

# TOWN OF CANTON VOLUNTEER FIRE & EMS

# REQUEST FOR PROPOSALS 2017 Engine 3 Replacement Bid

PROPOSALS MUST BE RECEIVED BY THURSDAY, DECEMBER 14, 2017 at 11:00

MAIL OR HAND-DELIVER TO:

OFFICE OF THE CAO 4 MARKET STREET PO BOX 168 COLLINSVILLE, CT 06022-0168

# MANDATORY PRE-BID CONFERENCE SHALL BE HELD ON

TUESDAY, NOVEMBER 28, 2017 AT 12:00pm COLLINSVILLE FIRE STATION 51 RIVER ROAD CANTON, CT 06019

# Town of Canton Volunteer Fire and EMS Replacement Engine 3 Bid

#### Overview

- Custom type chassis with Tandem Rear Axle
- 6 person cab with (5) SCBA seats
- Minimum of 565hp
- 2,000 gpm pump
- 2,500 gallon water tank
- Minimum of 3,200' of LDH

The FD is looking to maximize storage space and organization on the apparatus. Maximum dimensions are established below. Many of the accessories required (ladders, suction hoses, etc.) do not have specified mounting locations. Bidders are encouraged to propose a solution which incorporates all requirements of these specifications, keeps equipment easily accessible and deployable, and keeps the overall size of the apparatus as small as possible.

#### **INTENT OF THE SPECIFICATIONS**

The purpose/intent of these specifications is to cover the furnishing and delivery to the Town of Canton Fire & EMS Department (hereinafter-called "Purchaser") a 2017 Engine Fire Apparatus that meets the specifications outlined herein. To obtain the best results and the most acceptable fire apparatus, these specifications cover minimum requirements as to the type of construction, finish, and tests to which the fire apparatus must conform, together with certain details as to equipment and appliances to be furnished. Minor details of construction and materials, where not otherwise specified, are left to the discretion of the contractor, who shall be solely responsible for the design and construction of the fire apparatus. The fire apparatus must confirm to all state and federal applicable regulations.

The bidder shall point out any discrepancies in the document that violates any Federal or State Government bidding requirements.

It is expected that the bid will be awarded within 45 days after opening. The selected party shall execute the documents required to complete the transaction within fourteen (14) days of notification of selection.

#### **GENERAL CONDITIONS**

BIDDERS ARE ADVISED THAT THIS SECTION OF THE SPECIFICATIONS WILL BE EVALUATED BEFORE THE APPARATUS TECHNICAL SPECIFICATIONS. BIDS THAT DO NOT COMPLY WITH OUR GENERAL CONDITIONS. BONDING, INSURANCE, DELIVERY, BIDDER QUALIFICATIONS, SERVICE AND WARRANTY REQUIREMENTS WILL BE IMMEDIATELY DEEMED NON-RESPONSIVE AND SHALL BE IMMEDIATELY REJECTED WITHOUT FURTHER REVIEW OF THE TECHNICAL SPECIFICATIONS.

- 1. Proposals must be received no later than 12/14/2017, 11:00AM, EST, Respondents must submit one original and one copy. Proposals may be hand delivered or mailed to: Office of the CAO, 4 Market Street, P.O. Box 168, Collinsville, CT 06022-0168.
- 2. The Town has scheduled a mandatory pre-bid conference for November 28, 2017 at 12:00PM at the Collinsville Fire Station, 51 River Road, Collinsville, CT, 06019. The purpose of the conference is to

provide RFP respondents an opportunity to become more familiar with the Canton Fire and EMS Department, the department's expectations for the new fire apparatus and the requirements of this RFP. Potential respondents are encouraged to ask questions pertaining to this RFP, Canton Fire & EMS or closely related topics.

- 3. Respondents with questions regarding this RFP may contact Craig Robbins via e-mail on at <u>crobbins@townofcantonct.org</u>.
- 4. At least three (3) days prior to the receipt of bids, the Town will post a copy of any addenda to its website, located at: <u>www.townofcantonct.org</u> under Request for Proposals. It shall be the responsibility of each bidder to determine whether addenda have been used, and if so, to download copies directly from the Town's website.
- 5. All proposals shall be typed. Mistakes must be crossed out and corrections typewritten or written in ink adjacent thereto and initialed in ink by the party signing the proposal, or the party's authorized representative.
- 6. Proposals received after the deadline shall not be considered.
- 7. Purchaser reserve the right to accept and reject any and all proposals in whole and/or in part and to waive informality, technical defect, or clerical error in any proposal. Purchaser reserve the right to negotiate with one or more respondents as it sees fit.
- 8. All costs incurred in the preparation of the RFP response will be borne entirely by the RFP respondent.
- 9. All proposals submitted become property of the Purchaser.
- 10. All proposals submitted and information contained therein and attached thereto shall be subject to disclosure under the Freedom of Information Act.
- 11. Proposals shall be final and binding on the Respondent for acceptance by the Purchaser for 90 days from the RFP closing date and time.
- 12. Respondent(s) may amend or withdraw their Proposal prior to this RFP's closing date and time by submitting a clear and detailed written notice to the Purchaser Subject to the Period Commitment provision detailed herein, all Proposals become irrevocable after this RFP's closing.
- 13. Assignment by successful Respondent(s) to third party of any contract based on the Request for Proposal or any monies due is prohibited and shall not be recognized by the Towns unless approved by Purchaser in writing.
- 14. Any act or acts of misrepresentation or collusion shall be a basis for disqualification of any proposal or proposals submitted by such person or company guilty of said misrepresentation or collusion. In the event that Purchaser enters separately into a contract with any Respondent who is guilty of misrepresentation of

collusion and such conduct is discovered after the execution of said contract, Respondent may cancel said contract without incurring liability, penalty, or damages. Each bid shall include a Certificate on Non-Collusion, signed by the same officer of the bidder as will sign the Sales Contract.

- 15. A Respondent filing a proposal thereby certifies that no officer, agent or employee of the Purchaser who has a pecuniary interest in this request for proposal neither has nor shall participate in the contract negotiations on the part of the Purchaser, that the proposal is made in good faith without fraud, collusion or connection of any kind with any other Respondent of the same call for proposals, and that the Respondent is competing solely in its own behalf without connection with or obligation to, any undisclosed person or firm. Respondents must fully disclose, in writing to the Purchaser on or before the closing date of this RFP, the circumstances of any possible conflict of interest or what could be perceived as a possible conflict of interest if the Respondent were to become a contracting party pursuant to this RFP. The Purchaser shall review any submissions by Respondent could be in a conflict of interest or could be perceived to be in a possible conflict of interest position if the Respondent were to become a contracting party pursuant to this RFP.
- 16. Pursuant to Town Policy entitled "Local Bidder Preference" any bidder with a bona fide principal place of business within the Town of Canton ("Town Based Resident Bidder") shall be awarded the bid if the Town Based Resident Bidder submits a qualified bid which is not more than 10% greater than the lowest responsible bid and agrees to accept the bid amount of the lowest responsible bidder. In order to be considered a Town Based Resident Bidder the entity bidding must complete a Local Preference Affidavit and submit proof of principal place of business. A copy of the affidavit along with the Local Bidder Preference policy is attached hereto.
- 17. Full certification data work sheets outlining compliance to all test requirements for the specified Engine Fire Apparatus may be required for evaluation prior to final contract award. Submission of falsified or altered documentation of any description will immediately disqualify the bidder from further evaluations and consideration and any future business with the Purchaser.
- 18. This bid is for a complete fire apparatus. No omissions shall be permitted, and the vehicle shall be completed, serviced, and ready to use upon delivery. Failure of the completed vehicle to meet all of the fire apparatus rules, regulations and licensing requirements as to the vehicle in the state of Connecticut, less department installed equipment, will cause the contract to be null and void and release the Purchaser from payment.
- 19. Descriptive Material: Descriptive material such as plans, drawings, photographs, diagrams, illustrations, written descriptions, and manufacturer's literature that will enable the purchaser to determine the exact quality, design, and appearance of the equipment proposed, shall accompany the bid. All equipment listed, or shown, in the manufacturer's literature, drawings, or photographs, and approved by the Purchaser, shall be furnished.

