POLICY

This General Order shall outline the requirements and process for the replacement of existing apparatus and/or the addition of apparatus to the Prince George’s County Fire/Emergency Medical Services (EMS) Department fleet with a new or used vehicle.

DEFINITIONS

Apparatus Work Group – The Fire Apparatus Manager will serve as the Work Group’s Subject Matter Expert (SME). The Work Group will be comprised of representatives from the Office of the Fire Chief, Emergency Services Command, Administrative Services Command, Support Services Command, the Prince George’s County Fire Commission, the Prince George’s County Volunteer Fire & Rescue Association, and the IAFF Local 1619.

Apparatus Specifications – Specifications for new or used apparatus, to operate within the fleet of the Prince George’s County Fire/EMS Department, shall be in accordance with standards established by the Fire Chief.

Existing Vehicles – Any apparatus that is currently under County maintenance or authorized to operate on incidents; such apparatus shall be considered “Grandfathered” into compliance with the specifications in this General Order.

Fleet – Group of vehicles which are maintained, fueled, authorized to operate on incidents, and/or insured by the Prince George’s County Fire/EMS Department.


M Number – The nine-digit number which is assigned to a vehicle when it is introduced into the Fire/EMS Department fleet and remains with the vehicle until it is removed from the fleet. All vehicles that are authorized to operate or respond to emergency and non-emergency incidents shall have an M number, regardless of fuel, maintenance, insurance, and ownership responsibilities.

MVA Form VR-26 – Application for Approval of Emergency Vehicles or Service Vehicles obtained from the Maryland Motor Vehicle Administration.


**Removal from the Fleet** – When County Fleet Management is directed by Fire/EMS Department Apparatus Maintenance (AM) to remove a vehicle (M number) from all vehicle maintenance services, fuel services, and, when applicable, insurance coverage.

This action shall normally be as a result of the vehicle being permanently placed out-of-service by the owner, determined to be beyond reasonable repair, or at the discretion of the Fire Chief or his/her designee.

**Transfer of Ownership** – When a vehicle, which is part of the fleet owned by one entity within the Fire/EMS Department, is sold to another entity within the Department.

**Vehicles Operating Under the Authority of the Prince George’s County Fire/EMS Department** – Any vehicle operating and/or responding to emergency Fire/EMS Department incidents dispatched by Prince George’s County Public Safety Communications.

**PROCEDURES / RESPONSIBILITIES**

I. **Introduction of New Services or Changes in Vehicle Use**

   A. All requests to introduce a vehicle to the fleet that will provide a service not currently provided by a station or a change in vehicle use (i.e., converting an engine to a rescue engine) must be approved in advance by the Fire Chief before initiating this application process. All requests must clearly demonstrate the need for such apparatus. Once approved, the process for Application for Introducing a Vehicle into the Fleet can begin.

II. **Existing Vehicles**

   A. Existing vehicles in the fleet as of the effective date of this General Order (September 24, 2018) shall be considered “Grandfathered” into compliance with current vehicle specification requirements. Upon such time that an existing vehicle is removed from the fleet, said vehicle must comply with the specifications for used apparatus, if authorized, to return to the fleet.
III. Requests for Vehicle Changes to the Fleet

A. It shall be the responsibility of the Volunteer Chief/President to submit an “APPLICATION FOR INTRODUCING A VEHICLE INTO THE FLEET” (Attachment A) to Apparatus Maintenance for review of the specifications of the proposed unit. Upon AMD’s recommendation, the application will be forwarded in the following order for a recommendation:
   1. Fire Commission
   2. Support Services Command
   3. Emergency Services Command
   4. Office of the Fire Chief

B. Once the application has been received by the Fire Commission, Support Services Command, and the Emergency Services Command, it will be forwarded to the Fire Chief for consideration/approval.

C. If the application is not approved, it shall be returned to the respective Volunteer Chief/President with an explanation for the denial.

D. The application, only upon completion of all approvals, will be granted. The application will be filed in the Apparatus Maintenance vehicle file.

IV. Addition/Replacement with New Apparatus

A. The vehicle specifications for new apparatus being proposed for inclusion in the fleet must be submitted to the Fire/EMS Department’s Fire Apparatus Manager to be reviewed for compliance with County requirements for new apparatus prior to any purchase.

B. The vehicle must comply with the most current standards established by the Fire Chief, as attached (see Attachments B-J). These checklists should be used when developing specifications for bid to ensure compliance when the vehicle is reviewed for final acceptance.

C. An inspection by Apparatus Maintenance must be requested when the vehicle is considered ready for service.

D. A copy of a stamped Maryland Motor Vehicle Administration Form #VR-26, approving the vehicle as an emergency vehicle, must be provided when the vehicle is inspected for final acceptance.

E. Final recommendation, upon inspection of the vehicle for compliance with County specifications by the Fire/EMS Department’s Fleet Manager, shall be forwarded to the Fire Chief for disposition.
V. Addition/Replacement with Used Apparatus

A. All additions/replacements to the fleet with used apparatus shall be inspected by Apparatus Maintenance prior to purchase, repair, or refurbishment. The inspection shall include a preliminary review of the vehicle’s compliance using the Used Apparatus Specifications Checklist (Attachment K).

B. A second inspection by Apparatus Maintenance must be conducted when the vehicle is considered ready for service. If an issue arises in determining the vehicle’s compliance with the Used Apparatus requirements, the Apparatus Work Group shall be convened to make a final determination.

C. A copy of a stamped Maryland Motor Vehicle Administration Form #VR-26, approving the vehicle as an emergency vehicle, must be provided when the vehicle is inspected for final acceptance.

D. Must provide successful results of the oil analysis of the engine, drive-line components, and any associated hydraulics within the past three (3) years. This information must be provided when the vehicle is inspected for final acceptance.

VI. General Provisions

A. All vehicles which are designated as part of the Prince George’s County Fire/EMS Department’s fleet will be assigned an M number by Apparatus Maintenance for tracking and accountability. This includes vehicles or units obtained by volunteer organizations that are bought and/or maintained by the volunteer organization.

B. A copy of the vehicle registration for all EMS vehicles shall be sent to the EMS Billing Office by Apparatus Maintenance.

C. The vehicle’s M number will be referred to for fuel, maintenance, repair, and insurance issues.

D. All vehicles which are part of the fleet are expected to be kept in compliance with all applicable County and Departmental Orders, Procedures, and Directives. Failure to comply may result in the removal of the vehicle from the fleet.

E. A vehicle which has been determined to be a total loss as a result of an accident, or beyond economical repair, will be removed from the fleet.

F. Any vehicle which has its M number removed from the County vehicle inventory is no longer considered to be a part of the fleet.
VII. Transfer of Ownership of a Vehicle within the County

A. Any vehicle which has a current M number and is sold to another entity within the County will be considered to be an “existing vehicle,” and therefore, “Grandfathered” into compliance with apparatus requirements.

B. An inspection by Apparatus Maintenance must be requested when the vehicle is considered ready for service by the new entity. Apparatus Maintenance will weigh the vehicle to record the in-service weight.

C. A copy of a stamped Maryland Motor Vehicle Administration Form #VR-26, approving the vehicle as an emergency vehicle, must be provided.

D. A copy of the State of Maryland Vehicle Inspection must be provided.

E. If the vehicle does not have a current M number, all of the requirements for Used Apparatus (Attachment K) must be met.

VIII. Non-Fleet Vehicles

A. No individual or entity within the Fire/EMS Department shall place a unit in-service within the service area of Prince George’s County, or otherwise identify a vehicle as part of the fleet by its markings or other representation, without the express permission of the Fire Chief, or his/her designee.

B. Vehicles with a gross vehicle weight rating (GVWR) exceeding 10,000 pounds, which are operating under the auspices of the Prince George’s County Fire/EMS Department and not maintained by the County, are required to have a Department of Transportation (DOT) safety inspection performed on an annual basis, as outlined in the Annotated Code of Maryland Transportation Article, Title 23, Subtitle 3. A copy of the completed DOT inspection form must be provided to Apparatus Maintenance within 30 days of the completion of the inspection. Any rejections discovered during the inspection must be resolved prior to the vehicle being placed back in service. Additionally, these vehicles are to be maintained and kept in compliance with all applicable County and Departmental Orders, Procedures, and Directives. Failure to comply will result in said vehicle being prohibited from providing emergency response services within Prince George’s County.

