

# **Task Analysis**

## **Operation of Fire Suppression Vehicles**

**Including:**

Pumper Trucks, Aerial Trucks,  
Tanker Trucks and Rescue Vehicles,  
**Supervisory Vehicles**

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Tanker Trucks and Rescue Vehicles

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 Tanker Trucks and Rescue Vehicles,  
 Supervisory Vehicles

## **Chapter 1 Introduction**

### **Purpose**

This task analysis was undertaken to determine the vehicle operation requirements for a firefighter responding to and returning from an emergency, administrative driving and training purposes.

This task analysis is designed to do two things. First, clearly identify the tasks the drivers will be required to do. Second, to identify training requirements for the purpose of further training program development and implementation as required.

Firefighters work varied shifts and can be detailed to different stations daily to replace firefighters who are off. As a result, they can be assigned to different vehicles, which they are not familiar with. Shifts are days, 0700 to 1700 hrs, and night shift, 1700 to 0700 hrs. Once a month, they have to work a 24-hour shift on a Sunday. Pre-shift inspections are standard across the service and are required at the start of each shift. During the shifts, firefighters must be ready for a call for service at any time. They also are involved in training sessions, station maintenance and are allowed to relax when duties are complete.

Volunteer firefighters are on an on-call basis to provide fire protection and emergency services to the rural areas. They are assigned to their nearest station and if they live in close proximity to the fire station, they will respond in their personal vehicles. When doing so, they are not provided any protection or exemptions from the rules of the road. Upon arrival at the station, they must don their turnout gear, start the truck and leave the fire station. They are monitored for response time and must notify dispatch when responding.

Firefighters are required to operate a variety of trucks. They range from pumper trucks that weigh up to 15 tonnes to tankers and aerials that weigh up to 34 tonnes with 2 or 3 axles. The driver tasks are similar, but there are significant differences in vehicle size and weight so the firefighter must make the required adjustment. Some vehicles in the rural stations can be retired municipal trucks or milk tankers and are equipped with standard transmissions.

This analysis includes supervisory vehicle driving tasks. Supervisory staff operates a variety of vehicles including vans, cars or SUV's. Generally, supervisors have been promoted through the ranks and have driven all the other types of fire vehicles.



## **Objectives**

To clearly identify the primary, secondary and tertiary tasks to be completed by the drivers of these units.

To develop and implement training programs to assure the drivers understand the need to prioritize these tasks and accommodate the differences in the units.

To identify training requirements for each operational action and provide to the drivers information and knowledge how to blend the primary, secondary and tertiary tasks into the safe operation of the unit.

## **Definitions**

“primary tasks” are the driving tasks. All driving actions must be considered the primary task to minimize risk to the driver, crew, vehicle and other road users.

“secondary tasks” are the tasks the driver is required to conduct while driving the vehicle. In this case, the tasks are related to fire suppression operations and are conducted in a large truck equipped with specialized fire fighting and rescue equipment.

“tertiary tasks” are those tasks that a driver does over and above the primary and secondary tasks as defined. These include such things as operating the two way radio, heater controls and windshield wipers.

“multi-tasking” is the condition where a driver is required to conduct activities other than just drive the vehicle such as operating emergency equipment, traveling through intersections on red lights and/or communicating with dispatch or officers on site.

“normal visual checks” is a repetitive action that must be performed as part of normal driving. Throughout this document “normal visual checks” must be performed and variations in actions required based on information gathered in this search pattern. Under normal occurrence with the fire unit the checks would be performed such as: forward view to the immediate, intermediate and distance areas, left rear west coast mirror, lower eyes to convex mirror, for driver side view of unit, right rear west coast mirror, lower eyes to convex mirror for blind side view of unit,

“visual glance behaviour” means the way drivers use their eyes to get information in the driving environment. It may be through scanning the forward field perceptual or mirrors, or turning the head which is self directed or “self cuing”.

“visual search” for the purpose of this document means actively directing the eyes to go to certain parts of the environment to find specific information. A specific example is the “open lane hazard” where an EVO driver needs to visually search the open lane at an intersection when trying to safely cross an intersection against a red light and vehicles block their vision.