- 20. Each bidder is required to provide a complete and accurate description of the manufacturer's product along with engineering specifications. These specifications shall be in the same sequence as the specifications for ease of comparison. Any bid not in this sequence will be disregarded and rejected. Each bidder shall supply a detailed description of the vehicle and equipment, which they propose to furnish, and to which the ambulance furnished under the contract must conform.
- 21. Vendors Liabilities: The bidder receiving the award, shall defend any and all suits and assume all liability for any and all claims made against the Purchaser or any of its officials for the use of any patented process, device, or article forming a part of the emergency vehicle.
- 22. All purchases are exempt from the payment of Federal Excise Taxes and State Sales Tax and such taxes must not be included in the quoted price. The Purchaser will submit a Tax Exempt Form upon request.
- 23. All prices and delivery times quoted must be firm F.O.B. for delivery to the Town of Canton Fire & EMS Department address at 51 River Road, Canton, CT. All bids must state delivery time. Delivery time shall be stated in calendar days.
- 24. Before submitting a sealed bid, each bidder must make a careful study of these specifications and bid, and fully assure themselves of the quality of the materials and the character of the workmanship required. The quality of the materials and workmanship is of profound importance to the public safety of the residents of the Town of Canton Fire & EMS Department.
- 25. No alterations shall be made in the equipment described by the specifications except upon written order of the Contracting Officer of the Purchaser, and when so made, the value of work will be added or deducted from the contract price by mutual agreement of the purchaser and vendor.
- 26. All materials used shall be of the best quality of their respective kinds. All work performed shall be executed in the most skillful and competent manner. Both materials used and work performed shall, in every respect, meet the complete satisfaction of the Town. The Purchaser will be solely responsible for determining "Quality of Workmanship" or relating suitability of components listed.
- 27. The bidder shall submit a copy of all of their proposed warranties for the fire apparatus.
- 28. The specifications as detailed under the section **SPECIFICATIONS**, as well as these **GENERAL CONDITIONS**, shall constitute a valid part of the signed contract.
- 29. It shall be noted that the Purchaser is seeking a fire apparatus that closely matches the attached specifications. Extensive time has been put into preparing the attached specifications as they relate to the needs of the Town.
- 30. All specifications contained herein are considered minimum. Since all custom manufacturers have the ability to shear, break, and weld as these specifications require, exceptions will not be necessary for any bidder, however bidder's that closely match these specifications will be considered most advantageous to the Town.
- 31. The YES/NO space below each item in this bid specification must be fully and accurately completed in order for the bid to be considered responsive. The bidder must indicate compliance by circling either YES or NO. General statements taking total exception to these specifications shall result in an interpretation of

#### being non-responsive and ineligible for consideration, and will be automatically rejected.

- 32. Any exceptions, variations, deviations and clarifications to these specifications must be set forth on an attached sheet entitled "**EXCEPTIONS TO THE SPECIFICATIONS**" and made part of the bid. They should include page number and description as they are referred to in the bid specifications. The Purchaser will evaluate each exception taken. The Purchaser reserves the right to accept or reject each exception taken as it applies to the specified item(s). If no exceptions are indicated and the department accepts the bid, the vehicle must be delivered exactly as specified.
- 33. The fire apparatus shall be delivered under its own power to assure adequate break-in while under warranty. Prior to actual delivery of vehicle all necessary service / prep work, and professional clean / detail shall be performed.
- 34. A sample of the bidder's sales contract shall be included with the bid proposal.
- 35. A manufacturer's certificate of product liability and facility insurance equal to or exceeding \$5,000,000.00 must be provided with the bid.
- 36. Bidders must submit a copy of a current "Certificate of Good Standing" from the Secretary of State in which the bidder is based. Said document shall not be older than six months.
- 37. Certification of Non-Collusion: Each bid shall include a Certificate of Non-Collusion, signed by the same officer of the bidder as will sign the Sales Contract
- 38. By submitting the bid, the Bidder certifies that he/she fully understands all the requirements included in the bid terms and specifications, and he is fully informed as to the nature, scope, and time frame of the type of equipment to be supplied.
- 39. AWARD CRITERIA: The Purchaser will be guided by, but not limited to the following criteria.

#### **General Criteria:**

- Warranty Terms and Service
- Manufacturer's Certificate of Product Liability and Facility Insurance
- Certificate of Good Standing
- Certificate of Non-Collusion
- Letter of Compliance (Test Laboratory)

#### **Technical Criteria:**

- Meets all specified requirements
- Meets all desirable capabilities
- Meets all maintenance requirements
- Meets all construction standards
- Meets all D.O.T. requirements (at the time of Bid)

#### Special consideration will be given to the following points:

- Accessibility of various components requiring periodic maintenance.
- Ease of operation.
- Ease of routine maintenance.
- Effectiveness of design to maximize equipment storage and minimize overall size
- Delivery time.
- References from existing customers.
- Cost of Engine Fire Apparatus.

- 40. The Manufacturer shall submit at the time of delivery, a complete Owner's Manual which shall include, but not limited to, wiring schematics, warranty undercoating information, literature pertaining to any item that is installed on the vehicle, and copy of all stickers.
- 41. A bid bond in the amount of ten (10) percent of the bid price shall accompany each bid. Bids submitted without a bid bond will not be read. The bid bond must be issued by an insurance company registered with the insurance Commissioner of the State of the Purchaser. An Officer of the Bidder's company must sign bonds. Bonds issued by non-registered or foreign insurance companies will be immediately rejected
- 42. The Purchaser requires, a Performance Bond in the amount of 100% of the contract price which shall be furnished within fifteen (15) days of signing the contract. The Performance Bond must be issued by an Insurance company registered with the Insurance Commissioner of the State of the Purchaser and must be signed by an Officer of the bidder's company. Bonds issued by non-registered or foreign insurance companies will be immediately rejected. This bond shall be listed as an "option" that the Purchaser may desire to purchase. This price shall not be included in the actual bid price. The cost of the Performance Bond must be stated within the bidder's proposal document to give the purchaser an idea of the financial stability of the bidder.
- 43. The bidder shall have thirty (30) days after delivery to fulfill that part(s) of the specifications which does not comply to the original outlined specifications. Bidder shall incur all expenses of pickup and redelivery of the apparatus

The below pricing must be filled out in its entirety. DO NOT include any optional discounts in this pricing

 Total Delivered price as bid:
 \$\_\_\_\_\_

Option 1 – Trade in Allowance \$\_\_\_\_\_

Option 2 – Equipment Mounting \$\_\_\_\_\_

# Lead time

Lead time will be the date which the apparatus arrives at the FD, with all specified equipment installed and operational, in full compliance with these specifications. If the apparatus is not delivered by the promised lead time the bidder shall be fined \$200 per day late, starting the day after the promised date.

In calendar days, what is the lead time from date contract is signed by FD to delivery of the apparatus as described above:

Lead time:\_\_\_\_\_

**Pricing** 

List any available discounts below (prepayments, etc)

Discount Amount Description

# **SPECIFICATIONS**

# WARRANTY OVERVIEW

The below chart shall be filled out. Indicate the duration of the <u>full coverage warranty period</u>, in the event of mechanical or workmanship failure. Full coverage shall be defined as 100% percent of parts and labor needed to repair with no prorate or other restrictions. Details of these and other warranties which are included with the apparatus shall be included as supplemental documents.

Component	Months	Mileage	Hours
Chassis			
Engine			
Transmission			
Frame			
Paint			
Body			
Pump			
Water Tank			
Pump Plumbing			

#### **OVERALL APPARATUS DIMENSIONS AND REQUIREMENTS**

The apparatus must not exceed 10'- 10" in height to the highest point or appliance, or 36' in length including bumpers and overhanging accessories.

Provide the following dimensions below:

- 1. Wheelbase of chassis:
- 2. Overall length of apparatus: \_\_\_\_\_
- 3. Overall width of body: \_\_\_\_\_
- 4. Overall height of apparatus: \_\_\_\_\_
- 5. Overall length of body: \_\_\_\_\_
- 6. Ground clearance at lowest point (including accessories): \_\_\_\_\_
- 7. Front over hang from center of front axle: \_\_\_\_\_
- 8. Front Angle of Approach: \_\_\_\_\_
- 9. Rear over hang from center of rear axle: \_\_\_\_\_
- 10. Rear Angle of Departure: \_\_\_\_\_
- 11. Turning Radius (in feet) Right: \_\_\_\_\_
- 12. Turning Radius (in feet) Left: \_\_\_\_\_

# **INSTRUCTIONS TO BIDDERS**

- The purpose of these instructions and specifications are to describe the minimum requirements, construction, and delivery of a Fire Fighting Apparatus as outlined herein for the Town of Canton Volunteer Fire and EMS Department, here after referred to as the "FD".
- Bid envelopes shall be clearly labeled "Engine 3 Bid".
- Bids will only be considered from companies which have an established reputation in the field of fire apparatus construction.
- Each bidder shall furnish satisfactory evidence of their ability to construct the apparatus specified, and shall state the location of the factory where the apparatus is to be built. The bidder shall also show that they are in a position to render prompt service and furnish replacement parts for said apparatus.
- All bid prices shall remain effective for 90 calendar days from the bid opening date.
- The apparatus is to be of current year of manufacture and is to be new.
- The bid price shall not include any local, state, or federal taxes.

# **DELIVERY**

- Each bidder shall clearly state the delivery date of the vehicle in calendar days from the date of signed contract. If the apparatus is not delivered within the allocated time, the bidder will be fined \$200 per day beyond the promised date.
- The apparatus shall be delivered under its own power to 51 River Rd, Canton CT 06019.

# **INTENT OF SPECIFICATIONS**

It is the intent of these specifications to cover the minimum requirements and delivery to the FD a complete unit equipped as herein specified, with a goal of obtaining the best results and the most acceptable apparatus for the FD.

These specifications cover only the general requirements as to the type of construction and test to which the apparatus must conform.

All equipment and components shall be in compliance with the National Fire Protection Association 1901 (2016 Edition), Standard for Automotive Fire Apparatus, for Pumper Fire Apparatus Equipped with a Fire Pump. In addition the apparatus shall also comply with all federal, state, ICC, and DOT regulations, standards, and laws relating to commercial vehicles as well as to the fire apparatus.

These specifications have been drafted in a manner which allows a wide variety of manufacturers to participate. All proposals should include any features which are required for this apparatus to operate safely, efficiently, and reliably. All materials and equipment used in the construction of the apparatus shall be field proven in the Fire Service. All proposals will be reviewed in detail. Any proposals which lack components or functionality typically found on fire apparatus, or are deemed to use inferior parts, materials, or accessories will not be considered.