C. Those vehicles not in compliance with these standards or approved by the Fire Chief will not receive funds from the Fire/EMS Department budget for maintenance, fuel, and insurance. In addition, no County funds, including Station Management Funds, Ambulance billing revenue, etc., will be used to support vehicles not in compliance.
REFERENCES


MVA Form VR-26 – Application for Approval of Emergency Vehicles or Service Vehicles obtained from the Maryland Motor Vehicle Administration

NFPA 1901 – National Fire Protection Association Standard for Automotive Fire Apparatus

NFPA 1911 – National Fire Protection Association Standard for Inspection, Maintenance, Testing, and Retirement of In-Service Emergency Vehicles

NFPA 1912 – National Fire Protection Association Standard for Fire Apparatus Refurbishing

NFPA 1914 – National Fire Protection Association Standard for Testing Fire Department Aerial Devices

NFPA 1917 – National Fire Protection Association Standard for Automotive Ambulances

NFPA 1932 – National Fire Protection Association Standard on Use, Maintenance, and Service Testing of Fire Department Ground Ladders

FORMS / ATTACHMENTS

Attachment A – Application for Introducing a Vehicle into the Fleet 2018

Attachment B – Engine Apparatus Specifications Checklist 2018

Attachment C – Aerial Apparatus Specifications Checklist 2018

Attachment D – Initial Attack Apparatus (Mini-Pumper) Specifications Checklist 2018

Attachment E – Rescue Squad/Special Services Fire Apparatus Specifications Checklist 2018

Attachment F – Mobile Water Supply Fire Apparatus Specifications Checklist 2018

Attachment G – Ambulance Specifications Checklist (Future)

Attachment H – Brush Truck Specifications Checklist (Future)

Attachment I – Fireboat Specifications Checklist (Future)

Attachment J – Rescue Boat Specifications Checklist (Future)

Attachment K – Used Apparatus Requirements Checklist 2018
### TYPE OF VEHICLE:

- SUPPORT VEH. □
- AMB. □
- ENG. □
- TRUCK □
- RESCUE SQUAD □
- OTHER □

### PURCHASING:

- NEW □
- USED □

### COMMUNICATIONS EQUIPMENT:

- MOBILE RADIO(S) □ TRANSFER □ REQUEST □
- PORTABLE RADIO(S) □ TRANSFER □ REQUEST □
- MOBILE DATA COMPUTER □ TRANSFER □ PURCHASE □

### THIS VEHICLE IS:

- A REPLACEMENT FOR □
- AN ADDITION TO THE FLEET □
- REPLACE EXISTING VEHICLE IN FLEET □

### NEW VEHICLES

1. SPECIFICATIONS & GRAPHICS REVIEWED/APPROVED BY APPARATUS MAINTENANCE:
   
2. REQUIRED: FINAL APPARATUS INSPECTION BY APPARATUS MAINTENANCE:
   
   COPY OF APPROVED "APPLICATION FOR APPROVAL OF EMERGENCY VEHICLES OR SERVICE VEHICLES" FROM MARYLAND MOTOR VEHICLE ADMINISTRATION (MVA FORM VR-026)

### USED VEHICLES

- MARYLAND STATE INSPECTION CERTIFICATE PROVIDED (COPY)
- THIRD PARTY CERTIFICATION WITHIN PAST SIX MONTHS AS APPLICABLE
  - PUMP □
  - AERIAL DEVICE □
  - GROUND LADDERS □
  - OIL SAMPLES □
- GRAPHICS APPROVED IN ACCORDANCE TO GENERAL ORDER 02-18
- USED APPARATUS REQUIREMENT INSPECTION BY APPARATUS MAINT.

COPY OF APPROVED "APPLICATION FOR APPROVAL OF EMERGENCY VEHICLES OR SERVICE VEHICLES" FROM MARYLAND MOTOR VEHICLE ADMINISTRATION (MVA FORM VR-026)

### M# ASSIGNED:

- 5100 □
- 5178 □
- 16 □

### FINAL APPROVAL TO BE PLACED IN SERVICE:

- SIGNATURE / DATE
Engine Apparatus Specifications Checklist

UNIT INFORMATION

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<td>Fleet Manager:</td>
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**Definition**

Fire apparatus with a permanently mounted fire pump, water tank and hose body that meets or exceeds NFPA 1901 standard. The primary purpose of this type of apparatus is to combat structural and associated fires.

**General**

- Must be in compliance with the current NFPA 1901, 1911 and 1912 standards as adopted by Prince George’s County Fire/EMS Department and Prince George’s County Volunteer Fire and Rescue Association standards.
- Must provide a copy of either a certification that the apparatus fully complies with the current NFPA 1901 or a Statement of Exceptions from the manufacturer.
- Dealer/Manufacturer must be registered with the State of Maryland.
- Parts, Service and Operation manuals for the unit shall be provided to the Apparatus Maintenance Division preferably in electronic format.
- Must provide a copy of the 3rd party certifications where applicable:
  - Aerial Devices
  - Air hose reels
  - SCBA Fill Stations
  - Fire Pumps
  - Water tanks
  - Foam proportioning system
  - Low voltage electrical systems & warning devices

**Cab and Chassis**

- Must provide a copy of the load distribution plan.
- Sound – noise level must not exceed 85db in the non-response mode at all seated positions.
- A voice-activated intercom system (similar to David Clark, FireCom etc.) shall be provided with headsets at each seated position. The system shall not be hooked up to any am/fm radio.
- Speed Limits
  - Vehicles shall not be capable of exceeding 68 mph.
- In addition to the requirements outlined in NFPA 1901, 4.13.3 Load distribution, the apparatus must have a 5% buffer between the in-service weights and the gross axle weight ratings (GAWR), the overall gross vehicle weight rating (GVWR) and the chassis manufacturer's load balance guidelines. (Example: If the rear axles’ in-service weight is 22,000 pounds, we will add 5%, which would be 1,100 pounds, the rear GAWR must be at least 23,100 pounds). The purpose of this buffer is to provide the capability of changing the complement of equipment carried in the future without exceeding the GAWR or GVWR of the vehicle.
- The engine must be diesel.
- The engine coolant shall be OATS coolant and approved by AMD.
- The transmission must be automatic.
- Radiator must be equipped with a sight gauge or translucent tank and low coolant level alarm.
- Brakes must be air actuated disc-type brakes with automatic slack adjusters, if applicable.
- An anti-lock brake system shall be provided.
- The vehicle must have Electronic Stability Control (ESC).
- The parking brake release shall have a guard to prevent accidental release.
- All wiring must be numbered and function coded.
All vehicles shall have a complete as-built wiring schematic provided to AMD.

If offered by the chosen manufacturer, the apparatus shall use a complete Multi-Plex wiring system.

A back-up camera with audio shall be installed for a rear view of the apparatus and area surrounding the apparatus. The screen for the camera must be easily viewable for the driver.

In addition to the vehicles own NFPA required Vehicle Data Recorder, an event recording camera meeting the County specifications must be provided. (Contact Apparatus Maintenance for specific ordering instructions).

The front bumper must be reinforced the full height and width resulting in the total thickness being at least ½”. If possible, supports shall run from the chassis frame to the outer end of the bumper on each side.

Must provide all hardware necessary to activate the station exhaust system.

Must provide an air compressor/battery conditioner.

The vehicle must be capable of being towed from the front with no obstructions and provide front accessible glad hands for hooking up brakes while in tow.

Must specify DAVCO fuel water separator.

Wheels – Aluminum disc-type construction, tubeless design.

All tilt cab apparatus shall be able to be jump started without the need to raise or tilt the cab.

The DEF fill cap should have a protective cover isolating it from the fuel fill. Also, a locking cap for the DEF tank is highly recommended.

12-volt wiring shall be provided for the power supply for a mobile radio and mobile data terminal in the front of the cab. These wires shall be clearly marked on the end for the installers. Consideration should be given to having manufacturer install the proper radio antennas on the roof of the apparatus at construction. (Contact AMD for the number needed).

Mobile radios will be provided for vehicle/apparatus purchases. Please contact the radio shop or Captain Gunn for assistance in receiving a radio.

