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SECTION I

SCOPE:
This guideline applies to all South Metro Fire Department personnel who are responsible for operating fire department vehicles.

PURPOSE:
The purpose of this guideline is to promote safe apparatus & vehicle operations.

GENERAL:
Driver/operator's responsibility: It is the responsibility of the driver of each fire department vehicle to drive safely and prudently at all times. The driver of the emergency vehicle is responsible for its safe operation at all times.
Officer's responsibility: The officer in charge of the vehicle is responsible for the safety of all vehicle operations and managing compliance of this procedure.
Compliance with traffic laws: Vehicles shall be operated in compliance with the Minnesota Motor Vehicle Code. This code provides specific legal exceptions to regular traffic regulations which apply to fire department vehicles only when responding to an emergency incident or when transporting a patient to a medical facility. Emergency response (Code 3) does not absolve the driver of any responsibility to drive with due caution.

SECTION II

A. ROAD SAFETY INTRODUCTION

SMFD has implemented the Road Safety SafeForce™ Driving System in specific vehicles. The system provides an audible feedback to alert the driver that the vehicle is not being driven to SMFD Safety Standards.

SMFD recognizes that the safe and appropriate operation of department vehicles is an essential component of providing quality services to its customers and the safety of our employees, patients and the communities that we serve. To ensure and maintain this standard of quality, all employees who operate SMFD vehicles are required to comply with the standards set forth in these procedures.

SMFD is fundamentally committed to the health and safety of its workforce, and provides safety training; tools and information to employees enable them to work safely. The program will assist with the monitoring of employee driving behaviors. The Road Safety Program helps to enhance vehicle operational standards to ensure continuous safe driving performance while operating department vehicles.

1. <u>SMFD Road Safety Objectives:</u>
    a. To ensure compliance of department standards for the safe operating of all vehicles.
    b. To enhance the overall safety of employees and the public.
    c. To reduce accidents and the overall financial impact they have to the organization.
    d. To establish, monitor and update driving standards, behaviors and training needs.
    e. To establish accountability of safe operation of department vehicles.

2. <u>Program Driving Standards & Reports</u>
    a. The Road Safety Driving System measures and records vehicle speed, RPM's, acceleration, deceleration, G-forces and other parameters including but not limited to: speed, spotters, turn signals, braking, emergency lights and siren, parking brake, seatbelt usage, idle time, park time, run time and system tampers. The system is capable of giving second-by second feedback and data.

b. The Road Safety System has a built in scoring matrix that rates each driver on a scale of 1-10. Driving reports will be generated every two weeks, which are reviewed by the Asst. Chief. SMFD employees are required to maintain a level 5 or greater.

3. SafeForce™ System Components
   a. An On-Board Computer to collect the data.
   b. An Accelerometer Module to monitor vehicle G-forces.
   c. A Transceiver to download data to the base station.
   d. An Audio Speaker to provide audible feedback to the driver.
   e. A Driver ID Receiver for drivers to log onto the system.

4. What is the Road Safety System?
   a. A device similar to the flight data recorders used by commercial airlines and on new engines and ladders per NFPA.
   b. It measures vehicle and driver performance.
   c. Records multiple inputs including:
   d. Speed
   e. RPM
   f. Brakes
   g. Turn signals
   h. Emergency lights
   i. Siren activation
   j. Seatbelts
   k. Spotter Switch
   l. Monitors and records vehicle G-forces generated during turns, accelerations and decelerations.
   m. Provides audible feedback to help the driver operate the vehicle in a safe manner.

5. Why Does SMFD Need The Road Safety System?
   a. Improve safety
   b. Required by the health East Contract
   c. Provide a smooth and stable environment
   d. Recognize drivers who drive safely
   e. To protect you, your partner and the community
   f. Reduce maintenance costs and extend vehicle life
   g. Serves As On-Going Driver Training Program

B. DRIVER REQUIREMENTS AND SPECIFICATIONS

1. Road Safety Driving Standard: All employees must successfully complete the Road Safety driving program offered by the SMFD. All new employees will receive this training during orientation. Once assigned to street duty, each employee must maintain a minimum Level 5 standard or a minimum of 8 Miles Average Between Counts (ABC).
   *TBD - these will be reconsidered after 3 months of operation

2. Officers and Educators: During the time the new employee is in orientation, he/she will be accompanied by either an officer or a firefighter under the direction of an officer which will act as a preceptor for the new employee. Their responsibilities to the new employee are:

   a. Acquaint the employee with his/her new working environment and the responsibilities for the vehicles
   b. Explain the type and quality of vehicle performance required at SMFD.

c. Instruct the employee as to proper care and maintenance of the vehicle and equipment.
d. Coach the employee on proper Road Safety driving techniques and correct any undesirable driving habits.
e. Document progress of the employee during the orientation period for follow-up.
f. Accompany the employee for the entirety of the orientation to determine whether he/she is ready for duty assignments.
g. Discuss with the new employee their weak areas; then develop and carry out a plan to improve those areas.
h. Complete the required clinical paperwork prior to leaving your shift.
i. Allow the employee to operate the vehicle in emergency and non-emergency responses when appropriate.
j. New employees will be given a 30-day grace period to become familiar with the Road Safety Driving System. If there are any problems encountered the employee will be placed into an additional driver remediation course as determined by the Asst. Chief. Occasionally, the performance of an established driver indicates that he/she is experiencing problems. If this occurs, and through documentation, a Road Safety instructor will be assigned to the individual to determine the cause of such difficulties. The intent is to assist the employee in overcoming the difficulties.
k. If the driver's problem appears physical, this situation will be reported to the Asst. Chief and a physical examination may be indicated.

C. STANDARD OPERATING PROCEDURE FOR FLEET SAFETY

1. DRIVING

While Fire Apparatus are classed by the State of Minnesota Vehicle and Traffic Law as "authorized emergency vehicles" and such are exempt from speed, red light, turning and one-way regulations while responding to an emergency call and using audible and visual signals, they must be operated in a safe manner. For the safety of crews, patients and the public, SMFD vehicles will be operated as follows:

a. Speed - Vehicles shall not be operated at speeds in excess of 10 mph over the posted speed limit. However, the operator shall not exceed the speed limit, regardless of the posted limit, if it is unsafe for a particular driving condition and only in a Code 3 response.

b. Red Lights -. On emergency calls, SMFD vehicles may proceed through a red light only after stopping and then proceeding at 5 mph. Use extreme caution through the intersection with siren and red lights operating. Also see policy under "Intersections".

c. Stop Signs - On emergency calls, SMFD vehicles may proceed through a stop sign only after stopping, verifying the intersection is clear, and then only proceed with caution. Also see policy under "intersections"

d. One-Way Streets and U-Turns - Proceeding the wrong way on a one-way street shall only be done with extreme caution and only when absolutely necessary and with control. U-turns shall be made only when absolutely necessary and at a slow rate of speed and with extreme caution. Siren and red lights will be used in conjunction with the above procedures.

e. Seatbelts - All vehicles are equipped with seat belts and all persons riding in SMFD vehicles are to use the belts for their protection. Family and/or individuals riding to the hospital with a patient

must use seatbelts provided. Personnel in the patient compartment will wear seatbelts at all times except when the seatbelt interferes with patient care procedures.

f. Restraint Systems for Patient Transport - All patients transported by SMFD, will be fully restrained with the restraint system within the unit, on the stretcher.

Ambulance Patients: Each stretcher is to be equipped with three straps (Leg, waist and shoulder). All patients will have all the straps firmly in place to prevent injuries. All stretchers will be secured during transport by the stretcher restraint system.

g. Regard For Safety - These provisions shall not relieve the driver of an authorized emergency vehicle from the duty to drive with due regard for the safety of all persons, nor shall these provisions protect the driver from the consequences of his/her reckless disregard for safety.

h. Passing - Passing on the right is hazardous and should be done with extreme caution. The first choice exercised by the driver shall be to pass on the left. If traffic will not allow, as is often the case on multi-lane one-way roads, the SMFD vehicle may proceed around traffic on the right at a slow, safe rate of speed. Do not pass other emergency vehicles on emergency runs particularly those of other agencies unless directed to do so by that agency's driver. This should only occur when the vehicle being followed is having difficulty and safe passage around is granted by the first vehicle. This is to be considered a rare and extraordinary occurrence.

2. VEHICLE OPERATIONS AND CARE

All SMFD personnel have joint and individual responsibilities in the operation and care of vehicles within the SMFD fleet. Only properly assigned drivers will drive a SMFD vehicle.

