

STANDARD OPERATIONAL PROCEDURE

Baltimore |
County |
Fire |
Department |

S.O.P. #: TACTICAL OPERATIONS MANUAL #08
SUBJECT: FIREGROUND OPERATIONS
DIVISION: EMERGENCY OPERATIONS

Objective: To provide a standardized method for the deployment of first alarm companies responding to structural fires.

Scope:

- Application of these tactical guidelines facilitates the following objectives:
 - Appropriate placement of apparatus
 - Rapid deployment of crews during structural fire incidents.
1. At all times an Incident Commander (IC) retains the authority to deviate from these tactical guidelines to address specific incident needs. These guidelines are designed to facilitate incident management by the assignment of responding units to pre-designated positions and tasks.
 2. Transmissions of orders from the Incident Commander to first arriving units are thereby minimized, becoming necessary only when units are required to take actions not in accordance with these tactical guidelines.
 3. It is the responsibility of the Incident Commander for determining the appropriate fireground strategy and tactics. Once initiated, it becomes the Incident Commanders job to ensure that all personnel is safely operating within the correct strategy.
 4. Managing the fireground strategy must start with the arrival of the first unit and be constantly monitored and evaluated throughout the entire incident. The initial Incident Commander will include the fireground strategy in the on-scene report.
 5. The initial Fireground strategy provides a starting point for fireground operations. Once the strategy is announced, all firefighters know whether to operate on the interior or exterior of the building. The fireground strategy cannot be a mystery, everyone operating on the fireground must be operating in the same strategy mode (Offensive, Defensive or Transitional).
 6. As Command is transferred to later arriving officer, these officers assuming Command must reevaluate the fireground strategy based on risk.
 7. If strategies begin to fail or conditions dictate that the plan needs to be changed, the Incident Commander must advise all units on the incident of the changes and conduct a personnel accountability report (PAR).
 8. The strategic, tactical and task outlines are defined in Tac 7 (Incident Management System)

This Tactical SOP is geared more towards hydrant areas of the County but can be combined with Tactical 31 Rural Water Operations in a non-hydrant district.

Structural Fire Tactical Goals

S.L.I.C.E.R.S

Sequential Actions: To take place in order

Size up

Locate the Fire

Identify and Control Flow Path

Cool the Space from the Safest Location

Extinguish the Fire

Actions of Opportunity: May occur at any time

Rescue

Salvage

Although these strategies are prioritized, they do not dictate which tactics should be used to accomplish those strategies. For example, while Rescue is always the primary strategy, extinguishment tactics may be the means by which rescue is accomplished and the most appropriate tactic often satisfies or facilitates multiple strategies.

An Incident Commander must assign resources only to the highest, uncompleted objectives until sufficient resources arrive to meet those strategies and move down to lower priority strategies. If there are too few resources to confine a well involved vacant building that threatens exposures, the initial companies cannot be assigned confinement tactics until sufficient resources are directed toward exposure protection. Directing insufficient numbers of resources to accomplish multiple strategies assures that none of the strategies will be met.

Section 1: Engine Company Riding Positions and Descriptions

A. Riding Positions:

1. Officer: Portable #1-retains the identity of the unit assigned; i.e. Engine-1.
2. Back-up: Portable #2-retains the identity of the unit and the position; i.e., Engine-1 Back up.
3. Nozzle: Portable #3-retains the identity of the unit and the position; i.e. Engine-1 Nozzle.
4. Driver: Portable #4-retains the identity of the unit and the position; i.e., Engine-1 Driver.
5. Extra Firefighter: This identity will be reserved for those occasions that an extra firefighter rides the apparatus, regardless from where their portable is appropriated; i.e., Engine 1-Portable 5.

B. Riding Descriptions

1. Officer (Shall don full turnout gear including SCBA regardless of whether or not they are entering an IDLH).
 - a. The Officer will ensure that all members of their crew are in full PPE including SCBA prior to entry into an IDLH.
 - b. The Officer shall direct the driver to position the engine:
 1. To facilitate the most efficient hose line placement.
 2. To ensure the apparatus will not block the truck company from having the closest access to the structure for optimal use of the aerial and ground ladders.
 3. With consideration of the possibility of having to quickly change attack mode from an offensive to defensive operation.
 - c. Upon arrival, the Officer shall perform the following tasks:
 1. Transmit a Brief Initial Report (BIR)
 2. Transmit a Water Supply Plan to units responding and advise if assistance is needed from other responding Engine Companies.