The mobile radio shall be mounted in such a way that it is reachable by the officer while staying seated and belted in their respective seat.

There shall be an MDC docking station supplied with the vehicle/apparatus bought by the department making the purchase. (Contact AMD for current model required).

The apparatus shall have an MDT. This MDT purchase is the responsibility of the department or corporation making the purchase. (Contact Captain Amy Gunn for direction on this purchase)

There shall be a system, or access panel for the checking of the vital fluids without tilting or raising the cab.

Fire Pump and Tank

Fire pump rated 1250 gallons per minute, as a minimum.

Fire pump should be a Hale Fire Pump, a substitution pump can be requested.

All valves in the fire pump and associated piping shall be Akron valves.

All pump piping shall be stainless steel.

Fire pump should be single stage unless engine is part of the water supply companies.

Must provide sacrificial anodes on the pump.

Booster tank – must be constructed of polypropylene.

Booster tank – minimum capacity 500 gallons.

Pump discharge - incorporate one (1) discharge for 4” or 5” hose with Storz couplings. If a 4” discharge is provided, a 4” to 5” adapter shall be provided. If a 5” discharge is provided, a 5” to 4” adapter shall be provided. The minimum size piping and valve for this discharge shall be 3”.

Pump intake – the master intake of the pump must be capable of connecting to a 4” or 5” Storz LDH coupling.

A minimum of 20 feet of suction sleeves shall be provided, and carried on the apparatus.

Lighting and Misc. Equipment

Permit the County to install 1-1/2 lettering to denote the assigned M number in a contrasting color on the interior of the driver’s door.

All emergency lighting should be manufactured by the Whelen Lighting Company or equivalent. Please contact AMD to determine the standard lighting number that are currently in use.

Numbers on the apparatus denoting the company station number shall be consistent with the COG numbering system. (Ex. E841, TW839)

Apparatus color and graphics shall follow General Order 02-18.

As built engineering drawings shall be provided to the Apparatus Maintenance Division.
Aerial Apparatus Specifications Checklist

**UNIT INFORMATION**

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**Definition**

A vehicle equipped with an aerial ladder, elevating platform, or water tower that is designed and equipped to support firefighting and rescue operations by positioning personnel, handling materials, providing continuous egress, or discharging water at positions elevated from the ground.

**General**

- ☐ Must be in compliance with the current NFPA 1901, 1911 and 1912 standards as adopted by Prince George’s County Fire/EMS Department and Prince George’s County Volunteer Fire and Rescue Association standards.
- ☐ Must provide a copy of either a certification that the apparatus fully complies with the current NFPA 1901 or a Statement of Exceptions from the manufacturer.
- ☐ Dealer/Manufacturer must be registered with the State of Maryland.
- ☐ Parts, Service and Operation manuals for the unit shall be provided to the Apparatus Maintenance Division preferably in electronic format.
- ☐ Must provide a copy of the 3rd party certifications where applicable:
  - ☐ Aerial Devices
  - ☐ Air hose reels
  - ☐ SCBA Fill Stations
  - ☐ Fire Pumps
  - ☐ Water tanks
  - ☐ Foam proportioning system
  - ☐ Low voltage electrical systems & warning devices

**Cab and Chassis**

- ☐ Must provide a copy of the load distribution plan.
- ☐ Sound – noise level must not exceed 85db in the non-response mode at all seated positions.
- ☐ A voice-activated intercom system (similar to David Clark, FireCom etc.) shall be provided with headsets at each seated position. The system shall not be hooked up to any am/fm radio.
- ☐ Speed Limits
  - Vehicles shall not be capable of exceeding 65 mph.
- ☐ In addition to the requirements outlined in NFPA 1901, 4.13.3 Load distribution, the apparatus must have a 5% buffer between the in-service weights and the gross axle weight ratings (GAWR), the overall gross vehicle weight rating (GVWR) and the chassis manufacturer's load balance guidelines. (Example: If the rear axles' in-service weight is 22,000 pounds, we will add 5%, which would be 1,100 pounds, the rear GAWR must be at least 23,100 pounds). The purpose of this buffer is to provide the capability of changing the complement of equipment carried in the future without exceeding the GAWR or GVWR of the vehicle.
- ☐ The engine must be diesel powered.
- ☐ The engine coolant shall be OATS coolant and approved by AMD.
- ☐ The transmission must be automatic.
- ☐ Radiator must be equipped with a sight gauge or translucent tank and low coolant level alarm.
- ☐ All coolant and radiator hoses shall be silicone and have a rating of at least 500 degrees.
- ☐ Brakes must be air actuated disc-type brakes with automatic slack adjusters, if applicable.
- ☐ An anti-lock brake system shall be provided.
- ☐ The vehicle must have Electronic Stability Control (ESC).
The parking brake release shall have a guard to prevent accidental release.

All wiring must be numbered and function coded, multi-plexed vehicles shall a complete as built schematic.

A back-up camera with audio shall be installed for a rear view of the apparatus and area surrounding the apparatus. The screen for the camera must be easily viewable for the driver.

In addition to the vehicles own NFPA required Vehicle Data Recorder, an event recording camera meeting the County specifications must be provided. (Contact Apparatus Maintenance for specific ordering instructions).

The front bumper must be reinforced the full height and width resulting in the total thickness being at least ½”. If possible, supports shall run from the chassis frame to the outer end of the bumper on each side.

Must provide all hardware necessary to activate the station exhaust system.

Must provide an air compressor/battery conditioner.

The vehicle must be capable of being towed from the front with no obstructions and provide front accessible glad hands for hooking up brakes while in tow.

Must specify DAVCO fuel water separator.

Wheels – Aluminum disc-type construction, tubeless design.

All tilt cab apparatus shall be able to be jump started without the need to raise or tilt the cab.

The DEF fill cap should have a protective cover isolating it from the fuel fill. Also, a locking cap for the DEF tank is highly recommended.

12-volt wiring shall be provided for the power supply for a mobile radio and mobile data terminal in the front of the cab. These wires shall be clearly marked on the end for the installers. Consideration should be given to having manufacturer install the proper radio antennas on the roof of the apparatus at construction. (Contact AMD for the number needed).

Mobile radios will be provided for vehicle/apparatus purchases. Please contact the radio shop or Captain Gunn for assistance in receiving a radio.

The mobile radio shall be mounted in such a way that it is reachable by the officer while staying seated and belted in their respective seat.

There shall be an MDC docking station supplied with the vehicle/apparatus bought by the department making the purchase. (Contact AMD for current model required).

The apparatus shall have an MDT. This MDT purchase is the responsibility of the department or corporation making the purchase. (Contact Captain Amy Gunn for direction on this purchase).

There shall be a system, or access panel for the checking of the vital fluids without tilting or raising the cab.

If an OPTICOM is provided, it shall be wired so that it will only activate when the parking brake is released and emergency lights are activated.

**Aerial and Ladders**

The hydraulic aerial ladder or platform must be at least 75’ in length.

The aerial ladder shall have a pre-piped waterway. The water way should be able to be pinned for rescue mode.

Ground Ladder minimum compliment:
- One 45’ ground ladder
- Two 35’ ground ladder
- Two 28’ ground ladders
- Two 16’ ground/roof ladders
- One 10’ folding ladder

The rated capacity of the aerial shall be a minimum of 500lb tip load at 0 degrees at full extension.

**Quint Aerial Apparatus Pump**

Fire pump rated 1000 gallons per minute, as a minimum.

Fire pump should be a Hale Fire Pump.

All valves in the fire pump and associated piping shall be Akron valves.

All pump piping shall be stainless steel.

Fire pump should be single stage unless justification is given for the need for the two-stage pump.

Must provide sacrificial anodes on the pump.

Booster tank – must be constructed of polypropylene.

Booster tank – minimum capacity 300 gallons.

Pump discharge - incorporate one (1) discharge for 4” or 5” hose with Storz couplings. If a 4” discharge is provided, a 4” to 5” adapter shall be provided. If a 5” discharge is provided, a 5” to 4” adapter shall be provided. The minimum size piping and valve for this discharge shall be 3”.

Pump intake – the master intake of the pump must be capable of connecting to a 4” or 5” Storz LDH coupling.
Lighting and Misc. Equipment

☐ Permit the County to install 1-1/2 lettering to denote the assigned M number in a contrasting color on the interior of the driver’s door.