SMFD vehicles will be operated as provided by law and in no way should ever jeopardize lives or the safety of your passengers or public. SMFD vehicles will not be used to conduct any private business or transport.

a. Response Codes:

i. **Routine Responses** - This category of response refers to emergent response, without red lights or siren. Drivers must observe all traffic regulations.

ii. **Code Three Responses** - This category refers to emergency responses where there is a high probability of death, serious injury or illness, and where the possibility that immediate action by emergency personnel may reduce the severity of the injury and/or illness as determined by medical dispatch protocols. While on a code three response, emergency-warning devices will be used continuously to alert other vehicles of the presence of an emergency vehicle and will not be used to demand the right-of-way.

Vehicles will not exceed 10 mph above the posted speed limit under safe conditions. Speeds should be reduced to account for hazards such as pedestrians, traffic, and weather conditions. Units should come to a complete stop at all red lights~~,~~ and when given the exclusive right-of-way at an intersection, may proceed one lane at a time, with extreme caution, at a speed of no more than 5 mph. Vehicles will ONLY proceed through a stop sign with absolute control of the intersection and no greater than 5mph.

Generally, emergency units should drive in the left-most available lane for traffic moving in the same direction. Passing on the right can be dangerous as yielding traffic usually moves to the right. When driving through school zones, during posted hours or when warning lights are flashing, the posted speed limit should be obeyed while making sure that all children are at a safe distance. When approaching a school bus that is flashing red lights, the emergency unit should come to a complete stop and turn off the siren until the bus driver gives the unit permission to proceed around the bus.

Emergency units should not attempt to force uncooperative or inattentive drivers to yield by tailgating, swerving, shouting over the PA system, or manipulating the emergency vehicle in any other unsafe manner.

Emergency units should be aware of the appropriate use of the siren in or around a hospital zone; however, the siren should be activated well in advance of intersections in or around a hospital zone. Emergency vehicles must not pass a school bus displaying its stop sign until the driver of the school bus has withdrawn the stop sign.

Responding when out of quarters: All apparatus responding to emergency calls from a location other than their assigned station shall acknowledge the alarm and state the location from which response is being made.

Residential Streets: Residential streets shall be avoided when possible.

b. VEHICLE OPERATION REQUIREMENTS – POLICY

i. Smoking and tobacco products shall not be used by anyone inside the Vehicle at any time.
ii. Vehicles should be driven with headlights on at all times for safety.
iii. The AM/FM radio system in the ambulance is not to be on when a patient is present or being transported in the ambulance or while operating on emergency.
iv. SMFD personnel shall wear seatbelts when riding in the cab area.
v. Sit-up patients and all passengers shall be required to wear seat belts whenever they are present in the ambulance regardless of whether they are in the patient or cab area.
vi. Young children and infants who are not being seen as patients should be transported in a child restraint seat whenever possible.
vii. Whenever a vehicle is left running and not occupied with a driver, the emergency brake shall be applied.
viii. Vehicles utilized on duty shifts shall be refueled when the tank is at or above one-half full. Vehicles parked in reserve or out-of-service status shall be fully fueled before being parked.
ix. Vehicles will not leave road surfaces for the purpose of being driven on frozen bodies of water such as lakes, rivers, or streams.
x. Vehicles may be taken off improved roadways or parking lot surfaces in a medical emergency in order to gain access to a patient or patients, provided it can be reasonably ascertained that the vehicle will not be damaged or stuck in soft or impassable terrain. In those instances where personnel feel it may not be prudent to leave a roadway surface, a specialized rescue vehicle (i.e. four-wheel drive, ATV, snowmobile, tc.) should be summoned to assist in gaining access to the patient.
xi. Vehicles shall not utilize drive-thru lanes of any type at such places like fast food restaurants, banks, post offices, etc. without FULL consideration of vehicle dimensions.

xii. Vehicles will not be driven under canopies, garages, or other coverings without a spotter to ensure proper clearance of the unit. The use of a spotter is not necessary in the case where it is known that vehicles have previously been in specific garage areas or under canopies such as hospital garages and health care facility canopies.
xiii. EQUIPMENT WITHIN PASSENGER COMPARTMENT: All equipment transported within the passenger compartment of a department vehicle should be secured against sudden movement or stored within an approved enclosure.
xiv. SCBA STORAGE: Self-Contained Breathing Apparatus (SCBA) carried within the apparatus shall be properly positioned within approved holders.
xv. Personnel will conduct themselves in a professional manner at all times. The following shall be maintained:
xvi. Feet shall be kept off the dashboard/console area
xvii. No shouting at other vehicles or people
xviii. Driving in a professional manner
xix. Keep feet out of the door well area

c. VEHICLE SPEED – POLICY

i. SMFD personnel should drive in the emergency mode only as may be required per the call situation. Always give due regard to the safety of the patient, passengers, and public as required under the law. Emergency mode driving is intended to help provide a clear path for the vehicle. It is not to be regarded as a license to violate traffic laws and be discourteous to other drivers.

ii. Except in an emergency, all employees driving SMFD vehicles will drive in the right hand lane (where possible) and drive no faster than the posted limit. If circumstances such as weather, visibility, vehicle condition, etc. so require, vehicle speed will be reduced to a level consistent with the prevailing circumstances.

iii. It is the policy of SMFD that any vehicle engaged in emergency (code 3) operations shall not drive faster than 10 m.p.h. above the posted speed limit, as circumstances may dictate.

iv. All emergency lights must be activated when on an emergency response or transport.

v. The siren must be activated when on an emergency response or transport.

vi. When operating under “Code-3” operation, the driver shall maintain a safe following distance between their vehicle and any other emergency vehicle that may be proceeding in the same direction or to the same call.

vii. When approaching a “red” semaphore light, the Vehicle shall come to a complete stop or be able to make a complete stop before proceeding through the intersection. When approaching a stop sign, only proceed with absolute control and no faster than 5MPH.

viii. All vehicles being driven in an emergency mode shall stop for a school bus when it has the stop arm extended and red lights flashing.

ix. All ambulances being driven in an emergency mode shall stop at all railroad crossings where the signal lights and/or stop arm is down. After stopping, if no train is present, the ambulance may proceed if it is safe to do so.

x. All Minnesota State laws governing emergency vehicles and the operation of same shall be adopted as a part of this policy.

d. OPERATION OF "OPTICOM" – POLICY

i. The purpose for using the Opticom Traffic Signal Pre-emption System (TSPS) is to allow emergency vehicles to perform emergency services in a safer and more timely manner by temporarily controlling vehicle traffic flow at signalized intersections.
ii. Operating TSPS:
iii. Opticom is only authorized for use on "Code-3" emergency calls.
iv. Drivers may elect to turn off emitters in poor weather conditions such as heavy snow, rain, or fog.
v. Drivers may elect to use discretion on the operation of emitters to allow other emergency vehicles to control access of intersections for their response.
vi. Drivers shall be required to stop at all red lights (whether Opticom is being used or not).
vii. Emergency personnel must be aware that the TSPS may fail to operate at signalized intersections due to the following:
viii. The intersection may not be TSPS equipped.
ix. One or more TSPS components may be inoperative.
x. The speed of the emergency vehicle may cause the emergency vehicle to arrive at the intersection too soon for the TSPS to cycle the signal to green.
xi. Another emergency vehicle using TSPS may be coming from a cross flow direction and may have already seized command of the intersection signal.
xii. Severe weather conditions may disrupt the detection of the emitted signal.
xiii. Other conditions may exist which prevent the TSPS from operating as designed.
xiv. Emitters shall always be turned off after arrival at the emergency scene to:
xv. Avoid TSPS-controlled intersections from being locked on green from an active emitter. *NOTE:* The Opticom emitter in most cases has been set up to shut off automatically when the unit is placed in park. If this does not occur, there may be a malfunction in the system.
xvi. Any malfunction in TSPS controlled intersections shall be reported immediately to the appropriate shift officer who will report to MnDOT. Drivers should warn other emergency vehicles who may be accessing the same intersections of any malfunctions. It shall be placed on the Department Web Site
xvii. Vehicle emitter damage or malfunction shall be documented on Department Web Site.

e. ROAD EMERGENCY / VEHICLE PROBLEMS – POLICY

i. In order to ensure the safety and well being of the patient, passengers, and crew in the event of a road emergency or vehicle break down, the vehicle operator shall immediately initiate certain action steps to include:

ii. If an on-board patient is deemed critical/urgent, and the ambulance should experience a mechanical or other road emergency that prevents the operation of the unit, notify dispatch immediately to send an alternate ambulance and/or police and fire as required.

iii. Safely pull over to the shoulder as far as possible. If you are unable to pull over to a safe location, call dispatch and request immediate assistance from the State Patrol or local law enforcement.
iv. If an engine mechanical issue requires, shut the vehicle off.
v. Set the parking brake.
vi. Turn on 4-way flashers and carefully set up hazard triangles behind the vehicle (as safe to do so).
vii. Ensure patient and passenger safety as a number one priority. This may include:
viii. Evacuation of the vehicle if smoke, fire or other hazard exists.
ix. Notify and stay in contact with dispatch by cellular telephone or radio to update scene status and changes as may be required.
x. Explain the situation to the patient and passengers and ensure their comfort and well being. As appropriate, offer to make telephone notifications or allow them the use of the department cell phone to talk with family.