3. Establish an appropriate level of command.
 4. Conduct an initial size-up and risk assessment.
 5. Perform a 360 degree size-up of the involved structure unless the size of the structure, or immediate fire ground concerns, make a 360 impossible.
 6. Address "2In/2Out" in accordance with Tactical 07.
 7. Rule out the presence of a basement fire before committing crews to a first floor fire attack. If a basement fire is present, it will be announced by Command, and repeated by Dispatch to all responding units.
- d. If the Officer opts to go into Command Mode, he/she shall:
1. Along with the driver operate as the 2-OUT in accordance with Tactical 07.
 2. Designate an Incident Safety Officer in accordance with (Personnel 21.2-C) or;
 3. Shall Retain Incident Safety Officer in the early stages of an incident until adequate resources have been assembled on the fireground.
- e. The Officer shall order the stretch of the appropriate hand line or master stream.
1. This decision should be based on the fire flow needs of the incident.
- f. The Officer shall order the placement of the attack line based on the following:
1. The attack line's objective:
 - To protect potential victims and fire crews.
 - To confine the fire.
 - To control the fire.
 - To protect the interior stairways if crews are working in the structure.
 2. The mode of attack, interior offensive or exterior defensive.
 3. The fire's location i.e., basement, top floor, 1st floor, multiple floors, etc.
 4. The safest and most direct route to the fire.
 5. The Officer will make every effort to determine the specific location of the fire before the attack line enters the IDLH.
2. Back-up Firefighter (Shall don full turnout gear including SCBA):
- a. The Back-up and Nozzle firefighters will team up to stretch and stage the attack line.
 - b. After the Nozzle firefighter starts the stretch, the Back-up firefighter will make sure the line pays out of the hose bed smoothly.
 - c. When the Nozzle firefighter reaches the desired point of entry, the Back-up firefighter will chase out the kinks from the engine to the nozzle, making sure the hose is properly staged. This will ensure proper flow and safe line advancement.
 - d. The Back-up firefighter will bring the appropriate forcible entry tools.
 - e. The Back-up firefighter will be responsible for the following tasks at the scene of a fire.
 1. Make sure the line is unobstructed and free of kinks as it goes through the door.
 2. When you come to a corner stop, make sure the line moves freely around any pinch points
 3. Don't get too far separated from the Nozzle firefighter, you are a team.
 4. Move up on the line and back up the Nozzle firefighter so he can focus on stream application.
 5. Monitor conditions behind you and the Nozzle firefighter.
 6. Once the fire has been knocked, the Back-up firefighter may search for victims in the immediate area of the hose and nozzle, while maintaining orientation to the hoseline.

3. Nozzle Firefighter (Shall don full turnout gear including SCBA):

- a. The Nozzle firefighter will stretch the line ordered by the Officer and will be responsible for the following tasks at the scene of a fire.
 1. Ensure there is enough hose staged to reach the seat of the fire prior to being charged.
 2. Make sure the hoseline is charged prior to entry into an IDLH atmosphere.
 3. Once charged, bleed off the hoseline until all the air is expelled prior to entry.
 4. Make sure you are using the right stream, pattern and GPM for the fire conditions.
 5. Know when to open the nozzle, when to start flowing water, and how to apply the stream.
 6. Never pass a burning room or area; extinguish the fire as you find it.
 7. Keep the IC and your Officer updated on your progress.
- b. The Nozzle firefighter shall not leave the nozzle:
 1. Unless an emergency evacuation is ordered. If an emergency evacuation is ordered the Nozzle firefighter will make every attempt to ensure crews operating above, and in front of them have exited.
 2. Until he/she has been relieved by another firefighter.
 3. Unless the hoseline has been withdrawn from the structure.
 4. Until an IDLH atmosphere no longer exists (per Command).

4. Driver (All Drivers shall don at a minimum their Helmet and Gloves, and have issued Turnout Gear readily accessible. Personnel who possess a white PAT shall also have SCBA, readily available): In situations when the driver is "non-entry", the OIC must recognize that the 2 in/2 out requirements are not met until the next unit arrives, unless the crew has a 5th entry qualified firefighter.

- a. The Driver will position the engine as directed by the Officer and will be responsible for the following tasks at the scene of a fire:
 1. Upon arrival, the driver shall assist in the stretch of the initial attack line, assuring that the hoseline clears the hose bed and any obstructions around the engine.
 2. The driver shall charge the attack line at the direction of the Nozzle firefighter or the OIC.
 3. He/she will advise the 2nd arriving engine by radio when ready for water.
 4. He/she may advise the 1st arriving truck company by radio which direction to enter the block to allow the best access to the front of the structure.
 5. Shall be in full PPE when working in close proximity to the involved structure, considering the possibility of collapse, broken glass and smoke explosion.
 6. If time permits, the Driver will stretch a second attack line to the point of entry.
 7. If time permits, the Driver will throw a ground ladder prior to the arrival of the 1st truck.
- b. The Driver will pump the attack line at the appropriate pressure to achieve the desired GPM flow, factoring in friction loss and nozzle pressure.

C. Hose Line Placement and Extension

1. The minimum acceptable fire flow for any 1 ¾" hand line at a structure fire will be 150 GPM
2. The minimum acceptable fire flow for any 2" hand line at a structure fire will be 210 GPM
3. The minimum acceptable fire flow for any 2 ½" hand line at a structure fire will be 325 GPM

4. Selection and Placement

- a. The initial attack line should be used to control access and, to support search and rescue activities by confining fire spread from halls, stairwells, and other means of egress.
- b. Do not advance a dry line into a fire area/IDLH. An attack line should be stretched to a safe area and then charged.
- c. Advancing more than two lines through a single point of entry may make attack line advancement and personnel movement more difficult; separate points of entry should always be considered.
- d. Attacking from the unburned portion of a structure may prevent property damage; however, doing so may force fire, heat and smoke through other means of egress. Placing the attack line between the fire and potential victims always takes precedence.
- e. Consider initiating an attack with a 2 ½” Blitz Line in any mercantile/apartment/large fire load structure. Keep in mind that a 2 ½” smooth bore nozzle with an 1 ¼” tip can provide over 325 GPM at only 50 PSI nozzle pressure
- f. Consider initiating an attack with a 2 ½” Blitz Line on any well-involved residential structure, bearing in mind however that advancement of the Blitz Line within a residential structure may be difficult. If the Blitz Line knocks down the bulk of the fire, consider switching to 1 ¾” lines at that point.
- g. If the initial attack line is not making progress, consider deploying a 2 ½” Blitz Line as the back up line.
- h. Once exterior master stream operations have been initiated, use of 1 ¾” lines can usually be discontinued or used only for exposure protection.
- i. Incident commanders should recognize that the deployment of a Blitz Line may require two crews.
- j. Incident Commander should establish a handline or master stream device if there is fire impingement on an adjacent structure for exposure protection

Section 2: Engine Company Operations

The engine’s primary job is to safely and efficiently place the appropriate attack line in service to extinguish the fire. The most valuable lifesaving tactic performed at a fire is to put out the fire.