“emergency equipment” includes: siren, emergency lights, air horn, these pieces of equipment have dual controls and may be operated by another individual.

“EVO” in this document means the emergency vehicle operator.

“EWS” in this document means “Emergency Warning Systems”

# **Areas of Driving Definitions**

## **Destination Driving**

Driving from point A to point B without a defined secondary task

- Communicate with dispatch or other units, using, the radio, departure and arrival.
- Way finding or navigation as necessary.

## **Response Driving**

Driving from point A to point B with a call for service task at the destination, involving different levels of urgency.

## **Levels of Response**

### **High Level**

Driving from point A to point B with a call for service with determination and a high degree of urgency.

- Communicate with dispatch or other units, using, the radio, as case requires, departure and arrival.
- Obtain details of call for service via radio
- Acknowledge receipt of details
- Obtain additional info relative to the call.
- Determine level of response required.
- Way finding or navigation as necessary (radio, book, or laptop)

**Note:** In most full time fire services, the on-board officer will conduct most of the communications and operate some of the EWS while the driver focuses on the driving task. In most volunteer services, the firefighter who is first to reach the station and become the vehicle

operator will conduct the above secondary tasks. Officers such as District Chiefs would have to conduct the above actions responding to a call.

## Chapter 2 Task Analysis

### Pumper Truck, Aerial Truck, Heavy Rescue Truck and Tanker Truck

#### START UP PROCEDURES

- The following procedures are to be considered an overview of requirements (required procedures prior to) leading up to the operation of the pumper unit.

	Initial vehicle inspection at shift start.
	Complete vehicle inspection; under hood, vehicle exterior and in cab inspection including air brake and record findings in pre-trip book.
	Complete component inspection of all accessory equipment including fire suppression equipment for security and operation and complete documentation.
Adjust mirrors to driver specific (your) sight lines as part of inspection.	
Adjust seat to (suit) driver including lumbar and isolator as part of inspection.	
Cover service brake, activate kill switch	
Start engine (gauges checked on pre-trip)	Open overhead door
All lights on including red lights for emergency operations	
Seat belt on and adjusted properly.	
Apply service brake, release park brake	
Select appropriate gear (forward)	
Using all sight lines and mirrors perform perimeter check to ensure (it is) safe to pull ahead.	
Exit building while monitoring all sight lines and mirrors.	
Secure unit using proper procedures with gear selector in neutral and parking brake applied, place wheel chocks to confirm vehicle security.	
	Activate Emergency Warning System (EWS), conduct air brake inspection, complete EWS equipment operations, conduct required two-way radio check.
Remove wheel chocks to prepare for backing	

vehicle into garage, ensure guide available for backing manoeuvre into bay, ensure guide understands goal of hand signals, the place to stand for directing and vehicle placement.	
Return to cab, using proper procedure, back vehicle into bay slowly, checking left side mirror for direction from the guide and checking clearances, right side mirrors, west coast and convex check for clearances, return to the left side for guidance <b>and clearance checks</b> . When vehicle reaches parking position, stop, place vehicle in neutral and apply parking brake, shut off engine, activate battery kill switch. Complete inspection documentation.	

## Responding From The Firehall

### 1. Exiting Firehall

- The majority of calls for service to the fire department are received from (by) dispatch and relayed to the closest Firehall. When the call is received, the firefighters who were (on standby) doing other duties have to put on their turn out gear(, and) enter the truck to prepare for transport. The assigned driver must do the same, enter the vehicle and prepare for the call.

Driving Task	Secondary Job Task
Enter the vehicle using the proper techniques, secure seatbelt, activate battery kill switch and start engine.	Check both mirrors to ensure all compartments and doors are closed prior to moving the truck.
Activate the EWS, apply the service brake, release the park brake and shift to drive. Release the brake and start to move ahead.	Confirm using radio unit responding to call.
Drive through the doorway at an appropriate rate of speed using normal visual checks. Confirm clearance with door prior to major directional checks.	
Check forward view, left and right using visual glance behaviour to determine traffic flow and available space to manoeuvre vehicle. Ensure sufficient space and time are available to execute the required turn in the direction of the call.	
	Check gauges on instrument panel for appropriate speed and rpm, confirm appropriate EWS is activated for the situation.