3. CELLULAR PHONE USAGE

It is the policy of the SMFD to provide a safe and healthy work environment for its employees and patients. This policy is intended to control the manner and means under which any employee may utilize a cellular telephone for a telephonic conversation, whether such telephone is issued by SMFD or personally owned by the employee, during the time period when the employee is authorized and required to operate a SMFD vehicle in order to perform work activities.

No employee is authorized to use the cellular telephone for a telephonic conversation, whether such telephone is issued by SMFD or personally owned, while the employee is in the process of operating the motor vehicle while it is moving or temporarily stopped or otherwise in an active vehicular traffic lane on a public or privately owned road, highway or alley or on privately owned property. The only exception is administrative vehicles provided in accordance with State Statute.

If it is necessary to use a SMFD issued or privately owned cellular telephone for a telephonic conversation for SMFD business, it is only allowed for SMFD business AND in full accordance with State Statute.

At no time shall an operator use a cell-phone while operating as an emergency vehicle UNLESS, it is urgent and related to life safety and there is only one operator. It is only done in accordance with State Statute.

4. TRANSPORTING PATIENT'S PERSONAL BELONGINGS

a. As a courtesy, SMFD will transport a patient's personal belongings provided that they can be safely stored and restrained within the ambulance. All personal property is to be left with the patient or caregiver at the point of destination in a hospital patient belongings bag.

b. It is the policy of SMFD to not transport any cash, jewelry, or valuables not in the patient's possession at the time of the call (extra valuables from around the house, etc.).

c. Every attempt should be made to leave valuables and non-essential personal belongings with family members. Upon arrival at the point of destination, the patient's belongings should be released to the receiving RN or family members.

d. In order to document the chain of custody, the narrative section of the PCR should reflect the items transferred and the name of the individual who received them. If valuables such as cash or

jewelry are transported, the crew would request that the receiving party affix their signature next to the notation on the PCR.

5. VEHICLE CHECKLISTS

At shift change, the driver and officer shall check their assigned vehicle and the ambulances complete the vehicle/ log/checklist sheet. At the beginning of each shift both ambulance driver and officer will complete the checklist indicating that the ambulance and equipment are in good repair and operational, it is the responsibility of the driver to turn in this sheet. Engines and ladders follow the same practice although no checklist, Any and all discrepancies should be noted in writing and brought to the attention of the Supervisor and shall be entered on the department Web Site. At the start of each shift, the driver of administrative vehicles will conduct a walk around of the vehicle and verify that all equipment is in place and operational. Daily paperwork is not required for administrative, engines or ladders.

a. PRE-OPERATION VEHICLE SAFETY / MAINTENANCE INSPECTION – POLICY

i. It shall be the responsibility of all employees who will be operating a Department vehicle to perform a safety and basic maintenance inspection of the vehicle prior to driving the unit. Including equipment.
ii. Any vehicle deemed unsafe or in need of immediate (critical vehicle system) maintenance shall be pulled from service, not driven, and referred to the supervisor and placed on the Department Web site. In accordance with department practice the vehicle will be scheduled for immediate repairs. The vehicle shall be "Red tagged' until safe.
iii. Employees shall perform a vehicle inspection that will include the checking of such items as body damage, items as specified in the "Ambulance Daily Checklist".
iv. Employees should further ensure that all routine and preventative vehicle maintenance is documented when time or mileage indicates.
v. A vehicle that is identified with a maintenance or safety issue shall be written up on a department Web Site, it should include complete descriptions such as specific operations, sounds, smells, whether the problem is intermittent or constant, etc.

6. Guide For Determining Accident Preventability

Objective: The Road Safety Program of SMFD has the objective of determining the safe or unsafe performance of SMFD employees.

The decision on the preventability of an accident must be made independently of any finds as to the driver's legal liability. If any law violation has been found by any law enforcement officer, it is sufficient evidence that the accident was preventable. An accident may well be found preventable on the part of one driver even though there is no legal liability and/or law violation on his part if the investigation shows that the driver failed to take some action that he reasonably could have taken to avoid the accident. It is based on the idea of defensive driving, which can be defined as "driving in full compliance with all applicable laws and regulations and in such a manner as to avoid accident involvement despite adverse conditions of the road, weather or traffic, or the efforts of pedestrians or other drivers". In this sense, defensive driving is not only an accident control tool, but also it represents a means of upgrading the standards of the professional driver.

The concept of preventability is also an effective means of countering the rationalization in which drivers indulge in an effort to fix the blame for an accident on some factors other than their own driving. It places more of the burden of proof on the driver to show that he did everything that he could to avoid

involvement. Unless thorough investigation indicates that the employee in question could not have avoided involvement, by reasonable Road Safety driving practice, the following types of accidents will be regarded as **PREVENTABLE:**

a. Intersections

It is the responsibility of the drivers of SMFD vehicles to approach, enter and cross intersections prepared to avoid accidents that might occur through the action of other drivers. Complex traffic movement, blind intersections, or failure of the "other driver" to conform to law or traffic control devices will not automatically discharge an accident as non-preventable. Intersection accidents are preventable even though the driver has not violated traffic regulations. Failure to take precautionary measures prior to entering an intersection is factors to be studied making a decision. When a driver crosses an intersection and obvious actions of the "other driver" indicates possible involvement either by reason of his excess speed, crossing his lane in turning or coming from behind a blind spot, the decision based upon such entrapment should be preventable.

Intersections provide a location for a high frequency and severity of accidents due to restricted visibility, assumption of other drivers' actions, confused drivers, and vehicle density. Because of the frequency of accidents involving emergency vehicles at intersections, the following policy has been implemented by SMFD.

Intersection Procedure:

i. Crossing on Green:
- Slow down
- Take foot off accelerator
- Look in all three directions
- Be aware of oncoming vehicles turning in front of your vehicle
- Look for other emergency response vehicles as well
- Proceed with extreme caution

ii. Crossing on Red:
- Come to a complete stop
- Attempt eye contact with drivers of other vehicles
- Wait for partner to communicate "CLEAR"
- Proceed with caution clearing one lane at a time at a speed of no more than 5 mph.

iii. Stop Signs:
- Stop, proceed with caution clearing one lane at a time
- Only proceed with complete control of the intersection.

iv. Making right or left turns across stopped vehicle:
- Proceed with extreme caution, not exceeding 5mph
- Establish eye contact with side vehicle via partner or yourself
- If able your partner should assist in watching traffic.
- Be aware of vehicles approaching you from behind
- Proceed with caution

v. Special Precautions

- Slow down prior to reaching intersection in order to get a good view of the situation and to avoid startling unaware motorists.
- Use Siren: be patient and continue signaling.
- Avoid passing on the right unless it is the last resort.
- Avoid traveling in opposing traffic unless you are certain traffic is clear. If you must proceed, do so with extreme caution and stay to your far right.

b. Backing

Practically all-backing accidents are preventable. A driver is not relieved of his responsibility to back safely when a spotter is involved in the maneuver. A spotter cannot control the movement of the vehicle; therefore, a driver must check all clearance in addition to the assistance offered by the spotter.

Spotter switches are located both internally in ambulances, in the patient compartment, and externally on the rear of the vehicle. The spotter switches should be activated whenever a vehicle is going to back up. If a spotter is not available then the driver should walk around the vehicle to assess the surroundings.

A spotter is not required on administrative vehicles, although in no way relieves the driver of responsibility.

<u>General rules for backing:</u>

i. Spotter available:
- If you can avoid backing, don't back.
- Never be in a hurry when backing
- Do not start to back when unsure of the area.
- Do not put the unit into reverse gear before coming to a complete stop.
- Roll the window down completely.
- Make visual and verbal contact with spotter.

ii. No spotter available:
- Reconsider backing up. Is it really necessary?
- Make a reasonable attempt to get someone to act as a spotter.
- If a spotter cannot be obtained, get out of the unit and walk around the unit completely and survey the backing area.
- Before proceeding to back the unit, be sure to check the overhead clearance.
- If both members are present and the patient requires constant care, the operator can proceed with backing provided the care giver in the back looks out the back window, scans the area prior to backing and monitors as the vehicle backs. This does not relieve the driver of responsibility. Also, this procedure should not compromise patient care.

iii. Operator Responsibilities:
- Bring the unit to a complete stop
- Roll the window down completely.
- Make verbal communication with spotter.

