Leland Fire/Rescue Training Guide

FY 2023-2024

This annual guide will lay out the goals and plans of the Training Division. It will also serve as a resource guide for training ideas. The Firehouse Talking Points section provides some tools for coming up with training ideas at the company level.

Goals

1. Improve the quality of service provided to our customers through training.
2. Identify current operational shortcomings and improve on them.
3. Maintain a positive public image by training in the community.
4. Reduce risk through education and training.
5. Improve teamwork and communication skills.
6. Unify operations across all three shifts.
7. Foster a culture of continuous learning and improvement.

"What separates us is that we expect to be GREAT" – Deion Sanders

2023-2024 Fireground Benchmarks

Line Charged at Door	**1:58**
Water on the Fire	**6:00**
Primary Search	**6:30**
Water Supply	**4:34**

The benchmarks were established using data collected during facility training with all crews during FY 2022. Next year, we would like to improve the times by 10% .Benchmarks are created with the assumption of a 2500 sq ft house , non-hoarding conditions, and hydrants.

2023/2024 Monthly Training Topics

July 23	Aug 23	Sept 23	Oct 23	Nov 23	Dec 23	Jan 24	Feb 24	Mar 24	Apr24	May 24	June 24
Chain Saws (Storm and fire operations	Ground Ladders	Handline Deployment	Vehicle Rescue	Highway Safety	Policy Review	RIT	Hydrant Catches	Big Water	RRT Visit	Search	Fireground Tactics
Ventilation				Facility	Re-Evaluate	Safety & Survival	Facility		Facility	VEIS	ICS

2023/2024 In House Certification Classes

March	April	May	June	Aug
D/O Pumps	D/O Pumps	D/O Aerials (EOY)	Officer 1 & 2	FLSE 1

The 2023/2024 Monthly Training Topics will be company level drills instructed by the Training Division.

The 2023/2024 In House Certifications Classes are classes that have been identified by the department to host internally in order to implement "The Leland Way". Any member wishing to be supported by the department to attend D/O Pumps, Aerials, Officer 1 &2, or FLSE 1 must attend the internal offering.

*EOY denotes Every other year

Tiller training dates will be released once the tiller arrives in Leland.

Firehouse Talking Points

What are the standard pressures for the attack lines on your engine?

- Identify nozzle type
- GPM at correct tip pressure
- Net Pump Discharge Pressure (PDP)

Discussion

Being able to correctly identify each hosebed, nozzle, gpm and pump discharge pressure is an essential element to firefighter safety. Pump operators must know pressure/flow information, firefighters must know the length, bed type/finish and deployment strategy. Officers must be able to choose the right hoseline for the operation. All these factors must become second nature to our personnel.

Initial Arrival Radio Reports

1. ***Arrive on-scene***
2. ***Describe the structure***
3. ***Describe the problem***
4. ***State the actions being taken***
5. ***Provide follow-up report***
6. ***Provide progress reports***

Identify and/or define the following terms:

-Rafter

-Joist

-Ridge Board

-Gussett plate or connecting plate

-Identify the types of materials being used in the construction process

Size-Up	Fire Location	Stage of Fire
-360 degree view -Rescue potential -Your escape routes -What is burning -Resources available -Offensive or Defensive	-Below grade -Above ground -Multiple floors -Unknown location -Use Thermal Imaging -Building construction	-Incipient -Free Burning -Smoldering -Tactics for each stage of fire
Hose / Nozzle	**Water Supply**	**Primary Search**
-Handline or master -Smooth bore -Combination -Length of lead out	-Forward or Reverse -Tank water -Direct to hydrant -Relay operation -Static source	-Oriented person -Vent-Enter-Search -Right or Left Hand -Rescue operations
Locate Fire	**Confine Fire**	**Extinguish Fire**
-Seat of fire -Determine extension routes	-Apply correct stream -Contain to area of origin -Begin overhaul -Check all extension routes	-Thorough overhaul -Remove debris -Wash down debris and fire area -Consider investigator needs

When conducting a size-up, it is imperative that a complete 360 degree view of the building be taken whenever possible. Identification of walk-out basements or changes in building size may be identified. These features may drastically change your tactical approach to the incident. Additionally, every door or window you see gives you escape options as well as helping with building landmark identifications.

*Review your department procedures for conducting a size-up.

*Discuss your views of these 2 structures and the hazards identified on each side of the buildings.

Timeless Tactical Truths

By Chief Alan Brunacini from Fire Command

If you have lots of ideas, you need lots of companies.

Don't stand too close to the guys that are always bandaged up.

You can't save anyone when you are the victim.

