Vehicle Specifications

Tractor Drawn Aerial Specifications



Summerville Fire Department

Prepared by: Roger Wnek

INVITATION TO BID

Sealed bids will be received by the Town of Summerville Purchasing Agent until 10:00 a.m. on Thursday, January 4, 2018 at which time the bids will be publicly opened and read. Opening will be held in the 2nd floor training room located at Town Hall Annex, 200 S. Main Street, Summerville, SC 29483.

Bids will be for the purpose of furnishing the Town of Summerville with one (1) new Tractor Drawn Aerial. A copy of the instructions to bidders is posted on the Town's website <u>www.summervillesc.gov</u>, or you may e-mail <u>mbeltz@summervillesc.gov</u> to request the package.

The Town of Summerville reserves the right to reject any and all bids, to waive any informality and to award the contract, as it appears to be in the best interest of the Town of Summerville. The right is also reserved to hold any and all bids for a period not exceeding sixty (60) days from the opening thereof.

Questions concerning the equipment specifications may be directed to:

*Roger Wnek, Maintenance Coordinator, Summerville Fire Department (843) 864-4544

*Daniel Corbin, Maintenance Director, Town of Summerville (843) 851-4117

All bids must be submitted to:

Michelle Beltz The Town of Summerville 200 South Main Street Summerville, SC 29483

With the package marked as "Tractor Drawn Aerial Specifications"

INTENT OF SPECIFICATIONS

It shall be the intent of these specifications to cover the furnishing and delivery of a complete fire apparatus. These detailed specifications cover the requirements as to the type of construction, finish, equipment and tests to which the fire apparatus shall conform. Minor details of construction and materials, which are not otherwise specified, are left to the discretion of the contractor.

Images and illustrative material in this specification are as accurate as known at the time of publication, but are subject to change without notice. Images and illustrative material is for reference only, and may include optional equipment and accessories and may not include all standard equipment.

INSTRUCTIONS TO BIDDERS

The purchaser's standards for bidding automotive fire apparatus must be strictly adhered to, and all bid forms and questions must be complete and submitted with the bid. Omissions and variations shall result in immediate rejection of the bid.

Bids shall only be considered from companies that have an established reputation in the field of fire apparatus construction and have been in business for a minimum of 20 years. Furthermore, in order to insure fair, ethical, and legal competition, neither the original equipment manufacturer (O.E.M.) nor parent company of the O.E.M. shall have ever been fined or convicted of price fixing, bid rigging, or collusion in any domestic or international fire apparatus market (No exception).

If a bidder represents more than one fire apparatus company or brands of apparatus, they must only bid the top of the line that meets specification.

Each bidder shall furnish satisfactory evidence of their ability to construct the apparatus specified.

Any apparatus manufacturer or their parent company that has had a performance bond called in the last 10 years shall not be eligible to bid. Any bids from these manufactures shall be immediately rejected. (No exception)

Each bid shall be accompanied by a set of manufacturer's set of specifications consisting of a detailed description of the apparatus, construction methods, and equipment proposed to which the apparatus furnished under contract shall conform. These specifications shall indicate size, type, model and make of all components parts and equipment, providing proof of compliance with each and every item in the departments advertised specifications. A letter only, even though written on company letterhead, shall not be sufficient. An exception to this requirement shall not be acceptable.

In accordance with the current edition of NFPA 1901 standards, the proposal shall specify whether the fire department or apparatus dealership shall provide required loose equipment.

The purchaser will utilize this advertised specification to compare all submitted bid proposals. To facilitate comparison, all bid proposal specifications shall be submitted in the same sequence as the advertised specification. Any bidder who fails to submit a set of bid proposal specifications, or who photo copies and submits these specifications as their own construction details will be considered non responsive. This shall render such proposal ineligible for award. The purchaser's specification shall, in all cases, govern the construction of the apparatus, unless a properly documented exception or deviation was approved. Any bid indicating that the manufacturer's proposal shall supersede the purchaser's specification will be considered a complete substitute and immediately rejected.

THE PURCHASER HAS THE RIGHT TO REJECT ANY BIDS WHICH DOES NOT MEET THESE SPECIFICATIONS AND IS THE SOLE DECIDER TO DEEM WHICH BID IS IN THE BEST INTEREST OF THE PURCHASER.

EXCEPTIONS

These specifications are based upon design and performance criteria which have been developed by the fire department as a result of extensive research and careful analysis. Subsequently these specifications reflect the only type of fire apparatus that is acceptable at this time and all specifications herein contained are considered as minimum. Therefore exceptions to the specifications may not be accepted.

Bidders shall indicate in the "yes/no" column if their bid complies on each item (paragraph) specified.

If a product brand name is specified and is commercially available to all bidders, an exception to such items is not acceptable and such bid may be rejected.

Exceptions shall be allowed if they are equal to or superior to that specified and provided they are listed and fully explained on a separate page. All deviations, no matter how slight, shall be clearly explained on a separate sheet, in the bid sequence, citing the page and paragraph number(s) of the specifications, how the proposal deviation is different, how the deviation meets or exceeds the specifications and why it is necessary, and entitled "EXCEPTIONS TO SPECIFICATIONS". The buyer reserves the right to require a bidder to provide proof in each case that a substituted item is equal to that specified. The buyer shall be the sole judge in determination of acceptable substitutes. Proposals that are found to have deviations without listing them or bids taking total exceptions to these advertised specifications will be rejected. (No exceptions)

Bids not including all exceptions are a material breach and shall result in the bid being immediately rejected. (No exceptions)

GENERAL DESIGN AND CONSTRUCTION

The cab, chassis, pump module and body are to be entirely designed, assembled and painted by the prime vehicle manufacturer, which minimizes third party involvement on engineering, design, service and warranty issues.

All bidders shall provide a list of the company, manufacturing location and engineering source for each individual major component, including but not limited to the welded cab assembly, the pump house module assembly, the chassis assembly, body and electrical system. Apparatus using any subcontracted cab, chassis, pump module, electrical system or body will not be acceptable.

The apparatus shall be designed with due consideration to distribution of load between the front and rear axles. Weight balance and distribution shall be in accordance with the recommendations of the National Fire Protection Association.

The bidder shall make accurate statements as to the apparatus weight and dimensions.

COMPLY____ EXCEPTION____

DELIVERY

Apparatus, to insure proper break in of all components while still under warranty, shall be delivered under its own power - rail or truck freight shall not be acceptable. A qualified delivery representative shall deliver the apparatus and remain for a sufficient length of time to instruct personnel in proper operation, care and maintenance of the equipment delivered.

COMPLY____ EXCEPTION____

MANUALS AND SERVICE INFORMATION

The manufacturer shall supply at time of delivery, **Two (2) complete operation, service, and parts manuals covering the complete apparatus as delivered.** This shall include two (2) CD copies of a complete operation and service manual covering the complete apparatus as delivered and accepted.

The manual will contain the following:

- Descriptions, specifications, and ratings of chassis, pump (if applicable), and aerial device.
- Wiring diagrams.

- Lubrication charts.
- Operating instructions for the chassis, any major components such as a pump and any auxiliary systems.
- Instructions regarding the frequency and procedures recommended for maintenance.
- Parts replacement information.

A permanent plate shall be mounted in the driver's compartment which specifies the quantity and type of fluid required including engine oil, engine coolant, transmission, pump transmission lubrication, pump primer and drive axle.

COMPLY____ EXCEPTION____

SAFETY VIDEO

Since video is much more effective than written documentation and can be replayed for new personnel and as a refresher for existing personnel, an apparatus safety video, in DVD format shall be provided at time of delivery. This video shall address key safety considerations for personnel to follow when they are driving, operating, and maintaining the apparatus. Safety procedures for the following shall be included on the video: vehicle pre trip inspection, chassis operation, pump operation and maintenance.

COMPLY____ EXCEPTION____

PERFORMANCE TESTS AND REQUIREMENTS

A road test shall be conducted with the apparatus fully loaded and a continuous run of ten (10) miles or more shall be made under all driving conditions, during which time the apparatus shall show no loss of power or overheating. The transmission drive shaft or shafts and rear axle shall run quietly and be free from abnormal vibration or noise throughout the operating range of the apparatus. Vehicle shall adhere to the following parameters:

A) The apparatus, when fully equipped and loaded, shall have not less than 25 percent nor more than 50 percent of the weight on the front axle, and not less than 50 percent nor more than 75 percent on the rear axle.

B) The apparatus shall be capable of accelerating to 35 mph from a standing start within 25 seconds on a level concrete highway without exceeding the maximum governed rpm of the engine.

C) The service brakes shall be capable of stopping a fully loaded vehicle in 35 feet at 20 mph on a level concrete highway. The air brake system shall conform to Federal Vehicle Safety Standards (FMVSS) 121.

D) The apparatus, fully loaded, shall be capable of obtaining a speed of 50 mph on a level concrete highway with the engine not exceeding the governed rpm (full load).

COMPLY____ EXCEPTION____

FAILURE TO MEET TEST

In the event the apparatus fails to meet the test requirements of these specifications on the first trial, second trials may be made at the option of the bidder within 30 days of the date of the first trial. Such trials shall be final and conclusive and failure to comply with these requirements shall be cause for rejection. Failure to comply with changes to conform to any clause of the specifications, within 30 days after notice is given to the bidder of such changes, shall also be cause for rejection of the apparatus. Permission to keep or store the apparatus in any building owned or occupied by the purchaser or its use by the purchaser during the above-specified period with the permission of the bidder shall not constitute acceptance.

SERVICE AND WARRANTY SUPPORT (DEALERSHIP) TO INSURE FULL SERVICE AFTER DELIVERY, THE SELLING BIDDER/DEALERSHIP MUST BE CAPABLE OF PROVIDING SERVICE WHEN REQUIRED.

The bidder/dealership shall show that the company is in position to render prompt service and to furnish replacement parts.

Each bidder/dealership must be able to display that they are actively in the fire apparatus service business by operating a factory authorized service center and parts repository capable of satisfying the warranty service requirements and parts requirements of the vehicle(s) being purchased.

The bidder/dealership must state the location of this authorized service center. This service center must have a staff of factory-trained mechanics, well versed in all aspects of service for all major components of the apparatus. The service center must be within one hundred (100) miles of the Fire Department.

SERVICE AND WARRANTY SUPPORT (MANUFACTURER)

To provide an additional layer of service support, the successful manufacturer must also own a service center to service the southern united states.

The manufacturer shall stock 1 million parts equating to \$5,000,000 of inventory dedicated to service and replacement parts to ensure quick response and minimize down time. Furthermore, the manufacturer shall house the inventory in a dedicated facility, with a dedicated shipping area that ensures service parts are given priority. The bidder shall provide detailed documentation of service and replacement part resources.

Parts identification shall be provided to both the dealer and the Fire Department through an online web based application for the specific truck reflected in this specification. Access will be granted using the specific VIN number of the vehicle. The online web application will provide the ability to view complete bills of materials, digital photographs, parts drawings, assembly drawings and access to all current operation, maintenance and service publications.

The manufacturer must also maintain a 24 hour/7 day a week, toll free emergency hot line. The manufacturer shall employ a staff of adequate size (a minimum of 30 personnel) specifically dedicated to providing customer support and parts for the fielded fleet of vehicles it has produced.

The manufacturer must be capable of providing both in-house and on-site service for the apparatus.

The manufacturer shall offer regional factory hands-on repair and maintenance training classes. The manufacturer shall employ a minimum of four certified EVT technicians on staff, not only providing technical expertise in the repair of fire apparatus, but also demonstrating the commitment to service after the sale.

COMPLY____ EXCEPTION____

LIABILITY

The successful bidder shall defend any and all suits and assume all liability for the use of any patented process including any device or article forming a part of the apparatus or any appliance furnished under the contract. To ensure this will occur, the bidder shall carry the following minimum insurance.

COMMERCIAL GENERAL LIABILITY INSURANCE

The successful bidder shall, during the performance of the contract and for three (3) years following acceptance of the product, keep in force at least the following minimum limits of commercial general liability insurance: Each Occurrence\$1,000,000 Products/Completed Operations Aggregate\$1,000,000 Personal and Advertising Injury\$1,000,000 General Aggregate\$5,000,000 Coverage shall be written on a Commercial General Liability form. The policy shall be written on an occurrence form and shall include Contractual Liability coverage for bodily injury and property damage subject to the terms and conditions of the policy. The policy shall include Owner as an additional insured when required by written contract.

COMPLY____ EXCEPTION____

COMMERCIAL AUTOMOBILE LIABILITY INSURANCE

The successful bidder shall, during the performance of the contract keep in force at least the following minimum limits of commercial automobile liability insurance: Each Accident Combined Single Limit: \$1,000,000 Coverage shall be written on a Commercial Automobile liability form.

COMPLY____ EXCEPTION____

UMBRELLA/EXCESS LIABILITY INSURANCE

The successful bidder shall, during the performance of the contract and for three (3) years following acceptance of the product, keep in force at least the following minimum limits of umbrella liability insurance:

Aggregate: \$25,000,000

Each Occurrence: \$25,000,000

The umbrella policy shall be written on an occurrence basis and at a minimum provide excess to the Bidder's General Liability, Automobile Liability and Employer's Liability policies.

The required limits can be provided by one (1) or more policies provided all other insurance requirements are met.

Coverage shall be provided by a carrier(s) rated A- or better by A.M. Bests.

All policies shall provide a 30 day notice of cancellation to the named insured. The Certificate of Insurance shall provide the following cancellation clause: Should any of the above described polices be cancelled before the expiration date thereof, notice shall be delivered in accordance with the policy provisions. Bidder agrees to furnish owner with a current Certificate of Insurance with the coverage listed above along with its bid. The certificate shall show the purchaser as certificate holder.

COMPLY____ EXCEPTION____

SINGLE SOURCE MANUFACTURER

Bids shall only be accepted from a single source apparatus manufacturer. The definition of single source is a manufacturer that designs and manufactures their products using an integrated approach, including the chassis, cab weldment, cab, pump house (including the sheet metal enclosure, valve controls, piping and operator's panel) and body being designed, fabricated, and assembled on the bidder's premises. The electrical system (hardwire or multiplex) shall be both designed and integrated by the same apparatus manufacturer. The warranties relative to these major components (excluding component warranties such as engine, transmission, axles, pump, etc.) must be from a single source manufacturer and not split between manufacturers (i.e. body, pump house, cab weldment and chassis). The bidder shall provide evidence that they comply with this requirement.

The bidder shall state the location of the factory where the apparatus is to be built.

COMPLY____ EXCEPTION____

NFPA STANDARDS

This unit shall comply with the most current NFPA standards, except for fire department specifications that differ from NFPA specifications. These exceptions shall be set forth in the Statement of Exceptions.

Certification of slip resistance of all stepping, standing and walking surfaces shall be supplied with delivery of the apparatus.

A plate that is highly visible to the driver while seated shall be provided. This plate shall show the overall height, length, and gross vehicle weight rating.

The manufacturer shall have programs in place for training, proficiency testing and performance for any staff involved with certifications.

An official of the company shall designate, in writing, who is qualified to witness and certify test results.

COMPLY____ EXCEPTION____

NFPA COMPLIANCY

Apparatus proposed by the bidder shall meet the applicable requirements of the National Fire Protection Association (NFPA) as stated in the current edition at time of contract execution. Fire Department's specifications that differ from NFPA specifications shall be indicated in the proposal as "non-NFPA."

COMPLY____ EXCEPTION____

GENERATOR TEST

If the unit has a generator, the generator shall be tested, approved and certified by an ISO certified independent third party testing agency at the manufacturer's expense. The test results shall be provided to the Fire Department at the time of delivery.

COMPLY____ EXCEPTION____

BID BOND

All bidders shall provide a bid bond as security for the bid in the form of a 10% bid bond to accompany their bid. This bid bond shall be issued by a Surety Company who is listed on the U.S. Treasury Department's list of acceptable sureties as published in Department Circular 570. The bid bond shall be issued by an authorized representative of the Surety Company and shall be accompanied by a certified power of attorney dated on or before the date of bid. The bid bond shall include language, which assures that the bidder/principal shall give a bond or bonds as may be specified in the bidding or contract documents, with good and sufficient surety for the faithful performance of the contract, including the Basic One (1) Year Limited Warranty, and for the prompt payment of labor and material furnished in the prosecution of the contract. Proposals received from bidders who do not manufacture the chassis shall provide a warranty that shall be issued jointly and severally by, and signed by, both the bidder and the chassis manufacturer.

If the successful bidder does not manufacture the chassis, the bidder shall supply a warranty bond, in addition to their performance bond, along with their signed contract. This warranty bond shall guarantee all terms and conditions of the Basic One (1) Year Limited Warranty and names both the bidder and chassis manufacturer as co-principals. This warranty bond shall be issued for the contract amount and shall remain in force for a term which is consistent with the term of the Basic One (1) Year Limited Warranty.

Notwithstanding any document or assertion to the contrary, any surety bond related to the sale of a vehicle shall apply only to the Basic One (1) Year Limited Warranty for such vehicle. Any surety bond related to the sale of a vehicle shall not apply to any other warranties that are included within this bid (OEM or otherwise) or to the warranties (if any) of any third party of any part, component, attachment or accessory that is incorporated into or attached to the vehicle. In the event of any contradiction or inconsistency between this provision and any other document or assertion, this provision shall prevail.

COMPLY____ EXCEPTION____

PERFORMANCE BOND, NOT REQUESTED

A performance bond shall not be included. If requested at a later date, one shall be provided to you for an additional cost and the following shall apply:

The successful bidder shall furnish a Performance and Payment bond (Bond) equal to 100 percent of the total contract amount within 30 days of the notice of award. Such Bond shall be in a form acceptable to the Owner and issued by a surety company included within the Department of Treasury's Listing of Approved Sureties (Department Circular 570) with a minimum A.M. Best Financial Strength Rating of A and Size Category of XV. In the event of a bond issued by a surety of a lesser Size Category, a minimum Financial Strength rating of A+ is required. Bidder and Bidder's surety agree that the Bond issued hereunder, whether expressly stated or not, also includes the surety's guarantee of the vehicle manufacturer's Bumper to Bumper warranty period included within this proposal. Owner agrees that the penal amount of this bond shall be simultaneously amended to 25 percent of the total contract amount upon satisfactory acceptance and delivery of the vehicle(s) included herein. Notwithstanding anything contained within this contract to the contrary, the surety's liability for any warranties of any type shall not exceed three (3) years from the date of such satisfactory acceptance and delivery, or the actual Bumper to Bumper to Bumper warranty period, whichever is shorter.