A. 1st Arriving Engine

1. The 1st arriving engine, when dispatched as a Fire Box, should initiate a constant water supply. They should locate the closest water source in their response path and lead off. The engine shall proceed to a position on of the structure that offers the greatest tactical advantage of the structure. The 1st arriving engine may bypass the closest water source if it is within 100’ of the structure and can be easily ‘hand-jacked’ by the Driver.
2. No personnel shall ride the tailboard while laying lines.
3. If the closest water source to the structure is not in the engine’s response path, the crew shall choose one of the following to initiate the water supply:
 - a. Drop a split lay at an appropriate location.
 - b. If the closest water source is beyond the structure, the OIC shall instruct the 2nd arriving engine to reverse lay from the 1st arriving engine to the source.

4. If the 1st arriving engine positions “on” a water source, the Officer shall advise the 2nd engine (i.e. “Engine 54 arrived with my own water source.”).
5. The crew of the 1st arriving engine will place the primary attack line in-service to achieve the appropriate fireground objective:
 - a. Rapid fire attack.
 - b. The initial attack line is normally placed between the fire and potential victims.
 - c. Support search and rescue or victim removal.
 - d. Protect stairwells, hallways and other means of egress.
 - e. Exposure Protection

B. 2nd Arriving Engine:

1. Should complete the water supply for the 1st arriving engine upon direction from the IC:
 - a. In hydrant areas, the 2nd arriving engine can pump the 1st engine’s hydrant.
 - b. 2nd arriving engine can complete the split lay to the water source and pump it.
 - c. 2nd arriving engine can reverse lay from the 1st engine to the water source and pump it.
 - d. The 2nd engine may be sent to side Charlie at the discretion of Command.
2. If the 1st arriving engine is “on” the hydrant, the 2nd arriving engine shall:
 - a. Establish its’ own water supply from a separate source.
 - b. Position on side Alpha.
 - c. Leaving adequate space for the truck.
3. If directed by Command to position on side Charlie, the 2nd arriving engine shall:
 - a. Establish its’ own water supply from a separate source.
 - b. Position on side Charlie.
 - c. Conduct a size-up of conditions on side Charlie and report to Command.
 - d. The Officer will not assume responsibility for Division Charlie unless the IC assigns you as such.
4. The OIC of the 2nd engine will be assigned as the Division Officer on the fire floor and will assume responsibility for crews operating in this area unless:
 - a. The IC has directed the 2nd arriving engine to operate in some other area.
 - b. The Officer of the 1st arriving engine can be division Officer on the fire floor.
 - c. In any instance that the 1st arriving Officer declares “limited command”, the 2nd arriving Officer must assume Command upon arrival.
5. The crew of the 2nd arriving engine shall advance a back-up line equal in diameter and flow capabilities to the primary attack line to achieve the following objectives:
 - a. The backup line will ONLY be established after the initial attack line is in service
 - b. Protect the initial crew.
 - c. Cut off fire advancement on the floor above the fire.
 - d. Assist in extinguishment.

6. If the initial attack line is not making progress, consider deploying a 2 ½" Blitz Line as the backup line.
 - a. The back-up line may be advanced from either the 1st or 2nd arriving engine, depending on apparatus location.
 - b. The back-up line will usually proceed through the same point of entry as the initial line.
 - c. 3rd Arriving Engine:

7. The 3rd arriving engine is the most versatile 1st alarm unit. The Officer and crew should be capable of undertaking any fireground operation including but not limited to:
 - a. Engine Company Support
 - b. Advancing back-up lines on the fire floor or floor above.
 - c. Advancing attack lines into exposures, attics, cocklofts or basements.
 - d. Secondary Water Source
 - e. In hydrant areas, prepare to lay LDH, leaving a firefighter at the hydrant if greater than 300 feet away, unless the next arriving engine is in close proximity. If the BIR or subsequent progress report indicates a fire, the 3rd arriving engine will establish its own water supply.
 - f. Truck Company Support
 - g. Search, ventilation, laddering.
 - h. Setting up for defensive operations.
 - i. Emergency Medical Support
 - j. Treating injured personnel and civilians.
 - k. Victim removal and/or triage.

8. If the 2nd arriving engine doesn't position on side Charlie and side Charlie is accessible by apparatus the 3rd arriving engine shall:
 - a. Establish its' own water supply from a separate source.
 - b. Position on side Charlie.

9. If the 2nd arriving engine has positioned on side Charlie or if side Charlie is inaccessible by apparatus the 3rd arriving engine shall:
 - a. Lead-off from a hydrant to a location that provides the best tactical access to side Charlie. This may be side Alpha.
 - b. If uncertain, contact Command for instructions.
 - c. Position so the responding trucks will have the closest possible access to facilitate ground ladder use and aerial operations.
 - d. Regardless of where the 3rd engine positions the Officer shall:
 1. Assess for any subdivision fire conditions and advise Command.
 2. Not assume responsibility for a Division unless the IC assigns you as such.
 3. The Officer and crew shall stretch an attack line of sufficient length to reach any interior portion of the structure. This line will be flaked-out, but remain uncharged until the line has been advanced to an appropriate point of entry and the Officer receives further instructions from Command.
 4. Attack line coordination can only be done at the direction of the IC after assuring that other crews are not in opposing positions and are able to retreat if conditions become untenable.