Effective command is made up of equal parts of passion and patience – the trick is the where and when of each.

Unless the walls are falling, the FGC shouldn't yell or run –neither reflects cleverness or composure.

Burning up all of your exposures at once is tacky.

The treatment for screw ups: education, training, reflection, and getting to do it again.

Beware of the chief who says "Don't do anything until I get there."

Avoid the folks who say regular safety procedures take too long during difficult times (when you really need them).

If you think training is expensive, check out the cost of ignorance.

Forget the baloney about "holding the fire" – you either put it out or it burns past you.

When the pipe goes up, the building comes down.

When you lose your head, the next thing is your ass.

If a building burns, don't take it personally (you didn't make the world combustible).

Things that lead up to accidents happen slowly - the accidents happen fast.

Be careful of shutting down and unhooking anything that is set up and operating okay.

The FGC should be the first person who thinks the fire is burning and the last to believe it is out.

Most of the time on the fire ground, the first five minutes are worth the next five hours.

When someone screws up, ask the standard question, "Who taught him how to do it?"

Basic fire frequency axiom: the farther you are from the last fire, the closer you are to the next one.

The FGC must always be able to separate what is a hope from what is a plan.

The FGC must always have a "string" on his troops – be careful of any situations where you can't get the insiders out quickly and account for them.

Fireground Communications Order Model:

Use the To / From Method

"Engine 1 From Command"
"Dispatch from Engine 1"

This alerts the receiver that you wish to communicate with them and identifies who is calling

Preferred Fireground Communications Method:

Face to Face

Provides opportunity for discussion, feedback and clarity

Good Communications Are:

- **Clear**
  - ⇒ Easily understood
- **Concise**
  - ⇒ Direct to the point
- **Compact**
  - ⇒ Not to wordy
- **Compatible**
  - ⇒ With receiver and medium
- **Complete**
  - ⇒ Understood and acknowledged

We Can't Afford a Failure to Communicate

Elements of Communication

- **Sender**
  - ⇒ Originator of message
- **Receiver**
  - ⇒ Message being sent to
- **Message**
  - ⇒ Thought or information to be relayed
- **Medium**
  - ⇒ How message is conveyed
- **Feedback**
  - ⇒ Acknowledgement of message

Don your SCBA in 60 seconds or less
Review hose bed contents and finishes
Remove, carry, throw and raise your primary ground ladder to a simulated rescue position at your station
Discuss all target hazards within your still district
Practice a hydrant hook-up
Review your apparatus operation SOG on response safety
Practice tying a handcuff knot or bowline knot for firefighter rescue
Demonstrate a simulated MAYDAY call on your portable radio
Discuss and demonstrate the various tool assignments
Review safe apparatus parking procedures for highway and other incident scene locations
Discuss the primary search operation used by your department for single and multi-family dwellings
Review the contents of each compartment on your still company apparatus, what's in it, how does it work, how do you service it, etc.

A sudden and unexpected loss of water supply to the attack lines that have been put into operation on the interior of a residential fire has occurred. 2 companies were assigned to interior attack and search operations and were operating at different locations inside the structure. The water supply problem cannot be identified immediately and no other back-up lines or alternate water supplies were established. Describe your actions according to the fireground assignments listed below. (photo used to represent fireground operations only)

Discussion Questions

1. How many ways can your company supply "big water" (+500 gpm) to a fire upon initial attack? After 5 minutes?
2. What safety considerations must be observed when placing these big lines into operation?
3. How can additional water be supplied after a hydrant is "maxed-out"? Can the municipality supply additional water pressure or volume for you?
4. Are there occupancies in your district that may require immediate big-water attack due to contents or building construction? Can your engine supply more than it's rated capacity? How is this accomplished?

Discussion Questions

What multi-family buildings's in your district are equipped with standpipes?