All proposals should include a list of <u>all apparatus</u> delivered by the bidder in the past 3 years within a 50 mile radius of Canton, CT, along with contact information for the respective department. Feedback from current owners will be taken into consideration when determining bid award.

#### **GENERAL REQUIREMENTS**

- This specification package, along with any herein listed exceptions, shall be submitted as a part of the bidder's entire bid proposal. Do not detach or omit these sheets.
- Proposal specifications must be on the manufacturer's own standard forms. In no case shall a bidder photocopy these specifications as his proposal specifications.
- Each bidder is required to provide in their bid to the purchaser a complete and accurate description of their own apparatus.

# **EXCEPTIONS, VARIATIONS, OR CLARIFICATIONS**

These specifications are based upon performance criteria which have been developed by the FD as a result of extensive research and careful analysis of the data. Subsequently, these specifications reflect the only type of fire apparatus that is acceptable at this time. Major exceptions to the specifications will not be accepted.

# <u>All bidders shall circle Yes or No on the right side of each paragraph, indicating compliance or noncompliance with that paragraph of the specifications.</u>

For any item which the bidder does not comply, a number shall be inserted next to the paragraph which relates to an explanation on page(s) entitled "Exceptions" that the bidder shall include with their proposal specifications.

Any exception shall be clearly defined with details as to the proposed alternative, referencing manufacturer and model where appropriate. Descriptive literature shall be provided to help evaluate the exception. A general exception cannot be taken for any paragraph. Each exception shall be considered by the degree of impact and total effect on the bid. Proposals taking total exception to the specifications shall not be considered by the purchaser.

The FD shall determine which (if any) exceptions are acceptable and this determination shall be final.

The FD shall assume that failure to cite an exception indicates full compliance with the specifications. Should the equipment not comply with all requirements of this document, the equipment shall be rejected at the final inspection. All equipment shall be inspected for material, workmanship, and compliance with the specifications prior to acceptance. All equipment found to be in noncompliance shall be identified and the FD reserves the right to accept or reject the specific items. The noncompliant rejected equipment shall be replaced or reworked to meet the requirements of this document at no additional cost to the purchaser.

The bidder shall have thirty (30) days after delivery to fulfill that part(s) of the specifications which does not comply to the original outlined specifications. Bidder shall incur all expenses of pickup and redelivery of the apparatus.

# **CONSTRUCTION**

- The materials specified are considered absolute minimum.
- The apparatus shall be constructed with due consideration to the nature and distribution of the load to be sustained and to the general character of service to which the apparatus is to be subjected when placed in service. All parts of the apparatus shall be of adequate strength to withstand the general service under full load. The apparatus shall be so designed that the various parts are readily accessible for lubrication, inspection, adjustment, and service.

# DATA REQUIRED OF THE CONTRACTOR - NFPA 4.20

#### **NFPA 4.20.1 FIRE APPARATUS DOCUMENTATION**

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

- 1) The manufacturer's record of apparatus construction details, including the following information:
- a) Owners name and address
- b) Apparatus manufacturer, model and serial number
- c) Chassis make, model and serial number
- d) GAWR of front and rear axles and GVWR
- e) Front tire size and total rated capacity in pounds
- f) Rear tire size and total rated capacity in pounds
- g) Chassis weight distribution in pounds with water and manufacturer mounted equipment front and rear
- h) Engine make, model, serial number, rated horsepower and related speed and governed speed; and if so equipped, engine transmission PTO(s) make, model, and gear ratio
- i) Type of fuel and fuel tank capacity

Yes No

- j) Electrical system voltage and alternator output in amps
- k) Battery make, model, and capacity in cold crank amps (CCA)
- 1) Transmission make, model, and serial number; and if so equipped, chassis transmission PTO(s) make, model, and gear ratio.
- m) Ratios of all driving axles.
- n) Maximum governed road speed
- o) Pump make, model, rated capacity in gallons per minute (liters per minute where applicable) and serial number
- p) Pump transmission make, model, serial number and gear ratio
- q) Auxiliary pump make, model, rated capacity in gallons per minute, (liters per minute where applicable) and serial number
- r) Water tank certified capacity in gallons or liters
- s) Aerial device type, rated vertical height in feet (meters), rated horizontal reach in feet (meters), and rated capacity in pounds (kilograms)
- t) Paint manufacturer and paint number(s)
- u) Company name and signature of responsible company representative
- v) Weight documents from a certified scale showing actual loading on the front axle, rear axles(s), and over all fire apparatus (with the water tank full but without personnel, equipment, and hose)
- 2) If the apparatus is a mobile foam fire apparatus, the certification of foam tank capacity
- 3) Certification of compliance of the optical warning system
- 4) Siren manufacturer's certification of the siren
- 5) Written load analysis and results of the electrical system performance tests
- 6) Certification of slip resistance of all stepping, standing and walking surfaces
- 7) If the apparatus has a fire pump, the pump manufacturer's certification of suction capability
- 8) If the apparatus has a fire pump, and special conditions are specified by the purchaser, the pump manufacturer's certification of suction capacity under the special conditions
- 9) If the apparatus has a fire pump, a copy of the apparatus manufacturer's approval for stationary pumping applications
- 10) If the apparatus has a fire pump, the engine manufacturer's certified brake horsepower curve for the engine furnished, showing the maximum governed speed
- 11) If the apparatus has a fire pump, the pump manufacturer's certification of the hydrostatic test
- 12) If the apparatus has a fire pump, the certification of inspection and test for fire pump.
- 13) If the apparatus is equipped with an auxiliary pump, the apparatus manufacturer's certification of the hydrostatic test
- 14) When the apparatus is equipped with a water tank, the certification of water tank capacity
- 15) If the apparatus has and aerial device, the certification of inspection and test for the aerial device
- 16) If the apparatus has an aerial device, all the technical information required for inspection to comply with NFPA 1911
- 17) If the apparatus has a foam proportioning system, the foam proportioning system manufacturer's certification of accuracy and the final installer's certification the foam proportioning system meets this standard
- 18) If the apparatus has a CAFS, the documentation of the manufacturer's predelivery tests
- 19) If the apparatus has a line voltage power source, the certification of the test for the power source

- 20) If the apparatus is equipped with an air system, air tank certificates, the SCBA fill station certification, and the results of the testing of the air system installation
- 21) Any other required manufacturer test data or reports

# **OPERATION AND SERVICE DOCUMENTS - NFPA 4.20.2**

- The contractor will supply, at time of delivery, at least two (2) paper sets and two (2) electronic sets of complete operation and service documents covering the completed apparatus as delivered and accepted.
- This documentation shall address the inspection, service, maintenance, and operations of the fire apparatus and all components used on said apparatus.
- A detailed parts list shall be provided which provides description, ratings, location on the apparatus, manufacturer, and part number of all components used in the construction of the apparatus. This document should allow for easy reference and ordering of any parts needed for the apparatus.
- The contractor will deliver with the apparatus all manufacturers' operations and service documents supplied with components and equipment that are installed or supplied by the contractor.

# **ROADABILITY NFPA 4.15**

**NFPA 4.15.1** - The apparatus, when loaded to its estimated in-service weight, shall be capable of the following performance while on dry, paved roads that are in good condition:

- 1. From a standing start, the vehicle shall attain a speed of 35 mph within 25 seconds on a level road;
- 2. The apparatus shall attain a minimum top speed of 50 mph on a level road;
- 3. The apparatus shall be able to maintain a speed of at least 20 mph on any grade up to and including 6 percent.

**NFPA 4.15.2** - The maximum top speed of fire apparatus with a GVWR over 26,000 lb shall not exceed either 68 mph or the manufacturer's maximum fire service speed rating for the tires installed on the apparatus, whichever is lower

**NFPA 4.15.3** - If the combined water tank and foam agent tank capacities on the fire apparatus exceed 1250 gallons, or the GVWR of the vehicle is over 50,000 lb, the maximum top speed of the apparatus shall not exceed either 60 mph or the manufacturer's maximum fire service speed rating for the tires installed on the apparatus, whichever is lower.

# **NFPA TAG REQUIREMENTS**

- A label that states the number of personnel the vehicle is designed to carry shall be located in an area visible to the driver.
- A sign that reads "OCCUPANTS MUST BE SEATED AND BELTED WHEN APPARATUS IS IN MOTION" shall be provided and located in the chassis cab in an area that is visible from each seating position.
- An accident prevention sign that states "OVERALL HEIGHT OF APPARATUS \_\_\_\_\_\_ INCHES"
- One "Final Stage Label" shall be attached to the driver's side door jam. The label shall certify that the complete vehicle conforms to the federal motor vehicle safety standards, which have been previously fully certified by the incomplete vehicle manufacture or by the intermediate vehicle manufacture and have not been affected by the final stage manufacture.