Conduct visual search to confirm approaching traffic have recognized fire vehicle needs to enter traffic flow, ensure speed appropriate to make entry to road based on conditions present, brake if required, initiate left or right turn.


## 2. Arrival at Scene

Driving Task	Secondary Job Task
Reduce speed on approach to scene using visual glance behaviour to determine available space to drive vehicle, check behind and beside to measure approach of other responding units, continue braking and stop where directed by officer.	On approach to call, communicate with officer in charge to placement location of vehicle for emergency e.g. fire hydrant, direction of approach.
	Vigilant search for obstructions that would inhibit placement of vehicle e.g. parked cars, snow banks, other emergency vehicles and communicate problems to officer in charge.
Check mirrors for exit of firefighters, visual search for firefighter pulling hose off truck to hydrant, wait for signal to advance to final vehicle placement,	If the call for service is a MVC, placement of the vehicle will be needed to protect the work area and firefighters. This will be directed by the site officer.
Stop truck at final placement, shift transmission to neutral, apply park brake, engage pump, place transmission in drive, exit cab and place wheel chocks.	

## 3. Leaving Scene

	Conduct check around vehicle to ensure all equipment is secured and compartments secured. Remove wheel chocks and stow securely. Ensure all people are aware the vehicle will be moving and ask them to step back.
Enter cab using safety techniques, secure seatbelt, apply brakes, disengage pump, disengage EWS, release park brake and shift to drive.	
Conduct visual search, left, right and ahead, conduct behind and beside checks using all mirrors, when sufficient space is available, release brakes and drive ahead.	



#### 4. Return to Firehall

On approach to the Firehall, using normal visual checks, monitor traffic flow from behind and beside, ahead to determine appropriate approach speed and timing to create space to execute entry to Firehall.	
Check mirrors for traffic left and right and measure their approach speed to determine actions, slow vehicle on approach, activate EWS to warn drivers of intention, stop to allow guide(s) to exit truck to direct traffic and guide truck into bay,	
	Ensure backing guide is visible for set-up of backing manoeuvre.
When traffic controllers are in place, release brake, check mirrors to confirm sufficient space still available, move ahead to position to start backing, stop, shift to reverse	
Check left side mirror to identify backing guide is visible, when signalled, start reversing slowly, steering left or right as directed, check opposite side mirror for clearances, return to mirror and guide for further direction.	Maintain eye contact with backing guide.
Check driver side mirror while backing for clearances on approach to and travelling through doorway, steer as required to maintain path of travel and guidance from guide.	Maintain eye contact with backing guide.
When vehicle reaches parking position, apply brakes to stop, shift transmission to neutral and apply parking brakes. Shut off engine and activate battery kill switch.	

## C Response Driving

■ Due to varying situations and the various vehicles to be operated, this operation may require varied responses. The vehicles involved include supervisor vehicles, pumper trucks, aerial trucks and tankers. The techniques of operation are similar, but due to the size, weight and height, the major difference will be the time required for slowing or turning.

### 1. Right Turn Multi-Lane, Turn lane/Yield Sign

Driving Task	Secondary Job Task
Responding to a call, a firefighter approaches a complex right turn	Conduct any required communications prior to negotiation of direction change.
Speed is faster than normal so more vigilance is required for the basic visual glances of the intersection, behind, beside and left and potential oncoming left turners.	
	Decision Point: Options exist; the firefighter must decide whether to use the EWS based on the light and traffic configurations.
Select right lane early for purpose of turning right. If lane change is required, check behind, beside right to ensure sufficient space to complete lane change, when available, signal right, and move right to prepare for execution of turn. Continue braking to lose speed for controlled turn.	
	If they do decide to use the EWS they must identify which vehicles will be affected and monitor these vehicles to make sure the request for assistance is understood and the other road user is complying
Brake, losing sufficient speed to allow for safe negotiation of turn.	
	Change siren sounds on approach to gain other drivers attention, monitor other drivers reaction to the EWS,
Balance vehicle in corner and start to accelerate into space that has been created with continued visual glance behaviour.	
	Continue to change the siren sounds and activate the air horn as required
Move into the first available lane, and continue to accelerate, move to the next available lane if it is the lane of least resistance	