APPROVAL DRAWING

A drawing of the proposed apparatus shall be provided for approval before construction begins. The sales representative shall also have a copy of the same drawing. The finalized and approved drawing shall become part of the contract documents. **This drawing shall indicate the chassis make and model, location of the lights, siren, horns, compartments, pump panel layout, major components, etc.**

A "revised" approval drawing of the apparatus shall be prepared and submitted by the manufacturer to the purchaser showing any changes made to the approval drawing.

COMPLY____ EXCEPTION____

ELECTRICAL WIRING DIAGRAMS

Two (2) electrical wiring diagrams, prepared for the model of chassis and body, shall be provided.

COMPLY____ EXCEPTION____

CONSTRUCTION PROGRESS PHOTOS

Weekly photographs of the apparatus or the major components as they are being constructed shall be provided. The photos shall commence at the beginning of the manufacturing process and shall continue until just prior to the final inspection. There shall be approximately six (6) weekly reports illustrating the progress of the apparatus through the course of each week. Special attention shall be given to show the unique features and aspects of the apparatus as construction progresses.

SOUTH CAROLINA DEALER LICENSE

Each bidder must provide with bid a valid and current copy of their South Carolina Dealer License as issued by the South Carolina Department of Motor Vehicles. This license requirement is to assure the bidder is legally authorized to engage in the Sale of motor vehicles within the State of South Carolina.

COMPLY____ EXCEPTION____

LOCAL SERVICE FACILITY

Each bidder must provide with bid proof of dealer owned and operated Service Facility located 100 miles of the State of South Carolina along with factory trained service personnel. Service personnel shall be factory trained to handle parts and warranty repair for their respective manufacturer. In addition, local Service Facility must have the capability to dispatch factory trained service technicians with dealer operated mobile service units to Department location for field service repairs.

COMPLY____ EXCEPTION____

DEALER GARAGE LIABILITY

Bidder must provide at time of bid proof of dealer garage liability insurance with minimum coverage of \$1,000,000.00.

COMPLY____ EXCEPTION____

PRE CONSTRUCTION TRIP

All bidders shall provide a Pre-Construction trip to the manufacturing facility for (5) Five Fire Department personnel. Travel expenses, meals, lodging shall be included.

FINAL INSPECTION

All bidder shall provide a Final Inspection trip to the manufacturing facility for (5) Five Fire Department personnel. Travel expenses, meals, lodging shall be included.

COMPLY____ EXCEPTION____

ORIENTATION TRAINING

There shall be one (1) class held at the Fire Department by a factory certified trainer. The class shall consist of basic orientation of the apparatus and shall last approximately 3 hours. The class shall cover basic operations of cab, chassis, pump, aerial and body components that are included on the new apparatus.

COMPLY____ EXCEPTION____

FIRE APPARATUS DOCUMENTATION

The bidder will supply, at the time of delivery, at least one (1) copy of the following documents:

The manufacturer's record of apparatus construction details, including the following information:

- Owners name and address
- Apparatus manufacturer, model and serial number
- Chassis make, model and serial number
- Front tire size and total rated capacity in pounds
- Rear tire size and total rated capacity in pounds
- Chassis weight distribution in pounds with water and manufacturer mounted equipment, front and rear
- Engine make, model, serial number, rated horsepower, rated speed and governed speed
- Type of fuels and fuel tank capacity
- Electrical system voltage and alternator output in amps.
- Battery make, model and total capacity in cold crank amps (CCA)

- Transmissions make, model and serial number. If so equipped chassis transmission PTO(s) make, model and gear ratio
- Paint manufacturer and paint number(s)

Certification of slip resistance of all stepping, standing and walking surfaces.

If the apparatus has an aerial device the Underwriters Laboratory certification of inspection and test for the aerial device.

If the apparatus has an aerial device, all the technical information required for inspections to comply with NFPA 1911, Standards for Testing Fire Department Aerial Devices.

If the apparatus has a fixed line voltage power source, the certification of the test for the fixed power source (if applicable).

Weight documents from certified scale - showing actual loading on the front axle, rear axle(s) and overall vehicle (with the water tank full but without personnel, equipment and hose) will be supplied with the complete vehicle to determine compliance with NFPA-1901

Written load analysis and results of electrical performance tests.

COMPLY____ EXCEPTION____

CAB SAFETY SIGNS

The following safety signs will be provided in the cab:

- A label displaying the maximum number of personnel the vehicle is designed to carry will be visible to the driver.
- "Occupants will be seated and belted when apparatus is in motion" signs will be visible from each seat.
- "Do Not Move Apparatus When Light Is On" sign adjacent to the warning light indicating a hazard if the apparatus is moved (as described in subsequent section).

- A label displaying the height, length, and GVWR of the vehicle will be visible to driver.
- This label will indicate that the fire department will revise the dimension if vehicle height changes while vehicle is in service.

COMPLY____ EXCEPTION____

CHASSIS DATA LABELS

The following information will be on labels affixed to the vehicle:

Fluid Data

- Engine Oil
- Engine Coolant
- Chassis Transmission Fluid
- Pump Transmission Lubrication Fluid
- Pump Primer Fluid (if applicable)
- Drive Axle(s) Lubrication Fluid
- Air Conditioning Refrigerant
- Air Conditioning Lubrication Oil
- Power Steering Fluid
- Cab Tilt Mechanism Fluid
- Transfer Case Fluid (if applicable)
- Equipment Rack Fluid (if applicable)
- Air Compressor System Lubricant
- Generator System Lubricant (if applicable)
- Front Tire Cold Pressure
- Rear Tire Cold Pressure
- Aerial Hydraulic Fluid (if applicable)
- Maximum Tire Speed Rating

Chassis Data

- Chassis Manufacturer
- Production Number
- Year Built
- Month Manufactured
- Vehicle Identification Number

Manufacturers weight certification:

- Gross Vehicle (or Combination) Weight Rating (GVWR or GCWR)
- Gross Axle Weight Rating, Front
- Gross Axle Weight Rating, Rear

COMPLY____ EXCEPTION____

ROLLOVER STABILITY

The apparatus will meet the criteria defined in 4.13.1 for rollover stability as defined in the 2016 NFPA Standard for Automotive Fire Apparatus.

PRINCIPAL APPARATUS DIMENSIONS & G.V.W.R.

- OVERALL LENGTH:
- OVERALL HEIGHT:

No greater than 59ft. 8in. No greater than 11'-10"

No greater than 162"

- WHEELBASE OF TRACTOR:
- WHEELBASE OF FRONT AXLE TO TILLER : No greater than 362"

State the axle and total weight ratings of the completed apparatus:

- MINIMUM FRONT G.A.W.R.:
- MINIMUM REAR G.A.W.R.:
- MINIMUM TRAILER G.A.W.R. _____

The bidder will include the principal dimensions, front G.A.W.R., rear G.A.W.R., and total G.V.W.R. of the proposed apparatus. Additionally, the bidder will provide a weight distribution of the fully loaded, completed vehicle; this will include a filled water tank, specified hose load, miscellaneous equipment allowance in accordance with NFPA-1901 requirements, and an equivalent personnel load of 250 lbs. per seating position.

COMPLY____ EXCEPTION____

VEHICLE ELECTRICAL CAB, CHASSIS, BODY, AND AERIAL

The cab, chassis, aerial body, and aerial device will be a multiplexed system. The bidder will state the multiplexed system for all major components:

Cab	
Chassis	
Aerial Rear Body _	
Aerial Device	

CAB AND CHASSIS

The cab will be a custom tilt style, built specifically for fire service. The cab will be a cab over engine design, with integral tilt mechanism and engine access from inside the cab.

Cab will be designed, fabricated, assembled in its entirety, and installed on the frame rails in the manufacturer's factory. This requirement will eliminate any split responsibility in warranty and service.

COMPLY____ EXCEPTION____

CAB ROOF OVERLAY

A bright finish aluminum tread plate overlay will be placed on the cab roof, starting at a point rearward of the light bar location and extending back to the end of the cab roof. This tread plate overlay will be sealed with caulking around the edges to prevent moisture from entering the area between the cab roof and the overlay.

COMPLY____ EXCEPTION____

CAB ROOF DRIP RAIL

For enhanced protection from inclement weather, a drip rail will be furnished on the sides of the cab. The drip rail will be fastened to the sides of the cab rood edge. The drip rail will extend the full length of the cab roof.

COMPLY____ EXCEPTION____

STEPWELL BATTERY ACCESS DOORS

The battery access door(s) will be 1/8" aluminum tread plate, drop down doors with thumb latches at each side rear cab step well.

COMPLY____ EXCEPTION____

BARRIER HEIGHT CAB DOORS

Four (4) side-opening doors will be provided. The cab doors will be shortened to the floorboard level, thus leaving an exposed step well area at each cab entrance. There will be a heavy duty piano type stainless steel hinge on each door. A restraint device will be utilized to prevent the cab doors from opening greater than 90 degrees.

COMPLY____ EXCEPTION____

DOOR WINDOWS

Each side cab door will have a tinted retractable window operated by a hand crank mechanism.

INNER DOOR PANELS

The cab door interior panels will be covered with an aluminum panel, full height. The panel will be painted with Line-X and will be designed to allow easy access to the inner door. The Line-X will be red in color to match the paint on the outside of the cab.

COMPLY____ EXCEPTION____

DOOR WARNING - CHEVRON

Four (4) Chevron reflective signs will be installed on the lowest portion of the inner door panels, one (1) on each door. These chevrons will cover at least 96 in. The chevrons will be applied to an aluminum plate that will be fastened to the door panel.

TRANSVERSE CAB COMPARTMENTS

Two (2) compartments will be provided, to the rear of the crew cab doors. These compartments will be approximately 38" high, 10" wide and 28" deep in the lower area and transverse in the area above the frame rails. The transverse portion of the compartment will be approximately 10" wide x 18" high. The transverse section will be designed to be capable of being utilized for a seat riser. To make the compartment accessible from inside the crew area, the front wall of the transverse section will be equipped with two (2) drop down flat panel doors.

The exposed section of the compartment in the rear crew area will be painted with a textured paint to match the cab interior. The interior of the compartment will be painted to match the color or material provided in the body compartments.

Compartment door will have a stainless steel "D" ring handle. The door will be hinged on the forward edge with a stainless steel vertical piano hinge so it opens toward the rear cab door. The door will be held in the open position by a gas shock stay arm.

Each compartment will contain a light for illumination of the compartment and will be wired to a door jamb switch to automatically come on when the door is opened. The light will be the same style that is used in the body compartments.

COMPLY____ EXCEPTION____

AIR CYLINDER RACK

An air cylinder storage rack will be provided in the driver's side exterior cab and officer's side exterior cab compartment. This rack will be capable of storing at least two (2) SCBA cylinders.

COMPLY____ EXCEPTION____

DARK TINTED REAR WINDOW GLASS

The windshield and the forward cab door glass will be provided with standard DOT automotive tint. The side cab windows to the rear of the front doors, the rear cab door windows and any rear viewing windows will be equipped with a dark automotive tint.

COMPLY____ EXCEPTION____

CAB HANDRAILS

Four (4) handrails will be provided, one (1) at each cab door entrance. Cab grab rails will have an LED light in each grab handles to illuminate the area. The grab handle lights should be active when the batteries for the truck are cut on. Formed rubber gaskets will be provided between each stanchion base and the cab surface.

COMPLY____ EXCEPTION____

INTERIOR CAB HANDRAILS

Interior handrails will be provided to assist in entry and exiting of the cab. Handrails will be located in the following locations:

- One (1) horizontally mounted, on each front cab door on the interior door panel
- One (1) horizontally mounted, on each rear cab door on the interior door panel
- Four (4) vertically mounted, one (1) each side of the cab interior on the "A" post and one (1) each side of the cab interior on the "C" post in the crew area
- One (1), horizontally mounted, on each rear cab door, located at the same height as the window in the lowered position

COMPLY____ EXCEPTION____

FRONT CAB GRILL

A South Carolina State flag mesh bug screen will be provided behind the front grill assembly to protect the radiator from bugs and other debris. The screen will be secured to the front of the cab by button snaps, behind the main grill.

COMPLY____ EXCEPTION____

ENGINE AIR INTAKE SYSTEM

No part of the air intake system for the engine will be lower than the top of the frame rails to ensure the vehicle can navigate pooled water without any part of the air intake system being exposed to water when the vehicle is stopped or in motion. Please reference picture below to show an example.



COMPLY____ EXCEPTION____

CAB MIRRORS

Two (2) Retrac 613305 mirrors will be furnished, one on each front cab door. The upper flat glass portion as well as the lower convex section will be electrically controlled from the driver's seating position.

The stainless steel loop mounting bar will be installed on the forward portion of each front door in front of the side windows with an upper and lower mounting bracket.

COMPLY____ EXCEPTION____

INTERIOR TRIM

The cab interior metal surfaces of the cab will be finish painted with Line-X material red in color to match the paint on the outside of the cab.

COMPLY____ EXCEPTION____

UNDER SEAT STORAGE COMPARTMENTS

There will be a compartment provided under each front seat. Each compartment will be accessible from the front of the seat riser when the door is opened.

COMPLY____ EXCEPTION____

ENGINE ENCLOSURE

The Line-X overlay panels will be red in color to match the paint on the outside of the cab.

COMPLY____ EXCEPTION____

DRIVERS SEAT

The driver's seat will be a H.O. Bostrom Sierra 500 series EX8 high back bucket ABSTS LH seat. The seat shall have a tapered, ergonomic contoured, extended seat cushion with bolster support. The seat shall have an eight inch fore and aft adjustment, a 2 inch height adjustment, front of seat tilt, rear of seat tilt and a reclining seat back. All seat movements shall be electrically controlled from a control panel on the forward lower edge of the seat.

The seat shall be equipped with a red integrated 3-point shoulder harness with lap belt and an automatic Dual Retractor anti-binding guide built into the seat assembly with seat belt customized fit adjustment.

OFFICERS SEAT

The officer's seat shall be a H.O. Bostrom Tanker 550, EX6, 6 way electric, ABTS RH with a red, Fully Integrated 3-Point Seat Belt shoulder harness with lap belt and an automatic Dual Retractor with anti-binding webbing guide built into the seat assembly with seat belt customized fir adjustment.

The seat shall have a tapered, ergonomic contoured, extended seat cushion with bolster support. The seat shall include a SCBA storage area with integral, contoured headrest and tapered side cushions with built in SCBA strap hooks.

A Power 6" fore/aft adjustment and Power 2" height adjustment shall be provided.

The seat will include a SmartDock GenII bottle bracket.

COMPLY____ EXCEPTION____

RADIO COMPARTMENT

A radio compartment shall be provided behind the officer seat and behind the rear facing outboard officer side seat.

The radio compartment should be able to be accessible for both radio installers and programmers.

The compartment shall be painted to match the cab interior.

This compartment will house the main radio of the truck. **Power, ground wires and antennae wires need to be run to this compartment to power up the radio at the factory.** All power, **ground wires and antennae wires shall be long enough to allow them to be pulled away from the mounting area for inspection and service work.**

COMPLY____ EXCEPTION____

REAR FACING, OUTBOARD, DRIVER SIDE SEAT

The driver's side outboard rear facing crew seat will be a H.O. Bostrom Tanker, ABSTS RH series fixed base SCBA seat. The seat shall have a tapered, ergonomic contoured, extended seat cushion with bolster support. The seat shall include a SCBA storage area with integral, contoured headrest and tapered side cushions with built in SCBA strap hooks.

The seat shall be equipped with a red integrated 3-point shoulder harness with lap belt and an automatic dual retractor with anti-binding webbing guide built into the seat assembly with seat belt customized fit adjustment.

The seat will include a SmartDock GenII bottle bracket.

COMPLY____ EXCEPTION____

REAR FACING, OUTBOARD, OFFICER SIDE SEAT

The officer's side outboard rear facing crew seat will be a H.O. Bostrom Tanker, ABSTS LH series fixed base SCBA seat. The seat shall have a tapered, ergonomic contoured, extended seat cushion with bolster support. The seat shall include a SCBA storage area with integral, contoured headrest and tapered side cushions with built in SCBA strap hooks.

The seat shall be equipped with a red integrated 3-point shoulder harness with lap belt and an automatic dual retractor with anti-binding webbing guide built into the seat assembly with seat belt customized fit adjustment.

The seat will include a SmartDock GenII bottle bracket.

COMPLY____ EXCEPTION____

CENTER FORWARD FACING CREW SEATS

Two (2) center inboard forward facing crew seats will be provided. Each seat will be a H.O. Bostrom Tanker, ABSTS series SCBA seat. Each seat shall have a tapered, ergonomic contoured, extended seat cushion with bolster support. Each seat shall include a SCBA storage area with integral, contoured headrest and tapered side cushions with built in SCBA strap hooks.

Each seat shall be equipped with a red integrated 3-point shoulder harness with lap belt and an automatic dual retractor with anti-binding webbing guide built into the seat assembly with seat belt customized fit adjustment.

The two (2) center inboard forward facing crew seats will have a flip-up style seat.

Each seat will include a SmartDock GenII bottle bracket.

COMPLY____ EXCEPTION____

SEAT UPHOLSTERY MATERIAL

The seats will be upholstered with heavy duty black Durawear material with black trim, and black top-stitching as provided by Bostrom.

COMPLY____ EXCEPTION____

MAP BOOK STORAGE

A map book storage rack will be provided for horizontal storage of three (3) 2" 3-ring binders, which will be top loaded. Auxiliary storage areas will be provided on the sides and front of the storage rack. The storage compartment will be constructed from 1/8" aluminum which will be painted with textured paint, matching the interior color of the cab.