- A spotter should be in place eight to ten feet at the right rear of the unit.
- Be able to see spotter in right rear view mirror.
- Driver and spotter must establish and should maintain eye contact in the right rear view mirror.
- Operators must have a thorough knowledge of hand signals.
- The spotter hand signals the driver to back-up

iv. Spotter Responsibilities:
- Get out of the unit and survey the left side and rear area for obstacles that would damage the unit. Remember the overhead clearance.
- Press the spotter switch located on the side or rear of the ambulance.
- Place yourself eight to ten feet to the right rear of the unit.
- Make sure the operator can see and hear you.
- Be familiar with hand signals before allowing backing maneuvers to begin.
- Have eye contact with the operator through the right side rear view mirror and direct the driver with approved hand signals.

BACKING OF THE AMBULANCE – POLICY

i. Backing of an ambulance should be avoided whenever possible. Where backing is unavoidable, a spotter outside of the vehicle shall be used.
ii. The driver of a SMFD ambulance is responsible for the safe backing and parking of the unit. The driver shall not place the unit in reverse gear and start to back the unit until the following procedures have been completed:
- The unit has come to a complete stop.
- A spotter is in place eight (8) to ten (10) feet at the right rear of the unit, make eye contact through the left hand side rear view mirror and establish voice and hand communications with the spotter.
- Spotters are never permitted to ride on the back bumper or running boards while the vehicle is in motion.
- The spotter shall remain visible at all times. Anytime the driver loses sight of the spotter, the vehicle shall be stopped immediately until the spotter is visible again.
- When a SMFD employee or first responder spotter is not available, the driver must park the unit, get out and walk around the unit to survey the backing area, before proceeding to back the unit.

- Driver may have their partner riding in the rear patient compartment assist in backing. The only exception to this policy is when the partner is attending to a critical patient and cannot leave the patient (this will not relieve the driver from any of the above procedures).

c. Front-End Collisions

Regardless of the abrupt or unexpected stop of the vehicle ahead, the driver can prevent front-end collisions by maintaining a safe following distance of all times. This includes being prepared for possible obstructions on the roadway, either in plain view or hidden by the crest of a hill or curve of the roadway. Overdriving the vehicle's headlights at night is a common cause of front-end collisions. Night speed should not be greater than that which will permit the vehicle to come to a stop within the forward distance illuminated by the vehicle's headlights.

d. RearEnd Collisions

Investigation often discloses that the driver's risk of being struck from behind by failing to maintain a margin of safety is his own following distance. Rear-end collisions preceded by a roll-back, an abrupt stop at a grade crossing, when a traffic signal changes or when a driver fails to signal a turn at an intersection, should be charged preventable. Failure to signal intentions or to slow down gradually should be considered preventable.

e. Passing

Failure to pass safely indicated faulty judgment and the possible failure to consider one or more of the important factors a driver must observe before attempting the maneuver. Unusual actions of the driver being passed or of oncoming traffic might appear to exonerate a driver involved in a passing accident, however, the entire maneuver is voluntary and the drivers responsibility.

f. Being Passed

Sideswipes and cut-offs involving a driver of a SMFD vehicle while being passed are preventable by slowing down or moving to the right where possible.

g. Lane Encroachment

A safe driver is rarely a victim of entrapment by another vehicle when changing lanes. Similarly, entrapment in merging traffic is an indication of unwillingness to yield to other vehicles or to wait for a break in the traffic. Squeeze plays causing involvement with parked cars, pillars, and other road structures can be prevented by dropping back when it is apparent that the other driver is forcing the issue or contesting a common portion of the road.

h. Railroad Grade Crossings

Collisions with fixed rail vehicles, such as trains, occurring at grade crossings, in traffic and a rail switch yard or on private property are the responsibility of the driver to prevent. When a vehicle is parked across a rail siding, the driver must first determine if it is safe and permissible, and furthermore, must stand by in case conditions change by the movement of rail cars during the parking interval.

i. Opposing Vehicles

It is extremely important to check the action of the driver when involved in a head-on or sideswipe accidents when approaching from the opposite direction. Exact locations of vehicles, prior to and at the point, must be carefully verified. Even though an opposing vehicle enters your traffic lane, it may be possible for the SMFD driver to slow down, stop or move to the right to allow the vehicle to re-enter his own lane, he has failed to take action to prevent the accident.

j. Turning

Turning movements, like passing maneuvers, require the most exacting care by a Road Safety driver. "Squeeze plays" at the left or right turns of other vehicles, scooters, bicycles or pedestrians are the responsibility of the driver making the turn. Failure to signal, to properly

position the vehicle for the turn, check mirrors, checking the pedestrian lanes or to take any other defensive action should be considered. Sudden turns by other drivers should be carefully examined. You may find that the SMFD driver failed to take precautionary action from tip-offs from the other vehicle immediately preceding the incident. U-turns by any driver that result in a collision is preventable.

k. Pedestrians

Traffic regulations and court decisions generally favor the pedestrian hit by a moving vehicle. An unusual route of a pedestrian at mid-block or from between parked cars does not necessarily relieve a driver from taking precautions to prevent such accidents. Whether speed limits are posted or the area is placarded with warning signs, speed too fast for conditions may be involved. School zones, shopping areas, residential streets and other areas with special pedestrian traffic must be traveled at reduced speeds equal to the particular situation. Bicycles, scooters and similar equipment is often times operated by young and inexperienced operators. The driver who fails to reduce his/her speed when this type of equipment is operated within his sight, has failed to take the necessary precautions to prevent an accident. Keeping within posted speed limits is not taking the proper precaution when unusual conditions call for voluntary reduction of speed.

l. Weather

Adverse weather conditions are not a valid excuse for being involved in an accident. Rain, snow, fog, sleet or icy pavement have never caused an accident. These conditions merely increase the hazards of driving. Failure to adjust driving to the prevailing weather conditions, should be cause for deciding an accident preventable.

m. Alleys, Driveways and Facility Entrances

Accidents involving traffic originating from alleys, driveways, facility entrances and other special intersection locations should be carefully analyzed to determine what measures the SMFD driver might have taken to avoid the incident. Failure to slow down, sounding a warning, or yield to the other driver, can be considered cause to judge the accident preventable.

n. Fixed Objects

Collisions with fixed objects including parked vehicles and curbs are preventable. They usually involve failure to check or properly judge clearances. New vehicles and routes, resurfaced pavements under viaducts, inclined entrances to building, marquees projecting over a traveled section of the road, and similar situations are not in themselves valid reasons for excusing a driver from being involved. You must constantly be on the lookout for such conditions and make the necessary allowances. Drivers must be aware of the height, width and length of the vehicle, including its accessories, to insure safe and proper clearances.

7. APPARTUS PARKING

OVERVIEW

This procedure identifies parking practices for fire department apparatus that will provide maximum protection and safety for personnel operating in or near moving vehicle traffic. It also identifies several approaches for individual practices to keep firefighters safe while exposed to vehicle traffic.

IT SHALL BE THE POLICY OF THE FIRE DEPARTMENT TO POSITION APPARATUS AT THE SCENE OF EMERGENCIES IN A MANNER THAT BEST PROTECTS THE WORK AREA AND PERSONNEL FROM VEHICLE TRAFFIC AND OTHER HAZARDS.

All personnel should understand and appreciate the high risk that firefighters are exposed to when operating in or near moving vehicle traffic. We should always operate from a defensive posture. Always consider moving vehicles as a threat to your safety. Each day, emergency personnel are exposed to motorists of varying abilities, with or without licenses, with or without legal restrictions, and driving at speeds from creeping to well beyond the speed limit. Some of these motorists are the vision impaired, the alcohol and/or drug impaired. Additionally, motorists will often be looking at the scene and not the road.