Yes No

Yes No

# OTHER SIGNAGE

- An engraved placard(s) shall be placed near the operator's seat inside the cab, easily visible while standing outside the driver's door. This placard(s) shall include the following information at a minimum:
  - Overall GVWR
  - o Overall Vehicle Height
  - Front and rear axle ratings
  - VIN Number
  - o Year, Make, Model of Chassis and Body Manufacture
  - o Engine Make, Model, Horsepower Rating, Serial Number
  - Transmission Make, Model, Speeds, Serial Number
  - Front tire size and load rating
  - Rear tire size and load rating
  - Pump Make, Model, Serial, GPM
  - Water Tank Capacity, Make, Serial

### **ENGINEERING DRAWINGS**

- All bidders shall submit blueprints which have been produced on computer-aided-design equipment. Drawing shall be specific for the apparatus proposed. Sample drawing will not be considered. No Exceptions.
- The blueprints shall be large enough to clearly show all dimensions, discharges, lighting, compartments, and other pertinent information.
- The final production blueprints shall be provided and approved by the customer prior to any metal being sheared.
- The design of the equipment is in accordance with the best engineering practices. The equipment design and accessories installed shall permit accessibility for use, maintenance and service. All components and assemblies shall be free of hazardous protrusions, sharp edges, cracks or other elements which might cause injury to personnel or equipment.
- All oil, hydraulic, and air tubing lines and electrical wiring shall be located in protective positions properly attached to the frame or body structure and shall have protective loom or grommets at each point where they pass through structural members in compliance with NFPA 1901 section 2-7.
- Parts and components will be located or positioned for rapid and simple inspection and recognition of excessive wear or potential failure. Whenever functional layout of operation components determines that physical or visual interference between items cannot be avoided, the item predicted to require the most maintenance shall be located for best accessibility.

# WARRANTY

Each bidder shall include a detailed description of all warranties which come with the apparatus. At a minimum, a one year "bumper to bumper" full warranty shall be provided which covers the apparatus and all components.

• If warranty work is required within the first 365 days in service, the manufacturer will repair the apparatus on site, or transport the apparatus to the authorized repair facility at no cost to the FD.

Yes No

- During the first 365 in service the FD will not incur any costs for warrantable repairs including freight, transportation, or any other fee's. If parts are needed for repairs they shall be shipped the fastest way available.
- If any extended warranties are available, details and cost should be included in a separate ٠ document. Extended warranty pricing should not be included in the bid price.

# **DELIVERY & DEMONSTRATION**

- Apparatus will be delivered under its own power to insure proper break in of all components while still under warranty.
- A qualified representative of the manufacturer will deliver the apparatus to 51 River Rd, Canton CT. Training will be provided for as long as needed to ensure the FD understands all aspects of the apparatus and its proper operation.

# **INSPECTION TRIPS**

The following inspection and design meetings shall be held at a minimum. When applicable, the		
bidder is responsible for all associated costs including transportation, meals, and individual		
lodging. A minimum of (4) people will be present for each meeting.	Yes	No
• (1) Pre-construction Conference at Fire Department		-

Yes

No

- (1) Pre-construction Conference at Fire Department.
- (1) Pre-paint Inspection at the bidder's factory.

•

(1) Final inspection upon completion of apparatus at the bidder's factory

# 

	CHASSIS SPECIFICATION		
•	The cab and chassis shall include design considerations for multiple emergency vehicle applications, rapid transit and maneuverability. The chassis shall be manufactured for heavy duty service with the strength and capacity to support a fully laden apparatus, one hundred (100) percent of the time.	Yes	No
	MODEL VEAD		

# MODEL YEAK

The chassis shall be new and have a vehicle identification number that reflects a 2017 or	Yes	No
later model year.		

# **COUNTRY OF SERVICE**

- The chassis shall be put in service in the country of United States of America (USA).
- The chassis will meet applicable U.S.A. federal motor vehicle safety standards. Yes No

# **APPARATUS TYPE**

- The apparatus shall be a pumper/tanker vehicle designed for emergency service use which shall be equipped with a permanently mounted fire pump which has a minimum rated capacity of 2,000 gallons per minute. The apparatus shall include a water tank and Yes No hose body whose primary purpose is to combat structural and associated fires.
- The axles shall be rated to carry the completed apparatus, complete with all equipment • and personnel. These ratings should take into consideration the fluid and water capacities,

	as well as hose loads specified in this bid. It shall also take into account the normal compliment of equipment carried on a fire department pumper.			
•	AXLE CONFIGURATION The chassis shall feature a tandem rear drive axle set with a single front steer axle.	Yes	No	
•	<u>PUMP PROVISION</u> The chassis shall include provisions to mount a drive line pump in the middle of the chassis, behind the cab, more commonly known as the midship location.	Yes	No	
• • • • •	CAB STYLE The cab shall be custom, fully enclosed, designed and built specifically for use as an emergency response vehicle with a raised roof over the driver, officer and crew area. Roof shall be raised between 8-12" to allow for increased interior headroom. The cab shall incorporate a fully enclosed design with side wall roof supports, allowing for a spacious cab area with no partition between the front and rear sections of the cab. All welding shall comply with current industry standards for structural welding. All interior and exterior seams shall be sealed for optimum noise reduction and to provide the most favorable efficiency for heating and cooling retention. The oab interior shall be designed to afford the maximum usable interior space and attention to ergonomics with hip and legroom while seated. The crew cab floor shall be fat across the entire walking area for ease of movement inside the cab. The cab shall be designed to maximize ground clearance and provide maximum interior headroom, while complying with the maximum overall height of 10'10''. All interior measurements shall include the area within the interior trimmed surfaces and not to any uninside surface. The cab shall be fixed and designed for easy ingress/egress for personnel in full firefighting gear. The cab shall also include a crew area with two (2) cab tops large enough for personnel in full firefighting gear. The cab shall also include a crew area with two (2) cab tops large enough for personnel in full firefighting gear. The cab shall also include a crew area with two (2) cab tops large enough for personnel in full firefighting gear. The cab shall also include a crew area with two (2) cab tops large enough for personnel in full firefighting gear. The cab shall also include a crew area with two (2) cab tops large enough for personnel in full firefighting gear. The cab shall also include a crew area with two (2) cab tops large enough for personnel in full firefighting gear. The cab shal	Yes	No	
•	FRONT GRILLE The front grill shall be stainless steel and provide adequate airflow to ensure proper cooling in all conditions.	Yes	No	
•	<u>CAB UNDERCOAT</u> There shall be a rubberized undercoating applied to the underside of the cab that provides abrasion protection, sound deadening and corrosion protection.	Yes	No	

•	<u>CAB SIDE DRIP RAIL</u> There shall be a drip rail along the top radius of each cab side. The drip rails shall help prevent water from the cab roof running down the cab side.	Yes	No
•	DATA RECORDING SYSTEM The chassis shall have a Class One Vehicle Data Recorder (VDR) system installed. The system shall be designed to meet NFPA 1901. Data shall be retrievable by connecting a laptop computer to the VDR system. The laptop connection shall be a panel mounted female type B USB connection point.	Yes	No
•	ENGINE The apparatus shall be equipped with a Cummins Turbocharged Diesel Engine with a horsepower rating of at least 565. An engraved plate with the following information must be visible without tilting the cab:	Yes	No
•	ENGINE PROTECTION The apparatus shall be equipped with skid plates which protect the engine, transmission, radiator, and all other related components from debris.	Yes	No
•	EXHUAST The Engine shall exhaust on the right side of the apparatus CAB ENGINE TUNNEL The cab interior shall include an integrated engine tunnel. The tunnel shall be insulated to provide minimum sound and heat transfer to the interior area. The tunnel shall be constructed of a durable material, and in a manner that will allow mounting of equipment to it.	Yes Yes	No No
•	<u>AUXILIARY ENGINE BRAKE</u> The apparatus will be equipped with a Jacobs Engine Compression Brake. This auxiliary braking device shall slow the apparatus when the accelerator is let off, regardless of RPM's. It shall be controlled by an on/off switch, in addition to a 3 position low/medium/high switch. An exhaust brake is not acceptable.	Yes	No
•	FLUID LEVEL INDICATORS The dashboard shall include warning indicators which alert the operator to low fluid		

levels, including Engine Oil, Transmission, Power Steering, Washer Fluid, and Coolant. Yes

No

	<u>MAINTENANCE</u>	Yes	No
•	Fluid levels that require regular inspections shall be accessible without tilting the cab.		
•	<b>ENGINE COOLING SYSTEM</b> There shall be a heavy-duty aluminum cooling system designed to meet the demands of the emergency response industry. The cooling system shall have the capacity to keep the engine properly cooled under all conditions of road and pumping operations. The cooling system shall be designed and tested to meet or exceed the requirements specified by the engine and transmission manufacturer and all EPA requirements. The complete cooling system shall be mounted to isolate the entire system from vibration or stress. The individual cores of the cooling system shall be mounted in a manner to allow expansion and contraction at various rates without inducing stress into the adjoining cores.	Yes	No
•	<b>ENGINE PUMP HEAT EXCHANGER</b> A single bundle type coolant to water heat exchanger shall be installed between the engine and the radiator. The heat exchanger shall be designed to prohibit water from the pump from coming in contact with the engine coolant. This shall allow the use of water from the discharge side of the pump to assist in cooling the engine.	Yes	No
•	ENGINE AIR INTAKE The air intake system shall be designed for maximum airflow, as required by the engine manufacturer. There shall be easy access to any filters. The air intake system shall include a restriction indicator light in the warning light cluster on the instrument panel, which shall activate when the air cleaner element requires replacement.	Yes	No
•	<ul> <li>TRANSMISSION</li> <li>The apparatus shall be equipped with an Alison EVS 4000 torque converting Automatic Transmission which shall include electronic controls. It shall include an Electronic Oil Level sensor with in cab readout.</li> <li>Gear ratio will be finalized on bid award, transmission should be designed for primary use in a suburban/hilly environment.</li> <li>Upon startup the transmission will select a 4 speed operation, the fifth gear shall be accessible with the mode button on the shift pad.</li> <li>The transmission should interlock with the brake system and automatically shift to Neutral when the parking brake is applied.</li> <li>The bidder is responsible for ensuring the Engine/Transmission package is well suited and properly equipped to handle all other options on the apparatus, including the pump. The transmission will contain Two (2) 10 bolt PTO pads located on the converter housing.</li> </ul>	Yes	No
•	<b>TRANSMISSION SHIFT SELECTOR</b> A "T" style handle range selector shall be provided and located to the right of the driver within clear view and easy reach. The shift selector shall provide a prognostic indicator (wrench symbol) on the digital display between the selected and attained indicators. The	Yes	No

prognostics monitor various operating parameters to determine and shall alert you when a specific maintenance function is required.