☐ All emergency lighting should be manufactured by the Whelen Lighting Company or equivalent. Please contact AMD to determine the standard lighting number that are currently in use.

☐ Numbers on the apparatus denoting the company station number shall be consistent with the COG numbering system. (Ex. E841, TW839)

☐ Apparatus color and graphics shall adhere to General Order 02-18.

☐ There shall be at least a 10kw generator installed on the apparatus.

☐ There shall be at least two electric cord reels on the apparatus. These cord reels shall be at least 200’ in length with 10/4 wire.

☐ All 120-volt (AC) receptacles shall be National Electrical Manufacturers Association (NEMA) configuration L5-20R and all 120-volt (AC) plugs shall be NEMA configuration L5-20P.

☐ There shall be scene lighting (12-volt preferred) on all four sides of the apparatus. The lighting shall be LED.
Initial Attack Apparatus (Mini-Pumper) Specifications Checklist

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Definition

Fire apparatus with a fire pump of at least 250 gpm capacity, water tank, and hosebody whose primary purpose is to initiate a fire suppression attack on structural, vehicular, or vegetation fires, and to support associated fire department operations.

General

☐ Must be in compliance with the current NFPA 1901, 1911 and 1912 standards as adopted by Prince George’s County Fire/EMS Department and Prince George’s County Volunteer Fire and Rescue Association standards.

☐ Must provide a copy of either a certification that the apparatus fully complies with the current NFPA 1901 or a Statement of Exceptions from the manufacturer.

☐ Dealer/Manufacturer must be registered with the State of Maryland.

☐ Parts, Service and Operation manuals for the unit shall be provided to the Apparatus Maintenance Division preferably in electronic format.

☐ Must provide a copy of the 3rd party certifications where applicable:
  - Aerial Devices
  - Air hose reels
  - SCBA Fill Stations
  - Fire Pumps
  - Water tanks
  - Foam proportioning system
  - Low voltage electrical systems & warning devices

Cab and Chassis

☐ Must provide a copy of the load distribution plan.

☐ Sound – noise level must not exceed 85dba in the non-response mode at all seated positions.

☐ A voice-activated intercom system (similar to David Clark, FireCom etc.) shall be provided with headsets at each seated position. The system shall not be hooked up to any am/fm radio.

☐ Speed Limits
  - Vehicles shall not be capable of exceeding 68 mph.

☐ In addition to the requirements outlined in NFPA 1901, 4.13.3 Load distribution, the apparatus must have a 5% buffer between the in-service weights and the gross axle weight ratings (GAWR), the overall gross vehicle weight rating (GVWR) and the chassis manufacturer's load balance guidelines. (Example: If the rear axles' in-service weight is 22,000 pounds, we will add 5%, which would be 1,100 pounds, the rear GAWR must be at least 23,100 pounds). The purpose of this buffer is to provide the capability of changing the complement of equipment carried in the future without exceeding the GAWR or GVWR of the vehicle.

☐ The engine must be diesel.

☐ The engine coolant shall be OATS coolant and approved by AMD.

☐ The transmission must be automatic.

☐ Radiator must be equipped with a sight gauge or translucent tank and low coolant level alarm.

☐ Brakes must be air actuated disc-type brakes with automatic slack adjusters, if applicable.

☐ An anti-lock brake system shall be provided.

☐ The vehicle must have Electronic Stability Control (ESC), if available in model chassis chosen.

☐ The parking brake release shall have a guard to prevent accidental release, if applicable.

☐ All wiring must be numbered and function coded, vehicles shall have a complete as built schematic.
A back-up camera with audio shall be installed for a rear view of the apparatus and area surrounding the apparatus. The screen for the camera must be easily viewable for the driver.

In addition to the vehicle's own NFPA required Vehicle Data Recorder, an event recording camera meeting the County specifications must be provided. (Contact Apparatus Maintenance for specific ordering instructions).

The front bumper must be reinforced the full height and width resulting in the total thickness being at least ½”. If possible, supports shall run from the chassis frame to the outer end of the bumper on each side.

Must provide all hardware necessary to activate the station exhaust system.

Must provide an air compressor if applicable.

Must provide a battery conditioner for vehicle batteries.

The vehicle must be capable of being towed from the front with no obstructions and provide front accessible glad hands for hooking up brakes while in tow.

Must specify DAVCO fuel water separator, if applicable.

Wheels – Aluminum disc-type construction, tubeless design.

The DEF fill cap should have a protective cover isolating it from the fuel fill. Also, a locking cap for the DEF tank is highly recommended, if applicable.

12-volt wiring shall be provided for the power supply for a mobile radio and mobile data terminal in the front of the cab. These wires shall be clearly marked on the end for the installers. Consideration should be given to having manufacturer install the proper radio antennas on the roof of the apparatus at construction. (Contact AMD for the number needed).

Mobile radios will be provided for vehicle/apparatus purchases. Please contact the radio shop or Captain Gunn for assistance in receiving a radio.

The mobile radio shall be mounted in such a way that it is reachable by the officer while staying seated and belted in their respective seat.

There shall be an MDC docking station supplied with the vehicle/apparatus bought by the department making the purchase. (Contact AMD for current model required).

The apparatus shall have an MDT. This MDT purchase is the responsibility of the department or corporation making the purchase. (Contact Captain Amy Gunn for direction on this purchase).

**Fire Pump and Tank**

- Fire pump rated 250 gallons per minute, as a minimum.
- All pump piping shall be stainless steel.
- Must provide sacrificial anodes on the pump.
- Booster tank – must be constructed of polypropylene.
- Booster tank – minimum capacity 200 gallons.

**Lighting and Misc. Equipment**

- Permit the County to install 1-1/2 lettering to denote the assigned M number in a contrasting color on the interior of the driver’s door.
- All emergency lighting should be manufactured by the Whelen Lighting Company or equivalent. Please contact AMD to determine the standard lighting number that are currently in use.
- Numbers on the apparatus denoting the company station number shall be consistent with the COG numbering system. (Ex. E841, TW839)
- Apparatus color and graphics shall follow General Order 02-18.
- As built engineering drawings shall be provided to the Apparatus Maintenance Division.
# Prince George’s County Fire/EMS Department

## Rescue Squad/Special Services Fire Apparatus Specifications Checklist

### UNIT INFORMATION

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### Definition

A multi-purpose apparatus that primarily provides support services at emergency scenes. These services could be rescue, command, hazardous materials containment, air supply, electrical generation and floodlighting, vehicle extrication, or transportation of support equipment and personnel.

### General

- Must be in compliance with the current NFPA 1901, 1911 and 1912 standard as adopted by Prince George’s County Fire/EMS Department and Prince George’s County Volunteer Fire and Rescue Association standards.
- Must provide a copy of either a certification that the apparatus fully complies with the current NFPA 1901 or a Statement of Exceptions from the manufacturer.
- Dealer/Manufacturer must be registered with the State of Maryland.
- Parts, Service and Operation manuals for the unit shall be provided to the Apparatus Maintenance Division preferably in electronic format.
- Parts, Service and Operations manual for any vehicle mounted systems shall be provided to the Apparatus Maintenance Division, preferably in electronic format.
- Must provide a copy of the 3rd party certifications where applicable:
  - Aerial Devices
  - Air hose reels
  - SCBA Fill Stations
  - Fire Pumps
  - Water tanks
  - Foam proportioning system
  - Low voltage electrical systems & warning devices
  - Air compressors
  - Crane or vehicle mounted lifting systems
  - Winch and winch cable

### Cab and Chassis

- Must provide a copy of the load distribution plan.
- Sound – noise level must not exceed 85dba in the non-response mode at all seated positions.
- A voice-activated intercom system (similar to David Clark, FireCom etc.) shall be provided with headsets at each seated position. The system shall not be hooked up to any am/fm radio.
- Speed Limits
  - Vehicles shall not be capable of exceeding 68 mph.
- In addition to the requirements outlined in NFPA 1901, 4.13.3 Load distribution, the apparatus must have a 5% buffer between the in-service weights and the gross axle weight ratings (GAWR), the overall gross vehicle weight rating (GVWR) and the chassis manufacturer's load balance guidelines. (Example: If the rear axles’ in-service weight is 22,000 pounds, we will add 5%, which would be 1,100 pounds, the rear GAWR must be at least 23,100 pounds). The purpose of this buffer is to provide the capability of changing the complement of equipment carried in the future without exceeding the GAWR or GVWR of the vehicle.
- The engine must be diesel powered.
- The engine coolant shall be OATS coolant and approved by AMD.
- The transmission must be automatic.
- Radiator must be equipped with a sight gauge or translucent tank and low coolant level alarm.
- All coolant and radiator hoses shall be silicone and have a rating of at least 500 degrees
Brakes must be air actuated disc-type brakes with automatic slack adjusters, if applicable.