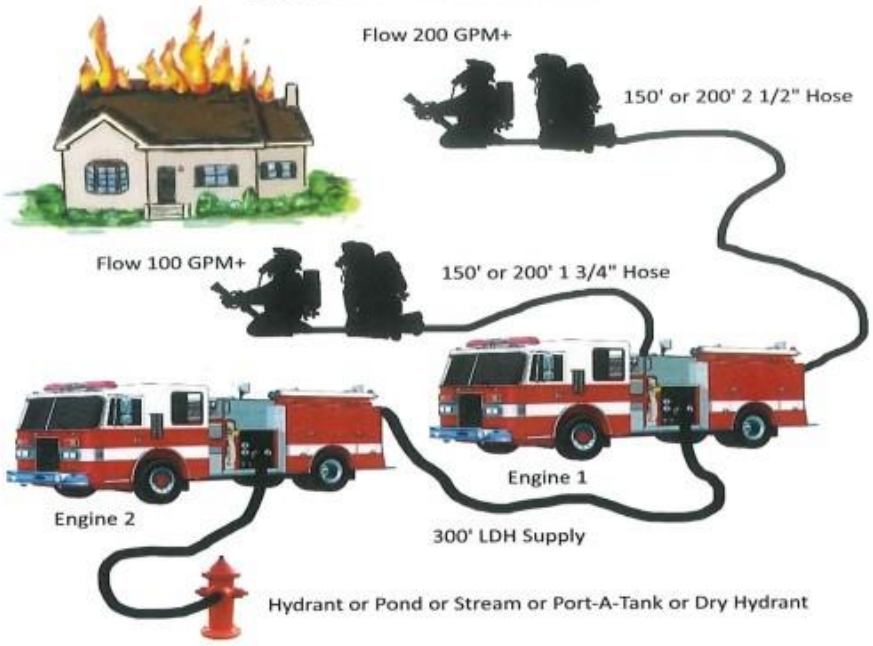
What buildings do not have standpipes?
-How will you get hose into this building?
-How would you determine the amount of hose you will need?

Can a high-rise pack be used in these buildings?

Hands-On Drills

NVFC Model Engine Company Evolution #1

2 Engines with Water Supply – 2 Hand Lines
An NFPA 1410 Evolution



Objective: To place an initial attack line (1 ¾") of minimum 150' and a backup line (2 ½") of minimum 150' in-service and flowing at least 300 GPM using units and staffing typical of personnel that ordinarily respond. A reverse lay by a second engine to water supply of 300' of LDH shall be established.

Evolution Description:

A reverse lay using two engines and one supply line with 1 attack line and 1 back-up hose line. Reverse lay of 300' of LDH from fire scene to hydrant or alternate water source. Crew shall deploy 2 hose lines capable of flowing a minimum of 300 GPM within 5 minutes from the start of the evolution (or 8 minutes if drafting). Engine shall be permitted to charge initial attack line with tank water; hydrant or static water source shall be established before back-up line is in place.

Evaluation Criteria:

All lines shall be completely deployed from hose beds.
All nozzles shall be flowing minimum GPM at appropriate pressures.
Time begins when first engine stops at simulated fire scene and sets brakes. Time ends when water is flowing at required flow/ pressure from both lines and supply line has been established. There shall be no stoppage in water flow.

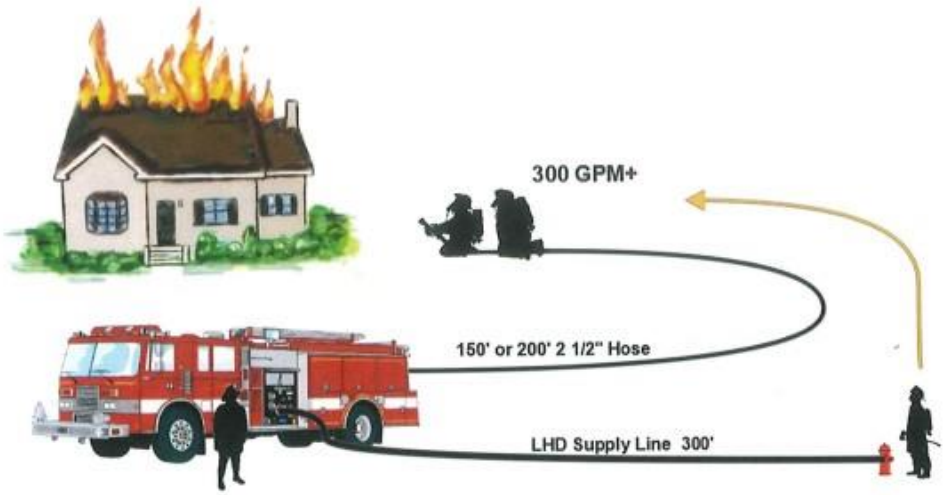
RECOMMENDED MAXIMUM TIME: 5 MINUTES IF USING HYDRANT / 8 MINUTES IF DRAFTING

Reference NFPAA 1410, 2000 Edition; Training for Initial Emergency Scene Operations

Hands-On Drills

NVFC Model Engine Company Evolution #2

Single Engine Fire Attack – Blitz Line Attack
An NFPA 1410 Evolution



Objective: To place an initial <u>exterior</u> 2 ½" attack line of a minimum 150' in-service and flowing a minimum of 300 gpm using a single engine (or engine-tanker) with staffing of the average number of personnel that ordinarily respond. A forward lay of LDH supply hose from a hydrant (if available) shall be established of a minimum 300'. (1 1/8" tip flows 300 gpm at 65psi. 1 ¼" tip flows 300 gpm at 45psi.)