C. 4th Arriving Engine

1. The driver shall position the apparatus away from the incident scenes directed by the OIC or Command in a manner that will not block other units.
2. The Fourth Engine to arrive on the scene with a minimum of four (4) entry personnel will be designated the Rapid Intervention Team (RIT). While the RIT will not be used for any other specific group or division assignments, company Officers should consider this resource as “Active RIT”, one that can assist in throwing ground ladders, the advancement of hoselines, etc., while maintaining operational readiness to deploy if necessary.
3. At least 4 entry members shall report to the scene in full turnout gear including SCBA, and assume RIT.
4. The Officer may be designated as the Incident Safety Officer because the initial duties of RIT closely mimic the duties associated with fireground safety in general. The Officer shall continue to work with the RIT crew by:
 - a. Closely monitoring the fireground talk group.
 - b. Assessing fire conditions.
 - c. Identifying hazards.
 - d. Determining points of egress.
 - e. Identifying the locations of operating crews.

D. Upon the arrival of the Rapid Intervention Task Force (RITF) units:

- a. The 4th arriving engine will work under the Rapid Intervention Group Officer.
- b. The 4th Engine’s Officer will return to the RITF and another Incident Safety Officer will be assigned by the IC. An Officer’s training and experience should be considered when assigning an Incident Safety Officer.
- c. See Tactical 18 for further information.

E. 5th Arriving Engine COMMAND ENGINE

1. The driver shall position the apparatus away from the incident scenes as directed by the OIC or Command in a manner that it will not block other apparatus
2. Dispatch will designate the Fifth Engine as the Command Engine.
3. All members, shall report to the command post with Full PPE, tools and SCBA..
 - a. The officer will assume the duties of the Incident Safety Officer, should one not be designated.
 - b. One member of the crew will monitor the SCBA A2 accountability system for the Incident commander.
 - c. One member of the crew will document on the command board as directed by the IC.
 - d. One member of the crew will be designated as entry control.

A. Level I accountability: This individual will ensure that all personnel assigned to the unit have their PAT tag on the Apparatus Collector Ring.

B. Level II Accountability: This individual will be designated “Point of Entry.” This member will monitor the primary point of entry as assigned. There may be more than one point of entry on an incident. When this occurs, more than one individual will be assigned as assistants.

4. A crew that is assigned to the Command Engine may be reassigned as needed or the nature of the incident, to handle critical functions.

SOP #: Tactical Operations Manual #08

SUBJECT: Fireground Operations

Section 3: Truck Company Riding Positions and Descriptions

A. Truck Company Riding Positions

1. Officer: Portable #1-retains the identity of the unit assigned. Truck-1
2. Search: Portable #2-retains the identity of the unit and the position. Truck-1 Search
3. Outside Vent: Portable #3-retains the identity of the unit and the position. Truck-1 OV
4. Driver: Portable #4-retains the identity of the unit and the position. Truck-1 Driver
5. Extra Firefighter: This identity is for those occasions when an extra firefighter is assigned to ride the apparatus, regardless of where their portable is appropriated. Truck-1 Portable 5

B. Truck Company Riding Descriptions

1. Officer

- a. The Officer will ensure that all members of their crew are in full PPE including SCBA prior to entry into an IDLH. The Officer shall be in full turnout gear with SCBA regardless of the fact they are not entering the IDLH. In the event a truck does not have a minimum of four (4) entry personnel, the IC should be notified as soon as practical so he/she may plan accordingly.
- b. The Officer shall bring the Thermal Imaging Camera (TIC) and appropriate tools.
- c. The Officer shall direct the Driver to position the truck to ensure the apparatus will have the closest possible access to the structure for optimal use of the aerial and/or ground ladders. When making this decision the Officer will be mindful of potential collapse zones.
- d. The Officer and Search firefighter will work together as the Inside Team to perform the primary search.
- e. The Officer will determine where to start the search based on the following criteria:
 - a. Location of the fire.
 - b. Location of reported victims.
 - c. Time of day.
 - d. Information received from Dispatch and once on scene.
- f. The Officer will ensure that a thorough overhaul operation is performed to ensure:
 1. The fire has not extended.
 2. Hidden pockets of fire are uncovered.
 3. The fire is completely extinguished.
 4. When fire occurs in buildings with large enclosed roof spaces and/or trusses, examination of the ceiling space should occur immediately.
- g. The Officer will advise Command and/or the Division/Group Officer of the Inside Team's intended destination and tactical objective. Command will be advised immediately when the objectives have been met.
- h. The Officer will immediately notify Command and/or the Division/Group Officer of any pertinent information such as:
 1. When victims are discovered.
 2. Identification of hazards.
 3. When the fire is extending.
 4. When a hoseline is needed.
 5. If a tactical objective is unable to be met.