An anti-lock brake system shall be provided.

The vehicle must have Electronic Stability Control (ESC).

The parking brake release shall have a guard to prevent accidental release.

Wheels – disc type construction, tubeless design.

All wiring must be numbered and function coded, multi-plexed vehicles shall a complete as built schematic.

A back-up camera with audio shall be installed for a rear view of the apparatus and area surrounding the apparatus. The screen for the camera must be easily viewable for the driver.

In addition to the vehicles own NFPA required Vehicle Data Recorder, an event recording camera meeting the County specifications must be provided. (Contact Apparatus Maintenance for specific ordering instructions).

The front bumper must be reinforced the full height and width resulting in the total thickness being at least ½”. If possible, supports shall run from the chassis frame to the outer end of the bumper on each side.

Must provide all hardware necessary to activate the station exhaust system.

Must provide an air compressor/battery conditioner.

The vehicle must be capable of being towed from the front with no obstructions and provide front accessible glad hands for hooking up brakes while in tow.

Must specify DAVCO fuel water separator.

All tilt cab apparatus shall be able to be jump started without the need to raise or tilt the cab.

The DEF fill cap should have a protective cover isolating it from the fuel fill. Also, a locking cap for the DEF tank is highly recommended.

12-volt wiring shall be provided for the power supply for a mobile radio and mobile data terminal in the front of the cab. These wires shall be clearly marked on the end for the installers. Consideration should be given to having manufacturer install the proper radio antennas on the roof of the apparatus at construction. (Contact AMD for the number needed).

Mobile radios will be provided for vehicle/apparatus purchases. Please contact the radio shop or Captain Gunn for assistance in receiving a radio.

The mobile radio shall be mounted in such a way that it is reachable by the officer while staying seated and belted in their respective seat.

There shall be an MDC docking station supplied with the vehicle/apparatus bought by the department making the purchase. (Contact AMD for current model required).

The apparatus shall have an MDT. This MDT purchase is the responsibility of the department or corporation making the purchase. (Contact Captain Amy Gunn for direction on this purchase).

There shall be a system, or access panel for the checking of the vital fluids without tilting or raising the cab.

If an OPTICOM is provided, it shall be wired so that it will only activate when the parking brake is released and emergency lights are activated.

### Ladders

- The minimum ladder compliment shall be:
  1. 24’ extension ladder
  1. 14’ roof ladder
  1. 10’ folding ladder

All ladders shall meet the NFPA 1931 standard.

### If unit is equipped with Fire Pump

- Fire pump rated 300 gallons per minute, as a minimum.
- Fire Pump recommended as a Hale Fire Pump, a substitution pump can be requested.
- All valves in the fire pump and associated piping shall be Akron valves.
- All pump piping shall be stainless steel.
- Fire pump should be single stage unless justification is given for the need for the two-stage pump.
- Must provide sacrificial anodes on the pump.
- Booster tank – must be constructed of polypropylene.
- Booster tank – minimum capacity 150 gallons.
- Pump intake – the master intake of the pump must be capable of connecting to a 3” supply line.
Lighting and Misc. Equipment

- Permit the County to install 1-1/2 lettering to denote the assigned M number in a contrasting color on the interior of the driver’s door.
- All emergency lighting should be manufactured by the Whelen Lighting Company or equivalent. Please contact AMD to determine the standard lighting number that are currently in use.
- Numbers on the apparatus denoting the company station number shall be consistent with the COG numbering system. (Ex. E841, TW839)
- Apparatus color and graphics shall follow General Order 02-18.
- There shall be at least a 20kw generator installed on the apparatus.
- There shall be at least a two electric cord reels on the apparatus. These cord reels shall be at least 200’ in length with 10/4 wire.
- All 120-volt (AC) receptacles shall be National Electrical Manufacturers Association (NEMA) configuration L5-20R and all 120-volt (AC) plugs shall be NEMA configuration L5-20P.
- There shall be scene lighting (12-volt preferred) on all four sides of the apparatus. The lighting shall be LED.
- Compartment floor construction should be able to support at the least 500lbs.
- A winch capable of at least 12,000lbs shall be permanently installed on the front or rear of the apparatus.
- A winch capable of at least 9,000 lbs. shall be a part of the equipment compliment that is capable of being moved around the apparatus.
- Two or more vehicle wheel chocks.
- All hydraulic rescue tools shall meet the current NFPA requirement.
Mobile Water Supply Fire Apparatus Specifications Checklist

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Definition

An apparatus designed primarily for transporting, picking-up, transporting and delivering water to fire emergency scenes to be applied by other vehicles or pumping equipment.

General

☐ Must be in compliance with the current NFPA 1901, 1911 and 1912 standard as adopted by Prince George’s County Fire/EMS Department and Prince George’s County Volunteer Fire and Rescue Association standards.
☐ Must provide a copy of either a certification that the apparatus fully complies with the current NFPA 1901 or a Statement of Exceptions from the manufacturer.
☐ Dealer/Manufacturer must be registered with the State of Maryland.
☐ Parts, Service and Operation manuals for the unit shall be provided to the Apparatus Maintenance Division preferably in electronic format.
☐ Must provide a copy of the 3rd party certifications where applicable:
  - [ ] Aerial Devices
  - [ ] Air hose reels
  - [ ] SCBA Fill Stations
  - [ ] Fire Pumps
  - [ ] Water tanks
  - [ ] Foam proportioning system
  - [ ] Low voltage electrical systems & warning devices

Cab and Chassis

☐ Must provide a copy of the load distribution plan.
☐ Sound – noise level must not exceed 85dba in the non-response mode at all seated positions.
☐ A voice-activated intercom system (similar to David Clark, FireCom etc.) shall be provided with headsets at each seated position. The system shall not be hooked up to any am/fm radio.
☐ Speed Limits
  - Vehicles shall not be capable of exceeding 68 mph.
☐ In addition to the requirements outlined in NFPA 1901, 4.13.3 Load distribution, the apparatus must have a 5% buffer between the in-service weights and the gross axle weight ratings (GAWR), the overall gross vehicle weight rating (GVWR) and the chassis manufacturer's load balance guidelines. (Example: If the rear axles’ in-service weight is 22,000 pounds, we will add 5%, which would be 1,100 pounds, the rear GAWR must be at least 23,100 pounds). The purpose of this buffer is to provide the capability of changing the complement of equipment carried in the future without exceeding the GAWR or GVWR of the vehicle.
☐ The engine must be diesel.
☐ The engine coolant shall be OATS coolant and approved by AMD.
☐ The transmission must be automatic.
☐ Radiator must be equipped with a sight gauge or translucent tank and low coolant level alarm.
☐ Brakes must be air actuated disc-type brakes with automatic slack adjusters, if applicable.
☐ An anti-lock brake system shall be provided.
☐ The vehicle must have Electronic Stability Control (ESC).
☐ The parking brake release shall have a guard to prevent accidental release.
All wiring must be numbered and function coded, vehicles shall have a complete as built wiring schematic.

A back-up camera with audio shall be installed for a rear view of the apparatus and area surrounding the apparatus. The screen for the camera must be easily viewable for the driver.

In addition to the vehicle’s own NFPA required Vehicle Data Recorder, an event recording camera meeting the County specifications must be provided. (Contact Apparatus Maintenance for specific ordering instructions).

The front bumper must be reinforced the full height and width resulting in the total thickness being at least ½”. If possible, supports shall run from the chassis frame to the outer end of the bumper on each side.

Must provide all hardware necessary to activate the station exhaust system.

Must provide an air compressor/battery conditioner.

The vehicle must be capable of being towed from the front with no obstructions and provide front accessible glad hands for hooking up brakes while in tow.

Must specify DAVCO fuel water separator.

