



# In-Station Training

## TM 24-37 Commercial Fire



### Author

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### Purpose

Use of master streams for exposure protection and fire control can be effective tactics when confronted with defensive fire conditions. A defensive incident action plan requires identification of cutoff points and effective positioning of apparatus mounted and/or portable master stream devices.

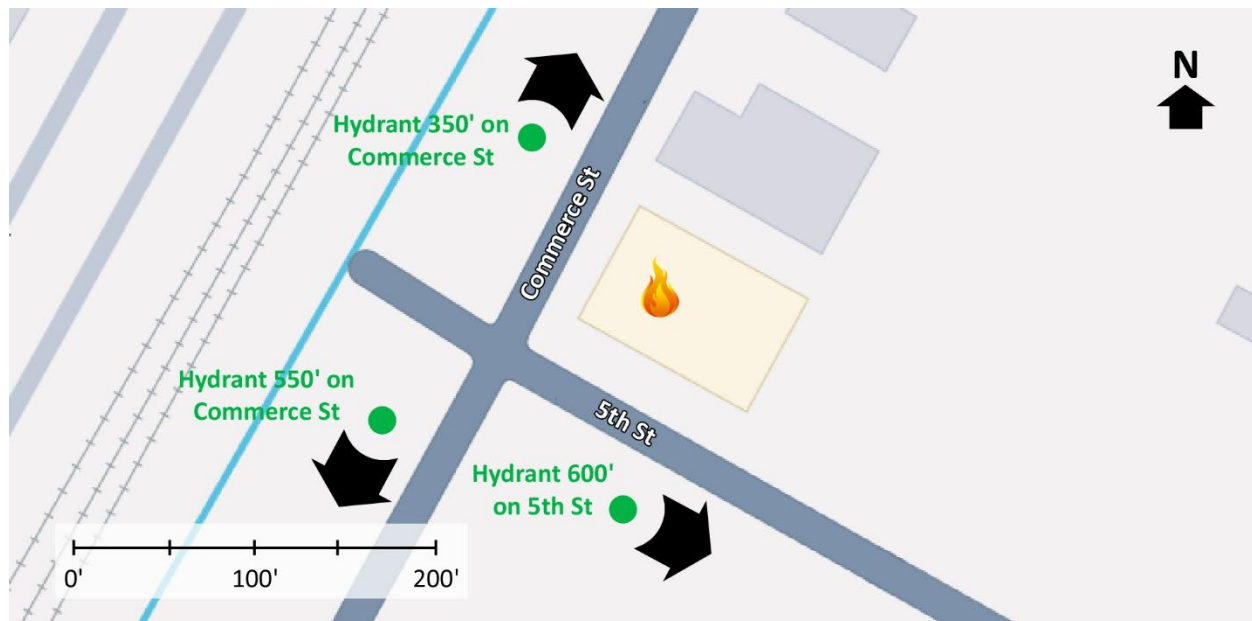
### Learning Outcomes

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 commercial fire at Gilmore's Trucks, Vans, SUV Accessories, 3498 Commerce Street in Riverside, California on July 12, 2024, at 23:12 (OnScene TV, 2024 & Riverside Fire Department, 2024). Review the map and photos (Figures 1-6) to gain an understanding of the area and building involved.

Figure 1. Map of the Incident Area



Note: Adapted from Google. (2024a). [Map, 3498 Commerce Street, Riverside, CA].

<https://bit.ly/3Wg1p59>.

Figure 2. Aerial View



Note: Adapted from Google. (2024b). [Aerial view 3498 Commerce Street, Riverside, CA].  
<https://bit.ly/4do1ux2>,

Hydrants are located on either side of the incident location on Commerce Street and an additional hydrant is located on 5<sup>th</sup> Street as illustrated in Figures 1 and 2.

Figure 3. Bravo 1 Exposure



Note: Adapted from Google. (2022a). [Street view 3498 Commerce Street, Riverside, CA].  
<https://bit.ly/4dl0Y31>.