COMPLY____ EXCEPTION____

ALUMINUM PEGBOARD

Aluminum pegboard shall be installed for tool and equipment mounting will be provided on the rear cab wall, driver side. Approximate size will be 50" x 18". All installation hardware will be stainless steel. The pegboard shall be painted red in color to match the paint on the outside of the cab. Mounted to this aluminum pegboard will be a PAC Irons Lok mount – PAC part#K5003 for a set of irons, and a Fire Hooks Unlimited: Hydra-Ram Aluminum Carrying Case for a Fire Hooks Unlimited Hydra-Ram. ****Note: Final location of these items will be located by the Summerville Fire Department at the pre-construction conference.**

COMPLY____ EXCEPTION____

ALUMINUM PEGBOARD

Aluminum pegboard shall be installed for tool and equipment mounting will be provided on the rear cab wall, officer side. Approximate size will be 50" x 18". All installation hardware will be stainless steel. The pegboard shall match the color of the interior of the cab and be painted. Mounted to this aluminum pegboard will be a PAC Irons Lok mount – PAC part#K5003 for a set of irons, and a Fire Hooks Unlimited: Hydra-Ram Aluminum Carrying Case for a Fire Hooks Unlimited Hydra-Ram. ****Note: Final location of these items will be located by the Summerville Fire Department at the pre-construction conference.**

COMPLY____ EXCEPTION____

CENTER OVERHEAD PANEL

An overhead console will be provided on the cab roof between the driver and officer to permit installation of cab stereo, intercom systems, arrow stick controls, etc. The overhead console will be painted to match the interior of the cab. The overhead console will not obstruct the driver's vision through the officer's side window. **NOTE: Mounted in the center overhead

panel will be the Motorola APX 02 Control Head, Part number GA00804AB with Motorola Remote Mount, Part number G67BZ, Johnny Ray JR-500 swivel mount base, and Motorola Auxiliary Speaker 7.5 Watt, Part number B18CR. See attached picture for exact location and mounting.



COMPLY____ EXCEPTION___

WEATHER BAND AM/FM/CD RADIO

A Weather Band/AM/FM, CD, MP3, Satellite ready player with a wireless remote shall be installed in the cab overhead panel above the driver. The speakers shall be located as follows:

- \cdot (2) 6 inch mounted in the Front of the cab
 - (2) 6 inch mounted in the Rear of the cab

A heavy duty flexible base antenna shall be provided on the cab.

COMPLY____ EXCEPTION____

AUXILIARY MANUAL CAB LIFT

An auxiliary manual cab lift backup system will be furnished for use in the event of total electrical shutdown.

The cab tilt control will be equipped with an interlock that will disable the cab tilt system in the event the parking brake is not applied.

COMPLY____ EXCEPTION____

PAINTED STEEL FRONT BUMPER

A painted steel front bumper will be provided. The bumper will be designed with 45degree welded corners and a 2" flange on the top and bottom. The color of the bumper will match the cab and body base color.

COMPLY____ EXCEPTION____

FRONT TOW HOOKS

Two (2) front forged steel tow eyes will be fastened directly to the frame web, recessed behind the front bumper with cutouts provided in the bumper for access. The tow eyes will be fastened with grade 8 bolts and nuts.

COMPLY____ EXCEPTION____

FRONT AXLE

Front axle will be a Meritor MFS-20-133 A-N, includes low friction "Easy Steer" bushing technology for maximum steering ease and longer life.

State the rating of the front axle: _____

COMPLY____ EXCEPTION____

Summerville Fire Department TDA Specifications

FRONT DISC BRAKES

Meritor EX-225 H, 17" disc brakes will be provided for the front axle. The front brakes will be full air actuated with automatic slack adjustment.

Premium oil seals with viewer glass will be provided on the front axle.

COMPLY____ EXCEPTION____

REAR AXLE

Rear axle will be a single, Meritor RS-30-185 with a capacity of 31,000 lbs. (Minimum). Axle will be a single reduction axle with hypoid gearing and oil-lubricated wheels bearing. Oil seals will be provided as standard equipment.

COMPLY____ EXCEPTION____

REAR BRAKES

Brakes will be "S" Cam, 16-1/2" x 7" size and will be full air actuated with automatic slack adjusters.

COMPLY____ EXCEPTION____

BRAKE AIR RESERVOIRS

There shall be a minimum of three (3) air reservoirs installed in conformance with best automotive practices.

An additional 1127 cu. in. air reservoir shall be provided for the accessory air outlet.

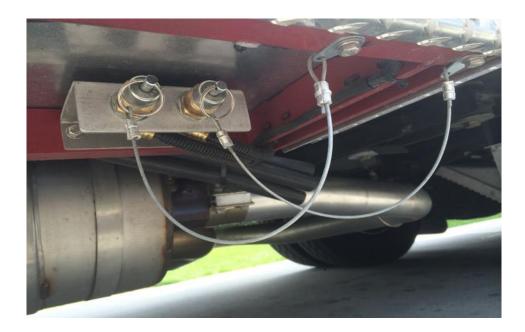
Reservoir capacity total shall be a minimum of 5820 cubic inches.

The air reservoirs shall be color coded to match the air lines for easy identification, ease of maintenance and troubleshooting. The reservoirs shall be painted the following colors:

- Wet Tank Black
- Primary Tank Green
- · Secondary Tank Blue
- Auxiliary Tank(s) Yellow

For ease of daily maintenance, manual drains shall be installed on all reservoirs of the air brake system. All drains shall be extended to the driver side to the front of the apparatus body with stainless steel cables and located below the rub rail area. Please reference the picture for air tank drain location.





COMPLY____ EXCEPTION____

AIR DRYER SYSTEM

A Rockwell/Wabco System Saver 1200 heated air dryer will be furnished. An automatic moisture ejector on the primary will also be furnished.

COMPLY____ EXCEPTION____

AIR COMPRESSOR

Air compressor will be a Wabco brand, minimum of 18.7 cubic feet per minute capacity. Air brake system will be the quick build up type. The air compressor discharge line will be stainless steel braid reinforced Teflon hose.

A pressure protection valve will be installed to prevent the use of air horns or other air operated devices should the air system pressure drop below 80 psi (552 kPa).

The chassis air system will meet NFPA 1901, latest edition for rapid air pressure build-up within sixty (60) seconds from a completely discharged air system. This system will provide sufficient air pressure so that the apparatus has no brake drag and is able to stop under the intended operating conditions following the sixty (60) seconds build-up time.

COMPLY____ EXCEPTION____

PARKING BRAKE

The parking brake control will be accessible for both the driver and officer. The center instrument panel will be designed to accommodate the control centered between the driver and officer. A red indicator light will be provided in the driver dash panel that will illuminate when the parking brake is applied.

The parking brake will be plumbed to provide all wheel lock-up when applied.

COMPLY____ EXCEPTION____

FRONT WHEELS & TIRES

The front tires will be mounted on Alcoa polished aluminum disc wheels. The front wheels will be provided with bright nut covers and hub caps. The front tires will be Goodyear duraseal or Continental tires.

COMPLY____ EXCEPTION____

REAR WHEELS & TIRES

The rear tires will be mounted on Alcoa polished aluminum disc wheels.

The single rear axle aluminum disc wheels will be provided with bright nut covers and hub caps.

The rear tires will be Goodyear duraseal or Continental tires.

COMPLY____ EXCEPTION____

ENGINE

The following engines will be accepted to power this unit:

A Cummins, Model X15 600, diesel, turbo-charged, per the following specifications.

•	Max. Horsepower	600 HP @ 1800 RPM
•	Governed Speed	2100 RPM
•	Peak Torque	1850 lb. ft. @ 1200 RPM
•	Cylinders	Six (6)
•	Operating Cycles	Four (4)
•	Bore & Stroke	5.39 x 6.65 in.
•	Displacement	912 cu. in.
•	Compression Ratio	17.2:1
•	Governor Type	Limiting Speed
•	Drive line Size	1810 Series.

Engine oil filters will be engine manufacturers branded or approved equal. Engine oil filters will be accessible for ease of service and replacement. A fuel/water separator will be provided.

Engine should be a commercially produced truck engine, all parts readily available. Provide OEM application approval & certification for fire service.

Engine should accelerate quickly & smoothly from a standing start, without any "bogging", hesitation or time lags in the acceleration curve. OEM engineering should immediately correct any problems in performance noted by the Summerville Fire Department. Diagnostic software should be provided if possible.

TRANSMISSION

An Allison World Transmission, Model 4500EVS (Wide Ratio), electronically controlled, automatic transmission will be provided. Transmission specifications will be as follows:

٠	Max. Gross Input Power	600 HP
٠	Max. Gross Input Torque	1770 lb. ft.
•	Input Speed (Range)	1700- 2300 RPM
٠	Direct Gear (Pumping)	4th (Lock-up)

Transmission installation will be in accordance with the transmission manufacturer's specification. The transmission will be readily and easily removable for repairs or replacement.

One (1) PTO opening will be provided on both the left and right side of the converter housing (positions one (1) o'clock and eight (8) o'clock).

The transmission will be calibrated for five (5) forward gears and one (1) reverse gear. Each gear will have the following ratios:

- First 4.70:1
- Second 2.21:1
- Third 1.53:1
- Fourth 1.00:1
- Fifth 0.76:1
- Reverse -5.55:1

COMPLY____ EXCEPTION____

TRANSMISSION SHIFT SELECTOR

An illuminated, touch-pad type shift control will be mounted in the cab, convenient to the driver. Shift control will be approved by the transmission manufacturer.

TRANSMISSION OIL LEVEL SENSOR

The transmission will be equipped with the oil level sensor (OLS); this sensor will allow the operator to obtain an indication of the fluid level from the shift selector. The sensor display will provide the following checks, correct fluid level, low fluid level and high fluid level.

COMPLY____ EXCEPTION____

PARK TO NEUTRAL

The transmission, upon application of the parking brake, will automatically shift into neutral.

COMPLY____ EXCEPTION____

PRESELECT PROGRAMMING

The transmission will have Allison Pre select enabled to automatically downshift when the secondary engine brake is active.

The transmission will be programmed at the factory to automatically downshift to 2nd gear.

This feature will be enabled/disabled with the main on/off switch for the engine brake.

EXHAUST MODIFICATION

The exhaust outlet {will/shall} be straight pipe, forward of the rear axle, terminating minimum 6" forward of rear tire, minimum 2.5" below rub rail/body, and flush with outboard of rub rail/body to connect with a Plymovent ventilation system. A Plymovent Magnetic Grabber conical shaped adapter shall be provided on the tail pipe that shall prevent the nozzle from sliding too far on. **The end of the Plymovent adapter must be flush with the edge of the rear body rubrail.** Please refer to the pictures shown below to match current Summerville Fire Department apparatus:



DUAL FUEL LINE SHUT-OFF VALVES

A fuel line shut-off valve will be provided on both the inlet and outlet side of the primary fuel filter to allow for easy removal of the filter.

The valves will be labeled "Fuel Shut-Off". No reserve feature will be included in the tank.

COMPLY____ EXCEPTION____

ALTERNATOR

There will be a Delco Remy Model 55SI, 430 amp brushless, serpentine belt driven alternator. The brushless design of the 55SI transfers magnetic fields between the rotor and stator air-gap without brushes.

The alternator installation will be designed to provide maximum output at engine idle speed, by using "Remote Sense" in order to meet the minimum continuous electrical load of the apparatus as required.

The alternator will carry a 3 Year/Unlimited Mile warranty.

COMPLY____ EXCEPTION____

BATTERY SYSTEM

Six (6) maintenance free batteries will be provided. Each battery will be rated at 1000 CCA and will have a reserve capacity of 200 minutes.

BATTERY STORAGE

Batteries will be securely mounted in fixed trays located on each side of the chassis frame. Complete access will be provided when the cab is fully tilted.

COMPLY____ EXCEPTION____

BATTERY JUMPER STUDS

A set of Cole Hersee battery jumper studs, model #46210-02 (red) and #46210-03 (black) will be provided to allow the battery system to be jump started or charged from an external source. The studs will be located on the bottom of the battery box on the driver's side of the chassis. Each stud will be equipped with both a rubber protector cap and a 2" square non-conductive plate to prevent accidental shorting.

COMPLY____ EXCEPTION____

BATTERY CHARGER/ AIR COMPRESSOR

A Kussmaul Pump Plus 1200, Model # 52-21-1100 single output battery charger/air compressor system shall be provided. A display bar graph indicating the state of charge shall be included.

The automatic charger shall maintain one (1) set of batteries with a maximum output current of 40 amps.

The 12-volt air compressor shall be installed to maintain the air system pressure when the vehicle is not in use.

The battery charger shall be wired directly to the AC shoreline inlet.

Battery charger/compressor shall be located in the cab behind the driver's seat.

The battery charger indicator shall be located on the driver's seat riser.

SHORELINE RECEPTACLE

There shall be one (1) shoreline receptacle provided to operate the dedicated 120 volt circuits on the truck without the use of a generator.

The shoreline receptacle(s) shall be provided with a NEMA 5-20, 120 volt, 20 amp, straight blade Kussmaul Super auto eject plug with a red weatherproof cover. The cover is spring loaded to close, preventing water from entering when the shoreline is not connected.

The unit is completely sealed to prevent road dirt contamination.

A solenoid wired to the vehicle's starter is energized when the engine is started. This instantaneously drives the plug from the receptacle.

An internal switch arrangement shall be provided to disconnect the load prior to ejection to eliminate arcing of the connector contacts.

The shoreline receptacle shall be located on the driver side of cab, above wheel.

One (1) 120 volt 5-15 R household type receptacle(s) will be located in the specified body compartment as directed. The receptacle(s) will be wired into the shoreline and will be connected to Kussmaul Battery Charger and 120v outlet for fire department equipment. A mating connector body shall be supplied with the loose equipment.

COMPLY____ EXCEPTION____

OUTLET STRIP

One (1) 3' long outlet strip will be installed on the rear of the doghouse. Each outlet strip will have four (4) duplex household receptacles.

12 VOLT POWER PORT NEAR OFFICER

Two (2) 12 volt power port accessory outlet(s) will be installed in the cab of the truck for the fire departments accessory devices. The port(s) will be located as directed near the officer's seating position for devices such as cellular phones.

COMPLY____ EXCEPTION____

USB CHARGING PORT NEAR OFFICER

One (1) round USB charging port(s) will be installed in the cab of the truck for the fire departments accessory devices. Each port will have two (2) USB connections and will have a 5 volt, 2.1 amp max output. The port(s) will be located as directed near the officer's seating position for devices such as cellular phones.

COMPLY____ EXCEPTION____

12 VOLT ACCESSORY CIRCUIT - CAB DASH

One (1) dedicated circuit; 12 volt, 40 Amp, power and ground on 3/8 stud and fused at battery will be provided in the cab dash. The circuit will be for future installation of radios or accessories.

COMPLY____ EXCEPTION____

FUSE BLOCK - 12 CIRCUIT IN REAR CREW AREA

A 12 circuit fuse block, will be installed behind the officer's seat. This block has maximum amperage of 60 Amps per block and 30 Amps per circuit.

MULTI - USE POWER POINT IN REAR OF CAB

A multi-use power point with built in two (2) usb ports, and two (2) 12 volt sockets will be installed in the rear of the cab on the back of the engine enclosure. This will be capable of up supplying the USB ports with up to three (3) amps and have a 15 amp fuse for overall protection.

COMPLY____ EXCEPTION____

FEDERAL SIGNAL TRIPLE CAMERA SYSTEM

Federal Signal model # CAMSET70-NTSC-4B rear vision camera system will be provided to allow the driver to visually see the rear of the apparatus while in the cab. The system will include a Federal 7.0" flat panel LCD color monitor mounted adjacent to the driver and a Federal rear vision color camera that will be mounted at the rear of the vehicle. The system will also feature a microphone on the camera and speaker built into the monitor.

In addition to the rear vision camera, two (2) Federal model# CAMCCD-SIDENTSC side mounted cameras will be mounted one (1) on the officer side and one (1) on the driver's side of the cab.

The cameras will be wired as follows:

- The driver side vision camera will automatically activate when the driver side turn signal is activated.
- The officer side vision camera will automatically activate when the officer side turn signal is activated.
- The rear vision camera will automatically activate when the chassis transmission is placed in reverse.

The monitor for the rear vision system will be mounted ceiling of the cab in easy view of the driver.

HEADLIGHT CLUSTER

Two (2) dual, rectangular, LED headlight modules in bright finish bezels will be furnished, one (1) each side, on the front of the cab. Each head light module will incorporate an individual low beam and a high beam headlight. High beam actuation will be controlled on the turn signal lever.

COMPLY____ EXCEPTION____

DAYTIME RUNNING LIGHTS

The chassis head lights will have integrated circuitry to actuate the low beam headlights at a maximum of 80 percent of capacity whenever the chassis engine is running.

The daytime running lights will be interlocked with the parking brake.

COMPLY____ EXCEPTION____

SECONDARY DUAL LIGHT MODULE

Two (2) Whelen 60A00TAR arrow shaped, amber LED turn signals will be provided, one (1) in each side of the dual light module above the headlights.

The NFPA required, Zone "A" lower warning lights will be incorporated into each side dual light module noted above.

RUBBER MOUNTED FLEXIBLE REAR BODY MARKER LIGHT

Two (2) rubber, angled LED marker lights will be mounted on the rear most corner of the body, one (1) each side. The lights will be mounted in a molded flexible rubber shaft that extends away from the body approximately 6". The lights will be equipped with an amber lens facing forward and a red lens facing to the rear of the vehicle.

The lights will be wired to the parking light circuit.

COMPLY____ EXCEPTION____

TAIL, STOP, TURN AND BACK-UP LIGHTS

Two (2) Whelen 600 series, 4-1/8" x 6-1/2", LED red combination tail and stop lights, will be mounted one each side at the rear of the body.

Two (2) Whelen 600 series, 4-1/8" x 6-1/2", LED amber arrow turn signal lights, will be mounted one each side, on a vertical plane with the tail/stop lights.

Two (2) Whelen 600 series, 4-1/8" x 6-1/2", LED white back-up lights, will be mounted one each side on a vertical plane with the turn/tail/stop signals. These lights will activate when the transmission is placed in reverse gear.

Two (2) Whelen PLAST4V mounting flanges, installed one (1) on each side, will be provided to mount the lights described above in one common mounting flange. The fourth opening will be for the lower rear warning lights.

The lights will be mounted in order, from top to bottom, as described above.

COMPLY____ EXCEPTION____

AUXILIARY TURN - REVERSE LIGHTS

Four (4) LED docking lights will be provided in the trailer wheel well panels, two (2) each side. The lights will be surface mounted on to the wheel well panels with one (1) facing to the rear and one (1) facing to the front of the vehicle. The lights will be equipped with stainless

steel housing. The lights will be activated by the reverse light circuit when the apparatus is operating as an emergency vehicle (Master Warning Light Switch On).

COMPLY____ EXCEPTION____

SCENE LIGHTS - BEHIND FRONT CAB DOORS

Two (2) Fire Research Spectra 900 LED scene lights will be provided, one on each side of the cab, directly behind the front cab entrance door in a chrome plated flange. Each light will be 9" wide by 6 ³/₄" high by 1 ³/₄" deep, draw 6 amps, and produce 7,000 lumens. The scene lights will be wired through the load management system.