Continue to change the siren sounds and  
activate the air horn as required

## 2. Left Turn Multi-lane to Multi Lane Controlled by Traffic Lights

Driving Task	Secondary Job Task
Responding to a call, a firefighter approaches a complex left turn.	Conduct any required communications prior to negotiation of direction change.
Speed is faster than normal so more vigilance is required for the basic visual glances of the intersection, behind, beside and oncoming traffic.	
	Decision Point: Options exist; the firefighter must decide whether to use the EWS based on the light and traffic configurations.
Select left lane early for purpose of turning left. If lane change is required, check behind, beside left to ensure sufficient space to complete lane change, when available, signal left, and move left to prepare for execution of turn. Continue braking to lose speed for controlled turn. Continue vigilant scan for oncoming traffic and select sufficient space to execute the left turn.	
	If they do decide to use the EWS they must identify which vehicles will be affected and monitor these vehicles to make sure the request for assistance is understood and the other road user is complying.
	Attention must paid to where through traffic exists:
	7. Cross traffic,
	8. Oncoming or
	9. Protected turn traffic.
	Change siren sounds on approach to gain other drivers attention, monitor other drivers reaction to the EWS,
	Vigilant search is required if the traffic light is red and if the EVO intends to cross the intersection without waiting for a green signal.
	Visual search must be used to ensure each lane is controlled prior to crossing. Lower than normal speeds must be used to allow for mistakes by other drivers.
Brake, losing sufficient speed to allow for safe negotiation of turn, continue vigilant search each	

source of potential traffic conflict. Traffic in the cross lanes of traffic in areas identified may not recognize the intent to cross against the red light.	
	Vigilant visual search must be maintained to search open lanes for vehicles that have their vision blocked by stationary vehicles who have identified the emergency vehicle's intent.
	Continue to change the siren sounds and activate the air horn as required
Balance vehicle in corner and start to accelerate into space that has been created with continued visual glance behaviour	
	Continue to change the siren sounds and activate the air horn as required
Move into the first available lane, and continue to accelerate, using normal visual checks, move to the next available lane if it is the lane of least resistance	

### 3. Right Turn Simple Road to Simple Road - Controlled to Through- on Red Light

Driving Task	Secondary Job Task
Responding to a call, a firefighter approaches a simple right turn.	Conduct any required communications prior to negotiation of direction change. On going monitoring of communication system. Visual check of navigational tools.
Speed is faster than normal so more vigilance is required for the basic visual glances of the intersection, behind, beside and oncoming traffic. Begin slowing process early to allow time for multiple and proper decision-making. Estimate traction to determine when to start slowing.	Decision Point: Options exist; the firefighter must decide whether to use the EWS based on the light and traffic configurations.
	If they do decide to use the EWS they must identify which vehicles will be affected and monitor these vehicles to make sure the request for assistance is understood and the other road user is complying
Check mirrors behind and beside for traffic making unsafe actions. Turn on right signal light.. Check ahead for clearances and traffic. Stay to right side of the driving lane.	
	Change siren sounds on approach to gain other drivers attention, monitor other drivers reaction to the EWS,
Brake, losing sufficient speed to allow for safe negotiation of turn,	
	Continue vigilant search of cross lanes for traffic that does not recognize the intent to turn against the red light.
	Change siren sounds on approach to gain other drivers attention, monitor other drivers reaction to the EWS,
Using vigilant search, check left and right for sufficient road clearance and assure there is sufficient gap in the traffic.	
	Change siren sounds on approach to gain other drivers attention, monitor other drivers reaction to the EWS,
Balance vehicle in corner and start to accelerate	

into space that has been created with continued visual glance behaviour	
Move into the first available lane, and continue to accelerate, using normal visual checks, move to the next available lane if it is the lane of least resistance	
	On going monitoring of navigational tools
Check behind, left and right mirror for update of surrounding traffic.	