2. Search Firefighter

- a. The Search firefighter and Officer will work together as the Inside Team. Upon arrival, the Search firefighter will be responsible for the following tasks:
 1. The Search firefighter will be responsible for the following tasks:
- b. Carrying the appropriate tools to handle forcible entry:
 1. The irons-flat head and halligan tools for conventional forcible entry.
 2. Hydra-ram/rabbit tool for inward swinging steel doors.
 3. Bolt cutters for gates, fences, and padlocks
 4. K-tool for through the lock entry.
 5. Rotary saw with metal blade for fortified or roll up doors
 6. The Search firefighter will normally be assigned the irons but should be able to quickly size-up the forcible entry challenge so they can bring the appropriate tools.
- c. The Search firefighter will search those areas ordered by the Officer but should be familiar with and capable of performing any type of search necessary:
 1. Primary search.
 2. Secondary search. (The crew conducting the primary search should not conduct the secondary search)
 3. Aggressive search, starting close to the fire working toward the exit.
 4. Active search, searching off the hoseline as the fire is extinguished.
 5. Vent Enter Isolate Search (VEIS) via ground ladders
 6. Defensive search, performed from the exterior around windows and doorways.
 7. Guided search, performed under the direction of a firefighter equipped with a Thermal Imaging Camera.
- d. The Search firefighter, under the direction of the Officer, will perform horizontal ventilation as necessary and when appropriate to:
 1. Improve visibility and speed up the search.
 2. To allow heat and toxic gases to exit the building.
 3. To increase the chance of survivability for trapped occupants.
- e. The Search firefighter, under the direction of the Officer. Will perform overhaul:
 1. In walls and ceilings.
 2. In attics and cocklofts.
 3. Any void spaces.
 4. Excessive overhaul to the suspected area of origin should be avoided until the cause of the fire is determined.

3. Driver/Firefighter:

- a. The Driver/firefighter and Outside Vent firefighter will work together as the Outside Team. Upon arrival, the Driver/firefighter will usually operate on side Alpha and will be responsible for the following tasks.
- b. The Driver/firefighter will position the truck as directed by the OIC and ensure that:
 1. The driver shall chock the vehicle appropriately.
 2. During aerial operations, the ground pads shall always be used.
 3. Short-jacking permitted only in the most critical situations.
- c. The Driver/firefighter will be responsible:

1. For assuring appropriate ground ladders are positioned usually on side Alpha, for emergency egress of interior crews.
 2. For performing horizontal ventilation.
 3. For performing vertical ventilation on the roof, coordinated with the advancement of the attack line and the IC.
- d. The Driver/firefighter shall proceed to the roof:
1. Primary access to the roof shall be via the aerial ladder when practical as it is the most stable method of which to work.
 2. Ground ladders shall be used for secondary access to the roof and used in conjunction with roof ladders when roof work is to be performed.
- e. The Driver/firefighter shall conduct a size-up and give a report:
1. Is the roof safe to operate on or under?
 2. Where is the fire? Subdivision? 1st floor? 2nd floor? All floors?
 3. How much fire? Is it through the roof?
 4. Read the smoke, volume, velocity, density, and color.
 5. Is it time to vent the roof?
 6. Vent for life or vent for fire?
- f. If a decision is made by the Driver/firefighter to perform vertical ventilation, he/she shall contact Command. (Eg. Command from T-17 Driver, we're going to open the roof.) They will proceed with this objective unless advised otherwise by Command.
- g. Once the roof assignment has been completed, the Driver/firefighter should place additional ground ladders as needed to facilitate access or egress to the fire floor, the floor above the fire and the roof.
- a. VEIS
- h. Outside Vent/Tiller
- The Outside Vent (OV) firefighter and Driver/firefighter will work together as the Outside Team. Upon arrival, the OV will initially operate on Side Charlie and be responsible for the following tasks:
- b. The OV will conduct a size-up and give a report from side Charlie.
3. Where is the fire, subdivision, 1st floor, 2nd floor, all floors or through the roof?
 4. How much? Is it lighting up at the top of a door or blowing out a window?
 5. Read the smoke, volume, velocity, density, and color.
 6. Look at the details, how many floors in the rear, additions, awnings, porches, etc.
- i. The OV will perform horizontal ventilation on side Charlie coordinated with the advance of the attack line and the IC.
7. To reduce mushrooming and heat buildup in order to limit the fire's growth.
 8. To control the path of the fire to keep it from extending to other areas and exposures.
 9. To remove the toxic gases and smoke and allow fresh air to reach trapped occupants.
 10. To improve visibility and allow for quicker search and rescue operations.
- j. The OV will ladder the rear of the structure.
11. To provide a secondary means of egress.
 12. To facilitate personnel being able to exit the building safely.
 13. To perform ventilation of the upper floors.
 14. To allow a secondary means to enter the structure.

- k. The OV will perform Vent Enter Isolate Search (VEIS) operations when necessary to assist with the search.
 1. When the Inside Team locates a victim and has not finished searching.
 2. When the Inside Team is delayed gaining entry.
 3. When the OV makes the decision to VEIS you must contact the IC and let them know where you are entering the structure to VEIS and when you are done.
 4. The OV will back up the Driver/firefighter as needed.
 5. Stay in communication with the Roof firefighter and work as a team.
 6. Once you finish your primary task go to the roof.

