. The command officer will arrive shortly after the second engine. All other units dispatched on the first alarm will arrive after the command officer.

While enroute, dispatch reports that law enforcement on-scene are reporting fire through the roof. As you approach the hydrant on Lexington Drive, you observe a significant column of smoke as illustrated in Figure 6.

Figure 6. Conditions Observed Approaching on Lexington Drive



Note: Adapted from Jersey Shore Fire Response. (2024). *Early arrival two alarm structure fire Brick New Jersey 9/26/24.* <https://bit.ly/4dPLzY5>

Watch the [incident video](#) (Jersey Shore Fire Response, 2024) from 01:15 to 01:40 and examine Figure 7 illustrating conditions on arrival.

Figure 7. Conditions on Arrival



Note: Adapted from Jersey Shore Fire Response. (2024). *Early arrival two alarm structure fire Brick New Jersey 9/26/24.* <https://bit.ly/4dPLzY5>

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?

Workers who had been renovating the house report that they were the only ones in the house and that everyone is out. Access to Side Charlie from Side Delta is obstructed by burning debris. There is no smoke from Side Bravo and conditions on Side Charlie are consistent with those on Side Alpha.

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 at the hydrant on Lexington Drive. 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.

Reflect on your strategic decision-making and responses to questions 1 through 7 before answering the next six questions.

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?

Watch the [incident video](#) (Jersey Shore Fire Response) from 00:40 to 03:35 before answering the next several questions.

14. The first arriving company established their own water supply by performing a forward lay from the hydrant on Lexington Drive. Was this consistent with your incident action plan? If not, what factors influenced your decision and under what circumstances would you establish your own water supply?

15. The engine arrived at 01:09 in the incident video (parking brake applied), the first attack line was being deployed at 01:55, and the first water was applied on Side Delta at 03:34. How could this company have reduced the time to effective water on the fire?

16. The first attack line was stretched to Side Delta to control the exterior fire, consistent with the UL FSRI tactical consideration for fires that start on the exterior (Kerber & Zevotek, 2014). The second attack line was stretched through Side Alpha to the interior. Was this similar or different to your incident action plan? What critical factors influenced your placement of the second attack line?

Additional Learning: There is a tendency to be critical when watching incident videos where things are not going well (as evidenced by the comments on YouTube related to the incident in this 10-Minute Training). Keep in mind that no one goes to work wanting to do a bad job. We all apply our knowledge and skill to try to achieve a good outcome. As you watch the remainder of this incident video, keep your focus on what you can learn (rather than criticizing those involved).

Watch the [incident video](#) (Jersey Shore Fire Response, 2024) from 03:35 to 19:45, focus on the following considerations and how you can apply the lessons learned to improving your performance and the performance of your company when working on the fireground:

- Moving with purpose.
- Efficient company operations (water supply, stretching and operating attack lines).
- Having the right tools for the job (hooks for pulling ceilings).
- Tactical options to stop horizontal fire spread within an attic or trussloft.
- Behavior of legacy roof construction and wood truss roof systems under fire conditions.
- Appropriate use of interior and exterior streams.
- When to use priority traffic to advise command of changing conditions (or conditions that are not changing if you have been assigned to fire control).
- Maintaining awareness of changing conditions and when to shift to a defensive strategy.

References

Google. (2022a). [Street view 776 Lexington Drive, Brick Township, NJ]. Retrieved October 12, 2024, from <https://bit.ly/3BQKr9k>.

Google. (2022b). [Street view 776 Lexington Drive, Brick Township, NJ]. Retrieved October 12, 2024, from <https://bit.ly/3BLpxJ2>.

Google. (2022c). [Street view 776 Lexington Drive, Brick Township, NJ]. Retrieved October 12, 2024, from <https://bit.ly/3YkCrpW>.

Google. (2024a). [Map, 776 Lexington Drive, Brick Township, NJ]. Retrieved October 12, 2024, from <https://bit.ly/4012OTi>.

Google. (2024b). [Aerial view 776 Lexington Drive, Brick Township, NJ]. Retrieved October 12, 2024, from <https://bit.ly/3U7YgGZ>.

Jersey Shore Fire Response. (2024). *Early arrival two alarm structure fire Brick New Jersey 9/26/24*. Retrieved October 12, 2024, from <https://bit.ly/4dPLzY5>.

Kerber, S. & Zevotek, R. (2014). *Study of residential attic fire mitigation tactics and exterior fire spread hazards on fire fighter safety*. Retrieved October 12, 2024, from <https://bit.ly/48imvrs>.

Larsen, E. (2024). *Brick Township house fire under investigation in Herbertsville neighborhood*. Retrieved October 12, 2024, from <https://bit.ly/3U2pvCQ>.

Murdoch, J. (2024). *2-alarm fire destroys Brick Township home under construction*. Retrieved October 12, 2024, from <https://bit.ly/483kRdo>.

Weather Underground (2024). *Ewing, NJ weather history* [historical weather September 26, 2024]. Retrieved October 12, 2024, from <https://bit.ly/3NojP21>.