The transmission shall have a shift lock-up to keep the automatic transmission in direct gear during pumping operations. The transmission shift lock-up shall be automatically activated when the pump is placed in gear and deactivated when the pump is taken out of gear.

### TRANSMISSION COOLING SYSTEM

The transmission shall include a water to oil cooler system located in the cooling loop between the radiator and the engine. The transmission cooling system shall meet all transmission manufacturer requirements. The transmission cooling system shall feature continuous flow of engine bypass water to maintain uninterrupted transmission cooling.

### PUMP SHIFT CONTROLS

•	The pump shift control shall be mounted within reach of the driver. The shift control will	Yes	No
	be a manual throw handle with a green light indicating when the pump is engaged.	100	110

### **FUEL FILTER/WATER SEPARATOR**

- The fuel filter shall have a drain valve. A water in fuel sensor shall be provided and wired to an instrument panel lamp and Yes No audible alarm to indicate when water is present in the fuel/water separator. A secondary fuel filter if suggested by the Engine manufacturer shall be included in an
- ٠ easily accessible location.

# **FUEL SHUTOFF VALVE**

•	A fuel shutoff valve shall be installed in the fuel draw line at the primary fuel filter to		
	allow the fuel filter to be changed without loss of fuel to the fuel pump.	Yes	No
•	A second fuel shutoff value shall be installed in the fuel draw line, near the fuel tank to		

A second fuel shutoff valve shall be installed in the fuel draw line, near the fuel tank to allow maintenance to be performed with minimal loss of fuel.

#### FUEL TANK

- The fuel tank shall have a capacity of at least fifty (50) gallons. The tank shall be baffled • and the tank and straps constructed of stainless steel.
- The tank shall have a vent port to facilitate venting to the top of the fill neck for rapid ٠ filling without "blow-back" and a roll over ball check vent for temperature related fuel expansion and draw.
- The tank is designed with dual draw tubes and sender flanges.
- The tank shall be constructed and mounted in a manner that provides protection from • road debris and superior service life. The tank shall be firmly secured to the apparatus, but easily lowered and removed for servicing purposes. Rubber isolating pads shall be provided between the tank and the upper tank mounting brackets

# FUEL TANK FILL PORT

The fuel tank fill port shall be located on the driver's side of the apparatus. The area Yes ٠ around and below the fill port shall be stainless steel diamond plate. The fuel cap shall be

No

Yes

No

Yes

No

tethered to the apparatus. A label stating indicating the type of fuel to be used should be provided on the cap or in the immediate vicinity.

# **FRAME**

•	All proposals must include details on frame construction including type of material, type of crossmembers, dimensions of rails and crossmembers, and mounting hardware. If a double rail is used, the frame must be sealed to prevent water or salt intrusion between the rails. The frame and crossmembers must carry a lifetime warranty Heat treated rails will not be accepted. Frame must be constructed of High Strength Low Alloy Steel.	Yes	No
•	<b>SUSPENSION SYSTEM</b> The suspension system shall be designed to provide a long service life, optimum handling, and adequate weight capacities, while providing a comfortable ride. The ride quality shall not diminish with heat. The suspension system shall be designed for optimal ride quality when the vehicle is fully equipped with water, hose, and equipment.	Yes	No
•	<b><u>POWER STEERING</u></b> The apparatus shall be equipped with a hydraulic power steering pump with appropriate cooling system.	Yes	No
•	<b>STEERING COLUMN/ WHEEL</b> The steering wheel shall be tilting and telescoping, and covered with a foam padding and appropriate finish material. The center of the steering wheel shall contain a horn. Air or city horn will be controlled by an independent rocker switch located within reach of the driver. The steering column shall contain a self-canceling turn signal switch, four way hazard switch, and high beam headlight controls.	Yes	No
•	CHASSIS ALIGNMENT • The chassis frame rails shall be measured to insure the length is correct and cross checked to make sure they run parallel and are square to each other. The front and rear axles shall be laser aligned. The tandem axle chassis shall include an inter-axle differential lock, which will allow both axles to be engaged as drive axles. The differential lock shall be controlled by a locking rocker switch on the switch panel. The light on the switch shall illuminate with positive engagement of the inter-axle differential control. A driver controlled differential lock shall be installed on one of the tandem rear axles. This feature shall allow the main differential to be locked and unlocked when encountering poor road or highway conditions, where maximum traction is needed, for use at speeds no greater than 25 MPH. The driver controlled differential lock shall be controlled by a separate locking rocker switch on the switch panel. The light on the switch shall illuminate with positive engagement of the differential control.	Yes	No

	VEHICLE TOP SPEED		
•	The top speed of the vehicle shall be approximately 60 MPH +/-2 MPH at governed engine RPM.	Yes	No
	FRONT TIRE		
•	The front tires shall be Goodyear G296, and of appropriate size, weight, and speed ratings.	Yes	No
	<u>REAR TIRE</u>		
•	The rear tires shall be Goodyear $\overline{G182}$ , and of appropriate size, weight, and speed ratings.	Yes	No
	TIRE PRESSURE INDICATOR		
•	An in cab tire pressure monitoring system must be present. This system will alert the		
	driver when air pressure falls below the acceptable PSI in any tire.	Yes	No
	WHEELS		
•	All wheels shall be Alcoa Aluminum wheels with a polished outer surface and Dura- Bright finish. Tires shall be tubeless. Lug nut covers and other related hardware should match the appearance of the rim. All wheels and components must meet DOT and NFPA requirements	Yes	No
•	All wheels and tires shall be dynamically balanced		
•	<b>TIRE CHAINS</b> Onspot brand automatic tire chains shall be installed on the primary rear drive axle. These shall be controlled by a locking switch located within easy reach of the driver. The switch shall illuminate when activated. The chains shall be interlocked with the transmission to prevent activation at speeds over 30mph. The chains shall be mounted in a manner which provides maximum ground clearance when retracted. They shall not interfered with any suspension or chassis component during storage or operation.	Yes	No
•	The vehicle shall be equipped with an airbrake system. The air system must be designed to allow rapid build-up of air pressure, and must have adequate air storage with a minimum of 6200 cubic inches of air capacity. An auxiliary air tank shall be installed to supply air to the air horns, tool circuit, and other air accessories. This reservoir shall have at least 1200 cubic inches of air capacity and have an isolator which prevents loss of air from the air brake system. The air compressor must produce a minimum of 18.5 CFM. An ABS (anti-lock brake system) shall be installed on all axles. An ATC (automatic traction control) system shall be installed on the apparatus, which works in conjunction with the ABS system to provide optimum traction An ESC (electronic stability control) system shall be installed on the apparatus to help prevent rollover situations. A lighted momentary rocker switch which temporarily allows wheel spin shall be provided within easy reach and view of the driver, and marked "Mud/Snow". Pressing the button once will allow wheel slip, a second time will turn off feature. The apparatus will be equipped with automatic slack adjusters	Yes	No

	PARK BRAKE	Yes	No
•	Upon application of the push-pull valve in the cab, the rear brakes will engage via mechanical spring force.		
•	PARK BRAKE CONTROL A Meritor-Wabco manual hand control push-pull style valve shall operate the parking brake system. The control shall be yellow in color. The parking brake actuation valve shall be mounted on the left hand dash to the right of the steering column within easy reach of the driver. Location must meet all NFPA requirements.	Yes	No
•	AIR DRYER The brake system shall include an air dryer with an integral heater.	Yes	No
•	An air governor shall be provided to control the cut-in and cut-out pressures of the engine mounted air compressor. The governor shall be calibrated to meet FMVSS requirements.	Yes	No
•	MOISTURE EJECTORS A heated, automatic moisture ejector with a manual drain provision shall be installed on the wet tank of the air supply system. Automatic moisture ejectors with a manual drain provision shall be installed on all remaining reservoirs of the air supply system.	Yes	No
•	AIR SUPPLY LINES The air system on the chassis shall be plumbed with color coded reinforced nylon tubing air lines. The primary (rear) brake line shall be green, the secondary (front) brake line red, the parking brake line orange and the auxiliary (outlet) will be blue. Brass compression type fittings shall be used on the nylon tubing. All drop hoses shall include fiber reinforced neoprene covered hoses.	Yes	No
•	AIR INLET CONNECTION A Kussmaul air automatic eject connection for the shoreline air inlet shall be supplied. This shall be mounted next to the electrical shoreline auto eject. The air inlet connector shall be plumbed to the air system with a check valve to prevent air from escaping through the inlet connector.	Yes	No
•	A quick release air outlet female connector shall be installed in the left lower cab step towards the front of the cab for the use of auxiliary air tools. The cab mounted air outlet connection shall be plumbed to the chassis auxiliary air system reservoir.	Yes	No
•	<b>FRAME PAINT</b> The frame shall be powder coated black prior to any attachment of components. All powder coatings, primers and paint shall be compatible with all metals, pretreatments and primers used.	Yes	No