#### 4. Left Turn Simple Road to Simple Road - Controlled to Through- on Red Light

Driving Task	Secondary Job Task
Responding to a call, a firefighter approaches a simple left turn.	Conduct any required communications prior to negotiation of direction change. On going monitoring of communication system. Visual check of navigational tools.
	Decision Point: Options exist; the firefighter must decide whether to use the EWS based on the light and traffic configurations.
Speed is faster than normal so more vigilance is required for the basic visual glances of the intersection, behind, beside and oncoming traffic. Begin slowing process early to allow time for multiple and proper decision-making. Estimate traction to determine when to start slowing.	
	If they do decide to use the EWS they must identify which vehicles will be affected and monitor these vehicles to make sure the request for assistance is understood and the other road user is complying
Check mirrors behind and beside for traffic making unsafe actions. Turn on left signal light.. Check ahead for clearances and traffic. Stay to left side of the driving lane.	
	Change siren sounds on approach to gain other drivers attention, use air horn appropriately, monitor other drivers reaction to the EWS,
Brake, losing sufficient speed to allow for safe negotiation of turn,	
Continue vigilant search of cross lanes for traffic that does not recognize the intent to turn against the red light.	
	Change siren sounds on approach to gain other drivers attention, monitor other drivers reaction to the EWS,
Using vigilant search, check left and right for sufficient road clearance and assure there is sufficient gap in the traffic.	
	Change siren sounds on approach to gain other drivers attention, use air horn appropriately, monitor other drivers reaction to the EWS,
Balance vehicle in corner and start to accelerate	



into space that has been created with continued visual glance behaviour

Move into the first available lane, and continue to accelerate, using normal visual checks, move to the next available lane if it is the lane of least resistance

Check behind, left and right mirror for update of surrounding traffic.

## 5. Right Turn Simple Road to Simple Road - Controlled to Through- on Red Light

### Driving Task

Responding to a call, a firefighter approaches a simple left turn.

Visually identify type of intersection and inherent risks.

Check mirrors behind and beside for traffic Turn on right signal light.. Check ahead for clearances and traffic. Stay to centre/right of the driving lane.

Speed is faster than normal so more vigilance is required for the basic visual glances of the intersection, behind, beside and oncoming traffic Begin slowing process early to allow time for multiple and proper decision-making. Estimate traction to determine when to start slowing and ensure a balanced platform

Stay to centre/right side of the driving lane. Slow to a safe speed to enable the vehicle to stop at reasonable place if required. Check left, front, behind and beside for other motion of traffic making unsafe or unusual moves around the unit. Visually search intersection for motion of traffic Ensure traffic pattern is controlled

Check intersection in case of error in judgment by other traffic pattern Traffic is **all controlled** initiate turn, Steer right into the corner monitoring vehicle tracking in the space available.

### Secondary Job Task

On going monitoring of communication system

Decision Point: Options exist; the firefighter must decide whether to use the EWS (siren or air horn) based on the light and traffic configurations.

Active or already activated the siren wail at around 300 feet

Change the siren to yelp at 150 feet, use air horn appropriately to gain other road users attention.

Change siren tone to ensure traffic is controlled; use air horn appropriately to gain other road users attention.

Ensure a balanced platform while cornering

Continue vigilant visual search for uncontrolled traffic

At critical point of turn initiate appropriate amount of acceleration into available space maintaining a balanced platform.

Check behind, left and right mirror for update of surrounding traffic, cancel signal light if necessary.

Resume visual checks to maintain appropriate lane and traffic position.

Verbal update with officer as to progress to call.

On going monitoring of communication system  
On going monitoring and use of EWS as required based on traffic situations.