<u>Evolution Description:</u>
Engine forward lays 300' into the fire from a hydrant (if available). Crew deploys a 2 ½" attack line for an exterior blitz attack flowing at least 300 gpm. Engine will charge line and flow water from its water tank while a water supply from the hydrant is being established. If there is no hydrant, the engine will limit its attack to the water it carries.

<u>Evaluation Criteria:</u>
Attack line shall be completely deployed from hose bed.
Nozzle shall be flowing at least 300 gpm at the appropriate nozzle pressure.
Time begins when the engine stops and sets its parking brake at the simulated fire and time ends when the hydrant is charged and supplying the engine, and 300 gpm has been flowed on the simulated fire for four minutes without interruption. (If there is no hydrant, time ends when the engine runs out of water.)

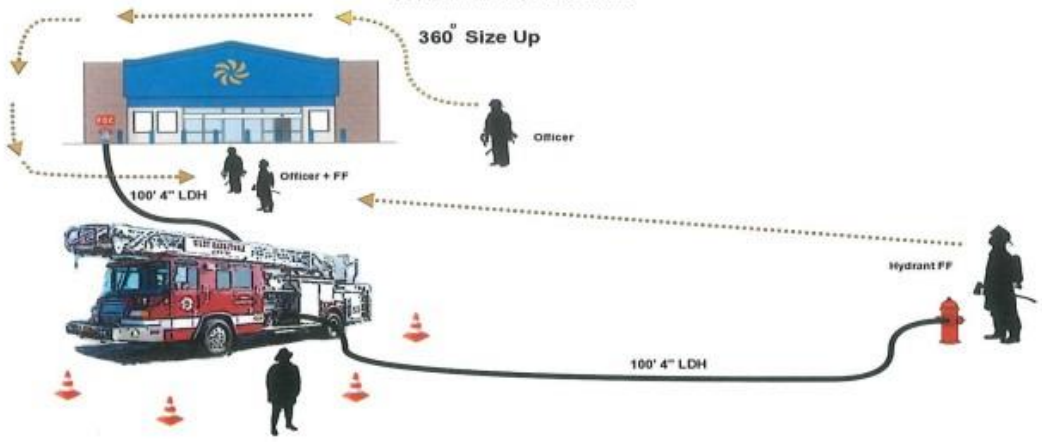
RECOMMENDED MAXIMUM TIME: 4 MINUTES WITH HYDRANT / 3 MINUTES WITHOUT HYDRANT.

Reference, NFPA 1410, 2000 Edition, Training for Initial Emergency Scene Operations.

Hands-On Drills

NVFC Model Engine Company Evolution #4

Forward Lay to an FDC
A NFPA 1410 Evolution



Objective: For an Engine Company to support the fire sprinkler system or standpipe system in a commercial building by connecting to and pumping the Fire Department Connection (FDC).

Evolution Description:
Engine or Quint lays a 4" Supply Line from the hydrant to Side Alpha of the fire building (Fire HQ) and the officer gives an initial radio report. Officer does a 360 degree size-up of the building and fire.
Driver sets up truck for pumping and prepares for water from the hydrant.
Hydrant Firefighter dresses and charges (on signal from driver) the hydrant.
Hydrant FF moves to assist nozzle firefighter with hose. (Removing kinks as he/she moves up.)
Nozzle Firefighter stretches and connects a 4" hose line from FDC to the pump.
Driver charges the hose and pumps 150 psi (simulated until we build a prop).

Evaluation Criteria:
Hydrant line is laid correctly.
Hydrant dressed and charged. Kinks removed.
360 degree size-up completed.
4" hose line connected to FDC and pump discharge.
4" hose line to FDC charged and flowed at 150 psi.
Attack line shall be completely deployed from hose bed.
Time begins when the engine stops at the fire hydrant and time ends when the hose line is flowing 150 psi.