Wheels – Aluminum disc-type construction, tubeless design.

All tilt cab apparatus shall be able to be jump started without the need to raise or tilt the cab.

The DEF fill cap should have a protective cover isolating it from the fuel fill. Also, a locking cap for the DEF tank is highly recommended.

12-volt wiring shall be provided for the power supply for a mobile radio and mobile data terminal in the front of the cab. These wires shall be clearly marked on the end for the installers. Consideration should be given to having manufacturer install the proper radio antennas on the roof of the apparatus at construction. (Contact AMD for the number needed).

Mobile radios will be provided for vehicle/apparatus purchases. Please contact the radio shop or Captain Gunn for assistance in receiving a radio.

The mobile radio shall be mounted in such a way that it is reachable by the officer while staying seated and belted in their respective seat.

There shall be an MDC docking station supplied with the vehicle/apparatus bought by the department making the purchase. (Contact AMD for current model required).

The apparatus shall have an MDT. This MDT purchase is the responsibility of the department or corporation making the purchase. (Contact Captain Amy Gunn for direction on this purchase).

There shall be a system, or access panel for the checking of the vital fluids without tilting or raising the cab.

**Fire Pump and Tank**

- Fire pump rated 1250 gallons per minute, as a minimum.
- Fire pump should be a Hale Fire Pump, a substitution pump can be requested.
- All valves in the fire pump and associated piping shall be Akron valves.
- All pump piping shall be stainless steel.
- Fire pump should be single stage unless justification is given for the need for the two-stage pump.
- Must provide sacrificial anodes on the pump.
- Booster tank – must be constructed of polypropylene.
- Booster tank – minimum capacity 1000 gallons.
- Pump discharge – incorporate one (1) discharge for 4” or 5” hose with Storz couplings. If a 4” discharge is provided, a 4” to 5” adapter shall be provided. If a 5” discharge is provided, a 5” to 4” adapter shall be provided. The minimum size piping and valve for this discharge shall be 3”.
- Pump intake – the master intake of the pump must be capable of connecting to a 4” or 5” Storz LDH coupling.
- A minimum of 20 feet of suction sleeves shall be provided on the apparatus.
- Each tank dump shall be capable of dumping 90% of the tank’s capacity within two minutes.
- There shall be a minimum of three water tank level gauges. One at the rear, one at the pump panel, and one in the cab in easy view of the driver.
- There shall be two direct tank fills located at the rear of the apparatus at least 3 inches in diameter.
- All dump chutes will be properly lighted so visible from the cab and surrounding area.

**Lighting and Misc. Equipment**

- Permit the County to install 1-1/2 lettering to denote the assigned M number in a contrasting color on the interior of the driver’s door.
- Numbers on the apparatus denoting the company station number shall be consistent with the COG numbering system. (Ex. E841, TW839)
- Apparatus color and graphics shall follow General Order 02-18.
- As built engineering drawings shall be provided to the Apparatus Maintenance Division.
Ambulance Specifications Checklist

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Definition

Any “over the road” vehicle used for emergency medical care and patient transport.

General

- Meets minimum compliance with the current edition of KKK 1822 and NFPA 1917 standards.
- Unit shall meet General Order 02-18 for color and graphics.
- Dealer/Manufacturer must be registered with the State of Maryland.
- Parts and service manuals shall be provided to the Apparatus Maintenance Division.

Cab and Chassis

- Must be a Type I Ambulance (10,001 to 14,000 GVWR) or Type I-AD (Additional Duty) Ambulance (14,001 or more) – which shall be a cab-chassis with modular ambulance body. Vans and Cutaway Vans are not acceptable.
- Weight ratings Amendments:
  - Compliance with KKK 1822, 3.5 Vehicle Weight Ratings and Payload,
  - In addition: Unit must have a 5% buffer between the in-service weights and the gross axle weight ratings (GAWR), and the overall gross vehicle weight rating (GVWR). (Example: If the rear axles in service weight is 10,000 pounds we will add 5% which would be 500 pounds, the rear GAWR must be at least 10,500 pounds). To determine the vehicle’s in-service weight, the vehicle will be weighed fully equipped with no personnel or cot, and then the occupant weight shall be added at 250 pounds for each designated seating position in the cab, 750 pounds for the primary patient and cot, and 500 pounds for two attendants in the rear. The purpose of this buffer is to provide the capability of changing the complement of equipment carried in the future without exceeding the GAWR or GVWR of the vehicle.
- Speed Limits
  - Vehicles shall not be capable of exceeding 70 mph.
- OPTICOM
  - Shall be wired so that it will only activate when the parking brake is released and emergency lights are on upon delivery of the unit.
- Rear tires shall be “All Season” type, preferably block tread.
- Front and rear tow hooks shall be provided which are attached to the chassis frame.
- Vehicle Exhaust System
  - Exhaust shall discharge at the driver’s side of the vehicle at a maximum distance of 1” beyond the side of the module.
  - Tailpipe outlet shall not terminate within 12” of the vertical axis of the fuel tank filler opening(s) when located on the same side.
  - Modifications or extensions made to the OEM exhaust system shall meet or exceed OEM’s requirements in terms of backpressure, components, design, and workmanship must exit on the driver’s side of the vehicle, forward of the rear axle.
- Must provide all hardware necessary to activate the station exhaust system.
- The seats shall utilize “high wear” upholstery.
- The cab floor shall be covered with vinyl in lieu of carpet.
- A non-resettable engine hour meter must be provided on the driver’s side of the center console.
- Alarms
  - Visual and audible alarms to indicate low engine oil pressures and/or high engine coolant temperature.
- All DOT lighting shall be LED.
- Both exterior rear-view mirrors shall be controlled electronically from the drivers position and shall be heated.
Security

- Power door locks shall be provided which control the cab, patient module entrances, and compartment doors.
  - Unit shall also have alternate means (on the exterior) to unlock power doors (i.e. key pad, hidden switch, etc.)
- All vehicles will be equipped with a Vista Brake Lock system.

Ambulances which exceed 80 dba in either the response mode or non-response mode must be equipped with a voice activated intercom system (similar to David Clark, Sigtronics, FireCom, etc.) with two (2) headsets in the cab and one (1) in the patient compartment. These headsets shall not be hooked up to the am/fm radio.

Event recording camera meeting the County specifications must be installed. **

Electrical Requirements (Cab)

- Shall be equipped with four (4) 12-volt power points:
  - One (1) shall be a “lighter” type.
  - One (1) shall have 2 USB ports.
  - Two (2) shall be a 12-volt power/ground strips (center console preferable inside console for MDC, Tablet, and siren accessories).
    - One (1) wired hot to battery.
    - One (1) wired to ignition power.
- Standard NEMA 120V Dual Outlets shall be provided in the following location:
  - Center console

Module Body

Patient Capability:
- Must be capable of transporting one fully immobilized adult patient.

Stretcher/Stair Chair/Pediatric Devices:
- Only County approved “track loading” stretchers and cot fastening systems can be installed. **
- The stair chair must be compatible and interchangeable with the existing fleet of County ambulances.
- Transportation Devices for Pediatric Patients
  - The stretcher must be compatible with the Ferno PediMate pediatric transport device, or equivalent, for patients from 10 to 40 pounds.
  - The unit must be equipped with a SafeGuard Transport Ambulance Cot Restraint, or equivalent, for patients from 40 to 100 pounds.
    - Storage must be provided with the stair chair in an external compartment. Must comfortably accommodate 29.5"h x17"w x 6.5”d.
  - At least one seat in the patient compartment shall be designed as an integrated attendant/child seat, meeting all applicable federal and state regulatory standards.

Back-Up Camera
- Shall be provided which is viewable from the driver’s position. The camera shall be activated automatically when the vehicle is placed in reverse, have audio capability and a manual activation button shall also be provided.

Oxygen Requirements:
- Must be at least three (3) accessible wall dual outlets for medical oxygen.
  - One (1) on the action area wall.
  - One (1) in the ceiling above patient’s head.
  - One (1) on the curb side wall.
  - All outlets shall be compatible with Ohmeda style quick-disconnect fittings.
- On-board oxygen cylinder:
  - Must be “H” cylinder.
  - Must be an electric cylinder lift which prevents personnel from lifting cylinder into vehicle.
- Oxygen Bracket:
  - Universal Oxygen bracket capable of securing two (2) portable oxygen cylinders.