Section 4: Truck Company Operations

A. 1st Arriving Truck

1. The 1st arriving truck will usually position on side Alpha, however, the Officer may choose to position the truck elsewhere to improve the capabilities of the apparatus.
2. Inside Team – The Officer and Search firefighter shall proceed immediately to the front of the structure, and as a team performs their primary objectives:
 - a. Gain access for the engine company.
 - b. Perform primary search and rescue starting on the fire floor in those areas most likely to have trapped, viable victims. (as determined by the truck Officer)
 - c. When there is no reasonable expectation that life hazards exist, or when other crews have been assigned to handle the search, the Officer may opt to perform other critical functions. (i.e., a pre-dawn fire in a strip store, where roof operations are required.
 - d. Provide horizontal ventilation as necessary and when appropriate.
 - e. Check for extension and overhaul if necessary.
 - f. VEIS
3. Outside Team – The Driver/firefighter will operate on side Alpha and perform their primary objectives.
 - a. Assure ground ladders are positioned on side Alpha.
 - b. Access the roof.
 - c. Conduct a size-up and give a report.
 - d. Perform horizontal and vertical ventilation as needed to be coordinated with the fire attack and command.
 - e. If a decision is made by the Driver/firefighter to perform vertical ventilation, he/she shall contact Command they will proceed with this objective once acknowledged by Command.
4. The Outside Vent - The firefighter will operate on side Charlie and perform their primary objectives:
 - a. Give a report from side Charlie.
 - a. Perform horizontal ventilation as needed coordinated with the fire attack and Command.
 - b. Place ground ladders on Side Charlie for a secondary egress.
 - c. Perform VEIS as needed.
 - d. Back-up the Driver/firefighter.
 - e. The Outside Team will advise their Officer command when their primary objectives have been completed and when they are moving to a new assignment.

B. 2nd Arriving Truck

1. The 2nd arriving truck will generally support the operations of the 1st arriving truck. The Officer shall closely monitor the tactical talk group while responding, in order to track the status of the 1st arriving truck's objectives. The IC may assign tactical objectives to the 2nd arriving truck.

2. If it is accessible, the 2nd arriving truck will position on side Charlie of the structure:
 - a. Unless directed elsewhere by the IC.
 - b. Unless another side appears more tactically advantageous in which case the Officer shall contact Command prior to committing the truck to the structure.
3. Inside Team – The Officer and Search firefighter shall proceed immediately to the structure, and as a team, support the 1st arriving truck in performing their primary objectives:
 - a. Perform forcible entry.
 - b. Conduct primary search on the floor above the fire, unless already complete.
 - c. For top floor fires, start at the floor below the fire, working your way down.
 - d. Conduct a secondary search as needed.
 - e. Assist in the removal of victims.
 - f. Check for fire extension in void spaces, walls, ceilings, etc.
 - g. Control the interior utilities.
 - h. The Officer will advise Command when they have completed a tactical objective.
 - i. VEIS
4. Outside Team – The Driver/firefighter will proceed to side Alpha and assist the 1st arriving Roof firefighter:
 - a. Ensuring ground ladders are placed as needed.
 - b. Accessing the roof.
 - c. Conducting a size-up and give a report unless it has already been done.
 - d. Performing horizontal and vertical ventilation as needed, coordinated with the attack and command.
 - e. If a decision is made by the Driver/firefighter to perform vertical ventilation, the Driver/firefighter shall contact command. They will proceed toward this objective once acknowledged by Command.
5. Outside Team – The Outside Vent firefighter will proceed to side Charlie and assist the 1st arriving OV with:
 - a. Giving a report from side Charlie unless it has already been done.
 - b. Performing horizontal ventilation as needed coordinated with fire attack and Command.
 - c. Laddering side Charlie for a secondary egress.
 - d. Performing VEIS as needed
6. The Driver/firefighter and OV of the 2nd arriving truck will usually assist the Driver/firefighter and OV of the 1st arriving truck unless the Officer determines that they are better utilized somewhere else.
7. The Outside Team will advise their Officer and Command when they have completed their objectives and when moving to a new assignment.

Section 5: Squad Riding Positions and Assignments

A squad's primary responsibility is to perform truck company operations. The role they play will depend on the order of arrival of both the squad and the truck. In the event a squad does not have a minimum of four (4) entry personnel, the IC should be notified as soon as practical so he/she may plan accordingly.

- If the Squad arrives prior to the 1st truck, they will function as the 1st arriving truck.
- If the Squad arrives after 1st truck, they will function as the 2nd arriving truck.
- If the Squad arrives after 1st and 2nd truck, they will report to command for an assignment.
- The 1st truck to arrive will normally assume 1st arriving truck duties from the squad, which the IC may then reassign or continue to work with the truck.

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- The squad will function as a truck in accordance with the prescribed procedures in this tactical manual to the extent they are limited by their apparatus, number of entry personnel and equipment.
- The squad Officer and Driver should always be cognizant of positioning as to not block out the truck company, even in situations when the aerial won't be needed

A. Squad/Floodlight Riding Positions

1. Officer: Portable #1-retains the identity of the unit assigned; i.e., Squad-523.
2. Search: Portable #2-retains the identity of the unit and the position; i.e., Squad-523 Search
3. Outside Vent: Portable #3-retains the identity of the unit and the position; i.e., Squad-523 OV
4. Driver: Portable #4-retains the identity of the unit and the position; i.e., Squad-523 Driver
5. Extra Firefighter: This designation will be reserved for occasions that an extra firefighter rides the apparatus, regardless of where their portable is appropriated; Squad-523 Portable 5.