COMPLY____ EXCEPTION____

SCENE LIGHTS - REAR OF BODY

Two (2) Fire Research Spectra 900 LED scene lights will be provided, one on each side of the rear of the tiller cab in a chrome plated flange. Each light will be 9" wide by $6 \frac{3}{4}$ " high by 1 $\frac{3}{4}$ " deep, draw 6 amps, and produce 7,000 lumens. The scene lights will be wired through the load management system.

COMPLY____ EXCEPTION____

SCENE LIGHTS - REAR OF CAB

Two (2) Fire Research Spectra 900 LED scene lights will be provided, one on each side of the rear exterior wall of the locker compartment in a chrome plated housing. Each light will be 9" wide by 6 ³/₄" high by 1 ³/₄" deep, draw 6 amps, and produce 7,000 lumens. The scene lights will be wired through the load management system.

CAB DOOR LIGHT SWITCHING - CAB

Two (2) switches will be provided in the cab warning light switch console to turn the lights at the cab doors on and off. One (1) switch will control the driver side light and one (1) switch will control the officer side light.

COMPLY____ EXCEPTION____

REAR OF BODY LIGHT SWITCHING - CAB

A switch will be provided in the cab warning light switch console to turn the rear of body lights on and off.

COMPLY____ EXCEPTION____

REAR OF CAB LIGHT SWITCHING - CAB

A switch will be provided in the cab warning light switch console to turn the rear of cab lights on and off.

COMPLY____ EXCEPTION____

CAB SCENE LIGHTS - ADDITIONAL ACTIVATION

In addition to the cab mounted switch for the cab scene lights, the driver and officer cab doors will activate the respective light when a cab door is opened.

COMPLY____ EXCEPTION____

LED BROW LIGHT - ABOVE WINDSHIELD

One (1) HiViz LEDs "FireTech" Scene light model FT-B-72-ML-W will be provided. The light instrument will be low in profile with a mounting bracket allowing installation at the top edge of the windshield. The housing will be made of an extruded 6061 aluminum; 72" wide and less than 3" tall.

The scene light will have 57 LEDs divided amongst 3 independent circuits; circuit one featuring 9x 5w LEDs passing light through a 10 degree optic, circuit two featuring 18x 5w LEDs passing light through a 25-40 degree "flood" range, and circuit three featuring 30x 5w LEDs passing light through a 60-90 degree "scene" optic. Circuit four will consist of 5 amber colored diodes that act as SAE-J2042 compliant clearance marker and identification lamps.

The circuitry will feature a PWM LED driver with an onboard electronic thermal manager. Additionally, the bar will meet CISPR25 EMI requirements. The light will operate on 12v DC, generate 28,101 lumens and draw 24 amps.

The light will be adjustable vertically up to 15 degrees. Mounting will be possible in any direction while still meeting NFPA 1901 compliance requirements. The housing color will be White.

COMPLY____ EXCEPTION____

LIGHT ABOVE WINDSHIELD SWITCHING - CAB

Three (3) switches will be provided in the cab warning light switch console to control the individual lighting circuits of the HiViz FireTech LED brow light.

COMPLY____ EXCEPTION____

TRACTOR ALIGNMENT LOCATION LIGHT

A single LED light will be provided and mounted on the center rear edge of the cab roof to assist the Tillerman align or locate the tractor.

ROM TRACK MOUNTED COMPARTMENT LIGHTS - LED

Each individual, equipment storage compartment will be equipped with the ROM LED V4 lights on the forward and rear edge of each body door opening. The lights will be mounted in an anodized aluminum track provided by ROM either as a stand-alone unit or an integrated part of the roll up shutter door track. The lights will be designed and manufactured to be water proof meeting the IPX7 industry standard and will include a streamline optic lens and a fixed lumen output across 9-16vdc. Each LED module will be of interlocking design and will be able to be serviced/replaced without the removal of light assembly or shutter door.

COMPLY____ EXCEPTION____

WARNING LIGHTS

NFPA ZONE A, UPPER

A Whelen # F4N9QLED "Edge Freedom Series IV", 92" cab roof warning light bar will be furnished and rigidly mounted on top of the cab roof.

The light bar will be equipped with the following:

- Clear Lenses
- Two Front Corner Red Linear LEDs
- Fourteen Red Forward Facing Linear LEDs
- Two White Forward Facing Linear LEDs
- Two Red End Linear LEDs.

If equipped, the forward facing white lights will be automatically disabled for the "Blocking Right of Way" mode.

NFPA ZONE C, UPPER

Two (2) Whelen L31H*FN super LED beacon lights will be mounted one (1) each side at the rear of the body.

Each light will have red LEDs and a colored lens.

COMPLY____ EXCEPTION____

NFPA ZONES B & D REAR, UPPER

The lighting requirement for this area is covered by the lights noted in Zone "C" - Upper.

COMPLY____ EXCEPTION____

NFPA ZONES B & D FRONT, UPPER

Two (2) Whelen 60*02F*R 600 super LED lights, behind the crew cab doors located toward the top of the cab- red Super LED/red lens each side.

COMPLY____ EXCEPTION____

NFPA ZONE A, LOWER

Two (2) Whelen 60*02F*R 600 super LED light heads will be provided and installed one (1) each side.

Each light head will be equipped with red LEDs and a colored lens.

The lights will be installed with a chrome plated mounting flange. The lower Zone A warning lights will be mounted in the custom chassis headlight bezels.

NFPA ZONE C, LOWER

Two (2) Whelen 60*02F*R 600 super LED light heads will be provided and installed one (1) each side directly below the DOT stop, tail, turn and backup lights.

Each light head will be equipped with red LEDs and a colored lens.

The lights will be installed with a chrome plated mounting flange.

COMPLY____ EXCEPTION____

NFPA ZONES B & D FRONT, LOWER

Two (2) Whelen 60*02F*R 600 super LED light heads will be provided and installed one (1) each side.

Each light head will be equipped with red LEDs and a colored lens.

The lights will be installed with a chrome plated mounting flange.

The lower Zone B & D warning lights will be mounted on the sides of the custom chassis front bumper.

COMPLY____ EXCEPTION____

NFPA ZONES B & D MIDSHIP, LOWER

Two (2) Whelen 60*02F*R 600 super LED light heads will be provided and installed one (1) each side.

Each light head will be equipped with red LEDs and a colored lens.

The lights will be installed with a chrome plated mounting flange.

NFPA ZONES B & D SECONDARY MIDSHIP, LOWER

Two (2) Whelen 60*02F*R 600 super LED light heads will be provided and installed one (1) each side.

Each light head will be equipped with red LEDs and a colored lens.

The lights will be installed with a chrome plated mounting flange.

COMPLY____ EXCEPTION____

NFPA ZONES B & D REAR, LOWER

Two (2) Whelen 60*02F*R 600 super LED light heads will be provided and installed one (1) each side.

Each light head will be equipped with red LEDs and a colored lens.

The lights will be installed with a chrome plated mounting flange.

COMPLY____ EXCEPTION____

NFPA ZONES B & D REAR, LOWER

Two (2) Whelen 60*02F*R 600 super LED light heads will be provided and installed in rear tiller cab access ladder, one (1) each side.

Each light head will be equipped with red LED's and a clear lens.

The lights will be installed with a chrome plated mounting flange.

NFPA ZONES B & D FRONT, LOWER

Two (2) Whelen model IONSV3RC LED light heads shall be provided and installed in the rub rail below compartment D1 & O1, one (1) each side.

Each light head shall be equipped with red LED's and a clear lens.

The lights shall be installed with a chrome plated mounting flange.

COMPLY____ EXCEPTION____

NFPA ZONES B & D MIDSHIP, LOWER

Two (2) Whelen model IONSV3RC LED light heads shall be provided and installed in the rub rail below compartment D3 & O3, one (1) each side.

Each light head shall be equipped with red LED's and a clear lens.

The lights shall be installed with a chrome plated mounting flange.

COMPLY____ EXCEPTION____

NFPA ZONES B & D SECONDARY MIDSHIP, LOWER

Two (2) Whelen model IONSV3RC LED light heads shall be provided and installed in the rub rail below compartment D5 & O5, one (1) each side.

Each light head shall be equipped with red LED's and a clear lens.

The lights shall be installed with a chrome plated mounting flange.

AUXILIARY WARNING LIGHTS

Two (2) surface mounted Whelen 60*02F*R super LED light heads shall be furnished and mounted on the B/D upper warning lights located on rear cab extension.

Each light head shall be equipped with red LEDs and a colored lens.

The lights shall be installed with a chrome plated mounting flange.

The lights specified above shall be provided in addition to the NFPA required Optical Warning Light Package and shall be activated by the master emergency warning light control. Wiring for these lights shall be run through the Load Management System to ensure that the electrical system is not overloaded by the additional amperage draw requirements.

COMPLY____ EXCEPTION____

ROTO-RAY WARNING LIGHT

A Roto-Ray LED model #4000 rotating, three (3) light, warning light will be installed on the front of the cab below the windshield. The Roto-Ray light will have three LED beam lights that will and rotate at 200 rpm in a vertical plane.

The Roto-Ray will be provided in addition to the NFPA required Optical Warning Light Package and will be switched independently from the light package. The light will be wired so that the light is disabled while the parking brake is engaged.

The Roto-Ray will have the following led colors with clear lenses:

- Red
- Red
- White

TRAFFIC ADVISER WARNING LIGHT

One (1) Whelen LED "Traffic Advisor", model TAL65 36", rear directional light will be installed shall be on the rear of the tiller cab. The light will be equipped with six (6) lamps. The directional light will be activated by a control module. The control module will be conveniently located near the driver's position. The rear directional light will be wired through the load management system of the unit.

COMPLY____ EXCEPTION____

ELECTRIC HORN

A single electric horn activated by the steering wheel horn button will be furnished.

COMPLY____ EXCEPTION____

BACK-UP ALARM

A PRECO, Model 1040, solid-state electronic audible back-up alarm that actuates when the truck is shifted into reverse shall be provided. The device shall sound at 60 pulses per minute and automatically adjust its volume to maintain a minimum ten (10) dBA above surrounding environmental noise levels. The back-up alarm will be installed at the rear of the apparatus under the tailboard.

COMPLY____ EXCEPTION____

AIR HORNS

Two (2) chrome plated air horns will be at the front of the vehicle. The air horns will be mounted in full compliance with NFPA-1901. The supply lines will be dual 1/4" lines with equal distance from each horn.

Both air horns will be recessed in the officer side of the front bumper.

The air horn(s) will be controlled by dual ceiling mounted lanyard cables, located in the center of the cab.

COMPLY____ EXCEPTION____

ELECTRONIC SIREN

One (1) Whelen # 295SLSA1, 100 watt electronic siren will be provided featuring: bottom mount control head in cab, "Si-Test" self-diagnostic feature, six (6) function siren, radio repeat and public address.

The electronic siren and speaker will meet the NFPA required SAE certification to ensure compatibility between the siren and speaker.

One (1) Whelen, model # SA315P composite black siren speaker, will be provided, recessed in the front bumper and wired to the electronic siren.

COMPLY____ EXCEPTION____

ELECTRONIC SIREN PROGRAMMING

The electronic siren shall be programmed to include the warble and whoop tones.

COMPLY____ EXCEPTION____

FEDERAL Q2B MECHANICAL SIREN

One (1) Federal Model #Q2B mechanical siren will be provided to provide audible warning.

The Q2B siren will be semi-recessed into the bumper on the driver's side. The siren will be recessed so the front grille portion of the siren is exposed and protruding beyond the bumper.

Two (2) floor mounted foot switches will be provided, one (1) for the officer and one (1) for the driver. A siren brake button will be provided near the driver's position.

A second push button siren brake switch will be provided on the cab dash near the officers seating position.

DAVID CLARK MODEL#3800 INTERCOM SYSTEM

A David Clark Model 3800 Intercom system shall be provided in the tractor cab and the tiller cab. The system shall be capable of interfacing with a two way radio system (note: an authorized two-way radio installer shall be responsible for interfacing the intercom system with the two-way radio). The master station shall be located in the tractor cab.

COMPLY____ EXCEPTION____

DRIVERS AND OFFICERS HEADSETS FOR DAVID CLARK SYSTEM

Two (2) single-plug under helmet radio transmit headsets shall be furnished for the driver and officer seating locations in the cab. The driver headset shall be a H3441 and the officers shall be a H3442. The intercom headsets shall have adjustable volume, noise-canceling electric microphone, adjustable head strap, and a flex-style boom which rotates for left or right placement. The sets shall also have comfortable gel ear seals.

COMPLY____ EXCEPTION____

REAR JUMPSEAT HEADSETS

Four (4) H3442 single-plug under helmet radio transmit headsets shall be furnished for the rear crew seating locations in the cab. The intercom headsets shall have adjustable volume, noise-canceling electric microphone, adjustable head strap, and a flex-style boom which rotates for left or right placement. The sets shall also have comfortable gel ear seals.

TILLER HEADSET

The tillerman headset shall be a H3441. The intercom headsets shall have adjustable volume, noise-canceling electric microphone, adjustable head strap, and a flex-style boom which rotates for left or right placement. The sets shall also have comfortable gel ear seals.

COMPLY____ EXCEPTION____

LOCKER COMPARTMENT

A locker compartment will be provided, one (1) each side to the rear of the tractor cab, measuring approximately 39" wide x 68" high x 24" deep with a door opening of 34" wide x 64" high. The compartment will be mounted to the chassis frame rails at the front and rear of the compartment. Each compartment will be equipped with an access panel located on the rear wall to provide access to the area behind the locker compartment.

The area between the lockers will provide a location for the hydraulic tank, optional generator and various hydraulic components.

COMPLY____ EXCEPTION____

SAW BOX COMPARTMENTS

On top of the tractor lockers will be a diamond plate box with a hinged L-shaped lid for ease of access. The lid will be secured with two thumb latches, a gas shock will hold the lid open and a nylon strap will be supplied for ease of closure. The box will be as wide as the compartment and 18 inches deep. These boxes will be designed to contain chain saws.

TRAILER GOOSE NECK STORAGE

A tread plate box shall be provided on the gooseneck of the trailer overtop of the outriggers for storage for a Stokes basket. The storage box shall extend the entire width of the trailer. The doors for accessing this box shall be a vertically hinged door with thumb latches.

COMPLY____ EXCEPTION____

ROPE TIE OFF POINTS

Bidder will provide anchor points in the goose neck area for rope rescue. State the location and capacity of the anchor points.

COMPLY____ EXCEPTION____

DRIVER SIDE COMPARTMENTATION

There shall be a total of six (6) compartments located on the driver side of the trailer, five (5) shall be located in the area behind the outrigger and forward of the rear trailer axle; one (1) shall be located in the area behind the rear trailer axle. Compartment dimensions provided below are a measurement of the extreme outer dimensions; they do not take into consideration material thickness, shelf tracking, door hardware, or door pans/headers.

These compartments shall be referenced by letter/number as L2 through L7 (L1 is reserved for the driver side tractor compartment if so equipped). The base configuration shall be:

[Outrigger] [L2] [L3] [L4] [L5] [L6] [Rear Trailer Axle] [L7] [Tiller Cab Access Ladder]

<u>Compartment L2</u>: Full height compartment with a roll up door. Compartment dimensions shall be approximately 44" wide x 62" high. The compartment shall be transverse in the lower section beneath the frame rail (approximately 16" tall), 28" deep in the center section, and transverse in the upper section above the frame rail (approximately 19" tall).

<u>Compartment L3</u>: Full height compartment with a roll up door. Compartment dimensions shall be approximately 48" wide x 62" high. The compartment shall be transverse in

the lower section beneath the frame rail (approximately 16" tall), 28" deep in the center section, and transverse in the upper section above the frame rail (approximately 19" tall).

<u>Compartment L4</u>: Full height compartment with a roll up door. Compartment dimensions shall be approximately 48" wide x 62" high. The compartment shall be transverse in the lower section beneath the frame rail (approximately 16" tall), 28" deep in the center section.

<u>Compartment L5</u>: Low compartment with a roll up door. Compartment dimensions shall be approximately 48" wide x 34" high. The compartment shall be transverse in the lower section beneath the frame rail (approximately 16" tall), and 28" deep in the upper section.

<u>Compartment L6</u>: Low compartment with vertically hinged doors. Compartment dimensions shall be approximately 40-1/2" wide x 34" high. The compartment shall be transverse in the lower section beneath the frame rail (approximately 16" tall), and 28" deep in the upper section.

<u>Compartment L7</u>: Low compartment with vertically hinged doors. Compartment dimensions shall be approximately 40" wide x 33" high. The compartment shall be 16" deep.

COMPLY____ EXCEPTION____

CAPTAIN SIDE COMPARTMENTATION

There shall be a total of six (6) compartments located on the officer side of the trailer, five (5) shall be located in the area behind the outrigger and forward of the rear trailer axle; one (1) shall be located in the area behind the rear trailer axle. Compartment dimensions provided below are a measurement of the extreme outer dimensions; they do not take into consideration material thickness, shelf tracking, door hardware, or door pans/headers.

These compartments shall be referenced by letter/number as R2 through R7 (R1 is reserved for the driver side tractor compartment if so equipped). The base configuration shall be:

[Outrigger] [R2] [R3] [R4] [R5] [R6] [Rear Trailer Axle] [R7] [Tiller Cab Access Ladder]

<u>Compartment R2</u>: Full height compartment with a roll up door. Compartment dimensions shall be approximately 44" wide x 62" high. The compartment shall be transverse in

the lower section beneath the frame rail (approximately 16" tall), 28" deep in the center section, and transverse in the upper section above the frame rail (approximately 19" tall).

<u>Compartment R3</u>: Full height compartment with a roll up door. Compartment dimensions shall be approximately 48" wide x 62" high. The compartment shall be transverse in the lower section beneath the frame rail (approximately 16" tall), 28" deep in the center section, and transverse in the upper section above the frame rail (approximately 19" tall).

<u>Compartment R4</u>: Full height compartment with a roll up door. Compartment dimensions shall be approximately 48" wide x 62" high. The compartment shall be transverse in the lower section beneath the frame rail (approximately 16" tall), 28" deep in the center section.

<u>Compartment R5</u>: Low compartment with a roll up door. Compartment dimensions shall be approximately 48" wide x 34" high. The compartment shall be transverse in the lower section beneath the frame rail (approximately 16" tall), and 28" deep in the upper section.

<u>Compartment R6</u>: Low compartment with vertically hinged doors. Compartment dimensions shall be approximately 40-1/2" wide x 34" high. The compartment shall be transverse in the lower section beneath the frame rail (approximately 16" tall), and 28" deep in the upper section.