RECOMMENDED MAXIMUM TIME: 3.5 Minutes

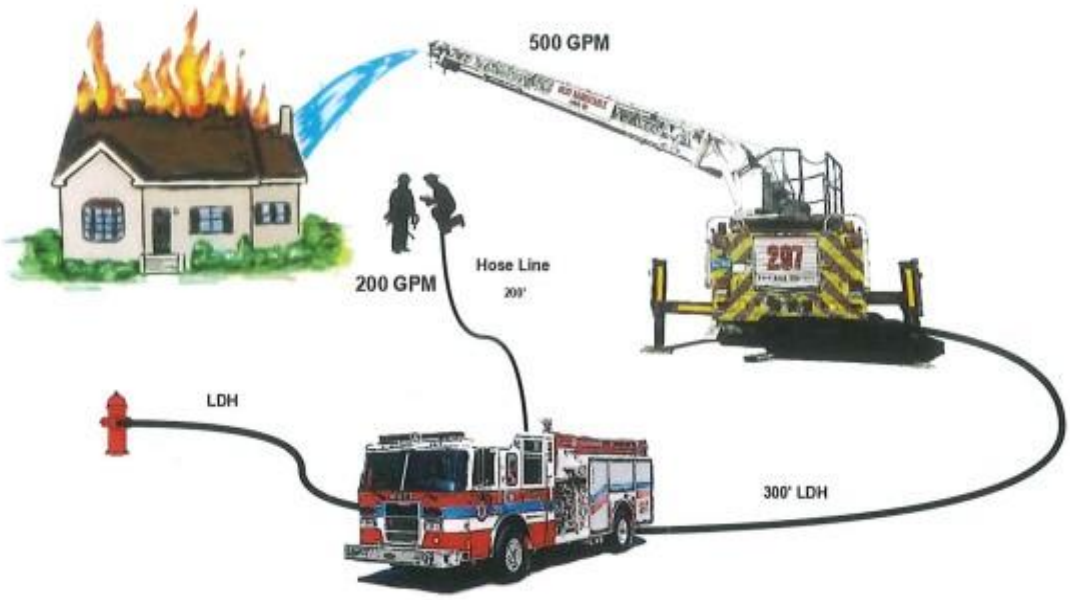
Reference, NFPA 1410, 2015 Edition, Training for initial Emergency Scene Operations

Hands-On Drills

NVFC Model Engine Company Evolution #5

Reverse Lay From Ladder to Hydrant – Supply Master Stream & Hand Line

A NFPA 1410 Evolution



Objective: To place an aerial master stream flowing at least 500 GPM in action and an attack line flowing at least 200 GPM in action using units and staffing typical of personnel that ordinarily respond. A reverse lay by an engine to water supply of 300' of LDH shall be established.

Evolution Description:

An aerial truck is set up at the simulated fire building for master stream operations of 500 GPM or more. After a 30 second delay an engine arrives at the aerial truck and uses a reverse lay of 300' of LDH from the aerial truck to a hydrant or alternate water source. The engine company connects to the hydrant and then stretches a 200' hand line to flow 200 GPM for exterior fire attack. The engine supplies both the master stream and the hand line.

Evaluation Criteria:

All lines shall be completely and properly deployed from hose beds.
All nozzles shall be flowing minimum GPM at appropriate pressures.
There is no interruption in water flows of greater than 10 seconds.
Firefighters were PPE properly and perform all actions safely.
Time begins when aerial truck stops at simulated fire scene and sets brakes. Time ends when water is flowing at required flow/ pressure from both lines and supply line has been established. There shall be no stoppage in water flow.

RECOMMENDED MAXIMUM TIME: 5 ½ MINUTES

Reference NFPA 1410, 2015 Edition; Training for Initial Emergency Scene Operations

Hands-On Drills

NVFC Model Engine Company Evolution #6

Engine Company Roof Ventilation – Typical Asphalt Shingle Roof

A NFPA 1410 Inspired Evolution

Objective: To place two firefighters with hand tools and a power saw on the roof of a one or two story structure ready to open the roof for ventilation using engine company ladders.

Evolution Description:

An engine is positioned at the simulated fire building. The engine company places its extension ladder to the roof and places its roof ladder on the roof. The company starts and tests its power saw on the ground. The company proceeds to the roof with hand tools and power tools and starts the saw on the roof. Consider wind direction when choosing the side of the roof to use.

