



**Rogers Fire Department**  
**Minimum Company Standards**  
SOP 142, FORM 90

**REVERSE LAY FROM ELEVATED MASTER STREAM APPLIANCE USING ONE ENGINE**

**Reference:** NFPA 1410, A.7.1.1 (c) 2005 Edition

**JPR Identification:**

**Purpose:** The purpose of this multi-company evolution is to demonstrate the ability to establish an elevated master stream for suppression activities with water supplied from a separate apparatus. Establishing an elevated master stream is a critical component for large operations and this evolution will increase the ability of personnel to relay water supply from one apparatus to another. This evolution uses an aerial truck (Quint) with an elevated master stream appliance, one engine, and two supply lines. All members of the crew should be proficient in their responsibilities as well as understand the duties of the other crew members. This understanding will allow them to function better as a team and enable members to function in different capacities within the crew.

**Performance Outcome:** Crews will deploy an elevated master stream appliance and flow a minimum of 500 GPM. Water supply will be established via a 300' reverse lay using an engine and two 3" supply lines. This evolution will be completed within the established time frame of 4:00 minutes. This evolution must be completed while all personnel are wearing the proper PPE. *Note: this evolution may also be completed using Large Diameter Hose (LDH)*

**Materials Required:** Engine  
Aerial Apparatus (Quint) with Elevated Master Stream Appliance  
Hydrant

**Critical Teaching Points:**

1. Personnel are encouraged to understand the responsibilities within each position on the apparatus during the evolution in order to increase the depth, knowledge, and understanding of each crew.
2. Truck crew should stage apparatus and prepare elevated master stream device for service.
3. Engine crew should establish water supply to the hydrant and supply the aerial apparatus.  
*Reverse lay*
4. Apparatus Operators should understand hydraulics and flow as well as the pump operation of the apparatus, not simply pulling appropriate levers for fire suppression.
5. The crew members of each apparatus should understand their assigned duties for this operation.
6. Company officers should over see the entire operation as well as assist in establishing a water supply and deploying the elevated master stream for suppression activities.
7. If the number of personnel used to perform this evolution exceeds the normal single-engine company staffing, the additional personnel should be delayed 30 seconds before becoming involved in the evolution.
8. The evolution may be adjusted to meet the needs of the crew or to address any specific deficiencies that have been identified at the discretion of the company officer.

**Reverse Lay From Elevated Master Stream Appliance Using One Engine**

## Standardized Instructions for Reverse Lay From Elevated Master Stream Appliance Using One Engine

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1. Evolution will start with personnel in normal riding positions dressed as they would ordinarily respond to a fire. Personnel are not allowed to don all PPE prior to exiting the apparatus.
2. Seat belts are not released and doors not opened until time starts.
3. All personnel will have the appropriate level of PPE.
4. Both the Engine and Truck Company will stage away from the simulated fire area. When personnel are ready, the signal will be given to proceed to the fire area.
5. Time will begin when Truck stops at designated fire area. Additional personnel may begin 30 seconds after the Truck is stopped in the designated area.
6. The Truck will be positioned for operation and prepare elevated master stream for service.
7. Once the apparatus stops, personnel may exit their apparatus and begin their respective assignments.
8. The Engine Company will reverse lay two 3" supply lines a distance of 300' and establish water supply via a LDH supply line to the hydrant. *Note, the length of supply line is only a recommendation during practice however during any evaluation 300' will be the required length.*
9. Each apparatus operator will ensure the wheels are chocked
10. Supply lines will be connected to elevated master stream appliance intake.
11. Once water supply is established to the Engine and flowing to the Truck, the master stream will be operated at a minimum of 500 GPM. The following criteria must also be met:
  - a. All personnel are in the proper PPE
  - b. Attack crew consisting of Company Officer and firefighter are breathing air from SCBA
12. The apparatus operator shall operate the elevated master stream at the proper pressure and flows
13. There will be no stop in water flow to supply lines once started.
14. Complete all tasks in a safe and prudent manner
15. Time will stop once the elevated master stream is operated correctly
16. Complete all tasks within four minutes (*evaluation only*)