# FRONT BUMPER

•	The front bumper shall be severe duty, constructed of steel, and painted to match the lower paint color. It shall extend roughly 6" from the front of the cab.	Yes	No
•	The apron on top of the front bumper shall be stainless steel diamond plate		
•	AIR HORN The front bumper shall include (2) Grover Emergency air horns, measuring approx. 21 inches long with a 6 inch flare. They shall be trumpet style with a chrome finish. Horns will be recessed into the front bumper.	Yes	No
•	ELECTRONIC SIREN The bumper shall include two (2) 100 watt Whelen siren speakers, with a recess mount. The mounting flange shall be polished aluminum.	Yes	No
•	<b>TOW HOOKS</b> Four (4) heavy duty closed tow hooks shall be installed on the apparatus. Two below the front bumper, forward position, two at the rear, all bolted directly to the frame rail with grade 8 bolts, painted to match the lower body color.	Yes	No
• • • •	CAB TILT SYSTEM The entire cab shall be capable of tilting at least 42 degrees to allow for easy maintenance of the engine and transmission. The electric-over-hydraulic lift system shall include an ignition interlock and red cab lock down indicator lamp on the tilt control which shall illuminate when holding the "Down" button to indicate safe road operation. It shall be necessary to activate the master battery switch and set the parking brake in order to tilt the cab. As a third precaution the ignition switch must be turned off to complete the cab tilt interlock safety circuit. A steel safety channel assembly shall be installed on the right side cab lift cylinder to prevent accidental cab lowering. The safety channel assembly shall fall over the lift cylinder when the cab is in the fully tilted position. A cable release system shall also be provided to retract the safety channel assembly from the lift cylinder to allow the lowering of the cab. The cab tilt shall be controlled by a pendant style remote control. A cab tilt shall be controlled by a pendant style remote control.	Yes	No
•	<u>CAB WINDSHIELD</u> The glass utilized for the windshield shall include standard automotive tint.	Yes	No
	DOOR GLASS		
•	All passenger compartment doors shall be equipped with power windows. These windows shall roll down completely into the door housing. Each window will have a switch installed near the closest seat. There shall be controls for all windows located within reach of the driver.	Yes	No
•	The front windows will be lightly tinted. The rear door glass shall be tinted to 35%		

#### **GLASS SIDE MID**

• The cab shall include a window on the both sides behind the front and ahead of the crew Yes No doors. These windows shall be fixed within this space and shall be rectangular in shape. The glass utilized for these windows shall be tinted to 35%.

# **CLIMATE CONTROL**

- The cab shall be equipped with heat and air conditioning. The system must be variable speed, and be designed to provide adequate airflow to maintain comfortable temperatures inside the cab in all weather conditions. The system shall also ensure adequate defrost capabilities for the windshield area. All controls for the HVAC system must be within easy reach of the driver.
- The interior HVAC unit shall be roof mounted, not on the engine tunnel.
- Any seasonal shut-off valves required shall be easily accessible and clearly labeled.
- There shall be a gravity drain line for removing condensation from the HVAC system without mechanical assistance.

# **INTERIOR FINISHES**

- All interior surfaces must be finished. The only wood product that shall be used in the cab, or anywhere on the apparatus, is a marine grade plywood designed to prevent rot. All plywood must be completely covered and sealed to prevent any type of fluid or water penetration.
- Ceiling and walls shall be covered with a padded vinyl, and include a minimum of 1" insulation to absorb noise and assist with climate controls.
- The engine tunnel shall be properly insulated to minimize noise and heat transmission to the cab interior. Interior noise levels must meet or exceed NFPA requirements and flammability standards.
- Any area which contains wiring or switches shall include access panels for easy service.
- Ventilation shall be provided for any area where heat buildup is of concern.
- Flooring finish shall be a non-slip surface.
- All bids shall specify interior finish types.
- Flooring and walls shall be of a finish which allows use of a hose for cleaning.

# CAB ELECTRICAL

- The cab interior shall have wiring provisions for the following 12v equipment. All of the below shall be powered while the vehicle is plugged into the shoreline and while the apparatus is running. Each shall be clearly marked and appropriately fused. Exact locations will be specified on bid award.
  - o (5) 12v cigarette style power points
  - $\circ~$  (2) USB style charging plugs for I-pad or similar devices
  - (6) Streamlight 12v LED handlight chargers
  - o (1) Flir Thermal Imaging Camera
  - o (6) Motorola 12v Portable Radio Chargers

# CAB ACCESSORIES

• The apparatus will be equipped with an area to organize a minimum of (4) 4" thick 3 ring binders. This shall be located with reach of the officer, and securely hold the binders and other reference material in place.

Yes No

Yes

No

Yes No

•	The cab shall be equipped with a minimum of (2) cup holder with easy reach of the driver		
•	The cab shall be equipped with (2) 4" metal rings, mounting location to be specified on		
	bid award.		
	CAB DOOR TRIM REFLECTIVE		
٠	All doors shall have reflective trim on the interior, to provide visibility to motorists when	Yes	No
	the door is open.	100	110
•	Each cab door shall be equipped with a small red flashing LED light on the interior that		
	activates when the respective door is opened/closed.		
	GRAB HANDLES		
٠	All four cab doors shall have adequate grab handles sized and located to allow for 3 point	Yes	No
	contact while entering and exiting the apparatus.	100	
	INTERIOR TRIM SUNVISOR		
٠	The header shall include two (2) sun visors, one each side forward of the driver and	Yes	No
	officer seating positions above the windshield.		
	SWITCHES AND PANELS		
•	All switches shall be rocker style, unless otherwise required by the accessory		
	manufacturer. Switches shall be clearly labeled with backlit legends, and have a light to		
	indicate when they are in the on position.	Yes	No
٠	Switches for the scene lights, emergency lights, and siren shall be located within easy		
	reach and view of the driver and officer. All other switches must be within easy reach and		
_	view of the driver.		
•	legends marked "spare".		
	SEAT DELT WADNING		
•	A seat belt monitoring system shall be installed for all riding positions. This system will		
·	alert when the parking brake is released, there is more than 60lbs in the seat, and the belt	Yes	No
	is not buckled. The system must silence when the seatbelt is connected. The system must		
	include a display on the dash which indicates which seat is in alarm.		
	SFAT ΜΑΤΕΡΙΑΙ		
•	All seats shall be constructed of a high strength wear resistant material which is easily		
•	cleaned. The seats shall also be designed to minimize saturation from fluids.	Yes	No
•	All seats and belts must meet all required safety inspections and tests as indicated by		-
	NFPA and Federal Motor Carrier Association.		
	SEAT LOCATIONS		
The an	Deat LOCATIONS		
1.	Driver's seat		
2.	Officer's (front passenger) seat	Yes	No
3.	(2) Rear facing seats, located behind the driver and officer.		
4.	(2) Forward facing seats, located against the rear cab wall in the center.		

# SEAT DRIVER

•	The driver's seat shall be an air ride style, allowing for vertical height adjustment, and slide forwards and backwards to accommodate drivers of all sizes. The seat shall be equipment with a 3 point shoulder harness. The seat back shall recline and include adjustable lumbar support. The seat back shall include a headrest.	Yes	No
• • • • • • •	DTHER SEATS All other seats shall be specifically designed for fire apparatus, and sized to accommodate riders of all sizes, while wearing full PPE. These seats shall all have padded and cushioned seats and backrests. Seats shall be designed for superior strength and minimal wear, and allow for easy cleaning and minimal fluid saturation. Seat belts must be auto retracting All seats must meet all applicable FMVSS and NFPA requirements. All seat locations shall be designed for maximum head and legroom. All seats except the drivers shall include IMMI Smart Dock SCBA storage brackets, sized to fit Scott 30 minute 4500psi packs. The seat back shall include a removable padded cover which shall be provided over the SCBA cavity.	Yes	No
•	<u>CAB FRONT UNDERSEAT STORAGE ACCESS</u> The driver and officer seats shall be equipped with under seat storage, and shall be equipped with a solid aluminum hinged door.	Yes	No
•	<b>REAR FACING UNDERSEAT STORAGE</b> If the area under the (2) rear facing seats is not utilized for any other purpose, they shall both be equipped with a storage area, and have a solid hinged aluminum door.	Yes	No
•	<b>CENTER MOUNTED FRONT FACING REAR SEAT STORAGE</b> There shall be a storage area located under the (2) rear center mounted seats. This area shall be enclosed on all sides except the front facing portion. The front opening will feature a black webbing style cover. This cover will keep the items in the compartment secure, while allowing easy access and ventilation.	Yes	No
•	<u>WINDSHIELD WIPER SYSTEM</u> The windshield shall be equipped with an appropriate windshield wiper system, designed to clear water, ice, and snow from the windshield. The system shall be intermittent style, with the controls located within easy reach of the driver. The system shall include a washer system.	Yes	No
	ELECTRONIC WINDSHIELD FLUID LEVEL INDICATOR	Yes	No

• There shall be an indicator that appears when the windshield washer fluid level is low.