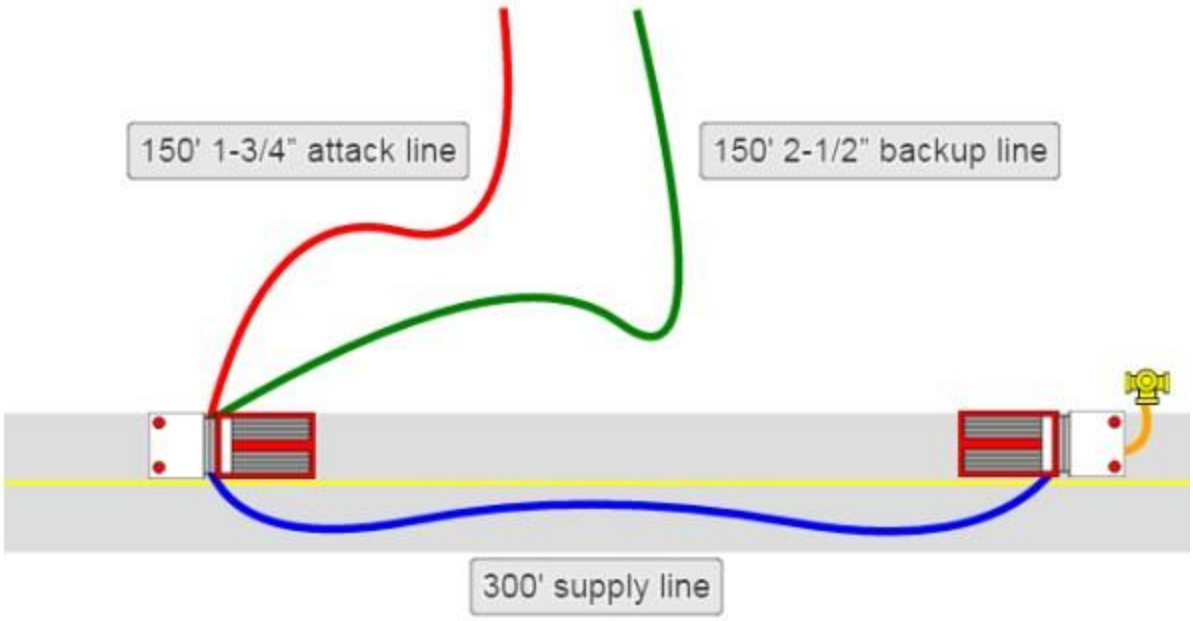
Evaluation Criteria:

Ladders shall be properly deployed.
Saw is tested on the ground.
Proper tools are brought to the roof.
Firefighters were PPE properly and perform all actions safely.
Time begins when the engine stops at simulated fire scene and sets brakes. Time ends when a crew of two firefighters with hand tools is on the roof and the power saw is running.

RECOMMENDED MAXIMUM TIME: 4 ½ MINUTES

Reference NFPA 1410, 2015 Edition; Training for Initial Emergency Scene Operations

Hands-On Drills



Description

This evolution is a reverse lay using two engines. The first engine (base pumper) will be positioned at the fire scene, the second engine will then perform a reverse lay from the base pumper to the hydrant. The companies will then deploy an attack line and a backup line. The company is permitted to use tank water to supply the attack line, but must have an established hydrant supply prior to charging the backup line.

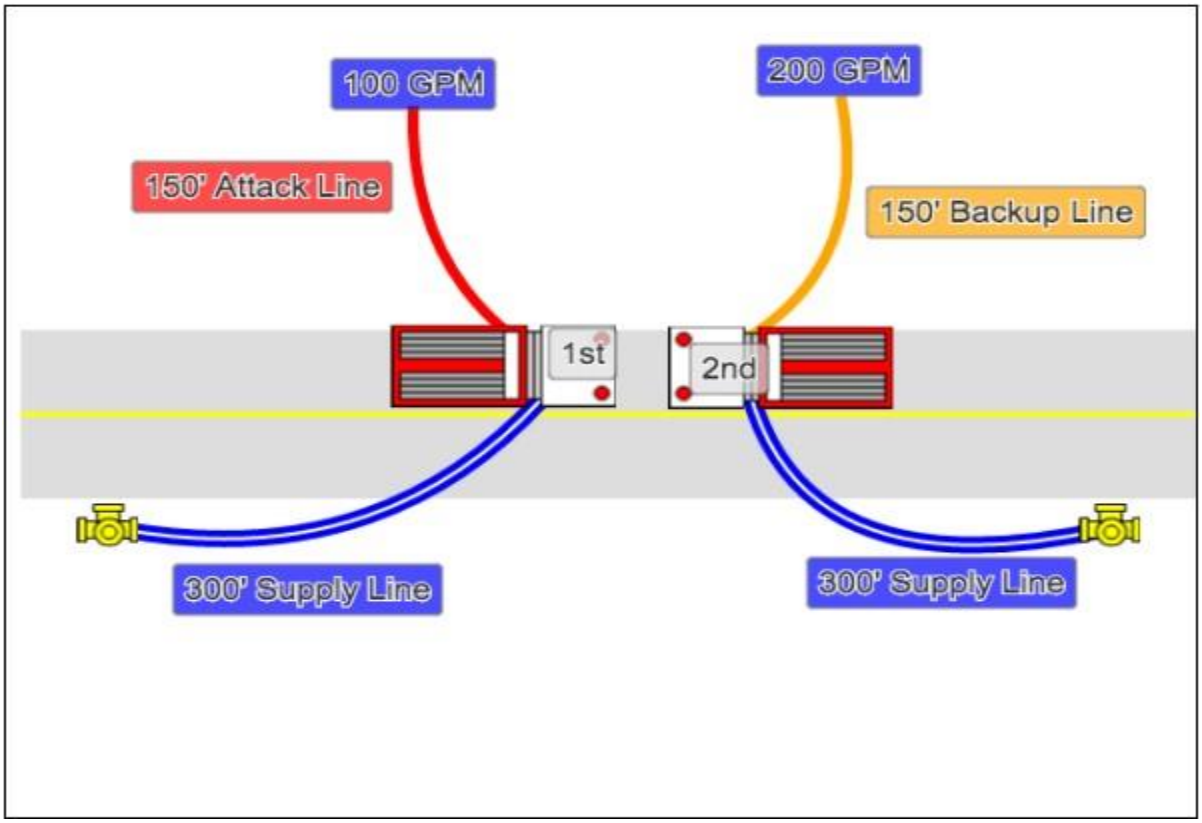
All lines shall be completely deployed from their hosebeds
All nozzles should be flowing the minimal accepted preasures
Timing starts when given a signal by the training officer, and ends when the required 300 GPM flow is being delivered.