B. Squad Company Operations

1. 1st Arriving Squad

- a. The Officer shall direct the Driver to position the apparatus near the incident scene in a manner that will not interfere with engine or truck positioning.
- b. Inside Team-The Officer and Search firefighter shall proceed immediately to the front of the structure, and as a team, perform their primary objectives:
 1. Gain access for the engine company.
 2. Perform primary search and rescues in those areas most likely to have trapped, viable victims. (as determined by the Squad Officer)
 3. When there is no reasonable expectation that life hazards exist, or when other crews have been assigned to search, the Officer may opt to perform other critical functions.
 4. Provide horizontal ventilation as needed coordinated with the attack and command.
 5. Check for extension and overhaul if necessary.
 6. VEIS
- c. Outside Team-The Driver/firefighter will operate on side Alpha and perform their primary objectives.
 1. Ladder side Alpha for a secondary egress.
 2. Perform horizontal ventilation as needed coordinated with the fire attack and Command.
 3. Perform Vent Enter Search (VEIS) as needed;
 4. Contact command to advise them of your intention to VEIS.
- d. Outside Team-The OV firefighter will operate on side Charlie and perform their primary objectives:
 1. Give a report from side Charlie.
 2. Perform horizontal ventilation as needed coordinated with the fire attack and Command.
 3. Ladder side Charlie for a secondary egress.
 4. Perform Vent Enter Search (VEIS) as needed;
 5. Contact command to advise them of your intention to VEIS.
 6. Back-up the Driver/firefighter as needed
- e. The Outside Team shall, as soon as practical, provide lighting on all sides of the structure to enhance fireground safety.

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Section 6: EMS supervisors and Medics

A. Medic Unit Assignment

1. The 1st arriving Medic
 - Park unit out of the way of incoming units to the fire ground and have the ability to exit quickly if needed.
 - Both members of the medic report to the primary entrance side of the structure with a stretcher, medical equipment, and PPE.
 - Report to IC
 - Initiate patient care
 - Begin accountability

2. The 2nd arriving medic
 - Park unit in a non-committed location
 - Establish Rehab unless directed by IC
 - Advise air unit the location of the rehab

B. EMS Officer Assignment

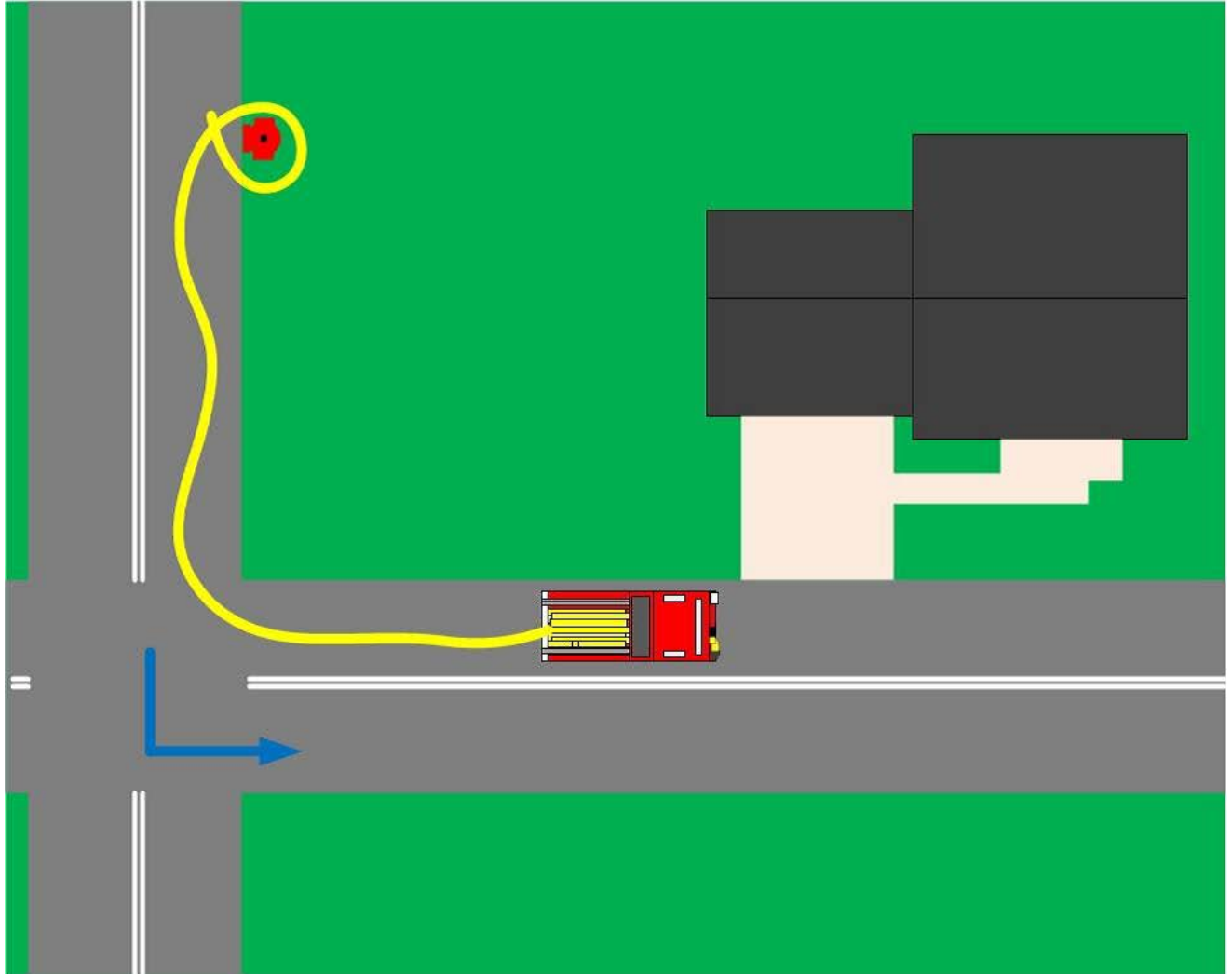
3. The 1st in EMS Officer
 - Establish Medical
 - Oversee patient care
 - Establish Triage/Treatment/Transport/Communications
 - Unless otherwise appointed, the Medical Group Supervisor also assumes the responsibilities of the Rehab Group Supervisor and the Displaced Resident Unit.