# DOOR LOCKS

	DOOR LOCKS		
•	Each cab entry door shall include a manually operated door lock. Each door lock may be actuated from the inside of the cab or with a key on the exterior. Locks should be designed to positioned to prevent accidental locking.	Yes	No
•	SIDEVIEW MIRRORS West Coast style single mirrors shall be provided and installed on each of the front cab doors. The mirrors shall be mounted via 1.00 inch diameter tubular stainless steel arms to provide a rigid mounting to reduce mirror vibration. The mirrors shall measure a minimum of 8.00 inches wide X 19.00 inches high and shall include an 8.00 inch convex mirrors with a stainless steel back, model 980-4, installed below the flat glass to provide a wider field of vision. The flat mirrors shall be motorized with remote horizontal and vertical adjustment. The control switches shall be mounted within easy reach of the driver. The convex mirrors shall be manually adjustable. The flat mirror glass shall be heated for defrosting in cold weather conditions.	Yes	No
•	CAB FENDER Full width wheel well liners shall be installed on the extruded cab to limit road splash and enable easier cleaning. Liners shall be made of polished stainless steel.	Yes	No
•	<b>IGNITION</b> A master battery system with a keyless start ignition system shall be provided. Each system shall be controlled by a ¼ turn Cole Hersee switch, or equivalent. Both shall be mounted within easy reach of the driver. A chrome push type starter button shall be provided adjacent to the master battery and ignition switches. Each switch shall illuminate a green LED indicator light on the dash when the respective switch is placed in the "ON" position. The starter button shall only operate when both the master battery and ignition switches are in the "ON" position.	Yes	No
•	<b>BATTERY</b> The apparatus must be equipped with a sufficient size and quantity of batteries to allow for ease of starting, even in extreme weather conditions, and to ensure that all features found on the apparatus have adequate power. The batteries must be secured appropriately. Drain holes shall be included in the battery tray(s) to prevent water buildup, and the bottom of the battery tray shall be equipped with a dri-dek type material to allow for air flow and prevent moisture buildup. In the event of dead batteries, there shall be sufficient access to allow for easy jump- starting. If the battery locations are not easily accessible with the cab in the down position, remote jumper studs shall be provided. These studs shall be sized and wired to allow for the apparatus to be charged from another vehicle or charger. The battery studs shall be protected from accidental contact utilizing a cover for the battery tray or individual covers.	Yes	No

# The apparatus shall be equipped with an alternator which provides sufficient charging power for simultaneous use of all electrical components on the vehicle. **BATTERY CONDITIONER** A Kussmaul battery conditioner shall be supplied. This conditioner shall be of proper size and design to meet all of the electrical requirements in this document. It shall be equipped Yes with a visible charge indicator visible from the exterior of the apparatus A Kussmaul auto-eject receptacle with cover shall be supplied and installed on the driver's side of the cab in the vicinity of the driver's door. The shoreline shall automatically eject when the starter button is depressed The outlet will feed the battery conditioner, and utilize a 120v 20amp plug.

# **ELECTRICAL SYSTEM**

- All wiring and electrical equipment shall meet N.F.P.A. 1901 (2016 edition) and SAE . standards.
- There shall be no exposed wiring on the exterior, underside, or interior of the apparatus ٠ or body. All wiring shall be protected in a split loom or similar material.
- Grommets or other protective devices shall be used anywhere which wiring passes through any portion of the apparatus
- All wiring harnesses and associated wiring shall be secured with nylon "ultra violet • resistant" cable ties or bolted to the body with cable clamps.
- Deutsch or equivalent water tight connectors shall be used on all exterior wiring ٠ connections, and any place water or debris may be contacted.
- A corrosion resistant spray shall be applied to all terminal studs, relays, starter, batteries, • etc.
- All wiring shall be clearly labelled at least every 12" with description and corresponding • wire number.
- All wiring shall be protected by automatic reset circuit breakers which conform to SAE standards. Any required exterior fuses shall be protected by an environmentally sealed fuse holder.
- The breakers shall be selected to prevent wire damage when subjected to extreme current overload. Wiring to be color, function, and/or number coded.
- All wiring, relays, fuses, breakers, and other components must be labelled to ensure easy ٠ reference.
- A detailed wiring diagram for the body electrical system shall be included with the • apparatus.
- All wiring on the chassis and body shall be protected from chaffing and road debris. All Electrical circuits must be properly fused. All wiring should be marked every foot, wire numbers must be provided to the purchaser.
- All wire connections should be properly sealed to prevent water or debris intrusion.

# ALTERNATOR

•

•

•

Yes No

Yes No

No

# JUNCTION BOX

•	The electrical junction box(s) for the apparatus body components shall be located in a protected location but designed for easy access for service. (4) extra 12v circuits shall be provided in the box and labelled as "spare"	Yes	No
•	LIGHTING AND WARNING DEVICES All chassis, cab, scene, and emergency lighting will be LED style unless otherwise specified. NO EXCEPTIONS	Yes	No
•	<u>CLEARANCE LIGHTS</u> All required Clearance and ICC lights shall be provided on all sides of the vehicle to meet Federal regulations.	Yes	No
•	STEP AREA LIGHTING All step locations, including fixed and foldup, shall be clearly illuminated utilizing LED lighting. These lights shall activate when the parking brake is engaged.	Yes	No
•	HAZARD LIGHT A red flashing light shall be located in the driving compartment, and shall be illuminated automatically whenever the apparatus parking brake is not fully engaged and any passenger or equipment compartment door is open, any ladder or equipment rack is not in the stowed position, or any other device is opened, extended, or deployed that creates a hazard or is likely to cause damage to the apparatus if the apparatus is moved. The light shall be marked "DO NOT MOVE APPARATUS WHEN LIGHT IS ON".	Yes	No
•	<b>LICENSE PLATE LIGHT</b> One license plate light and bracket shall be provided on the rear of the unit.	Yes	No

# EMERGENCY WARNING LIGHT SWITCH CONTROLS

- A master switch shall be included in the main rocker switch panel. The switch shall be a rocker type, red in color and labeled "Master" for identification. The switch shall feature control over all devices wired through it. Any warning device switch left in the "ON" position shall automatically power up when the master switch is activated. All warning lights and sirens will run through this switch.
- There shall be separate switches for the Electric and Mechanical Siren
- Other emergency lighting shall be broken into zones, examples being lightbar, front warning, rear warning, side warning. Zones will be finalized on bid award
- All warning light switches shall be mounted in the cab in a location readily accessible to the driver and officer.
- The master switch and individual switches shall be utilized to allow pre-selection of lights. The light switches are to be "rocker" type with an internal indicator light to show when the switch is energized. All switches to be properly identified and mounted in a removable panel for ease in servicing.

# WHELEN M6FCV4 QUAD CLUSTER REAR DOT LIGHTING

- **BACKUP LIGHTS** 
  - Two (2) Whelen model M6BUW Super LED backup lights
- STOP/TAIL LIGHTS
  - Two (2) Whelen model M6BTT series Super LED Brake/Tail lights
- DIRECTIONAL LIGHTS
  - o Two (2) Whelen model M6T series Super LED arrow directional turn signal lights

Yes

No

The backup lights, stop/tail lights, and directional lights along with rear lower level • warning lights shall be installed on the lower rear face of the unit and shall be recessed in chrome plated flange.

# **COMPARTMENT LIGHTING**

•	All exterior compartments shall feature R.O.M. LED V3 or equivalent compartment	Yes	No
	lighting to provide full illumination of the compartment.		
•	Compartment lighting shall activate automatically by the opening and closing of the door.		

# **LED GROUND LIGHTING**

- The apparatus shall be equipped with LED lighting capable of clearly illuminating the walking area around the perimeter of the apparatus for a minimum of 30". These lights should be controlled by a rocker switch in the cab, and shall be functional while the apparatus is in motion. Additionally, they shall activate automatically when the parking Yes No brake is engaged or the apparatus is placed in reverse.
- At a minimum, lights shall be installed:
  - Under each cab door
  - Under the front bumper
  - Under the rear bumper
  - Under the rearmost compartments on both sides
  - Under the pump panel location on both sides

# PUMP COMPARTMENT LIGHT

•	Lighting shall be provided inside the pump enclosure which is able to adequately illuminate the enclosure during service. This lighting shall be controlled by an on/off rocker switch located on the pump panel	Yes	No
•	<b>HOSE BED</b> There shall be two (2) LED lights provided. One (1) mounted on the front of the hose bed facing rearward to light the hose bed area. One (1) mounted on the front of the hose bed facing forward to light the dunnage area.	Yes	No
•	HEADLIGHTS The cab front shall feature LED headlights (hi and low beam). Headlights shall be heated to prevent ice and snow buildup.	Yes	No
	CHASSIS LICHTING		

The vehicle shall be equipped with adequate running lights, clearance lights, and turn Yes No signals. All shall be LED, and mounted within a bright chrome bezel.