The maximum allowable time for this evolution is 4 minutes.

Steps

Order	Step
1	Deploy 300' of supply line from an engine located at the scene, to a hydrant.
2	A fire fighter will make a hydrant connection to the engine, and connect the supply lines to the outlets. This firefighter will be responsible for pumping back to the base pumper.
3	The fire truck on scene must connect the supply lines to the intake, and be ready to accept water from the engine at the hydrant, as well as charge both the attack line and the backup line.
4	Deploy a minimum of 150', 1-3/4" attack line.
5	Deploy a minimum of 150', 2-1/2" backup line.

Hands-On Drills



Description

In this evolution two companies will secure two different water sources, the first engine will advance and attack line, the second engine will advance a backup line.

The recommended completion time is 3 minutes and 30 seconds.

Steps

Order	Step
1	The first engine will lay supply lines from the hydrant towards the fire. At least 300' of hose must be used.
2	The first engine advances an attack line from itself 150 feet towards the fire. This line must be flowing at least 100 GPM.
3	The second engine, after a 30 second delay, will lay supply lines from a second hydrant towards the fire. At least 300' of hose must be used.
4	The second engine will advance a backup line from itself 150 feet towards the fire. This line must be flowing at least 200 GPM.

Hands-On Drills

Truck Company Ground Ladder Drill – Crew throws two 16’ ladders, one 24’ ladder individually and in teams of 2, they throw the 35’ ladder. Do it consecutively until each crew member has thrown the 24’ ladder.

