

# USING RETIRED EMERGENCY VEHICLES AS BLOCKING VEHICLES

According to the [Emergency Responder Safety Institute](#), in 2022, there were 51 fatalities on roadways across the country – 28 Emergency Services Providers, 18 Tow Operators, 4 Road Service Technicians, and 1 DOT worker. This peril continues to be one that the Emergency Services faces daily. With more congestion on roadways and even more distracted driving, scene safety becomes paramount.

## SCENE PROTECTION

Operating on a roadway is dangerous and poses many obstacles and concerns for responders. One way for responders to protect themselves is by using a blocking vehicle to protect the scene.

## CONSIDERATIONS

Some organizations are using retired apparatus as a blocking vehicle but also consider the use of other vehicle types such as dump trucks or water haulers.

- The cost of new vehicles has hit the highest level ever seen by the Emergency Services, with more fire apparatus costing well over \$500,000.
- It takes about [\\$3,500](#) to outfit older vehicles for their new blocking duties.
- As new apparatus are added to the fleet, the blockers can move through a rotation and eventually be auctioned off.
- Organizations also need to consider the downtime incurred to either repair or replace damaged vehicles, which can often reach months or years.



Photo source: Florian ReApparatus

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## HARDENING BLOCKING VEHICLES

The concept of hardening blocking vehicles for traffic incidents and planned special events is not a new topic, but one that is just beginning to gain more traction in the Emergency Services. During their [November 2018 workshop](#), the Emergency Responder Safety Institute outlined the following items as best practices when outfitting and deploying vehicles.

- **Interagency cooperation** – This includes working with your local law enforcement, municipal roadcrew, Department of Transportation, elected officials, and anyone else who might be subject to the use and request of this unit.
- **Blocking vehicle sourcing** – an Emergency Services Organization (ESO) will need to get creative in how they utilize this vehicle and what vehicle they use. They will need to ensure the vehicle is capable of storing all of the traffic control devices (cones, barricades) and other things mounted to the vehicle, such as sign boards, arrows and Traffic Management Appliances.
- **Standard Operating Procedures (SOPs)** – Developing a strong set of policies and procedures related to this vehicle and its use are important. Considerations should include whether the driver will remain in the vehicle and how to ensure blocking is always done in a linear aspect to ensure adequate use and capability of all equipment.
- **Markings** – Ensure the vehicle is painted in accordance with [NFPA 1901](#). ESOs may consider additional markings in a reflective pattern to assist drivers in seeing the vehicle and slowing down or stopping.
- **Advanced warning and traffic control devices** – These vehicles should be outfitted with message boards to alert drivers of an incident and arrow boards to direct vehicle operators in a specific direction.
- **Emergency lighting** – The vehicle should be equipped with LED lighting with variable settings installed, such as light dimming mode that reduces the brightness of the lights, and a clear white cut off switch when the vehicle is in park. The lighting should be seen from all sides of the vehicle.
- **Reinforcement** – If possible, reinforce areas that are often struck, such as the bumpers or sides of the vehicle to try and avoid something striking the vehicle's frame.
- **Rear camera** – Cameras covering the exterior of the vehicle help the operator evaluate the external environment without leaving the vehicle.
- **Truck-mounted attenuators (TMAs)** – An attenuator is a kinetic absorption device that is mounted to the vehicle to absorb impact when hit. This crash cushion is designed to protect the frame from damage.
- **Planned current events** – While working through the interagency cooperation, this vehicle should be made available for various soft target events to provide an additional level of protection for the community.
- **Stay current** – It is important to stay current on relevant traffic incident methods and models to ensure you're providing proper education to vehicle operators and using the vehicle in accordance with industry best practices as well as the organizations SOPs.

## SUMMARY

Using retired apparatus' helps extend the use of existing resources, reduce cost and provide the added protection needed during emergencies or events. As your organization begins to develop this process, it is important to have a strong set of SOPs related to this vehicle and its use. Other items to consider in the implementation process are location (which station, if multiple, the vehicle is deployed from), when the vehicle should be used, and training to include Traffic Incident Management (TIM) along with Emergency Vehicle Driver Training (EVDT).

The [National Highway Safety Administration](#) and [Responder Safety](#) have created many different resources and educational programs that focus on responder safety at highway incidents. There are different concepts in place to assist in this process such as advanced warning, blocking, protective clothing, emergency lighting, training and other key elements of protection on roadways.

Responder Safety has created a program for this topic titled [Fire Department-Based Vehicles for Traffic Control](#) that is approximately 1 hour and can be used in conjunction with the National Traffic Incident Management Responder Training.

## REFERENCES

Aging TX Apparatus Find Success as 'Blockers': [Firehouse.com](#)

Emergency Responder Safety Institute: [respondersafety.com](#)

Emergency Responder Safety Institute: [Fire Department-Based Vehicles for Traffic Control](#)

Emergency Responder Safety Institute: [Hardening Blocking Vehicle for Traffic Incidents and Planned Special Events](#)

FHWA Office of Operations: [dot.gov](#)

National Traffic Incident Management Responder Training: [National TIM Responder Training - Emergency Transportation Operations](#)