Nighttime operations are particularly hazardous. Visibility is reduced, and the flashing of emergency lights tend to confuse motorists. Studies have shown that multiple headlights of emergency apparatus (coming from different angles at the scene) tend to blind drivers as they approach.

a. SAFETY BENCHMARKS

i. Emergency personnel are at great risk while operating in or around moving traffic. There are approaches that can be taken to protect yourself and all crew members:
ii. Never trust the traffic
iii. Engage in proper protective parking
iv. Wear high visibility reflective vests
v. Reduce motorist vision impairment
vi. Use traffic cones and flares

b. Listed below are benchmarks for safe performance when operating in or near moving vehicle traffic.

i. Always maintain an acute awareness of the high risk of working in or around moving traffic. Never trust moving traffic. Always look before you step! Always keep an eye on the traffic!
ii. Always position apparatus to protect the scene, patients, emergency personnel, and provide a protected work area. Where possible, angle apparatus at 45 degrees away from curbside. This will direct motorist around the scene (See Figure 1). Apparatus positioning must also allow for adequate parking space for other fire apparatus (if needed), and a safe work area for emergency personnel. Allow enough distance to prevent a moving vehicle from knocking fire apparatus into the work areas.
iii. At intersections, or where the incident may be near the middle of the street, two or more sides of the incident may need to be protected. Block all exposed sides. Where apparatus is in limited numbers, prioritize the blocking from the most critical to the least critical (See Figures 2, 3 and 4).
iv. For first arriving engine companies where a charged hoseline may be needed, angle the engine so that the pump panel is "down stream," on the opposite side of on-coming traffic. This will protect the pump operator (See Figure 5).
v. The initial company officer (or Command) must assess the parking needs of later-arriving fire apparatus and specifically direct the parking and placement of these vehicles as they arrive to provide protective blocking of the scene. This officer must operate as an initial safety officer.
vi. During daytime operations, leave all emergency lights on to provide warning to drivers.
vii. For NIGHTTIME operations, turn OFF fire apparatus headlights if tuning off the lights does not compromise scene lighting. This will help reduce the blinding effect to approaching vehicle traffic. Other emergency lighting should be reduced and emergency flashers where possible.
viii. Crews should exit the curb side or non-traffic side of the vehicle whenever possible.

ix. Always look before stepping out of apparatus, or into any traffic areas. When walking around fire apparatus parked adjacent to moving traffic, keep an eye on traffic and walk as close to fire apparatus as possible.
x. Wear the safety vest any time you are operating in or near vehicle traffic.
xi. When parking apparatus to protect the scene, be sure to protect the work area also. The area must be protected so that patients can be extricated, treated, moved about the scene, and loaded into ambulances safely.
xii. Once enough fire apparatus have "blocked" the scene, park or stage unneeded vehicles off the street whenever possible. Bring in Rescue/Ambulance companies one or two at a time and park them in safe locations at the scene. This may be "down stream" from other parked apparatus, or the ambulances maybe backed at an angle into a protected loading area to prevent working in or near passing traffic. At residential medical emergencies, parking ambulances in driveways for safe loading where practical. If driveways are inaccessible or not practical, park ambulances to best protect patient loading areas. (See Figures 6 and 7).
xiii. Place traffic cones at the scene to direct traffic. This should be initiated by the first company arriving on the scene and expanded, if needed, as later arriving companies arrive on the scene. Always place and retrieve cones while facing on-coming traffic.
xiv. Listed below are general recommendations for the start of traffic cones/flares:

Speed	Distance
25 mph	65 feet
40 mph	105 feet
60 mph	160 feet

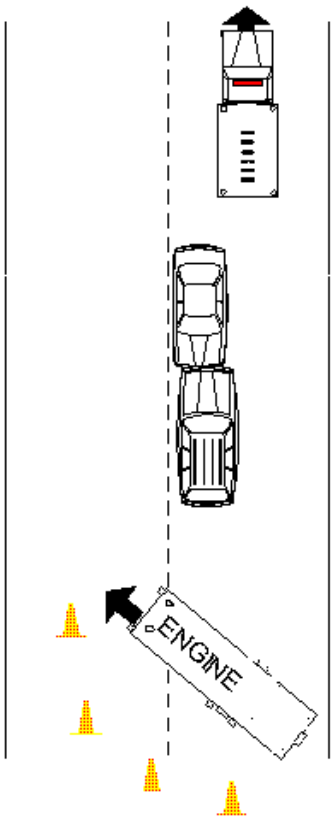
xv. At major intersections a call for police response may be necessary. Provide specific direction to the police officer as to exactly what your traffic control needs are. Position ambulances to protect patient loading areas. (See Figure 8).

c. FREEWAY OPERATIONS

i. Freeway emergencies pose a particular high risk to emergency personnel. Speeds are higher, traffic volume is significant, and motorists have little opportunity to slow, stop or change lanes.
ii. The Minnesota State Patrol will also have a desire to keep the freeway flowing. Where need be, the freeway can be completely shut down.
iii. For freeway emergencies, we will continue to block the scene with the first apparatus on the scene to provide a safe work area. Other companies may be used to provide additional blocking if needed.
iv. The initial company officer, or command, must thoroughly assess the need for apparatus on the freeway and their specific positions. Companies should be directed to specific parking locations to protect the work area, patients, and emergency personnel.
v. Other apparatus should be parked downstream when possible. This provides a safe parking area.
vi. Staging of companies off the freeway may be required. Companies should be brought into the scene one or two at a time. A safe loading area must be established.
vii. Traffic cones should be placed farther apart, with the last cone approximately 160 feet "upstream," to allow adequate warning to drivers. Place and retrieve cones while facing the traffic. Police or fire vehicles upstream may provide a good option.
viii. Command should establish a liaison with law enforcement as soon as possible to jointly provide a safe parking and work area and to quickly resolve the incident.

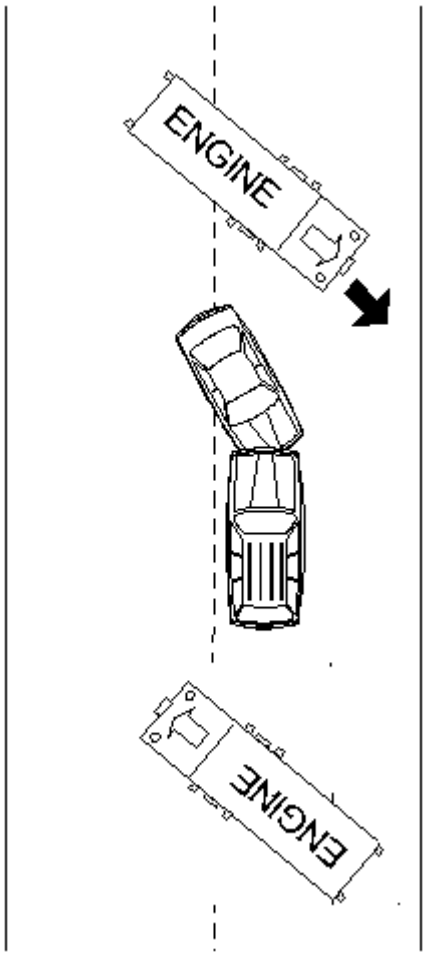
ix. The termination of the incident must be managed with the same aggressiveness as initial actions. Crews, apparatus, and equipment must be removed from the freeway promptly, to reduce exposure to moving traffic.

Figure #1



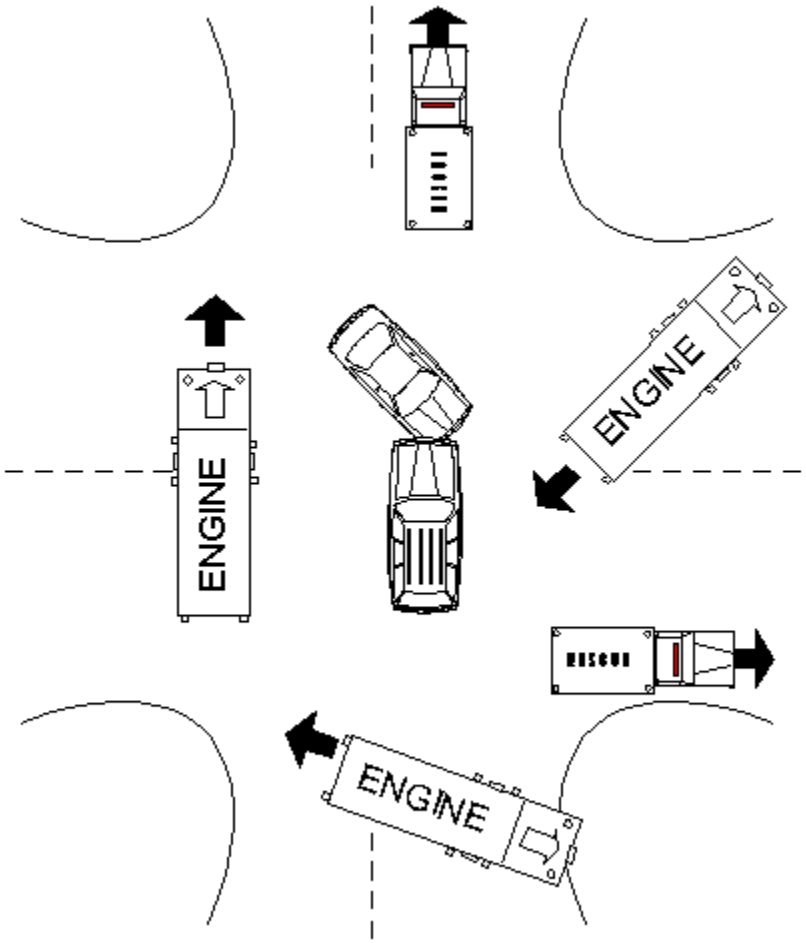
Where possible, angle apparatus at a 45 degree angle from the curb.