<u>Compartment R7</u>: Low compartment with vertically hinged doors. Compartment dimensions shall be approximately 58" wide x 34" high. The compartment shall be 16" deep.

COMPLY____ EXCEPTION____

REAR COMPARTMENT

<u>Compartment REAR 1:</u> Individual compartment at the center rear of the trailer with a single horizontally hinged drop down door. Compartment dimensions shall be approximately 34" wide x 18" high. The compartment shall be 24" deep.

COMPARTMENT DOORS

The compartment doors shall be beveled overlapping type doors.

COMPLY____ EXCEPTION____

ROBINSON ROLL-UP DOORS

The roll-up doors will be Robinson (ROM) brand roll-up doors. The doors will be painted to match the color of the rear body.

A total of ten (10) painted doors will be provided.

COMPLY____ EXCEPTION____

ROBINSON - PAINTED TOP GUTTER AND SIDE FRAMES

The top gutter and side frames will be painted to match the color of the rear body.

COMPLY____ EXCEPTION____

PROTECTION PANEL(S)

Ten (10) roll-up door guards will be provided at the top of all body exterior compartments fitted with roll-up doors. The panel(s) will be installed below the roll-up area to prevent possible damage to the roll-up door by misplaced equipment. Each protection panel will be bolted in place and have a brushed plain aluminum finish.

COMPLY____ EXCEPTION____

COMPARTMENT DOOR HINGES

Hinges shall be full length polished stainless steel piano type. The hinges shall be mounted with stainless steel hardware.

COMPLY____ EXCEPTION____

COMPARTMENT DOOR SEALS

All enclosed storage compartments shall include a full gasket around the perimeter of the compartment edge with heat resistant, extruded closed cell automotive type rubber molding weather striping to insure a water tight seal.

COMPLY____ EXCEPTION____

COMPARTMENT DOOR STAY ARMS

A gas shock type door hold open device will be provided for each horizontally hinged door. A gas shock type door hold open device or a Cleveland style double spring overhead door check hold open device will be provided for each vertically hinged door.

COMPLY____ EXCEPTION____

PULL STRAPS

Pull straps will be provided for all roll-up doors.

A total of ten (10) straps will be provided.

COMPLY____ EXCEPTION____

ACCESS PANELS

Removable access panels will be provided in the lower running board compartments to access hydraulic components, electrical harnesses and the rear body mounts. Each access panel will have a drawing of the electrical or hydraulic components it pertains to

All access panels will be equipped with the same finish as the compartment interiors.

COMPLY____ EXCEPTION____

TILLER CAB ACCESS

One (1) access area will be provided at the captain side rear of the trailer in a step or ladder style configuration. The steps will be configured to climb from the ground to the tiller cab with spacing not to exceed NFPA 1901 step distances. The steps will provide access or egress to and from the top of the aerial body and tiller cab.

COMPLY____ EXCEPTION____

TILLER FENDERETTES

The tiller trailer rear fenders will be trimmed with replaceable, bolt-in, molded black rubber fenderettes. The fenderettes will be secured to the body with stainless steel threaded fasteners along the internal perimeter of the wheel well.

COMPLY____ EXCEPTION____

TRACTOR FENDERETTES

The rear fenders on the tractor will be trimmed with replaceable, bolt-in, molded black rubber fenderettes. The fenderettes will be secured to the body with stainless steel threaded fasteners along the internal perimeter of the wheel well. COMPLY_____ EXCEPTION_____

AIR BOTTLE STORAGE COMPARTMENTS

A total of three (3) SCBA air bottle storage compartments (8" high x 8" wide x 24" deep) will be inserted into the forward portion of each tiller body fender area. The compartments will be located at the front of each tiller body fender panel and one (1) on the driver side rear tiller wheel well. The lower portion of the compartments will be rubber lined to absorb shock and help secure the bottle.

The rear portion of the officer side trailer fender shall be extended so that a compartment large enough to store three SCBA cylinders along with a #30 Ansul extinguisher storage.

Each storage compartment will be equipped with a polished aluminum door that will be tied to the "Do Not Move Apparatus" warning system.

COMPLY____ EXCEPTION____

REAR TOW EYES

Two (2) painted tow eyes will be furnished on the rear of the vehicle, extending through the rear body panel. The tow eyes will be made from plate steel and will be bolted directly to the chassis frame rails with grade 8 bolts. The tow eyes will be painted.

COMPLY____ EXCEPTION____

ADJUSTABLE SHELVING

Eight (8) adjustable shelf(s) will be provided and mounted as directed by the fire department. All shelving must have a 2" lip. Shelving will be vertically adjustable with spring nuts in aluminum strut channel. State the material thickness of shelving:

250 POUND ROLL OUT TRAYS

Two (2) roll out tray(s) will be provided and mounted as directed by the fire department. All roll-out trays must have a 2" lip all the way around. Roll-out trays will consist of heavy duty, roller bearing slide tracks with a load rating of 250 pounds, roll out trays will have gas shocks to hold the tray in and out. State the material thickness of roll out trays:

COMPLY____ EXCEPTION____

500 POUND FLOOR MOUNTED ROLL OUT TRAYS

Ten (10) roll out tray(s) will be provided and mounted as directed by the fire department. All roll-out trays must have a 2" lip all the way around. Roll-out trays will consist of heavy duty, roller bearing slide tracks with a load rating of 500 pounds, securely fastened to the compartment floor. State the material thickness of roll out trays:

COMPLY____ EXCEPTION____

500 POUND VERTICAL TOOL BOARDS

Four (4) toolboards with 500lbs. capacity will be provided and mounted as directed by the fire department. Toolboards will be adjustable with spring nuts in aluminum strut channel. Tool boards will be mounted on State the material thickness of toolboards: ______

ROLL-OUT/ DROP DOWN TRAYS

Four (4) adjustable roll out /drop down tray(s) will be provided and mounted as directed by the fire department. Roll out/tilt trays will have a 2" lip all the way around. Roll out/tilt trays will be adjustable with spring nuts in aluminum strut channel. State the material thickness of roll out/drop down tray (s): _____

STOKES BASKET STORAGE

A storage module will be provided for one (1) stokes basket(s). The module will be constructed from 1/8" aluminum. The location will be determined by the fire department. The stokes basket storage area will be designed with a clear storage area of 25" wide x 8" high x 87" long.

COMPLY____ EXCEPTION____

AIR REEL(S)

Two (2) Hannay model EF 1520-17-18., electric rewind, utility air reel(s) will be mounted on the rear interior wall of the tractor locker compartment, one (1) each side.

Two (2) reel rewind switch(s) will be provided on a compartment wall.

Two (2) 4-way stainless steel roller assembly(s) will be provided on the specified air reel(s). The roller assembly opening will be the full width of the reel drum. Support brackets for the roller assembly will be bolted to the hose reel.

Two (2) cable ball stop will be installed on the cable to keep the end from passing through the roller assembly.

One hundred feet (200') of 3/8" I.D. Goodyear brand air hose will be provided on the air reel.

The specification for the hose is as follows:

- Length of hose: 200'
- Inside diameter: 3/8"
- Working pressure: 300 psi.
- Color: Blue

An air reel shutoff valve will mounted near the reel to allow the operator to turn off the reel when it is not in use or if an air leak would occur. The valve will also include an ID tag that will indicate if the valve is on or off.

HYDRAULIC DRIVEN GENERATOR

The generator system will be an Onan model RBAB 10000 GenSet, PTO/Hydraulic, rated at 10,000 watts, 83/42 amps @120/240 VAC, single phase generator. The generator will maintain a 60 Hz frequency between 850 and 3000 rpm.

The generator will consist of hydraulic motor, alternator, cooling fan and a heat exchanger in a stainless steel housing. The reservoir will be a 3-gallon hydraulic tank with an integral filter, gauge, temperature switch, and breather and fill port.

The Onan limited warranty covers virtually everything except routine maintenance for the first five (5) years or the first 1000 hours of operation.

COMPLY____ EXCEPTION____

120/240 VOLT WIRING

The generator output conductors will be 8 gauge and the output conductors will be routed through non-metallic conduit 3/4" in diameter.

COMPLY____ EXCEPTION____

120/240 VOLT DISPLAY

The digital Onan display will be by FRC and will display Hz, voltage, amperage, oil temperature and hours. The meter will be installed near the breaker panel.

COMPLY____ EXCEPTION____

GENERATOR HYDRAULIC FLUID RESEVOIR GAUGE

In addition to the Onan display near the breaker panel, there will be a gauge installed near the breaker panel to show the level of the hydraulic fluid in the generator fluid reservoir. See attached picture for a reference.



COMPLY____ EXCEPTION____

GENERATOR PTO

A hot shift PTO will be provided on the transmission for the Onan generator. The PTO will be controlled from the cab. The control will include a PTO engagement switch and a PTO engaged indicator light.

GENERATOR CONTROLS

In addition to cab controls, the generator will have PTO control in the tiller cab. The controls will also include a green light to indicate the generator is running.

COMPLY____ EXCEPTION____

GENERATOR LOCATION

The generator will be mounted between the tractor and the access ladder or compartment.

COMPLY____ EXCEPTION____

120/240 VOLT LOAD CENTER

The generator output line conductors will be wired from the generator output connections to a Square D, model #QO112L125G breaker panel. The breaker panel will be equipped with a properly sized main breaker using two (2) of the twelve (12) spaces which leaves a total of ten (10) available spaces.

The generator output conductors will be sized to 115% of the main breaker rating and will be installed as indicated in the wiring section.

Ten (10) appropriately sized, 120 volt, circuit breakers will be provided.

The breaker panel will be located on the rear wall of the driver side tractor locker compartment.

COMPLY____ EXCEPTION____

ELECTRIC CABLE REELS

Two (2) Hannay Model #ECR-1618-17-18, 120 volt, electric rewind cord reels will be provided and wired to the breaker panel. The reels will be securely mounted and equipped with a rewind control adjacent to the reel.

The cord reels will be mounted on the rear interior rear wall of the tractor locker compartments above the air reels, one (1) each side.

The circuit breaker used to protect any device attached to the cord reel will be sized to the smallest electrical connection used.

One (1) reel rewind switch(s) will be provided on the compartment wall

One (1) Hannay 4-way stainless steel roller assembly will be provided. The roller assembly opening will be the full width of the reel drum.

Two (2) cable ball stop(s) will be installed on the cable to keep the end from passing through the roller assembly.

COMPLY____ EXCEPTION____

ELECTRIC CABLE

Two hundred (200) feet of Type SO yellow 10/3 heavy duty electric cable will be provided on each of the reels.

One (1) NEMA L5-20R, 20 amp, three prong twist-lock receptacle will be provided on the end of the cable.

COMPLY____ EXCEPTION____

JUNCTION BOX(ES)

Two (2) Akron Model EJB, four (4) outlet junction box (es) with four (4) NEMA L5-15R household receptacles with a 12" pigtail with a NEMA L5-20P twist-lock plug with strain relief and will be provided.

Two (2) holder(s) for the Akron EJB-VMT-TP, Electrical Junction Box - Vertical Mounting, aluminum tread plate will be provided for each cord reel(s) junction box. The location of the holder will be adjacent to the cord reel roller assembly or as directed by the fire department.

PEDESTAL MOUNTED SPECTRTA MAX LED FLOODLIGHTS - DRIVER SIDE OF BODY

Two (2) Fire Research Spectra Max LED model SPA570-Q28 top mount fixed pedestal lights shall be installed, one rearward and one forward on the driver side of the body. The pedestal shall allow the lamphead to rotate 450 degrees and have a self-adjusting friction brake to prevent arbitrary rotation. The pedestal shall have a round mounting base. Wiring shall extend from the pedestal bottom.

The lamphead shall have 84 ultra-bright white LEDs, 72 for flood lighting and 12 to provide a spot light beam pattern. It shall operate at 12 volts DC, draw 19.2 amps, and generate 28,000 lumens of light. The lamphead shall have a unique lens that directs flood lighting onto the work area and focuses the spot light beam into the distance. The lamphead angle of elevation shall be adjustable at a pivot in the mounting arm and the position locked with a round knurled locking knob. The lamphead shall be no more than 5 3/8" high by 14" wide by 3 ³/₄" deep and have a heat resistant handle. The lamphead and mounting arm shall be powder coated.

COMPLY____ EXCEPTION____

PEDESTAL MOUNTED SPECTRTA MAX LED FLOODLIGHTS - OFFICER SIDE OF BODY

Two (2) Fire Research Spectra Max LED model SPA570-Q28 top mount fixed pedestal lights shall be installed, one rearward and one forward on the office side of the body. The pedestal shall allow the lamphead to rotate 450 degrees and have a self-adjusting friction brake to prevent arbitrary rotation. The pedestal shall have a round mounting base. Wiring shall extend from the pedestal bottom.

The lamphead shall have 84 ultra-bright white LEDs, 72 for flood lighting and 12 to provide a spot light beam pattern. It shall operate at 12 volts DC, draw 19.2 amps, and generate 28,000 lumens of light. The lamphead shall have a unique lens that directs flood lighting onto the work area and focuses the spot light beam into the distance. The lamphead angle of elevation shall be adjustable at a pivot in the mounting arm and the position locked with a round knurled locking knob. The lamphead shall be no more than 5 3/8" high by 14" wide by 3 ³/₄" deep and have a heat resistant handle. The lamphead and mounting arm shall be powder coated.

COMPLY____ EXCEPTION____

<u>RECESSED MOUNTED 150W FIRETECH LED FLOODLIGHTS – REAR OF TILLER</u> <u>CAB</u>

One (1) Firetech model FT-MB2.15B recessed light shall be installed. Wiring shall extend from a weather proof strain relief at the rear of each lamp head.

The lamphead shall have 30 LED's and be 150 watt and 12 volts. Each light shall draw 12.5 amps and generate 14,750 lumens. The lamphead shall be no more than 2.5" high by 17.5" wide. Lamp heads and brackets shall be powder coated white. The floodlight shall be UL listed as scene lights for fire service use.

The Firetech recessed mounted flood light shall be located on the rear of the tiller cab.

COMPLY____ EXCEPTION____

REAR OF TILLER CAB LIGHT SWITCHING - CAB

A switch shall be provided in the cab warning light switch console to turn the rear of the tiller cab light on and off.

COMPLY____ EXCEPTION____

OFFICER SIDE OF BODY LIGHT SWITCHING - CAB

A switch shall be provided in the cab warning light switch console to turn the officer side of body lights on and off.

DRIVER SIDE OF BODY LIGHT SWITCHING - CAB

A switch shall be provided in the cab warning light switch console to turn the driver side of body lights on and off.

COMPLY____ EXCEPTION____

GROUND LADDER STORAGE AREA

All ground ladders (except as noted) will be stored in the center rear of the aerial body. The ladders stored in the center of the body will be fully enclosed.

A horizontally hinged painted door will be provided for the ladders at the rear of the vehicle. The compartment door will be a flat overlapping type door.

Two (2) gas shock door holders will be provided, one mounted on each side of the door. The door will latch with a "D" ring handle.

COMPLY____ EXCEPTION____

LADDERS

The following Duo-Safety ground ladder compliment will be provided:

- One (1) Duo-Safety series 1525-A, 40', aluminum, three (3) section extension ladder with stay poles will be provided.
- Two (2) Duo-Safety series 1200-A, 35', aluminum, two (2) section extension ladder will be provided.
- Two (2) Duo-Safety series 1200-A, 28', aluminum, two (2) section extension ladder will be provided.
- Two (2) Duo-Safety series 875-A, 18', aluminum, straight roof ladder with folding hooks will be provided.
- One (1) Duo-Safety series 875-A, 16', aluminum, straight roof ladder with folding hooks will be provided.
- One (1) Duo-Safety series 701, 14', extending, aluminum, attic ladder will be provided.
- One (1) Duo-Safety series 585-A, 12', folding, aluminum, attic ladder will be provided.
- One (1) Little Giant model 17 ladder system with mounting hardware will be provided. This ladder has an extension height ranging from 9'-0" to 15'-0"

COMPLY____ EXCEPTION____

HOOK STORAGE

Six (6) NY hook tube(s) will be provided. Each will be an individual tube type holder, mounted in the ladder storage area (if space allows). Each hook holder will be labeled to indicate the hook length.

COMPLY____ EXCEPTION____

ADDITIONAL ITEMS SUPPLIED WITH THE VEHICLE

- 1 Pint of touch up paint for each color
- 1 -Bag of assorted stainless steel nuts and bolts
- 1 Complete set of hydraulic filters for the pressure filter and the return line filter
- 2 Complete sets of aerial override keys

COMPLY____ EXCEPTION____

LOOSE EQUIPMENT

The following equipment shall be furnished with the completed unit. To the highest degree possible, Pac Tool Mounts are to be used where "mounts" are listed.

- One (1) bag of chrome, stainless steel, or cadmium plated screws, nuts, bolts and washers, as used in the construction of the unit.

- One pint of red and one pint of white touchup paint.

1. One (1) Motorola APX6500 7/800MHZ Mid Power Mobile, Part number M25URS9PW1AN.

- 2. One (1) Motorola ENH: Astro Digital CAI/OP APX, Part number Q806BE.
- 3. One (1) Motorola ENH: Hand Mic, GCAI Water Resistant, Part number G892AB.
- 4. One (1) Motorola ADD: Palm Microphone, Part number W22BA.
- 5. One (1) Motorola ENH: 2 Year SFS Lite, Part number G24AX.

- 6. One (1) Motorola ADD: Remote Mount, Part number G67BZ.
- 7. One (1) Motorola ADD: Impact Green Color Housing, Part number GA201AA.
- 8. One (1) Motorola ADD: Remote Mount CBL 50', Part number G609AC.
- 9. One (1) Motorola ADD: Control Head Software, Part number G444AE.
- 10. One (1) Motorola ENH: Smart Zone Operation APX 6500, Part number G51AU.
- 11. One (1) Motorola ADD: P25 Trunking Software, Part number G361AH.
- 12. One (1) Motorola ADD: ANT 3 DB Low Profile, Part number G174AD.
- 13. One (1) Motorola Auxiliary Speakers 7.5 Watt, Part number B18CR.
- 14. One (1) Motorola ADD: GPS Activation, Part number GA00229AA.
- 15. One (1) Motorola ADD: GPS Antenna, Part number GPSDM700/5800GGTU/M.
- 16. One (1) Motorola ADD: APX 02 Control Head, Part number GA00804AB.

17. Four (4) Firehooks unlimited 30" Pro Bar one piece halligan tool, Part number: PRO-BAR 30 "with pac Irons Lok mounts – PAC part#K5003".