## 6. Left Turn Multi-lane Road to Multi-Lane Road - Controlled to Through- on Red Light

Driving Task	Secondary Job Task
Responding to a call, a firefighter approaches a complex multi-lane left turn.	
	Conduct any required communications prior to negotiation of direction change. On going monitoring of communication system.
	Decision Point: Options exist; the firefighter must decide whether to use the EWS based on the light and traffic configurations.
Speed is faster than normal so more vigilance is required for the basic visual glances of the intersection, behind, beside and oncoming traffic. Begin slowing process early to allow time for multiple and proper decision-making. Estimate traction to determine when to start slowing	
	If they do decide to use the EWS they must identify which vehicles will be affected and monitor these vehicles to make sure the request for assistance is understood and the other road user is complying
Check mirrors behind and beside for traffic making unsafe actions. Turn on left signal light.. Check ahead for clearances and traffic. Stay to left side of the driving lane.	
Monitor traffic flow to determine which lane(s) are available to negotiate the left turn. Select the lane of the least resistance for execution of the left turn.	
	Change siren sounds on approach to gain other drivers attention, use air horn appropriately, monitor other drivers reaction to the EWS,
Brake, losing sufficient speed to allow for safe negotiation of turn,	
Continue vigilant search of left turning lanes for traffic ahead that may try to move right responding to the EWS or cross traffic that does not recognize the intent to turn against the red light.	
	Change siren sounds on approach to gain other drivers attention, use air horn appropriately, monitor other drivers reaction to the EWS
Using vigilant search, check left and right for	

sufficient road clearance and assure there is sufficient gap in the traffic.	
	Change siren sounds on approach to gain other drivers attention, use air horn appropriately, monitor other drivers reaction to the EWS
Ensure that left turning traffic is controlled, search to see if first cross lane is controlled, advance slowly searching the second and third lane one at a time to ensure traffic is controlled and recognizes the emergency vehicle's intention.	
Search right for cross traffic and cross them one at a time, ensuring each lane is controlled and the vehicle drivers have recognized the emergency vehicle's intention.	
Steer left in the first available lane, accelerate checking behind and beside for sufficient clearances and space maintaining a balanced platform.	
	Change siren sounds on approach to gain other drivers attention, use air horn appropriately, monitor other drivers reaction to the EWS
Using normal visual checks, move to the next available lane if it is the lane of least resistance	
Check behind, left and right mirror for update of surrounding traffic	
	Communicate progress with officer.

## 7. Right Turn Multi-Lane Road to Multi-Lane Road, Control to Through on a Red Light

Driving Tasks	Secondary Tasks
Responding to a call, a firefighter approaches a complex multi-lane right turn.	
	Conduct any required communications prior to negotiation of direction change.
	Decision Point: Options exist; the firefighter must decide whether to use the EWS based on the light and traffic configurations.
Speed is faster than normal so more vigilance is required for the basic visual glances of the intersection, behind, beside and oncoming traffic Begin slowing process early to allow time for multiple and proper decision-making. Estimate traction to determine when to start slowing	
	If they do decide to use the EWS they must identify which vehicles will be affected and monitor these vehicles to make sure the request for assistance is understood and the other road user is complying
Check mirrors behind and beside for traffic making unsafe actions. Turn on right signal light.. Check ahead for clearances and traffic. Stay to centre/right of the driving lane. Change lanes right if required.	
Monitor traffic flow to determine which lane(s) are available to negotiate the right turn. Select the lane of the least resistance for execution of the right turn.	
	Change siren sounds on approach to gain other drivers attention, use air horn appropriately, monitor other drivers reaction to the EWS,
Brake, losing sufficient speed to allow for safe negotiation of turn,	
Continue vigilant search of right turning lanes and/or ramps for traffic ahead that may try to move right responding to the EWS or cross traffic that does not recognize the intent to turn against the red light.	
	Change siren sounds on approach to gain other drivers attention, use air horn appropriately,

	monitor other drivers reaction to the EWS
Using vigilant search, check left and right for sufficient road clearance and assure there is sufficient gap in the traffic.	
	Change siren sounds on approach to gain other drivers attention, use air horn appropriately, monitor other drivers reaction to the EWS
Ensure that left turning traffic is controlled, search to see if first cross lane is controlled, advance slowly searching the second and third lane one at a time to ensure traffic is controlled and recognizes the emergency vehicle's intention.	
If there is a right turn ramp, visually search to ensure there is sufficient space to negotiate the turn, search to see if traffic is clearing the ramp, if not, the firefighter may have to conduct a right turn at the intersection proper. They must ensure the traffic is controlled prior to this action.	
Steer right in the first available lane, accelerate checking behind and beside for sufficient clearances and space, merge into traffic maintaining a balanced platform.	
	Change siren sounds on approach to gain other drivers attention, use air horn appropriately, monitor other drivers reaction to the EWS
Using normal visual checks, move to the next available lane if it is the lane of least resistance	
Check behind, left and right mirror for update of surrounding traffic	
	Communicate progress with officer.