Figure #2



Prioritize placement of the apparatus by blocking from the most critical to the least critical side.

Figure #3



Often times two or more sides may need to be protected.

Figure #4

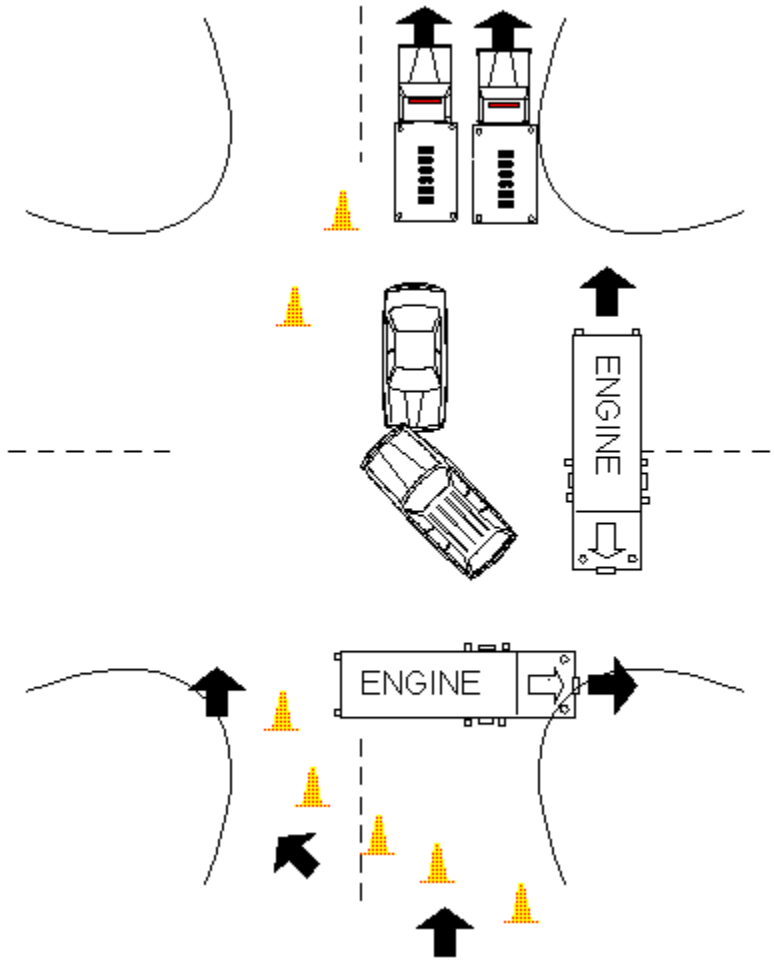
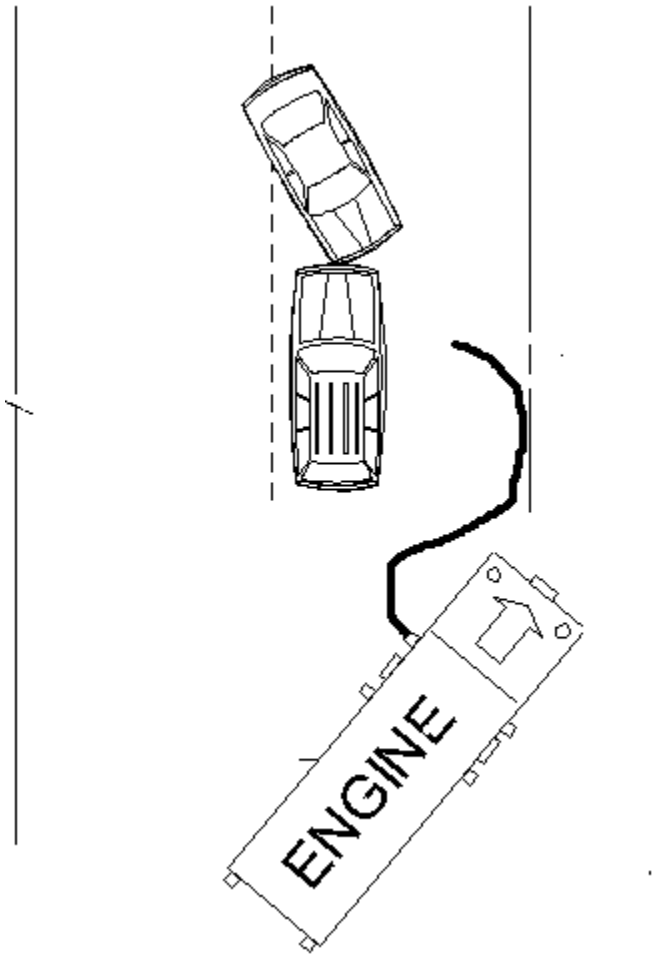
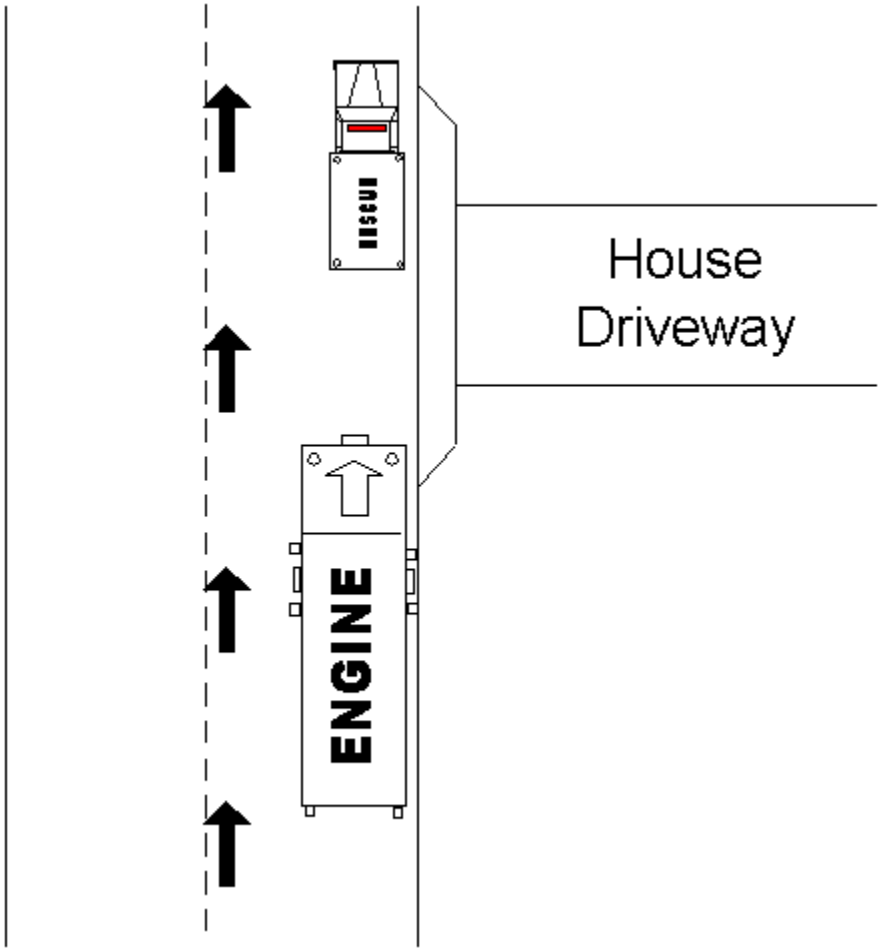


Figure #5



To protect pump operator, position apparatus with the pump panel on the opposite side of on-coming traffic. The second due engine may be positioned upstream of traffic at an alternate 45 degree angle.