18. Three (3) Firehooks unlimited: FAP-6 Pickhead axe, fiberglass handle, 6lb **"with mounts".**

19. Four (4) Firehooks unlimited: LS-8 Flathead axe, special yellow luminous triple strength fiberglass handle with a deer's hoof. Knurled bottom grip.

20. Four (4) Firehooks unlimited RH-6 6ft. New York Hooks.

21. Two (2) Firehooks unlimited TRH-8 Rubbish Hook.

22. Two (2) Firehooks unlimited NYF-8 8ft. New York Hook.

- 23. Two (2) Firehooks unlimited NYF-10 10ft. New York Hook.
- 24. Two (2) Firehooks unlimited NYF-12 12ft. New York Hook.

25. Two (2) Firehooks unlimited NYF-4-D 4ft. Closet Hook w/D Handle "with mounts".

26. Two (2) Firehooks unlimited: HYDRA-RAM One-man Hydraulic Forcible Entry Tools with carry bags "with **Two (2) Fire Hooks Unlimited: Hydra-Ram Aluminum Carrying Cases**".

27. One (1) Firehooks unlimited RTK R-Tool "with mounts".

28. Two (2) Firehooks unlimited REXT Rex Tools "with mounts".

29. Two (2) Lonestar Axe LLC. 36" Pig Tools with black handles "with mounts".

30. Four (4) Tele-Lite Sprinkler Stop 4 Pack Kit, Part No. TL-SS-4PACK.

31. Two (2) Round Shovels, Eagle Long-Handle Wood Digging Shovel, Lowes Part no. 99758, Model No.1554300 **"with mounts".**

32. Two (2) Flathead Shovel, Blue Hawk Long-Handle Fiberglass Transfer Shovel, Lowes Part No. 109174 Model No.16097900 . **"with mounts".**

33. Two (2) Snow Shovels, Kobalt Short-Handle Wood Scoop, Lowes Part No. 607319 Model No. PALY-12-K 34329 **"with mounts"**.

34. Two (2) Push Brooms, Quickie BULLDOZER 24-in Poly Fiber Stiff Push Brooms

Lowes Part no. 236443 Model No.00599 "with mounts".

35. One (1) Firehooks unlimited GWK Gas Key "with mounts".

36. One (1) Commercial water key, Reed Manufacturing 6-67/100 ft. Valve Key with 2-Curb Keys, Ferguson part no. R02357 **"with mounts".**

37. One (1) Residential water key, B & K 1/2in x 30in Water Meter Key (151-065), Ace Hardware part no. 42725 **"with mounts"**.

38. Two (2) Firehooks unlimited SHF-16 16lbs. Sledgehammers "with mounts".

39. One (1) Fastenal part No. 5228-98990 Rigid 36" Bolt Cutter "with mounts".

40. One (1) Fastenal part No. 5228-98920 Rigid 14" Bolt Cutter "with mounts".

41. One (1) Part No. PP-TOOL 1 1/8" x 51" Council Tool Pinch Point Crowbar "with mounts".

42. One (1) Akron Brass hose hoist, edarley part no.J735.

43. One (1) Euramco Gasoline Powered PPV - Ramfan GX350.

44. One (1) Euramco Electric Powered PPV – Ramfan EX500.

45. Two (2) Euramco Smoke Ejectors, Electric – Ramfan EFC150.

46. Two (2) Euramco Hanger kit for EF series smoke ejectors – Ramfan EA7090K.

47. One (1) Shop Vac 12 Gallon 6 Peak HP Wet Dry Vac, Lowes part no.5866211.

48. Two (2) Fol-Da-Tank 3ft. x 12ft. salvage floor runners, Part No. 1002.

49. Six (6) Milwaukee M18 pivot head flood lights, Fastenal part# 0233756.

50. Two (2) Libman 36in. Curved Floor Squeegee, Model# 954, Northern tool part # 132396.

51. Ten (10) Husky: Heavy Duty 13 oz. Red Vinyl Salvage Cover, Color: Red, Part no. HTV-12X18

52. One (1) Roll of Plastic 4ft. x 180ft.

53. Two (2) 50' 12/3 Power Phase Yellow SJTW 15 Amp w/Lighted End 3-Tap Cord, Fastenal part no. 0713870.

54. Two (2) 100' 12/3 Power Phase Yellow SJTW 15Amp w/Lighted End 3-Tap Cord, Fastenal part no. 0713871.

55. Two (2) Cutters edge 14" H2 970 Rotary Rescue Saw W/14" Black Diamond blade, Part no. CE970RH2-14A.

56. Two (2) Warthog ventilation blades, Part no. WH1212.

57. Two (2) 14" Piraya diamond cuts-all-blades, Part no. PIRA-14FD.

58. Two (2) Stihl MS-291 20" chain saw w/ 26RMC3 chain.

59. Four (4) Stihl 26RMC3 chains.

60. One (1) Cutters edge 20" fire rescue saw model 2188 w/guard depth gauge & bullet chain.

61. Two (2) STIHL Pro Mark Apron Chaps, 9 ply – 36".

62. One (1) Fastenal part no. 991-UI-50FS, Description: UI-50FS TYPE 1 5GAL 12.5"Dia x 13.5"H 5gal 7lb Red Galvanized Steel Type I Safety Can w/Funnel.

63. Two (2) Fastenal part no.1016255/ UI-25-FS, Description: 11.25" x 10" 2.5gal Red Galvanized Steel Type I Safety Can w/Funnel.

64. Two (2) Amerex 2.5 gallon water extinguishers "with mounts" part no. A240.

65. Two (2) Firehooks unlimited Water extinguisher strap part no.CH-312

66. One (1) Amerex ABC dry chemical extinguisher "with mounts" part no.A411.

67. One (1) Amerex CO2 extinguisher "with mounts" part no. A331.

68. One (1) Igloo 5gal 18.9L 400 Series Red/Yellow Plastic Water Cooler, Fastenal part no. 5207-451.

69. One (1) RIT systems 200ft. Chicago style primary w/markers, 3 retract 20ft. tags, Part no.A1101.

70. Two (2) Ladder Belts XXL Fire Store Part no. QLN4107.

71. Two (2) Ladder Belts XL Fire Store Part no.QLN4108.

72. Two (2) Ladder Belts L Fire Store Part no. QLN4109.

73. Twelve (12) Scott#x3214022200302 ap-75. 4.5, standard harness, quick connect regulator, dual ebss buddy breathing system, factory installed pak tracking pass device.

74. Twenty Four (24) Scott#804722-01 4500pig carbon cylinder & valve assembly 45 minute rated duration.

75. One (1) Scott#200954-02 RIT pak III with shoulder strap, carry case, RIC hose package, dual EBSS hose package and 60 minute carbon cylinder.

- 76. Two (2) MSA Evolution 6000+ TIC w/ Quick Temp, Heat Seeker, Laser Pointer, Range Finder. MSA Evolution 6000 TIC Station Kit includes 2 batteries, retractable lanyard, 110V Charger, Carabiner, Carrying case, item no. 10173120.
- 77. Six (6) Streamlight Knucklehead Div 2 Flood with Clip- Alkaline, color: orange streamlight part no. 90644.
- 78. Six (6) Streamlight Fire Vulcan LED Handlights with chargers, color: orange streamlight part no. 44451.
- 79. Two (2) AutoCraft Drying Mate Synthetic Chamois, Advance Auto part no. AC257.
- 80. One (1) Firehooks unlimited natural gas shut-off tool, part no. GWK.
- 81. One (1) MultiRae Lite RAE-MAB3-01C127E-020.
- 82. One (1) MultiRae Complete Vehicle Mounting Kit RAE-M01-0308-00.
- 83. One (1) MultiRae Automotive Charging Adapter- RAE-003-3004-000.
- 84. One (1) Ryno 14.4V RHYNO2-Compact Recip Saw Combi Kit, Part no. Model #: RWC-2-CRS.

- 85. One (1) Milwaukee 2720-20 M18 FUEL SAWZALL Reciprocating Saw Tool Only.
- One (1) Milwaukee 2764-20 M18 FUEL 3/4" High-Torque Impact Wrench with Ring Tool Only.
- 87. One (1) Milwaukee 2783-20 M18 FUEL Cordless 4-1/2" / 5" Braking Grinder Bare Tool.
- 88. One (1) Milwaukee 2729-20 M18 FUEL Deep Cut Band Saw Bare.
- 89. One (1) Milwaukee 2731-20 M18 FUEL 7-1/4" Circular Saw-Tool Only.
- 90. One (1) M18TM Cordless 5/8" SDS Plus Rotary Hammer (Bare Tool).
- 91. One (1) Milwaukee 2635-20 M18 Cordless 18 Gauge Double Cut Shear- Bare Tool.
- 92. One (1) Milwaukee 3-1/2" Full Round Head Framing Nailer, part # 7200-20.
- 93. One (1) Milwaukee 2607-20 M18 1/2" Compact Hammer Drill/Driver Tool Only.
- 94. Three (3) Milwaukee 48-11-1841 M18 red lithium XC 4.0 Extended Capacity Battery 10 Packs.
- 95. Three (3) Milwaukee 48-59-1806 M18 Six Pack Sequential Chargers.
- 96. One (1) Holmatro 158.052.115 GSP 5240 EVO Spreader 5.0 AH 120V PKG "with one (1) pac-1026 spreader base pocket and one (1) pac K5050 super adjustamount ".
- 97. One (1) Holmatro 158.052.119 GCU 5050 I EVO Cutter 5.0 AH 120V PKG "with one (1) pac-1035 heavy rescue base mount and one (1) pac K5050 super adjustamount ".
- 98. One (1) Holmatro 158.052.113 GRA 4331 EVO Ram 5.0 AH 120V PKG "with two (2) pac-1070 jumbo lok mounts".
- 99. One (1) Holmatro edge protector.
- 100. Two (2) Holmatro Secunet.
- 101. One (1) Holmatro patient hard protection shield.
- 102. One (1) Gentec KA51 Series Tote-A-Torch Cutting and Welding Outfit Oxyacetylene,
 11-Piece Set, Model# KA51-TC, Northern Tool part no. Item# 164477.
- 103. One (1) M/V Fire Rescue Crash Kit, edarley part no. BA125.
- 104. One (1) 2 Ton CM Series 653 Come Along Lever Hoist 5329, 10ft. lift.
- 105. Five (5) Collapsible traffic cones, with lights, minimum 28" high.

- 106. One (1) Paratech 16 shore trench kit, part #22-796862, "with mounts".
- 107. One (1) Paratech Standard VSK kit, part #22-796850, "with mounts".
- 108. Two (2) 20' grade 80 chain.
- 109. Two (2) Cheater chains (Chain Shortner).
- 110. Four (4) B/A Products R, T and Mini J Hook Cluster 4700-Lb. Safe Working Load, Northern Tool Model# 11-7CL.
- 111. One (1) Turtle Plastics cribbing kit, Item# Std Cribbing Kit B.
- 112. One (1) Paratech Model 136-11 Lift Bag Set, Part No. 22-889136G2.
- 113. One (1) Ajax Tool Works 911-RKM Super-Duty Rescue Kit, Blows per Minute: 1560, Stroke Length: 2-11/16".
- 114. One (1) Ingersoll Rand 426 Reversible Cut-off Tool.
- 115. One (1) Ingersoll Rand 107XPA 3/8" Ratchet Wrench.
- 116. Six (6) CMC Rope rescue helmets.
- 117. Six (6) Dragon Fire rope rescue gloves.
- 118. One (1) CMC Rescue MPD Rope rescue truck cache kit, Darley Fire Equipment part number BL023.
- 119. Two (2) CMC Rescue Anchor Plates.
- 120. Four (4) CMC Rescue Gibbs Ascenders, Model 4 Fits ropes 16mm to 19mm diameter; aluminum spring; loaded and free running.
- 121. Eight (8) CMC Rescue Proseries Pulleys, Prusik minded, four single, four double.
- 122. One (1) CMC Rescue Life saver victim harness.
- 123. One (1) CMC Rescue Low-angle litter harness.
- 124. Four (4) Edge protection pads, narrow with Velcro 36"x12".
- 125. Four (4) CMC Rescue Class 3 harnesses.
- 126. One (1) PMI 1" Red Tubular Webbing 34 yards uncut PMI WB59001.
- 127. One (1) PMI 1" Black Tubular Webbing 34 yards uncut PMI WB59009.

- 128. One (1) PMI 1" Green Tubular Webbing 34 yards uncut PMI WB590025.
- 129. One (1) PMI 1" Yellow Tubular Webbing 34 yards uncut PMI WB59008.
- 130. One (1) PMI 1" Blue Tubular Webbing 34 yards uncut PMI WB59004.
- 131. One (1) CMC Rescue arizona vortex kit, CMC part # 727300.
- 132. One (1) 300ft Red Rescue Rope PMI Classic 12.5mm RR125RW092E.
- 133. One (1) 300ft Blue/White Rescue Rope PMI Classic 12.5 RR125BW092E.
- 134. One (1) 300ft Yellow/White Rescue Rope for Classic12.5mm RR125YW092E (Pre-Rig 4:1/5:1).
- 135. Three (3) Red rope bag, Rescue Tech, RT Large Rope Bag 801141.
- 136. Two (2) PMI Rescue rope, 12.5mm, Yellow/White, 61 meters, 200', PMI part # PMI RR125YW061E.
- 137. Two (2) PMI Rope bags, window, standard, red, 250' capacity, PMI part # PMI RB44015.
- 138. One (1) 600' Red Rescue Rope PMI Classic 12.5mm Rescue Rope.
- 139. One (1) 600' Red rescue rope bag.
- 140. Twenty (20) CMC certified gold locking carabiners.
- 141. Two (2) CMC Rescue litter, Stainless steel, tapered, CMC part # CMC726100.
- 142. Two (2) CMC Rescue pro series litter harness, CMC part # CMC724121.
- 143. Eight (8) CMC large certified gold locking carabiners.
- 144. One (1) Paratech elevator shaft rescue (ESR) 22-796890K elevator shaft rescue kit.
- 145. One (1) Paratech elevator support unit (ESU) 22-796260 elevator support unit kit.
- 146. One (1) Firehooks unlimited elevator keys.
- 147. One (1) Zoll AED plus with graphical cover model number 20100000101011010.

148. One (1) Zoll CPR stat padz HVP Multi-Function CPR Electrodes – 1 pair model number 8900 0402.

149. One (1) Zoll Type 123 Lithium Batteries model number 8000-0807-01.

150. One (1) Zoll pedi padz II Pediatric Multi-Function Electrodes model number 8900-0810-01.

- 151. One (1) Omni Pro BLS/ALS system, red, part #MUM5001F.
- 152. One (1) Oxygen conversion kit for Meret bags, part #MUM5001X.
- 153. One (1) Kobalt 230-Piece Household Tool Set with Soft Case, Lowe's part# 538864.
- 154. One (1) AutoCraft Nut Driver Set, SAE, 7 Piece, Advance Auto part #AC418.
- 155. One (1) AutoCraft Nut Driver Set, Metric, 7 Piece, Advance Auto part#AC419.
- 156. One (1) Matco Tools 6 piece snap ring pliers set, part# SMSTP6.
- 157. One (1) Ring Cracker, Part Number: T-RC-TRC, https://www.atlasprosales.com/ring_cracker_ring_cutter_ring_remover_p/t-rc-trc.htm
- 158. One (1) Channellock 10 in. Heavy-Duty End-Nipper Cutting Pliers, Model # 148-10.
- 159. One (1) Milwaukee Snips Set (3-Piece), Model # 48-22-4033.
- 160. One (1) Gear Wrench 13" Double-X Straight Pliers, Advance Auto part #82005D.
- 161. One (1) MSC direct 11" OAL, 4" Jaw Length x 11/16" Jaw Width, Long Nose Pliers, MSC Part #: 0066886.
- 162. One (1) Stanley Multi-Bit Ratcheting Screwdriver Set 83 Piece, Model Number: 95-957.
- 163. One (1) Northern Tool Grip Heavy-Duty Pry Bars 4-Pc. Set, Model# 60236.
- 164. Two (2) Dremel 300 Series Variable Speed Rotary Tool Sears part#5000300.
- 165. One (1) OTC Trim Fastener and Molding Removal Set, Advance Auto part# Part #OTC4489.
- 166. Four (4) Firehooks unlimited aluminum wedges, part # wedge-al.
- 167. One (1) Milwaukee 4 1/2in. Small Angle Grinder Kit 11 Amp, Paddle, Lock-On, Model# 6142-30.
- 168. One (1) Greenlee cable cutters Cat No: 727 UPC No: 783310312918.
- 169. Two (2) Channellock 9 in. High-Leverage Lineman Pliers, Model#369.
- 170. One (1) Fluke 15B F15B+ Professional Auto Range Digital Multimeter Tester.

- 171. One (1) Greenlee GT-12A Non-Contact Voltage Detector.
- 172. One (1) Gear Wrench 6" Adjustable Wrench with Cushion Grip, Advance Auto Part# 81890.
- 173. One (1) Gear Wrench 10" Adjustable Wrench with Cushion Grip, Advance Auto Part# 81892.
- 174. One (1) Gear Wrench 12" Adjustable Wrench with Cushion Grip, Advance Auto Part# 81893.
- 175. One (1) Gear Wrench 20-Piece Ratchet Wrench Set, Advance Auto Part #8920A.
- 176. Two (2) Irwin 3T Vise-Grip 7R Straight Jaw 7" Pliers.
- 177. Two (2) Irwin 7 inch Locking Plier Curved Jaw with Wire Cutter, Advance auto part #7T.
- 178. Two (2) channellock 12-in Tongue and Groove Pliers model 440, Lowes part # 97343.
- 179. Two (2) channellock 12-in Tongue and Groove Pliers model 442, Lowes part #97341.
- 180. One (1) Rock River 37oz Steel / Rubber Head Rubber Handle One Piece Dead Blow Hammer, Fastenal part#0249115.
- 181. One (1) Vaughan 12" 12 oz. Commercial Ball Peen Hammer with Wood Handle, Advance auto part # VAUTC2012.
- 182. One (1) Vaughan 15" 20 oz. Commercial Ball Peen Hammer with Wood Handle, Advance auto part # VAUTC120.
- 183. One (1) AutoCraft Utility Wire Brush, Advance auto part #AC515.
- 184. One (1) Gearwrench 8" Flat Bastard File, Gearwrench part #82822D.
- 185. Two (2) 12" OAL 2" Capacity Cast Iron Drop Forged Pipe Wrenches, Fastenal part #0266313, "with mounts".
- 186. Two (2) Rigid 24 in. Heavy-Duty Straight Pipe Wrenches, Home Depot part #31030 "with mounts".
- 187. One (1) Craftsman 8in Slip Joint Pliers (00945379), Ace hardware part number: 2299071.
- 188. Two (2) Paratech strut driver retro fit kit part number: 22-79SDRF.
- 189. One (1) Project Pro 32oz. wood rubber mallet, Advance Auto part# TW14661466 "with mounts".