- All DOT lighting shall be LED.
- The heater lines going to the rear module shall be equipped with shut off valves that are identified and easily accessible unless it has automatic electric valves installed.

Electrical

- Auto-Eject Plug
  - This device shall be wired to a battery charger/conditioner.
  - Will automatically eject the power cord when the vehicle is started.
  - The auto-eject plug shall be located on the driver’s side in close proximity to driver’s door.
- Carbon Monoxide (CO) Detector hardwired in patient compartment.
• Inverter:
  o Shall be equipped with a minimum of a 1000-watt 120V AC inverter integrated into 120 V power systems. When
    attached to shore line power, the inverter shall be disabled. When the vehicle is running the inverter shall
    automatically provide 120V AC power to the system. The inverter shall be appropriate for use with computer
    equipment without damaging their electrical systems.
• Shall be equipped with two (2) 12-volt power points:
  o Two (2) shall be a “lighter” type.
• Standard NEMA 120V dual outlets shall be provided in the following location:
  ▪ Action Wall
• Radio Requirements:
  o Unit must have mobile radio prewired in cab and patient compartment. This includes:
    ▪ Placement of two (2) antenna's (dual band radios) for the purposes of maintaining an EMRC mobile radio
      for statewide EMRC radio communication.
    ▪ Wiring harnesses in center console of cab and patient compartment. **
    ▪ Power lead in center console of cab and patient compartment. **
  □ 12-volt wiring shall be provided for the power supply for a mobile radio and mobile data terminal in the front of the cab.
□ These wires shall be clearly marked on the end for the installers. Consideration should be given to having manufacturer
  install the proper radio antennas on the roof of the apparatus at construction. (Contact AMD for the number needed).
□ Mobile radios will be provided for vehicle/apparatus purchases. Please contact the radio shop or Captain Gunn for
  assistance in receiving a radio.
□ There shall be an MDC docking station supplied with the vehicle/apparatus bought by the department making the
  purchase. (Contact AMD for current model required).
□ The apparatus shall have an MDT. This MDT purchase is the responsibility of the department or corporation making the
  purchase. (Contact Captain Amy Gunn for direction on this purchase).
□ The on-board suction system shall be compatible with the Bemis 1200cc disposable suction container.

**Specialty – ALS Compartment**

□ A compartment on the curb side forward shall be standardized for Advanced Life Support (ALS) Equipment. This
  compartment will allow for the standardization of ALS equipment in a temperature control compartment.
□ Specification Requirements:
  • Monitor/Defibrillator
    o Approximately 32"L x 22"W x 18"H.
    o Must comfortably accommodate a Medtronic/Physio-Control LifePak 15.
    o Must include a mobile battery support system
      ▪ Wall mount with power lead – 12” x 12” x 12”.
  • ALS Stat Pack
    o Approximately 32"Lx22"Wx27"H inches.
    o Compartment must be insulated and protected against temperature extremes.
  • Lucas Compression Device
    o Approximately 26"Lx14"Wx10"H inches.
  □ Each of these pieces of equipment will be accessed through the curbside forward compartment door on the patient
    module. Each will enter that compartment on the Length Axis. The long dimension will be left to right across the
    body.
□ Drug Lock Box Specifications:
  • DEA mandated custody controlled substances must be able to be contained within this locking compartment, Knox
    Med Vault 2-mini (contact EMS Office for additional information and Knox approval) shall be provided. This unit will
    require a direct wire power source.
□ Electrical:
  • Two (2) sets, Standard NEMA 120V dual outlets shall be provided in the following locations:
    o ALS Compartment
Specialty – Protective Clothing Storage Compartment

☐ External Compartment:
  - Shall be equipped with a ventilated compartment for storage of protective clothing and SCBA.
  - There shall be no means for air to exchange between the protective clothing storage compartment and the patient compartment.
  - The compartment shall be at least 24 cubic feet and accommodate two sets of PPE measuring 22” x 24” x 36”.
  - SCBA Storage:
    - Two (2) Self Contained Breathing Apparatus (SCBA) brackets shall be provided for storage of the SCBA.

Misc

* = Request for variance to this specification can be made in writing through the chain of command. Final approval will be submitted to the Fire Chief or his/her designee.

** = Contact Apparatus Maintenance for specific ordering instructions.
Future

Brush Truck Specifications Checklist
Future

Fireboat Specifications Checklist
Future

Rescue Boat Specifications Checklist
### Used Apparatus Specifications Checklist

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#### Definition

Any vehicle or apparatus titled to another entity other than the manufacturer or dealer.

#### Required

- All used apparatus being considered for incorporation into the Prince George's County Fire/EMS Department must be inspected for compliance with the used apparatus requirements and general overall condition by the Apparatus Review Committee. The Apparatus Work Group shall consist of a representative from Apparatus Maintenance, Fire Commission and Volunteer Fire and Rescue Association. It is recommended that any corporation considering the purchase of used apparatus have the apparatus reviewed by the Apparatus Work Group prior to purchase.
- Must be in compliance with all applicable sections of the NFPA 1901 Standard, NFPA 1912 Standard, or the NFPA 1917 Standard.
- The purchasing department shall work to bring the vehicle up to current NFPA 1901, NFPA 1912 or NFPA 1917 Standard.
- The manufacturer of the chassis, body, pump and/or aerial device as applicable must be still in existence and have a dependable parts supplier.
- Parts, Service and Operation manuals for the unit shall be provided to the Apparatus Maintenance Division.
- The maximum age of the vehicle at the time it is ready to be placed in service shall be as follows:
  - Ambulance – 5 years
  - Pumper – 12 years
  - Aerial Fire Apparatus – 12 years
  - Rescue Squad – 12 years
  - Initial Attack Apparatus – 12 years
  - Mobile Water Supply Fire Apparatus – 12 years
- Successful results of the oil analysis of the engine, drive-line components and any associated hydraulics.
- A copy of the State of Maryland Vehicle Inspection.
- Aerial Devices must have an Aerial Certification, Non-Destructive Test and Aerial Maintenance performed within the last 90 days. The aerial testing company shall provide a copy of the associated paperwork to Apparatus Maintenance for review. The vehicle must remain out of service since the test.
- Pumping Devices – Certification that the pump has been inspected and tested by a pump testing company in accordance with NFPA 1901 within 90 days of the purchase, and that the vehicle has remained out-of-service since that test.
- Ground Ladders – Certification that each ground ladder has been inspected and tested by a ladder testing company in accordance with NFPA 1932 within 90 days of the purchase, and that the ladders have remained out-of-service since the test.
- In addition to the requirements outlined in NFPA 1901, 4.13.3 Load distribution, the apparatus must have a 5% buffer between the in-service weights and the gross axle weight ratings (GAWR), the overall gross vehicle weight rating (GVWR) and the chassis manufacturer's load balance guidelines. (Example: If the rear axles’ in-service weight is 22,000 pounds, we will add 5%, which would be 1,100 pounds, the rear GAWR must be at least 23,100 pounds). The purpose of this buffer is to provide the capability of changing the complement of equipment carried in the future without exceeding the GAWR or GVWR of the vehicle.
- Sound – noise level must not exceed 85dba in the non-response mode at all seated positions.
- A voice-activated intercom system (similar to David Clark, FireCom etc.) shall be provided with headsets at each seated position. The system shall not be hooked up to any am/fm radio.
- The engine must be diesel.
- The engine coolant shall be OATS coolant and approved by AMD.
- The transmission must be automatic.
- Radiator must be equipped with a sight gauge or translucent tank and low coolant level alarm.
- Brakes must be air actuated disc-type brakes with automatic slack adjusters, if applicable
- An anti-lock brake system shall be provided.
The parking brake release shall have a guard to prevent accidental release. A back-up camera with audio shall be installed for a rear view of the apparatus and area surrounding the apparatus. The screen for the camera must be easily viewable for the driver. In addition to the vehicles own NFPA required Vehicle Data Recorder, an event recording camera meeting the County specifications must be provided. (Contact Apparatus Maintenance for specific ordering instructions).

**Speed Limits**
- Vehicles shall not be capable of exceeding 68 mph.

**Wheels**
- Disc type construction, tubeless design.

**The front bumper** must be reinforced the full height and width resulting in the total thickness being at least ½”. If possible, supports shall run from the chassis frame to the outer end of the bumper on each side.