Figure #6



Where possible, park ambulances in driveways or position ambulances to protect patient loading area. An option may be for the PD or other company to block

Figure #7

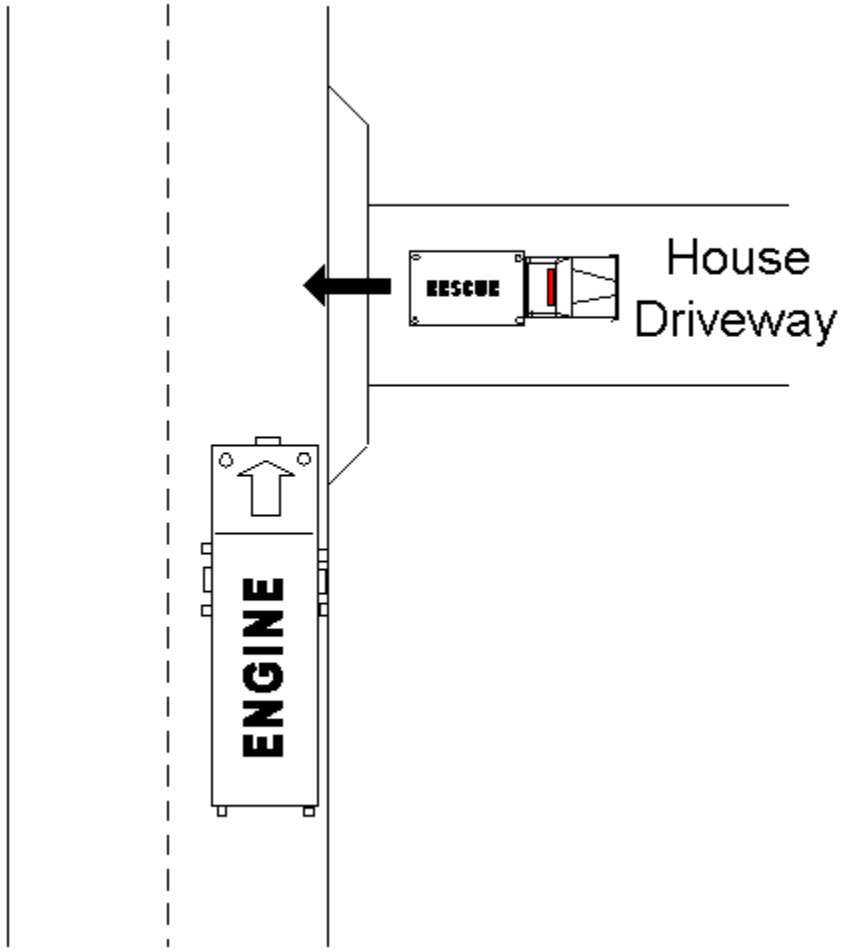
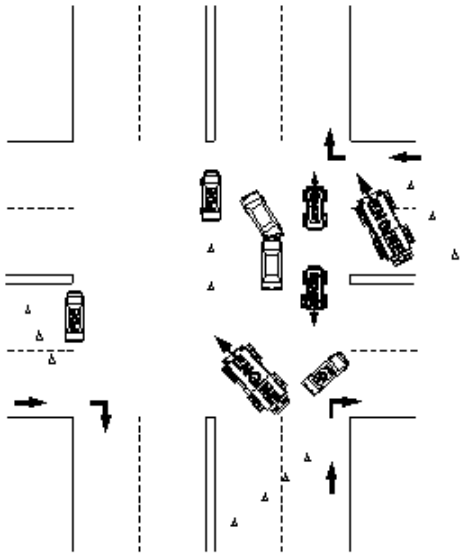
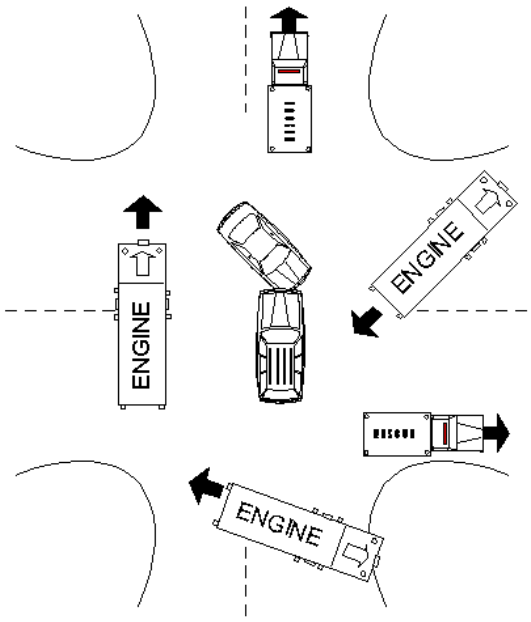


Figure #8



Provide specific direction to police as to what traffic control needs you have.
Position ambulances to protect patient loading areas.

Figure #9



d. Mechanical Failure

Any accident caused by mechanical failure that reasonably could have been detected by the driver, but went unheeded, should be judged preventable. It is the driver's responsibility to report unsafe vehicle conditions for repair where continued operation might result in an accident. When mechanical difficulties occur unexpectedly during a trip, and a driver upon discovery, fails to check with the Supervisor for emergency instructions prior to an accident, the accident may be deemed preventable.

8. OPERATIONS UNDER EMERGENCY CONDITIONS

Operating a vehicle under emergency conditions does not automatically discharge an accident as non-preventable. The exemptions herein granted to an authorized emergency vehicle shall apply only when such vehicle is making use of audible and visual signals meeting the requirements of the law.

However, the aforementioned provisions of the law do not relieve the driver from the duty to drive with due regard for the safety of all persons, nor does the law protect the driver from the consequences of his reckless disregard for the safety of others, or committed a willful or negligent violation of any part of the above Minnesota Law, the accident should be considered preventable.

The only time a SMFD vehicle is permitted to travel the wrong way against traffic will be under emergency response conditions with audible and visual signals operating.

Non-Collision

Many accidents, such as overturning, or running off the road, may result from emergency action by the driver to preclude being involved in a collision. Examination of driving procedure prior to the incident may reveal speed too fast for conditions, or other factors. The driver's action prior to involvement should be examined for possible errors in judgment or lack of Road Safety driving practice.

It is impossible to describe in detail the many ways a driver might prevent an accident without being primarily or legally responsible. The paragraphs in this section merely emphasizes the most frequent occurrences. The following definition of a Road Safety Driver should be applied to all accidents involving SMFD vehicle drivers:

A Road Safety Driver is one who commits no driving errors and makes allowances for the lack of skill or improper driving practice of the other driver. A Road Safety Driver adjusts their own driving to compensate for unusual weather, road and traffic conditions, and is not tricked into an accident by the unsafe actions of pedestrians and other drivers. By being alert to accident inducing situations, he recognizes the need for prrentative action in advance and takes the necessary precaution to prevent the accident.

While evidence of a violation of the law is a clear-cut indication of the preventability of an accident, the absence of any violation does not make the accident non-preventable. There are many steps that the professional driver can and must take to avoid an accident, which are above and beyond the requirements of the law. It is the extent to which the driver could and did take such steps which must be determined and evaluated in the light of the facts of the accident.

Operation of an emergency vehicle in an emergency is also governed by SMFD regulations. Therefore, the driver, in an emergency situation, is still expected to drive in a reasonable and prudent manner, and take all reasonable precautions to prevent an accident.

9. ACCIDENT CLASSIFICATION

Each accident/occurrence involving any SMFD vehicle shall be reviewed and classified as prescribed below:

a. Each accident/occurrence shall be reviewed by the Safety Committee to determine classification.

b. The Safety Committee shall also include a representative from Administration, union, and an officer.

c. After careful study and review, the committee shall assign a classification to each accident and/or occurrence and reduce its findings to writing and refer the matter to the Chief with recommendations for action:

   i. **Non-Preventable** - An accident in which the driver exercised every reasonable precaution to prevent the accident. No action.

   ii. **Preventable** - An accident in which the driver failed to exercise every reasonable precaution to prevent the accident.

iii. **Minor Preventable** - An accident in which no personal injury occurred, nor was caused by the accident, and in which the total resulting damage is $1000 or less.

iv. **Major Preventable** - An accident in which personal injury occurs and the employees or citizens receive medical treatment, or the total damage exceeds $1000.

D. ROAD SAFETY PERFORMANCE LEVELS

The purpose of the Road Safety Driving System is to promote safe driving practices and reduce the cost of fleet operations. The driving system measures and records driving forces and thereby allows drivers to monitor their driving practices and permits administrative staff to monitor overall fleet performance and utilization trends. The Road Safety Driving System monitors many other preset parameters such as: speed, spotters, turn signals, braking, ignition, emergency lights & siren, parking brake, seatbelt usage, idle time, park time, run time, and system tampers. The system is capable of giving second-by-second feedback.