190. Two (2) TFT new force low profile ball intake valve, 5"ST rigid x 6" NH (F) RLSW. Item No. TFT ABD3ST-NX.

191. One (1) Bowman Quad Glove Dispenser GB3QUADBE – Bowman Quad Box Holder, White.

192. Two (2) Scott#804723-01 4500psig carbon cylinder & valve assemblies, 60 minute rated duration.

193. Two (2) Sets of 5" spanner wrenches with brackets, Harrington part#HSSW 401.

194. Two (2) Red head brass style 148-3 triple holder set w/style 105 hydrant wrench complete with style 148 holder, one style 105 hydrant wrench and two(2) style 101 spanner wrenches.

195. One (1) Red head brass style 146-2 Double Holder Set complete with style 146 holder and two (2) style 101 spanner wrenches.

196. One (1) Behrens 12-Quart Residential General Bucket, Lowes part# 89804.

197. Four (4) Spyder 6inch 6/10 TPI Bi metal reciprocating saw blade, Lowes part number: 568115, model 200176.

198. Four (4) Spyder 6inch 14/18 TPI Bi metal reciprocating saw blade, Lowes part number: 568117, model 200180.

199. Four (4) Spyder 8inch 6/10 TPI Bi metal reciprocating saw blade, Lowes part number: 568118, model 200177.

200. Four (4) Spyder 8inch 10/14 TPI Bi metal reciprocating saw blade, Lowes part number: 568119, model 200179.

201. One (1) custom toolbox built to customer specifications right rear compartment.

202. One (1) Johnny Ray JR-500 swivel mount base.

203. Paratech ratchet belt with finger hook 27ft., Partech part# 22-890553.

204. Three (3) Mercedes textiles Krakenko EXO 2" x 50ft. orange hose with treated color gold wayout 1.5" NH couplings, item #12520050AT.

205. One (1) Task Force Tips valve integrated smooth bore nozzle, 15/16" smooth bore, pistol grip, built in stream shaper, retractable thread protector for when tip has been removed, 1.5"nh with an orange bail.

206. One (1) Emglo E810-4V Heavy-Duty 4 Gal Oil-Lube Stacked Tank Air Compressor.

COMPLY____ EXCEPTION____

TOOL MOUNTING

The bidder will include a price to do the loose equipment tool mounting at their service facility.

COMPLY____ EXCEPTION____

WHEEL CHOCKS

Four (4) ZICO #SAC-44 folding wheel chocks will be mounted two (2) each side on the radius of the drive axle fender. The wheel chocks will be stored in a diamond plate box.

COMPLY____ EXCEPTION____

TILLER TRAILER WHEELBASE

The trailer should be no greater than 362". State the trailer wheelbase:

COMPLY____ EXCEPTION____

TRAILER STEERING AXLE

The trailer axle will be a Meritor MFS-20-133 A-N, includes low friction "Easy Steer" bushing technology for maximum steering ease and longer life.

TRAILER AXLE BRAKES

Meritor EX-225, 17" disk brakes will be provided for the trailer steering axle. Automatic slack adjusters are provided as standard equipment.

The trailer brakes will be plumbed to the tractor parking brake control in the tractor cab within easy reach of the tractor driver's seating position. An on indicator light will be installed in the tractor cab dash adjacent to the control.

The trailer air brake system will be equipped with two (2) air tanks with the capacity of 3,566 cu. in.

COMPLY____ EXCEPTION____

TRAILER WHEELS

The trailer tires will be mounted on Alcoa polished aluminum disc wheels. Chrome plated hub and nut covers will be provided on each trailer wheel. Premium oil seals with viewer glass will be provided on the trailer steering axle. The trailer tires will be Goodyear duraseal or Continental tires.

COMPLY____ EXCEPTION____

TRACTOR LOCK-OUT SYSTEM

To reduce flexing between the tractor and trailer during aerial operation, a trailer lock-out system will be provided.

TILLER CAB INTERIOR

The structure and interior surfaces of the cab will be coated with LineX and will be red in color to match the paint on the outside of the cab.

COMPLY____ EXCEPTION____

TILLERMAN SEAT

The Tillerman seat will be a H.O. Bostrom Sierra LBRX/5 HD, low back bucket seat. The seat will have a tapered and padded seat cushion with lumbar support. The seat will have an optional five (5) inch fore and aft adjustment and a reclining seat back.

The seats will be upholstered with heavy duty black Durawear material.

COMPLY____ EXCEPTION____

TILLER CAB DOORS

The tiller cab will be equipped with sliding doors for access to the cab.

The tiller cab doors will be wired to the "Door Open Indicator" of the tractor cab with an override switch for training.

COMPLY____ EXCEPTION____

TURN INDICATOR LIGHTS

Two (2) Weldon, model #9186-1500-20, amber LED, left and right turn signal indicator lights will be mounted on cab dash frame on each side of the steering column. The lights will alert the tillerman of the tractor driver's intent.

BUZZER BUTTONS

A buzzer warning system will be provided between the tractor and tiller cabs. The buzzer controls will be labeled: 1-Stop, 2-Go, 3-Backup.

COMPLY____ EXCEPTION____

GENERAL AERIAL INFORMATION

The aerial ladder assembly will be a telescoping ladder with a pre-piped waterway, turntable, and outriggers.

COMPLY____ EXCEPTION____

HEIGHT AND REACH

The height of the unit will be no less than 100' as measured by NFPA-1901 requirements, Section 19.2.2. The horizontal reach of the unit will be no less than 94' as measured by NFPA-1901 requirements, Section 19.2.3.

COMPLY____ EXCEPTION____

HYDRAULIC OIL RESERVOIR AND GAUGE

A hydraulic oil reservoir will be provided to supply the needs of the hydraulic system. A 2" gated suction line will be provided between the oil reservoir and the hydraulic pump. The tank fill will be provided with a strainer screen and vent cap. Located near the fill cap will be a dipstick for checking fluid levels. The tank will be mounted in behind the cab on the tractor. Before adding fluid the tank must be cleaned and free from all contaminants.

Suction and return ports will be designed to SAE Straight Thread O-ring Specifications. These ports will incorporate an o-ring seal rather than pipe threads. In addition to the hydraulic oil reservoir there will be a gauge for the aerial hydraulic fluid located near the breaker panel to show the level of the aerial hydraulic fluid in the reservoir. See attached picture for a reference.



COMPLY____ EXCEPTION____

EMERGENCY HYDRAULIC PUMP SYSTEM

In the event of failure of the main hydraulic pump or vehicle engine, the unit will be equipped with an **emergency hydraulic pump** which will be plumbed into the hydraulic system and be electrically driven from the chassis batteries. The pump will be controlled from both the outrigger control box and turntable control stations.

The pump will have a separate hydraulic oil supply line, from the main supply line attached directly to the hydraulic oil reservoir. A shutoff valve for each line will be provided and

check valve will be incorporated on the pressure side of the pump to ensure that one will continue to operate the ladder in the event the other fails.

COMPLY____ EXCEPTION____

POWER TAKE OFF (PTO)

The apparatus will be equipped with a PTO driven by the chassis transmission. An indicator light will be located in the cab next to the PTO switch to show when the PTO is engaged. The PTO will be engaged at all times to allow for the trailer steering pump to be activated.

The PTO will be a heavy duty pressure lubricated and cooled unit for extended operations.

A master 12 volt "Ladder Power" switch will be provided adjacent to the PTO switch for control of all ladder 12 volt power, with the exception of the emergency pump circuits.

COMPLY____ EXCEPTION____

ENGINE FAST IDLE ACTUATOR

The fast idle actuator will be used to raise the engine RPM to a preset level for proper aerial operation. The fast idle switches will be located at the main outrigger control station and the aerial control station/s.

For the safety of personnel and equipment, the fast idle system will not activate unless the transmission is in neutral.

OUTRIGGER LIGHTING

Each outrigger will be equipped with the following light package:

Two (2) Whelen 60*02F*R 600 super LED lights will be mounted back to back on the inside surface of each outrigger.

Each light head will be equipped with red LEDs and a colored lens.

One (1) adjustable, LED ground flood light mounted under the body, to illuminate each outrigger foot pad area.

Both the flashing lights and the foot pad illumination lights will be energized by the ladder power circuit.

COMPLY____ EXCEPTION____

OUTRIGGER SCOTCHLITE - CHEVRON

Red/Yellow ScotchLite material in a Chevron pattern will be furnished on both sides of the horizontal and vertical beams of the rear outriggers.

COMPLY____ EXCEPTION____

OUTRIGGER CONTROLS

Two (2) illuminated manual outrigger control stations will be provided on the forward section of the body to the rear of the gooseneck area, one (1) on each side of the turntable. The control handles will be enclosed with slots for each control handle in a door. The controls will be located such that the operator can see the outrigger he is operating.

A hinged outrigger control panel will be provided at the left side of the trailer gooseneck area. The panel will be equipped with a stainless steel hinged, which will allow the operator to access the diverter valve manual override control and manual override controls.

State what controls will be in the outrigger control station:

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COMPLY____ EXCEPTION____

TURNTABLE ANCHOR POINTS

The manufacturer will provide anchor points in the area of the turntable for rope rescue operations. Each anchor point shall be provided with a 250 pound rating with a 2:1 safety factor.

COMPLY____ EXCEPTION____

CRADLE ALIGNMENT INDICATOR ARROWS AND LIGHT

Stainless steel arrows will be provided on the turntable surface in view of the operator when standing at the turntable control station. The arrows will assist the operator in indicating the alignment of the aerial ladder with the ladder travel cradle. The indicators will be overlaid with ScotchLite material.

In addition to the indicator arrows a small LED light will be mounted to assist the operator in cradling the aerial device. Please refer to the attached picture.



COMPLY____ EXCEPTION____

HOSE COMPARTMENT

An aluminum tread plate hose storage compartment will be provided and mounted on the turntable deck. The compartment will be constructed from 1/8" aluminum tread plate measuring approximately 35" L x 18" W x 16" D. An aluminum tread plate cover will be provided for the compartment with a stainless steel hinge and mechanical latch.

LA TRASH HOOK MOUNTED IN FLY SECTION

There will be a 10' Fire Hooks Unlimited La Trash hook with fiberglass handle furnished and mounted in the ladder fly section. The mounts will include an aluminum tube for the pole and a PAC tool mount to secure the hook end of the pole. The specified pike pole will be mounted on the left side of the fly section.

COMPLY____ EXCEPTION____

PICK HEAD AXE MOUNT

There will be a mounted furnished for a pick head axe in the fly section of the ladder. The axe mount will include a receptacle that will cover the entire axe head and a PAC tool mount to secure the axe handle.

A Firehooks unlimited: FAP-6 Pickhead axe, fiberglass handle, 6lb will be provided. The specified axe will be mounted on the left side of the fly section.

COMPLY____ EXCEPTION____

ROOF LADDER MOUNT

There will be a mount furnished on the base section of the aerial ladder for a roof ladder. The mounts will be designed to cradle the ladder with a pin to keep the ladder from sliding when the aerial device is elevated. Velcro strap will secure the ladder in the brackets.

One (1) Duo-Safety model 875A-18; 18', aluminum, straight roof ladder will be provided to be mounted in the roof ladder mount on the base section.

The specified roof ladder will be mounted on the right side of the base section.

LIFTING EYE

A lifting eye will be provided at the end of the ladder fly section. The lifting eye will give the fire department the capabilities to tie off or lift from the ladder fly section.

The lifting eye will have a minimum capacity of 250 pounds. The rating will include a 2:1 safety factor.

COMPLY____ EXCEPTION____

LIFTING EYE ROLLER

A lifting eye will be provided at the end of the ladder fly section. The lifting eye will give the fire department the capabilities to tie off or lift from the ladder fly section.

The lifting eye with the device will have a minimum capacity of 250 pounds. The rating will include a 2:1 safety factor.

One (1) lifting-eye/rope roller assembly shall be provided at the tip of the aerial ladder. The entire assembly shall be removable, held in place with quick release pins and shall be engineered to provide a lifting capacity that is equal or greater than the aerial capacity based on the aerial ladder load chart configurations.

COMPLY____ EXCEPTION____

STOKES BASKET MOUNT

A stokes basket mount will be provided on the base section for storing a stokes basket. The design of the stokes basket mount will be as follows:

One (1) smooth aluminum box painted ladder color with a hinged lid will be fabricated and fastened to the ladder base section. The lid will open away from the ladder to allow easy access to the stokes basket from within the ladder section.

A CMC Rescue litter, Stainless steel, tapered, CMC part # CMC726100 will be located on the left side of the base section.

AERIAL TIP RECEPTACLE

One (1) 120 volt weatherproof outlet, Nema 5-15R, household type and an environmental cover will be furnished near the end of the fly section.

COMPLY____ EXCEPTION____

LADDER LED LIGHTS

Two (2) Whelen "Pioneer" model #PFP2AC, 150 watt, 120 volt permanently mounted, swivel based, LED lights will be mounted at the tip of the ladder, one on each side using a Whelen model #PBAPED2 pedestal mounting bracket. The lights will be individually switched at the light head. The lighting circuit for two (2) 150 watt quartz light will require one (1) 120V, 15 amp circuit breaker.

One (1) switch will be provided at the lower control console for the two (2) lights at the ladder tip. The switch will be wired to the light circuit to give the operator the capability to shut down the lights near the ladder tip if the switch on the light heads are in the on position.

COMPLY____ EXCEPTION____

AERIAL WALKWAY ILLUMINATION

The ladder sections will be illuminate the rungs of the ladder to support night time operations. The color of the ladder illumination light will be multi colored red, white and blue. The color blue will be at the tip of the ladder, then white, then red following that pattern.

PEDESTAL CONTROL STATION

Sate the functions of the pedestal control station:

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WATERWAY FLOWMETER

The apparatus will be equipped with a digital flow meter at the turntable console which will give the operator or engineer an indication of actual volume of water (in gallons) being discharged through the aerial waterway. A flow sensor paddle wheel will be installed on the discharge piping with a machined housing or clamp.

COMPLY____ EXCEPTION____

LADDER TIP CONTROLS

Ladder "Creeper Controls" will be provided at the tip of the ladder to allow a firefighter at the tip of the ladder to precisely mover the ladder while at the ladder tip. Three (3) controllers will be provided to allow the firefighter to raise/lower, extend/retract or rotate the ladder.

COMPLY____ EXCEPTION____

LADDER TIP TO PEDESTAL COMMUNICATION SYSTEM

A communication system will be furnished between the ladder tip and the rear operator's position. A master control at the turntable operator's console will be provided, with a push-to-talk button and a volume control.

A self-contained, hands-free speaker microphone will be located at the ladder tip. No operator action will be required to transmit or receive messages at this speaker microphone.

COMPLY____ EXCEPTION____

AERIAL WATER SYSTEM

The aerial waterway system will be capable of being supplied by an external water source with the inlet on the left and right side of the apparatus. The waterway will be a prepipped telescoping waterway

A manual or pneumatic waterway drain will be provided to drain the waterway prior to retracting the aerial.

A 2-1/2" relief valve preset at 225 psi will be located beneath the turntable to protect the water system from excessive pressures.

A 1-1/2" Akron drain valve will be installed and operated from the side of the apparatus.

COMPLY____ EXCEPTION____

LEFT AND RIGHT SIDE INLET ADAPTERS

The left and right side rear aerial inlets will be equipped with a TFT new force low profile ball intake valve, 5"ST rigid x 6" NH(F)RLSW. Item No. TFT ABD3ST-NX.5" NST. Both low profile ball intake valves are listed under the section titled **Loose Equipment.**

NOTE: A 2.5" Innovative Controls pressure gauge will be provided at each aerial inlet to indicate the waterway pressure.

****Note:** Two (2) Red head brass style 148-3 triple holder set w/style 105 hydrant wrench complete with style 148 holder, one style 105 hydrant wrench and two (2) style 101 spanner wrenches. Will be mounted in one near the left side inlet area, and one near the right side inlet area. This hydrant/spanner wrench set is listed under the section titled **Loose Equipment.**

COMPLY____ EXCEPTION____

AERIAL MONITOR AND NOZZLE

An Akron model #3480 "StreamMaster II" electrically controlled monitor will be installed on the outer end of the telescoping aerial waterway. The CAN based control system will be attached to the monitor, and will be easily accessible for service.

- Vertical travel 45° below and 120° above horizontal
- The monitor will be equipped with a 3-1/2" outlet and a 4" inlet.
- The monitor will have a vertical sweep of 165°, and a horizontal sweep of 355°.

An Akron model #5178 "Akromatic" electrically controlled master stream nozzle will be installed on the end of the monitor. The model #5178 will allow a maximum flow rate of 2000 gpm @ 80 psi.

COMPLY____ EXCEPTION____

LADDER, AKRON MONITOR CONTROLS W/ AUTO STOW

The monitor and nozzle functions will be controlled from the tip of the fly section and from the aerial control console. The monitor and nozzle controls at the tip and turntable will consist of three (3) individual spring-loaded, self-centering, weather resistant toggle switches.

The monitor will be capable of wireless remote operation. The turntable operating position will include an Akron SIT (switch interface transmitter) which will allow for standard spring loaded toggle switches to be used as listed above.

The monitor and nozzle control functions will be as follows:

- UP / DOWN
- LEFT / RIGHT
- STRAIGHT STREAM / FOG

The monitor will be equipped with an "Auto Stow" feature that will automatically deploy the monitor and will also place the monitor into its stowed position when actuated by a toggle switch.

COMPLY____ EXCEPTION____

"RETRACTABLE" WATERWAY FEATURE

The waterway monitor will be "retractable", allowing the monitor to be secured at the tip of the fly section for water tower operations, or at the end of the upper section for rescue operations.

COMPLY____ EXCEPTION____

MANUAL WATERWAY VALVE UNDER MONITOR

Task Force Tips VUM, model # AKM13 _ 111D manually controlled monitor valve will be provided under the monitor. The valve will be controlled with an NFPA compliant slow-close

hand wheel gear operator which can be configured for left or right hand operation. A position indicator will be provided to allow for quick visualization of the status of the valve in the open, closed or partial positions. For maximum corrosion protection the aluminum casting will be hardcoat anodized, with a silver powder coat internal and external finish. The valve ball will be stainless steel and have an automatic drain for draining waterway when valve is closed and unpressurized.