## 8. Railroad Crossing

- Firefighters responding to emergencies must respect railway crossings at all times. **“Train Time is Anytime”**. When responding to an emergency, the firefighter must be able to identify railway crossings and understand their vehicles will not stop as quickly as smaller vehicles. Therefore, they must treat the crossing as a risk to their safety and that of their crew.

Driving Task	Secondary Tasks
Check warning lights or drop bars for indication of approaching trains. Vigilant search of forward view to both sides for approaching trains or cross traffic.	
Reduce speed to minimal. Activate four way flashers to warn motorists.	
	Turn off siren and limit use air horn to better listen for train whistle.
Continue slowing on approach to train crossing, check behind and beside to monitor traffic following for surprise moves, lower driver's window to listen for train whistle.	
Continue vigilant search of traffic ahead that may over react to the fire vehicle and to the left and right for an approaching train.	
When crossing the tracks, proceed at a minimal speed for the conditions present including the road/track surface, weather and visibility.	
Once clear of the track, accelerate away to normal driving speeds. Resume normal monitoring of traffic and response driving.	



## 9. Stop Sign Straight Through

### Driving Task

Begin slowing process early to allow time for multiple and proper decision-making, check left and right for traffic approaching that may interfere with vehicle movement and not respect the emergency vehicle intentions..

Check mirrors behind and beside for traffic making unsafe actions to pass the slowing unit. Modulate braking to prevent wheel lockup and complete stop.

Check mirrors for traffic.

Check left, right, ahead and left again. Evaluate any gaps in traffic to accommodate reduced acceleration rate, size and traction. Accelerate across intersection checking traffic both sides.

### Secondary Task

Change siren sounds on approach to gain other drivers attention, use air horn appropriately, monitor other drivers reaction to the EWS

Use EWS appropriately to obtain other road users attention.

Continue appropriate EWS use to obtain other road users attention

## 10. Steep Downgrade

Driving Task	Secondary Job Task
Read road well ahead for signs indicating "hill."	
	Evaluate load weight, traction, and deceleration torque at present rpm.
Check all mirrors for traffic flow. Reduce speed accordingly, considering all factors.	
Choose a lower gear, theoretically one lower than required to go up it.	
If grade is steep enough to require a slower than normal speed put on four way flashers.	
	Continue appropriate EWS use to obtain other road users attention.
Light brake application to maintain lower road speed as required.	
Monitor traffic flow behind for advance warning of problems. Distant eye lead forward to prepare for other problems.	
Ease pressure on brake as truck nears bottom of hill, release brake pedal at bottom of hill.	
Accelerate to road speed. If you have used flashers to signify slower speed on hill remove as speed increases.	
Accelerate to travelling speed.	
	Accelerate to travelling speed.

## 11. Steep Upgrades

Driving Task	Secondary Job Task
Increase speed on approach to build momentum.	
Maintain eye lead for traffic coming over crest of hill	
	Continue appropriate EWS use to obtain other road users attention.
If grade is steep enough to require a slower than normal speed put on four way flashers.	
Maintain speed as far as possible up the hill.	
Manually downshift transmission as required.	
If you have used flashers to signify slower speed on hill remove as speed increases.	
	Continue appropriate EWS use to obtain other

	road users attention..
Return to normal driving procedures for forward driving based on present environment.	

## 12. Turn Around At An Intersection - Backing

Periodically, Fire vehicles responding to emergencies will be required to make directional changes due to poor address information, poor directions or over driving. As a result, the Fire vehicle must make a change in travel as efficiently as possible to continue responding to the call. There are various ways to conduct turn arounds, listed below are several methods.