1. Driver Grading

a. All data collected from the Road Safety System will be stored, reviewed and evaluated by using a specific Vehicle Operator Identification Number. The vehicle operator performance data will be reviewed by the Asst. Chief for compliance of all performance standards set forth in this procedure quarterly.
b. A grading summary report indicating individual driving performance will be presented to the employee.
c. The established minimum driver grading score of (5) using a 1-10 measuring system will be maintained.
d. Excessive low force, high force and over speed counts will be monitored and reviewed.
e. In the event of a vehicle accident all Road Safety reports will be downloaded, printed and submitted to the Safety Committee as part of the accident investigation paperwork.
f. Seatbelt usage will be monitored and reviewed by the system in accordance with SMFD seatbelt policy.
g. The SMFD reserves the right to modify data collection and reporting as software and hardware upgrades are available by the manufacture.

2. Standards

a. If an individual falls below the minimum performance Level of 5 for any quarter, the individual will be considered on driver probationary status for the following month.

b. If, upon reviewing the next month's performance report, the individual who in the previous quarter was below Level 5, improves to Level 5 or higher, no further action will be required.

c. If, upon reviewing the next month's performance report, the individual who in the previous quarter was below Level 5, fails to improve to Level 5 or higher, progressive disciplinary action may occur in accordance with SMFD Personnel Code.

d. If an individual is found to have an excessive number of low force, high force or Overspeed counts in any given shift or week, progressive disciplinary action may occur. Overspeed counts are considered totally preventable and will not be tolerated by SMFD. Emergency vehicles may not exceed the speed limit by greater than 10 mph while on a code 3 response and only in extreme circumstances whereas endangerment to life or property will not occur. SMFD emergency vehicles have a low Overspeed setting of 81 mph and a high Overspeed setting of 86 mph.

e. Overspeed counts may result in disciplinary action in accordance with the SMFD personnel Code.

3. Driver Identification Tag Policy

a. All SMFD employees who drive vehicles equipped with the Road Safety System will be issued a Driver Identification Tag. The tag is issued as a part of the employees uniform and carried at all times while on duty.
b. It is the responsibility of the employee to ensure they have their tag at all times while on duty. A missing or lost tag must be reported to your supervisor immediately.
c. If an employee reports to an assigned shift without their Driver ID Tag they will be subject to one of the following depending on the needs of the system and management discretion: (1) removed from their assignment until the tag is located. Or (2) if system demands prevent removal from assigned shift, a temporary ID tag will be created for use during the assigned shift.
d. All SMFD employees are required to log-on to the Road Safety System using their issued ID Tag. The use of another employee's ID Tag is prohibited.
e. It is the responsibility of the vehicle operator to report any visible signs of tampering or mechanical problems of the Road Safety Systems. Any known or visible problems with the Road Safety System must be reported to the Asst. Chief or supervisor immediately.
f. Tampering with, damaging, altering or bypassing the Road Safety System is prohibited.

Every attempt will be made to assure that a SMFD Road Safety trained driver drives all transport units in from the scene. In the event that a driver is nnded from an outside agency every attempt should be made to have them drive the non-transport unit in if it is necessary.

SECTION III

A. ROAD SAFETY DRIVING STANDARDS

1. ACCELERATION

The definition of our acceleration standard is the application of the correct downward movement on the accelerator to provide the necessary increase engine power to propel the vehicle forward at a constant low force rate, until the desired speed is achieved, thus:

- Making riding in the vehicle more comfortable.
- Reducing wear and tear on the vehicle.
- Conserving gas and oil consumption.

2. SMOOTH BRAKING

The definition of our smooth breaking standard is utilizing the correct timing and easing off the accelerator, using engine compression to slow down, and applying light pressure on the brake pedal to bring the vehicle to a gradual smooth slow down, plus signaling the drivers who may be following.

- Start slowing down early to alert drivers following well in advance, by both a change in speed, and the activation of the brake lights.
- Minimize the risk of rear end collisions by giving the following driver adequate time to adjust to the rate of closure.

3. REAR TIRE CONCEPT

By definition, the rear tire concept states that when stopping behind cars, the driver should remain far enough back to see the front cars rear tires touching the ground, just over the hood. This normally equates to about 20 feet, or 1 car length.

- Provides an escape route to the front when and if needed.
- Provides a wider field of vision, both left and right.

4. FOUR SECOND FOLLOWING DISTANCE

The definition of the 4-second following rule is a measurable time interval concept.

- It allows for compensations for distractions when driving.
- Provides line of site vision over, under, and around the vehicle in front.
- Provides more time and space for making driving decisions.

5. REAR SPACE CUSHION

The definition of the rear space cushion standard is to alert the driver to the immediate risk of a rear end collision from a tailgater following too closely, and to designate specific corrective action to take to either eliminate or control the risk of being hit from behind.

- Causes the driver to be constantly aware of the risks of a rear end collision from the fast closure rate of vehicles approaching from the rear.
- Further alerts the driver of the immediate danger of being hit from behind by tailgaters.

6. SIDE SPACE CUSHION

The side space cushion standard is the continual evaluation, and re-evaluation, of the safest available driving lane, and to provide the maximum visibility and separation from conflicts to the left and the right.

- Provides the widest and clearest line of site visibility.
- Positions the vehicle to avoid the risk of side conflicts.
- Includes maneuverability with an escape route.

7. SIGNALING FOR TURNS AND EXITS

- Communicates our intentions, or planned actions, as soon as possible, to provide other drivers with plenty of time to adjust to our change in direction or speed. However, be alert to the danger of misleading other drivers by signaling too early.
- Turning on a turn signal, indicating our intention to turn, is only half of the job. The other half is verifying that our signal has been correctly received, followed by mutual agreement and consent.

8. LANE CHANGES

The definition of the 12-second lane change standard lists the specific things to be done in chronological order within three, 4-second intervals.

- In the first 4 seconds, the driver checks the mirror, activates the turn signal, and makes a head check toward the lane to be entered while holding position in the center of the lane.
- In the second 4 seconds, the driver gradually drifts towards the lane line, holding slightly before crossing, makes a second head check before crossing the lane line, and then cancels the turn signal when the center of the vehicle is over the lane line.
- In the third 4 seconds, the driver continues the gradual drift into the new lane. When the vehicle has reached the center of the new lane, the driver resumes the normal 5-second eye movement-searching pattern.

Give the following traffic adequate time and space to see our signal, and recognize that we are planning on changing lanes.

9. LOOKING FAR AHEAD

The definition of the looking far ahead standard is part of our 5-second systematic scanning pattern, described in the "eye movement" standard. Out of every 5 seconds of viewing, one second is directed to the traffic scene, 20-40 seconds ahead. At highway speeds, this equates to 1/3 to 2/3 of a mile. In town, 20-40 seconds ahead would only be 1-1/2 to 3 blocks.

10. EYE MOVEMENT

The definition of eye movement standard is a five part-scanning pattern that searches 4 timed zones up front, plus the rear view mirror zone. Each part takes 1 second, repeating the cycle every 5 seconds. The scanning sequence is listed below.

- 1st second view the nearest zone, (4-12 seconds ahead).
- 2nd second view the middle zone, (12-20 seconds ahead).
- 3rd second view the furthest zone, (20-40 seconds ahead).
- 4th second view the nearest zone again, (4-12 seconds ahead).
- 5th second view the zone to the rear, (using the rear view mirrors).

The nearest zone (4-14 seconds ahead) is searched twice in each cycle.

The immediate zone, (0-4 seconds ahead), is covered by the drivers peripheral vision, and is not included in the scanning pattern.

11. MIRRORS

The definition of the mirror standard specifies specific times for use of certain mirrors.

- WHILE DRIVING ....The mirrors are to be checked once every 5 seconds during the 5 part scanning eye pattern in the eye movement standard.
- LIMITED VIEW .... The presentation reflected in the mirrors is limited at best. The larger the mirror, and the closer to the viewing eye, the wider the angle of the vision. The left side mirror view is 3 times wider than the right mirror.
- MIRRORS BLOCK VISION .... Both outside mirrors may block or restrict the driver's forward view. Be aware of the blind spots. Inside mirrors also block forward view, often hiding a pedestrian or vehicle approaching from the right.

12. SPEED CONTROL

The definition sets up 3 general rules which call for reduced speeds.

- REDUCED VISIBILITY:
  Hills and Curves, plus other limiting factors
  20 mph for 3 seconds, clear sight visibility
  40 mph for 4 seconds, clear sight visibility
  50 mph for 5 seconds, clear sight visibility

  Blind Intersections
  Approach at 5-10 mph

- REDUCED ROAD GRIP:
  Wet roads you must reduce speed by 25%
  Packed snow roads you must reduce speed by 50%
  Ice covered roads you must reduce speed by 75%

- SHARP CHANGES IN DIRECTION
  Right / left turns, you must reduce speed to 5-10 mph
  Banked curves on dry surface, you drive at posted speed limit.
  Banked curves with snow and ice, reduce speed to at least half the posted speed limit.