 4. The 2nd in EMS Officer
 - Rehab Officer, Start rehab if not already established
 - Management of displaced residents unit (DRU)
 - Management of high acuity patients that require the application of advanced skills in a timely manner.
- Provides necessary specialized lifesaving equipment (LUCAS 3, EZ-IO, King Vision, Pelvic Binder)

Appendix A: Hose Lays

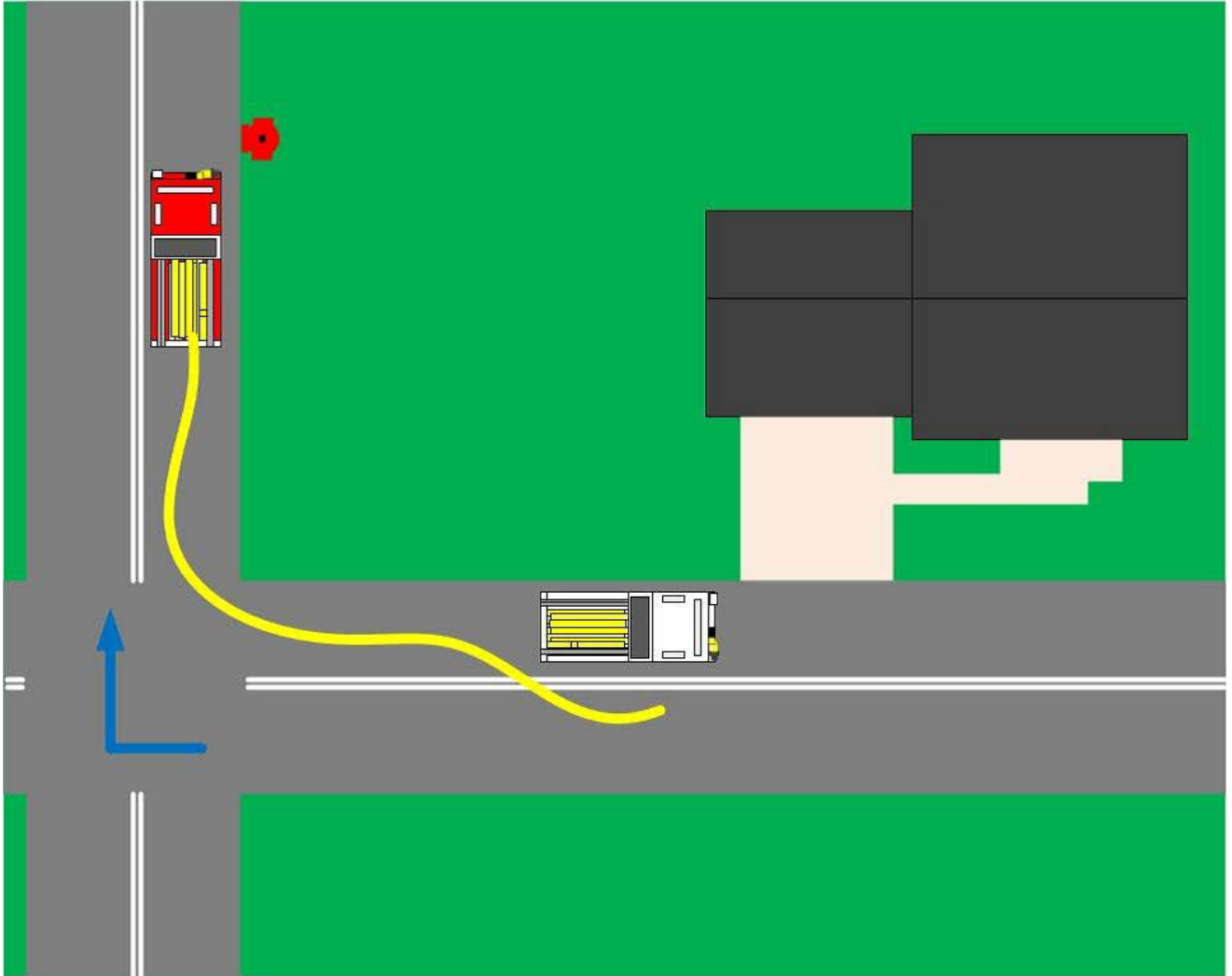
A. Forward Lay

The operation consists of stopping the apparatus at the water supply source, permitting the hydrant person to safely leave the apparatus and secure Hydrant valve at the water source. Then the apparatus proceeds to the fire, laying either single or dual lines of hose.



B. The Reverse Lay

The engine company leaves the appropriate appliances at the fireground and lays either single or dual lines to the water source. This engine then establishes water supply and pumps water to the fireground.



C. The Split Lay

The split lay is a supply laid, in part, as a forward lay and, in part, as a reverse lay. One engine makes a forward lay from an intersection or driveway entrance towards the fire. A second engine then makes a reverse lay to the water source from the point where the initial line was dropped.