**Must provide all hardware necessary to activate the station exhaust system.**

**Must provide an air compressor/battery conditioner.**

The vehicle must be capable of being towed from the front with no obstructions and provide front accessible glad hands for hooking up brakes while in tow.

**Must specify DAVCO fuel water separator.**

12-volt wiring shall be provided for the power supply for a mobile radio and mobile data terminal in the front of the cab. These wires shall be clearly marked on the end for the installers. Consideration should be given to having manufacturer install the proper radio antennas on the roof of the apparatus at construction. (Contact AMD for the number needed).

Mobile radios will be provided for vehicle/apparatus purchases. Please contact the radio shop or Captain Gunn for assistance in receiving a radio.

**The mobile radio** shall be mounted in such a way that it is reachable by the officer while staying seated and belted in their respective seat.

There shall be an MDC docking station supplied with the vehicle/apparatus bought by the department making the purchase. (Contact AMD for current model required).

**The apparatus shall have an MDT.** This MDT purchase is the responsibility of the department or corporation making the purchase. (Contact Captain Amy Gunn for direction on this purchase).

**There shall be a system, or access panel for the checking of the vital fluids without tilting or raising the cab.**

Apparatus/Vehicle color and graphics shall follow General Order 02-18.

### Used Pumper Specific Requirements
- Fire pump rated 1250 gallons per minute, as a minimum.
- Must provide sacrificial anodes on pump.
- Booster tank – must be constructed of polypropylene.
- Booster tank – minimum capacity 500 gallons.
- A minimum of two (2), six-inch by ten-foot hard sleeves mounted on the apparatus.

### Used Aerial Apparatus Specific Requirements
- Alternating current (AC) power source minimum continuous duty rating 10,000 watts, as a minimum.
- All 120-volt (AC) receptacles shall be National Electrical Manufacturers Association (NEMA) configuration L5-20R and all 120-volt (AC) plugs shall be NEMA configuration L5-20P.
- Illumination (scene lighting) must be provided on two (2) sides of the vehicle.
- There shall be a minimum of 133 total feet of ground ladders.
- A minimum of 20 feet of suction sleeves shall be provided on the apparatus if a quint.

### Used Rescue Squad Specific Requirements
- Alternating current (AC) power source minimum continuous duty rating 10,000 watts, as a minimum.
- All 120-volt (AC) receptacles shall be National Electrical Manufacturers Association (NEMA) configuration L5-20R and all 120-volt (AC) plugs shall be NEMA configuration L5-20P.
- Illumination (scene lighting) must be provided on three (3) sides of the vehicle.
- There shall be a minimum of one 24’ extension ladder, 14’ roof and 10’ folding ladders.
- Walk in style Rescue Squads shall only require headsets in the squad body if the noise levels exceeds 85dBA in the non-response mode or 90 dBA with the audible warning devises in operation. Interior noise levels shall be measured with the vehicle in motion at the speed that produces the highest noise level, up to 55mph with the windows closed.
**Used Initial Attack Specific Requirements**

- Vehicles which exceed 80dBA in either the response mode or non-response mode must be equipped with a voice activated intercom system (David Clark or similar) with a headset at each seated position in the cab. These headsets shall not be wired or hooked into anything but the fire radio.
- Booster tank shall be at least 200 gallon capacity.
- Booster tank must be constructed of polypropylene.
- Pump engines must have oil drains run to the bottom of the chassis.
- All pump valves shall be manufactured by Akron.

**Used Mobile Water Supply Specific Requirements**

- Minimum tank capacity of 2500 gallons.
- Tank must be constructed of polypropylene.
- Each tank dump shall be capable of dumping 90% of the tanks rated capacity within two minutes.
- All pump valves shall be manufactured by Akron.
- The bottom of the chutes shall be between 36” and 42” above the ground when the tank is fully loaded.
- There shall be at least one on water tank level gauge.
- There shall be two direct tank fills capable of a filling rate of 1000 gpm minimum.
- Fire pump rated at 1000 gpm’s as a minimum.
- Must have sacrificial anodes on pump.
- There shall be lights to illuminate the dumping area.
- A minimum of two (2) six-inch by ten-foot hard sleeves mounted on the apparatus.

**Used Ambulance Specific Requirements**

- Must be compliant with the NFPA 1917 Specification as of the date of manufacture.
  - Excluding color, paint and finish criteria outlined in NFPA 1917
- As of the date of purchase:
  - Manufacturer of chassis must currently be in business.
  - No more than 5 years old.
  - No more than 50,000 miles.
  - Manufacturer of patient module must currently be in business.
  - May be mounted to a replacement chassis.
- Must be Type I ambulance (10,001 to 14,000 GVWR) or type I-AD (additional duty) ambulance (14,001 or more) which shall be a cab-chassis with modular ambulance body. Consideration will be given to those stations which have dimensional issues.
- In addition: Unit must have a 5% buffer between the in service weights and the gross axle weight ratings (GAWR), and the overall gross vehicle weight rating (GVWR). (Example: If the rear axles in service weight is 10,000 pounds we will add 5% which would be 500 pounds, the rear GAWR must be at least 10,500 pounds) To determine the vehicles in service weight the vehicle will be weighed fully equipped with no personnel or cot, and then the occupant weight shall be added at 250 pounds for each designated seating position in the cab, 750 pounds for the primary patient and cot, and 500 pounds for two attendants in the rear. The purpose of this buffer is to provide the capability of changing the complement of equipment carried in the future without exceeding the GAWR or GVWR of the vehicle.
- Ambulances which exceed 80 dba in either the response mode or non-response mode must be equipped with a voice activated intercom system (similar to David Clark, Sigtronics, FireCom, etc.) with two (2) headsets in the cab and one (1) in the patient compartment. These headsets shall not be hooked up to the am/fm radio.
- Rear tires shall be “All Season” type preferably block tread.
- The cab floor shall be covered with vinyl in lieu of carpet.
- A non-resettable engine hour meter must be provided.
- Event recording camera meeting the County specifications must be installed.
- Visual and audible alarms to indicate low engine oil pressures and/ or high engine coolant temperature.
- If road speed can be controlled electronically limited, it shall not exceed 70 miles per hour
- The cab will be equipped with two (2) 12V power points.

**MODULAR BODY**

- Must be capable of transporting two (2) fully immobilized adult patients.
- The cot must be compatible and interchangeable with the existing fleet of County ambulances.
- The stair chair must be compatible and interchangeable with the existing fleet of County ambulances.
- Must be at least two (2) accessible wall outlets for oxygen.
  - One (1) on the action wall.
  - One (1) on the curb side wall at the second patients head.
  - All outlets shall be compatible with Ohmeda style quick-disconnect fittings.
On-board oxygen cylinder:
- Must be “H” cylinder.
- Must be an electric cylinder lift which prevents personnel from lifting cylinder into vehicle.

The heater lines for the patient module shall be equipped with shut off valves that are identified and easily accessible.

The on-board suction system shall be compatible with the Bermis 100cc disposable suction container.

Two (2) Self Contained Breathing Apparatus (SCBA) brackets shall be provided for the storage of the SCBA.

Transportation devices for pediatric patients:
- The stretcher must be compatible with the Ferno PediMate pediatric transport device, or equivalent for patients from 10 to 40 pounds.
- The unit must be equipped with a SafeGuard Transport Ambulance cot restraint, or equivalent, for patients 40 to 100 pounds.
- Storage must be provided with the stair chair in an external compartment.
- Must comfortably accommodate 29.5”h x 17”w x 6.5” d.

EMRC radio system shall have an antenna cable and power lead run to the patient area.

ELECTRICAL SYSTEM
- The vehicle shall be equipped with a minimum of a 1000-watt 120V AC inverter integrated into 120V power system. When attached to shore line power, the inverter shall be disabled. When the vehicle is running, the inverter shall provide 120V AC power to the system. The inverter shall be appropriate for use with computer equipment without damaging their electrical systems. Outlets shall be provided in the cab center console and the patient action wall.
- The vehicle battery charger/conditioner shall also be equipped with an air compressor if the chassis has an air system. This device shall be wired to an auto-eject plug which ejects the power cord when the vehicle is started.