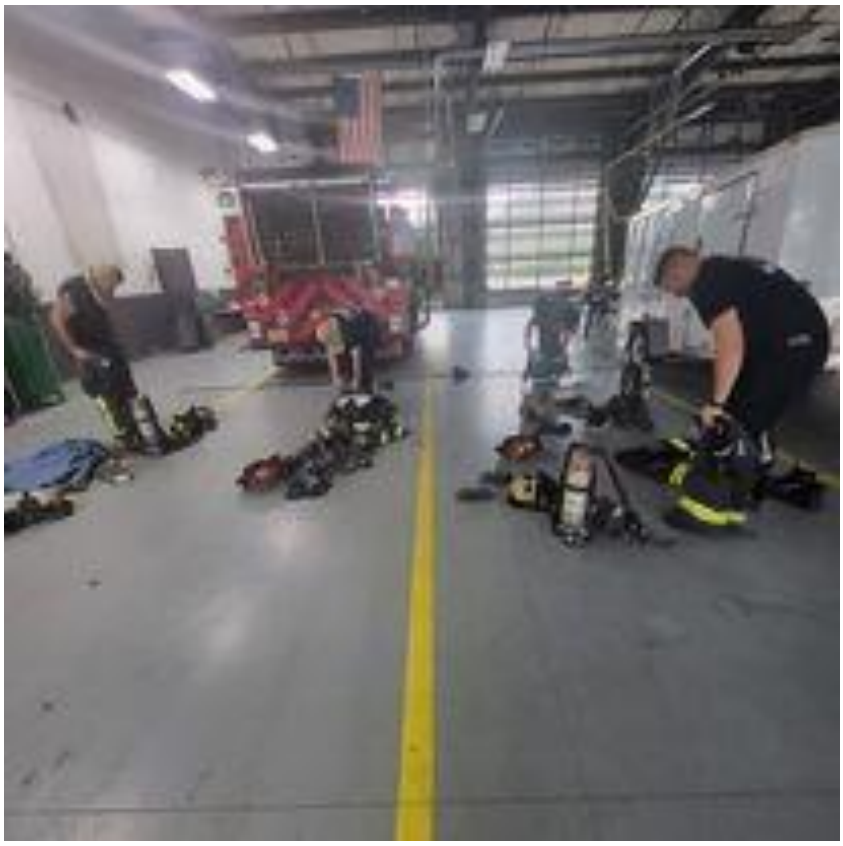
Hands-On Drills

Each crew member picks a neighborhood in the area to visit. While in the area, identify the types of construction, water supply, unique conditions, and get out and talk to the citizens.

Hands-On Drills

Get permission from the clubhouse and stretch the 400’ at an apartment complex.

Hands-On Drills



Turnout Drills: Dress out in full turnouts within 2 minutes.

Hands-On Drills

Reach out to neighboring departments and practice drafting and nurse feeding operations.

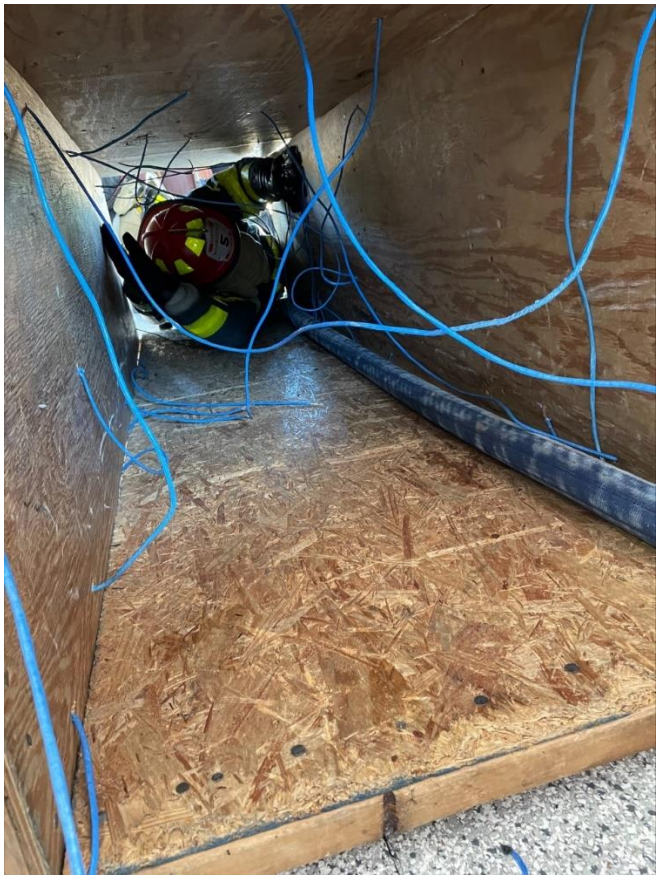
Hands-On Drills

Conduct a quarterly air consumption drill and see how long it takes to vibe and deplete the whole bottle.

Hands-On Drills

Practice forcible entry on the door prop. Practice both inward and outward swinging doors.

Hands-On Drills



Each member of the crew crawls through the entanglement box without cutting wires.

Hands-On Drills

Each member of the crew uses the K12 saws in various configurations (overhead, chest level, flush to ground) to simulate cutting locks, window bars and various other entry techniques.

Hands-On Drills

Working as a crew, members should simulate flat roof ventilation ops. Dual saws with a hook man for each person operating a saw. Focus on inspection cut, heat holes every 5’-6', and finally a minimum of an 8x8 cut using the 7,9,8 method.

Hands-On Drills

Crews should work on vehicle extrication techniques that focus on full side removal (B post blowout). Focus on 1 tool assignment per person and utilize each until the side is open allowing full access into the patient compartment.

Hands-On Drills

Focus on techniques to lift and push the dash forward with few to no relief cuts. Several options include overcoming with force (spreaders and rams), center lift, or pushing from the rear of the passenger compartment.

Hands-On Drills

Crews should focus on making early access to the patient without removing the roof leaving it intact for future push/pull points. A modified tunnel and halo of the roof are excellent steps to create a lot of room and maintain full structural support.