Figure 4. Alpha/Bravo Corner



Note: Adapted from Google. (2022b). [Street view 3498 Commerce Street, Riverside, CA].  
<https://bit.ly/4cYYG9S>.

Figure 5. Alpha/Delta Corner



Note: Adapted from Google. (2022c). [Street view 3498 Commerce Street, Riverside, CA].  
<https://bit.ly/4cSX3KV>.

Figure 6. Charlie/Delta Corner



Note: Adapted from Google. (2022d). [Street view 3498 Commerce Street, Riverside, CA].  
<https://bit.ly/4dia2FC>.

The temperature is currently 73° F with no appreciable wind from the north (Weather Underground, 2024). You have been dispatched at 23:12 to 3498 Commerce Street for a commercial 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 southwest on Commerce Street. The second engine will arrive from the southeast on 5<sup>th</sup> Street 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.

Watch the first 00:14 of the [incident video](#) (OnScene TV, 2024) and examine Figure 7 illustrating conditions on arrival.

Figure 7. Conditions on Arrival



Note: Adapted from OnScene TV. (2024). *Historic building, current auto parts store destroyed by massive fire* [video]. <https://bit.ly/3WJVd9I>

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?

There are no bystanders. Dark grey smoke is pushing from the eaves and boarded up windows on Side Bravo.

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 on 5<sup>th</sup> Street. 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?

You have transferred command to IC #2 and have been assigned to fire control on Side Alpha. Watch the [incident video](#) (OnScene TV, 2024) from 01:19 to 01:29 and examine Figure 8 before answering the next question.

Figure 8. Conditions on Side Delta



*Note:* Adapted from OnScene TV. (2024). *Historic building, current auto parts store destroyed by massive fire* [video]. <https://bit.ly/3WJVd9I>

14. What action would you take based on the conditions presented in this segment of the incident video? State the communications you would have with IC #2 exactly as you would transmit them.

Watch the [incident video](#) (OnScene TV, 2024) from 02:30 to 02:50 before answering the remaining questions.

15. The incident commander selected a defensive strategy for this incident, was this consistent with your initial strategy? If yes, what critical factors influenced your decision? If not, why? If you began with an offensive strategy, would you anticipate that IC #2 would reinforce that strategy or implement a strategic shift?

16. Companies operating at this incident were using a combination of attack lines, apparatus mounted master streams and elevated master streams. Do you think that the attack lines were having a significant impact on fire control? What are the disadvantages of using attack lines for defensive fire control given the conditions encountered in this incident?

**Additional Learning:** Most Vancouver Fire Department (VFD) truck companies are tractor drawn aerial ladders with a demountable ladder pipe supplied by 100' of 3" hose equipped with a 2 ½" Siamese and gate valve at ground level. The standard solid stream tip used on VFD ladder pipes is 1 ¾". Review the updated (REV 2.3) Apparatus Operator Job Aid with members of your crew and complete the following ladder pipe hydraulics questions:

You are tasked with performing a forward lay and supplying VFD Truck 10 for ladder pipe operations. You lay 300' of 5" hose from a hydrant and position immediately adjacent to Truck 10. You connect the 5" supply line to your gated intake and stretch two 50' sections of 2 ½" hose from discharge outlets to the Siamese of Truck 10's ladder pipe. You estimate the elevation of the ladder pipe as 40'. Your supply line is charged and the static pressure is 100 psi. What discharge pressure is required to provide Truck 10's Ladder Pipe with the correct nozzle pressure.

After supplying Truck 10's ladder pipe, your residual pressure is 75 psi. What is the total flow available at your pump? What is the total flow available at the hydrant?

How does the working pressure of supply rated 5" hose limit the use of a reverse lay when supplying the ladder pipe of a VFD truck company? How will this change when transition to attack rated 5" hose is completed?

What water supply alternatives may be necessary if the available residual pressure and length of lay prevent you from supplying a VFD truck company's ladder pipe with the standard flow rate from a 1 ¾" solid stream tip?



## References

East County Fire and Rescue (2024). Pumping apparatus operator job aid (rev 2.3). Camas, WA: Author.

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