The manifold of the valve will be equipped with the following hardware:

- Port C2, C3, C4 will be terminated with a blind plug, Port C1 as stated below.
- Two (2) 2.5" NH hydrant valve straight will be installed on C1 and D-1 port.
- An extended automatic drain valve will be installed on C1 & D1 port.

• A 2-1/2" x 1-1/2" reducer with cap and lanyard will be provided for the discharge on C1 & D1 port.

****Note:** One (1) Red head brass style 146-2 Double Holder Set complete with style 146 holder and two (2) style 101 spanner wrenches. Will be mounted in the tip area to secure a hoseline to the manifold. This spanner wrench set will be mounted so that it does not interfere with ingress or egress of fire personnel. This spanner wrench set is listed under the section titled <u>Loose</u> <u>Equipment.</u>

STORE FRONT BLITZ WATERWAY

The ladder waterway system will be designed to provide "Store Front Blitz" feature. This feature will allow the fire department to position the truck in front of a low structure and sweep the front of the building with a 1500-GPM master stream upward for initial interior attack!

Features will include:

- High tip load while flowing water
- Waterway flow rate of 1500-GPM in any position
- High 1500-GPM flow in an upward direction
- 30-degrees above horizontal nozzle position
- 135-degrees below horizontal nozzle position
- 180-degree nozzle sweep

The position of the aerial nozzle will be monitored electronically at all times. Since the nozzle can be elevated to 35 degrees above horizontal when affixed to the tip of the fly section, the nozzle position monitor will automatically prevent the nozzle from being raised above horizontal when the nozzle is affixed to the top of the outer mid-section of the aerial in order to prevent damage to the nozzle or the device during extension and retraction operations.

COMPLY____ EXCEPTION____

LADDER CAPACITIES

The aerial ladder should have a tip load of at least 750lbs. for rescue mode, and a tip load of at least 500lbs. flowing water.

MANUALS

Two (2) custom parts manuals for the complete fire apparatus should be provided in hard copy with the completed unit.

The manual should contain the following: - Job number - Part numbers with full descriptions -Table of contents - Parts section sorted in functional groups reflecting a major system, component, or assembly - Parts section sorted in Alphabetical order - Instructions on how to locate a part

The manual should be specifically written for the chassis and body model being purchased. It should not be a generic manual for a multitude of different chassis and bodies.

COMPLY____ EXCEPTION____

SPECIAL TOOLS

A steel tool box will be provided with the following special tools for retorquing of specified bolts as recommended by the aerial manufacturer:

- Torque wrench
- 4:1 multiplier
- Extensions, adapters and sockets as required
- Two (2) tubes of specified ladder grease

COMPLY____ EXCEPTION____

BODY PAINT

The inside and underside of the complete body assembly will be painted job color prior to installation of the body on the chassis or torque box. The body paint finish will be a single color, to match customer furnished paint codes and requirements.

COMPARTMENT PAINT

The interior of the body compartments will be painted with Line-X material. The Line-X coating will be red in color to match the paint on the outside of the cab.

COMPLY____ EXCEPTION____

CAB PAINT

The cab exterior will be painted to match current apparatus in the Summerville Fire Department. The entire exterior of the cab will be painted red.

COMPLY____ EXCEPTION____

CAB INTERIOR PAINT

The interior metal surfaces of the cab will be painted using a red Line-X material to match the exterior red paint on the cab.

COMPLY____ EXCEPTION____

CHASSIS PAINT

The chassis frame rails, suspension and axles will be painted black paint prior to installation of any air lines or electric systems to ensure proper serviceability.

AERIAL DEVICE PAINT

The entire aerial device will be painted black including the following components:

- Turntable.
- Turntable console.
- Lift cylinders.
- Extension cylinders.
- Torque box.
- Outriggers.
- Waterway.
- Task Force Tips VUM, model # AKM13 _ 111D manually controlled monitor valve.
- An Akron model #3480 "StreamMaster II" electrically controlled monitor.

COMPLY____ EXCEPTION____

TOUCH-UP PAINT

One (1) pint of each exterior color paint for touch-up purposes will be supplied when the apparatus is delivered to the end user.

COMPLY____ EXCEPTION____

LETTERING

The lettering of this unit will be provided by the bidder. Lettering will match the design of current Summerville Fire Department fire apparatus. Lettering will include and not be limited to:

- Front of cab upper and lower.
- Front Bumper
- Cab Doors.
- Driver side, Captain Side, and Rear of aerial body.

• Driver side and captain side of the aerial device.

Final layout will be done by Summerville Fire Department personnel at the pre-construction conference.

COMPLY____ EXCEPTION____

SCOTCH-LITE STRIPING

A "Scotch-Lite" striping will be provided by the bidder. The Scotch-Lite stripe layout will be determined by the Fire Department at the preconstruction conference. The Scotch-Lite striping will be reflective black in color outlined by vinyl gold leaf.

COMPLY____ EXCEPTION____

REAR CHEVRON STRIPING

The entire rear of the truck will be covered with alternating strips of reflective striping. The striping will be 6" Scotch-Lite. The Scotch-Lite will be Ruby Red and Lemon Yellow in color.

COMPLY____ EXCEPTION____

VINYL GOLD LEAF TRIM

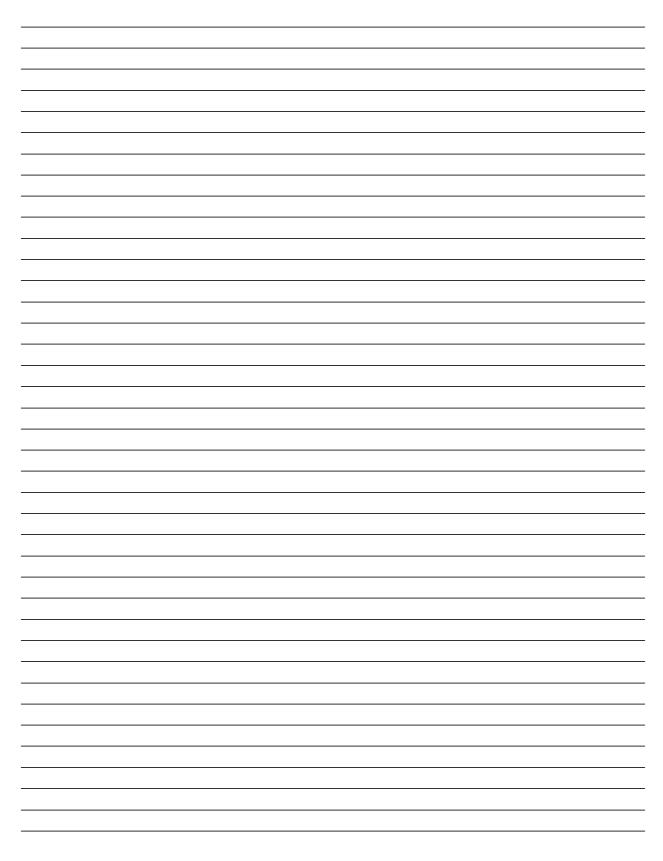
Vinyl gold leaf trim will be provided by the bidder on this unit. Vinyl gold leaf trim will match the design of current Summerville Fire Department fire apparatus. Final layout will be done by Summerville Fire Department personnel at the pre-construction conference.

COMPLY____ EXCEPTION____

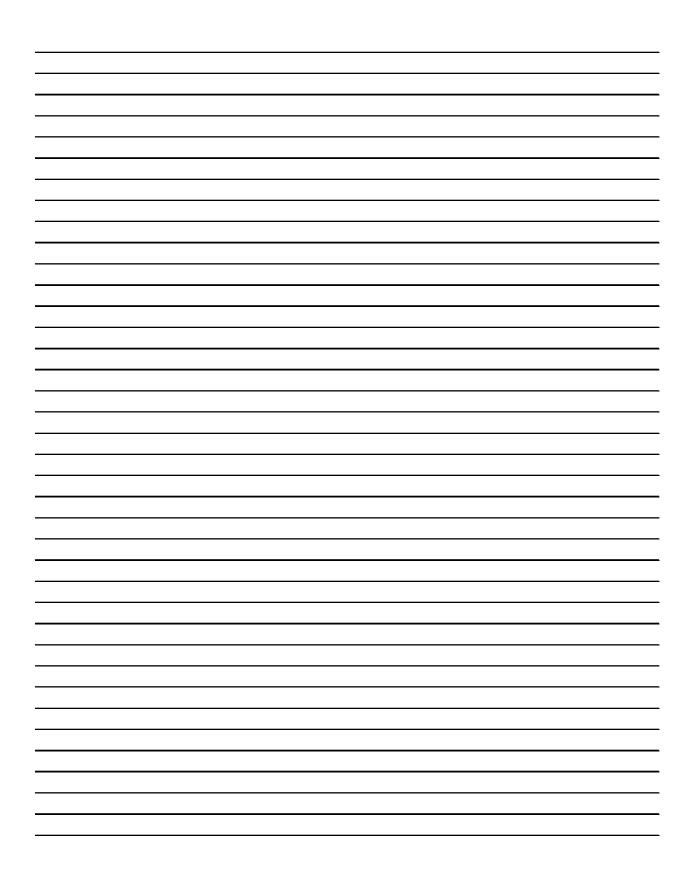
WARRANTY, STARTING ON DELIVERY DATE

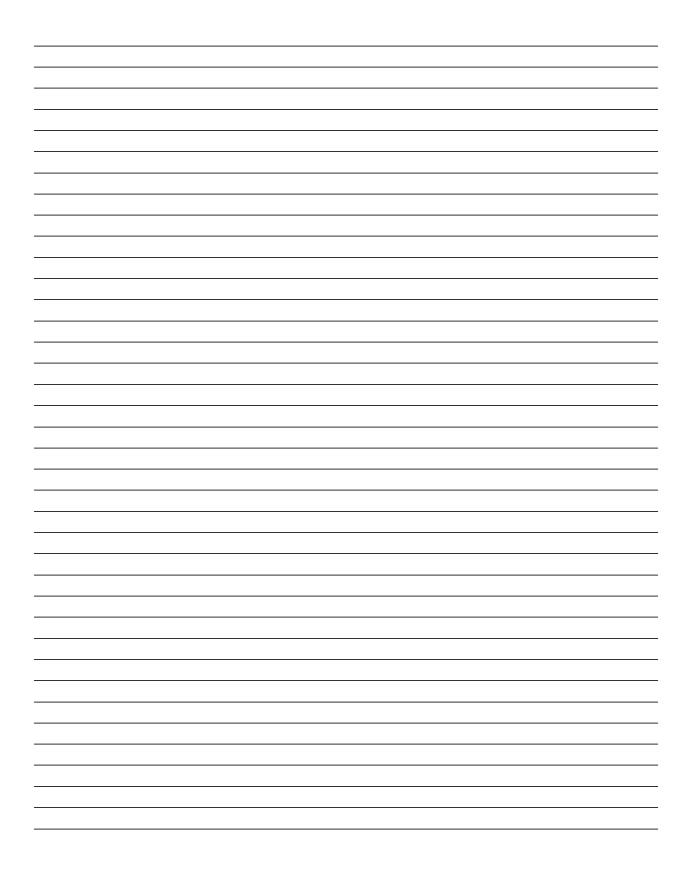
Warranty coverage by the manufacturer shall begin on the date of delivery to the customer. This section of the specification is for the bidder to list out warranties covered on the unit top to bottom:

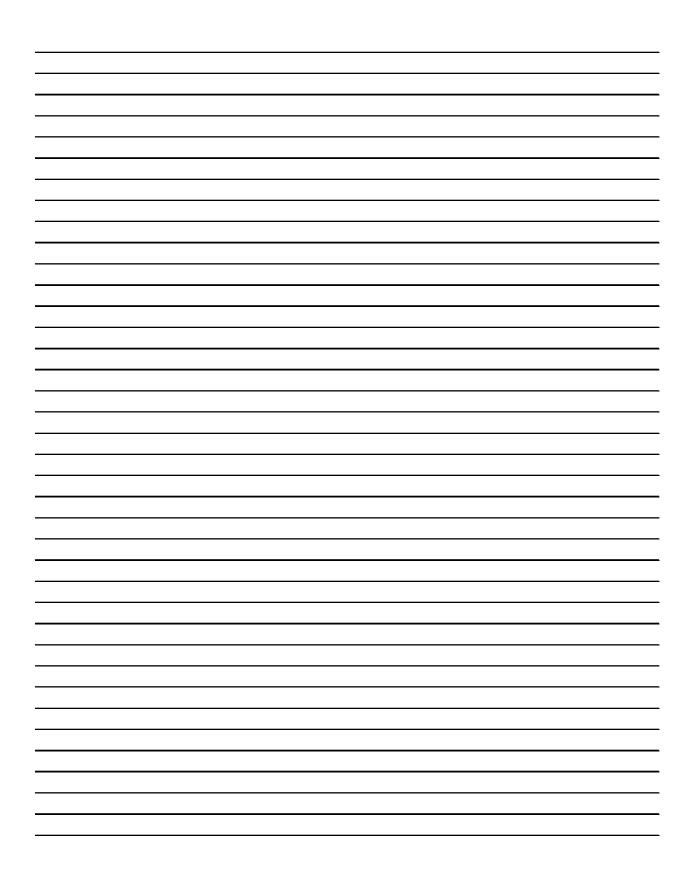


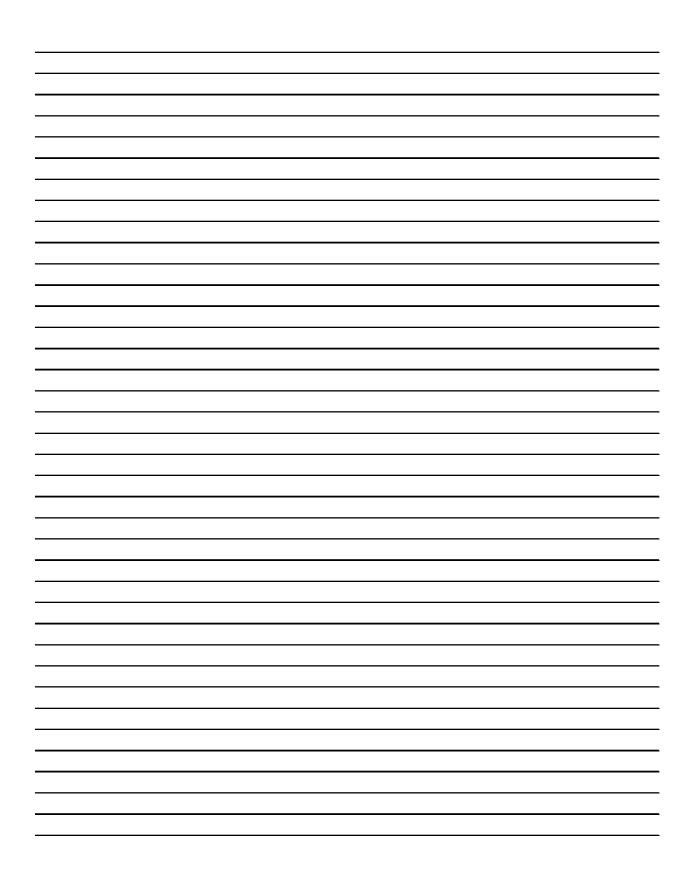


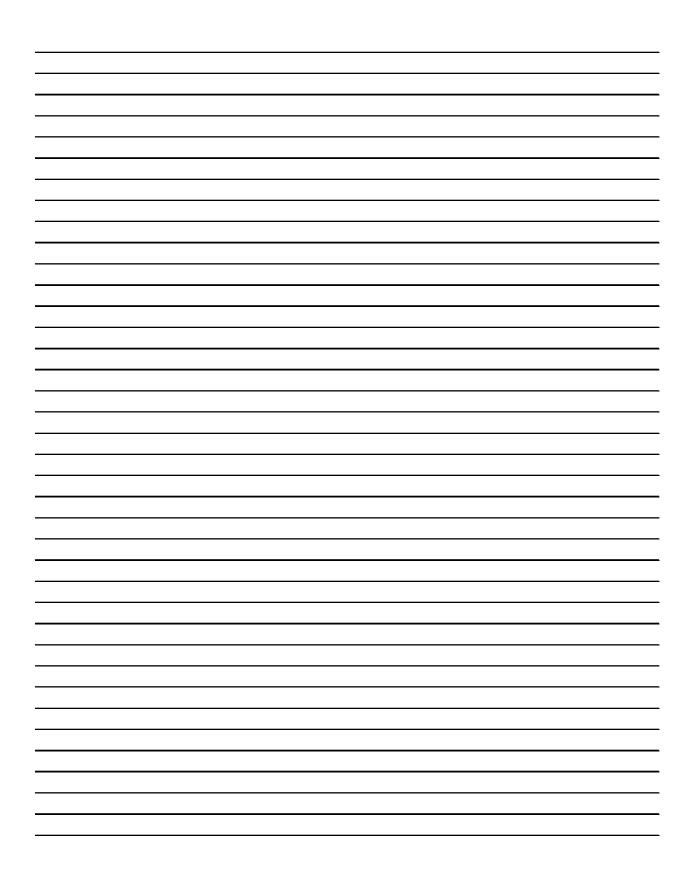












BID EVALUATION

Bids will be evaluated using the following criteria:
Cost of bid.
Compliance with our specifications.
Delivery Date.
Operation and maintenance cost of equipment.
Life cycle cost of equal equipment.
Performance of equipment in actual operating conditions.
Availability of parts and service.
Prior experience with vendor and their product.

INFORMATION

Any questions concerning the above specifications contact:

Roger Wnek,

Maintenance Coordinator

Phone: (843) 864-4544

E-mail: rwnek@summervillesc.gov

The above is true and accurate. I have read and understand the above listed terms and conditions.

Signature of Officer				
Printed Name of Officer				
Title				
Company Name				
Date				
VENDOR'S NAME & AD	DRESS			
Item # Quantity	Description	<u>1</u>		Total
1. 1 Each Tractor Drawn Aerial for the Dept. of Fire, as per the specifications				
	(\$)	\$	
Total Base Price of Truck		Figures		Ext. Figures
Total Price of Loose Equip	(\$) Figures	\$	Ext. Figures
	(\$)	\$	
All Loose Equipment + Truck Figure				Ext. Figures

Manufacturer & Model #_____