It is strongly recommended these methods be used if there are no alternatives present such as going around the block or using an alternate route. This is done due to the inherent risks involved with sudden and/or significant directional changes by large emergency vehicles. As well, any time a large truck is reversed, the risk of crash increases significantly.

## 13. U Turns

Driving Tasks	Secondary Tasks
Upon approach of an intersection where a turn around manoeuvre is required, check behind and beside for traffic. The EVO must ensure there is sufficient space to conduct a U-turn prior to commencing action.	
	Continue appropriate EWS use to obtain other road users attention..
As the intersection becomes closer, check left and right and behind for approaching traffic, activate the right turn indicator	
Stop if required due to traffic controls or vehicles present.	
	Communicate with on-board officer for assistance with traffic.
When the way is clear turn steering wheel right to use available space from cross street, steer hard left to bring vehicle around towards traveled lane, proceed slowly checking left and right for traffic.	
Proceed across the traveled lanes one at a time holding the steering hard left, conduct vigilant search for each lane to be crossed for traffic failing to recognize the EVO's intentions.	Continue appropriate EWS use to obtain other road users attention.
Continue checking for all forms of traffic while completing U-turn.	

## 14. Simple Two Point Turn

Driving Tasks	Secondary Tasks
Upon approach of an intersection where a turn around manoeuvre is required, check behind and beside for traffic. The EVO must ensure there is sufficient space to conduct a simple two-point turn prior to commencing action.	
	Continue appropriate EWS use to obtain other road users attention.
As the intersection becomes closer, check left and right and behind for approaching traffic, activate the right turn indicator to indicate intention to the driver behind. Roll down driver's window to allow audible warnings from other vehicles to be heard.	
	Turn off siren to allow audible warnings from other vehicles to be heard, keep visual warnings activated.
Slow vehicle to crawl, vigilantly search area to the right to be reversed into for sufficient space, width, length, overhead, and approaching traffic.	
Complete crossing the space and stop vehicle far enough ahead to allow for steering into the space allowing vehicle tracking and minimize the risk of crash.	
	Continue appropriate EWS use to obtain other road users attention, sound air horn as warning prior to reversing.
Place vehicle in reverse, partially release brakes and allow vehicle to move extremely slowly in reverse, continue checking appropriate mirrors on an alternating basis between left and right, west coast and convex. .	
	If available, it is strongly recommended that a guide be used for reversing. This will help minimize the risk of a backing crash.
Steer right sufficiently to make the vehicle turn in the available space, steer left or right as required while backing to avoid objects etc. as the vehicle enters the area, steer left until the steering is straight,.	
Stop the vehicle, place the vehicle in a forward gear, check left and right for traffic, proceed when	

a sufficient gap appears, complete a left turn	
	Continue appropriate EWS use to obtain other road users attention.

## 15. Right Lane Change

Driving Task	Secondary Task
Using eye lead monitor traffic to ensure roadway ahead is suitable for entry into the right lane. Check west coast and lower tower convex.	
	Continue appropriate EWS use to obtain other road users attention..
Engage right turn indicator and verify path to the right is safe and clear with another series of mirror checks. If conditions are clear steer gradually to the right to prevent right side of vehicle from hitting the curb. If uncertain of blind spot to right is clear alter speed to allow the vehicle if present to clear blind area/	
As dictated by the vehicle being in the desired lane position return steering to the neutral position. Position vehicle to the centre of the driving lane. Verify position of vehicles in rear using west coast and convex mirrors. Adjust speed accordingly for traffic flow	
	Continue appropriate EWS use to obtain other road users attention..

## 16. Left Lane Change

Driving Task	Secondary Task
Using eye lead monitor traffic to ensure roadway ahead is suitable for entry in to left lane. Check left west coast then lower convex or shoulder check..	
If conditions clear steer left.	
	Continue appropriate EWS use to obtain other road users attention..
When in left lane return steering to neutral position. Check for traffic flow behind. At this time also monitor traffic in right side lane to see if traffic is adjusting to your move.	