# **HEADLIGHT AND MARKER LIGHT ACTIVATION**

•	The headlights and marker lights shall be controlled through a rocker switch within easy reach of the driver. There shall be a dimmer switch within easy reach of the driver to adjust the brightness of the dash lights. The headlamps shall be equipped with the "Daytime Running" light feature, which shall illuminate the headlights to 80% brilliance when the battery master switch is in the "On" position and the parking brake is released.	Yes	No
	ENGINE COMPARTMENT LIGHT		
•	There shall be an LED NFPA compliant light mounted under the engine tunnel for area work lighting on the engine. The light shall include a polycarbonate lens, a housing which is vibration welded and a bulb which shall be shock mounted for extended life. The light shall activate automatically when the cab is tilted.	Yes	No
	FRONT SCENE LIGHTS		
•	The front of the cab shall include two (2) Whelen Model Pioneer PFP2 contour roof mount scene lights installed above the drivers and passenger's windshield. The lamp head shall be adjustable to a 20-degree downward angle within the brow mount brackets. The lamp heads and brackets shall be powder coated white. The lights shall be activated by a rocker switch mounted in the cab, within easy reach and view of the driver, marked "front scene"	Yes	No
•	These lights shall be controlled by the rocker switch only, not interlocked with any other component.		

# SIDE SCENE LIGHTS

•	There shall be (2) Whelen Pioneer PFP2 scene lights on each side of the apparatus, at a		
	slightly downward angle, mounted and spaced to provide optimal lighting on the sides of	Yes	No
	the apparatus. Lights shall be recess mounted, but must be accessible for servicing.		

• The scene lights shall be activated with (2) rocker switches, will be labeled "right scene" and "left scene" respectively.

# **REAR SCENE LIGHTING**

- Two (2) Whelen Pioneer model PFP1 LED scene lights will be installed on the rear of the apparatus. These lights shall be positioned in a manner to provide optimal scene lighting to the rear of the apparatus. These lights shall activate with 2 methods, upon activation of a rocker switch in the cab, and when the apparatus is shifted into reverse.
- These lights shall be recessed into the body and mounted at a slight downward angle.

# **INTERIOR OVERHEAD LIGHTS**

- The cab shall include a 2 section LED light over each door, consisting of 1 red and 1 clear lens. The clear portion shall activate when the door is opened, and either section shall be activated with a manual switch.
- An additional light shall be mounted in the center of the cab, and activate when any door is open. This light shall also be able to be manually activated.

Yes No

The front of the cab shall feature a total of (4) Whelen M6 Super LED warning lights, color red. These shall be mounted in a chrome bezel, and positioned to provide optimal	Yes	No
front warning		
<b>LIGHTBAR</b> There shall be one Whelen Freedom IV LED Lightbar mounted in the forward center of the cab roof, measuring at least 72" in length. The center position shall feature a traffic preemption emitter, which will be controlled by an individual rocker switch connected to the Emergency Master circuit. This light shall also turn off when the vehicle is placed in park. There shall be (2) front facing white LED flashing lights. These shall turn off when the	Yes	No
vehicle is placed in park		
All other side and front facing positions will be filled with Red LED flashing lights. The rear facing outboard positions shall also be filled with Red LED flashing lights.		
INTERSECTION WARNING LIGHTS		
(2) Whelen M6 Super LED intersection warning lights shall be mounted on front sides of the apparatus, either on the sides of the bumper or forward of the front doors, one (1) one each side. These will be split red/clear.	Yes	No
SIDE WARNING LIGHTS		
The cab sides shall include two (2) Whelen M6 Super LED warning lights, one (1) on each side, in the area directly over the front tire. The lights shall be red and mounted to the sides of the cab within a chrome bezel.		
The body shall feature a total of eight (8) Whelen M7 Super LED warning lights, four (3) per side. Two (2) will be mounted on the upper portion of the body, one (1) front and one (1) rear, both will be red. One (1) will be mounted directly over each rear axle, split red/white. All shall be mounted in a chrome bezel.	Yes	No
DEAD WADNING LICHTS		
The rear of the apparatus shall include a total of four (4) Whelen M7 Super LED warning lights, two (2) per side, mounted to provide optimal rear warning. Each side shall feature one (1) red and one (1) amber. These shall be enclosed in a chrome bezel. All shall be controlled by a rocker switch and enclosed in a chrome bezel. All body mounted emergency lights will be synchronized, flash patterns will be set at inspection	Yes	No
SIREN CONTROL HEAD		
A Whelen 295HFSA7 electronic siren control head with remote amplifier shall be provided and flush mounted in the center console, roughly centered between the driver and officer. The siren shall feature 200-watt output, hands free mode, radio broadcast,	Yes	No

public address, wail, yelp, and piercer tones and hands free operation which shall allow

•

FRONT WARNING LIGHTS

Yes

No

the operator to turn the siren on and off from the horn ring if a horn/siren selector switch option is also selected.

#### HORN BUTTON SELECTOR SWITCH

•	A rocker switch shall be installed within easy reach of the driver to allow control of either the electric horn or the air horn from the steering wheel horn button. The electric horn shall sound by default when the selector switch is in either position to meet FMCSA requirements.	Yes	No
•	AIR HORN ACTIVATION The air horn activation shall be accomplished through the steering wheel button for the	Yes	No
•	driver, a single left hand side lanyard cable accessible to the officer, and a momentary push button on the pump panel.	103	NO
	MECHANICAL SIREN		
•	The front bumper shall include an electro mechanical Federal Q2B <sup>TM</sup> siren, which shall be streamlined, chrome-plated and shall produce 123 decibels of sound at 10.00 feet.		
•	The siren shall be mounted forward facing in the front bumper and have a protective grill or bars.	Yes	No
•	The mechanical siren shall be actuated by two (2) Linemaster model SP491-S81 or equivalent foot switches mounted in the front section of the cab for use by the driver and officer.		
•	A siren brake switch shall be located within easy reach of the driver and officer		

### BACK-UP ALARM

•	An NFPA compliant backup alarm shall be installed at the rear of the chassis. The alarm	Vee
	shall automatically activate when the transmission is placed in reverse.	res

No

#### **INSTRUMENTATION**

The driver's dashboard must contain all necessary gauges and warning lights to allow the safe operation of the apparatus, and notification of any monitored system faults. Lights shall be LED. Gauges shall be in MPH, PSI, Volts, and Fahrenheit respectively. These gauges and lights shall be designed for easy viewing by the driver, and be controlled be a dimmer switch.

#### **RADIO**

• A radio with weather band, AM/FM stereo receiver, auxiliary input, and four (4) speakers shall be installed in the cab. The radio shall be installed above the driver position. An appropriate antenna will be furnished and installed.

#### **CAMERA**

 Dual Audiovox Voyager heavy duty rearview cameras, complete with an LCD display monitor shall be installed on the apparatus. The LCD display monitor shall feature visual and audio, and be mounted within easy view of the operator, without blocking forward or side visibility.

- One camera shall be mounted on the officer's side of the cab, providing a view of the • officer's side of the apparatus. This camera will activate when the right turn signal is activated. One camera shall be mounted in the rear center of the apparatus to provide a view of the ٠ rear of the apparatus. At a minimum this camera must provide a view which starts no more than 2' from the rear bumper and extends no less than 12' from the rear bumper.
  - This camera shall be recessed into the body, or have a protective structure built around it to protect from damage. This camera will activate when the apparatus is placed in reverse.

### WI-FI

•	The apparatus shall be equipped with a Wi-Fi hotspot, including antennae. Must be compatible with AT&T service.	Yes	No	
	<b>COMMUNICATIONS</b>			
•	The FD will supply the bidder with three remote head mobile radios, two VHF and one			
	UHF. The bidder shall wire and install these radios.			
•	Radio heads will be mounted on the center console, within reach and view of the driver and officer. Exact location will be determined on bid award.			
•	Radio control units will be mounted in the cab in a protected location which provides adequate airflow and easy service access.			
•	(1) Remote speaker shall be supplied by bidder for each radio, mounted in the center of the cab	Yes	No	
•	Antennae's for the specified radios shall be supplied by bidder and mounted on the cab roof and routed to the control heads. A total of five (5) antennae's shall be run, 2 suitable for UHF and 3 for VHF. 3 will be used, 1 of each will be a spare. Each antennae wire will			

be labeled at the end referencing location and type of antennae. Antennae wires shall be suitable for Motorola XPR6550 type radios as specified by the •

- manufacturer. Proper grounding must be supplied.
- Bidder is responsible for ensuring there is no radio interference from the apparatus ٠ electrical system.

# FIRE EXTINGUISHER

•	A 2.50 pound D.O.T approved fire extinguisher with BC rating shall installed in the area of the drivers seat.		No
	DOOR KEYS		
•	The cab and chassis shall include a total of four (4) door keys for the manual door locks.	Vee	NI-

Yes

No

# MUDFLAPS

- Heavy duty black rubber mud flaps shall be provided behind the front tires. Yes No
  - Anti-sail mud flaps shall be installed behind the rear wheels.

# **CAB UNDERCOAT**

The underside of the cab shall be finished using the same paint materials as the outside of Yes No the cab utilizing the lower body color. After painting, the entire underside shall be

finished with a black rubberized undercoating to enhance durability and corrosion resistance as well as enhance sound deadening.

#### **CAB/BODY EXTERIOR**

- The cab and body shall be properly prepped, primed, and painted in accordance with the paint manufacturer's instructions and adhering to all industry standards.
- Primer, paint, sealer, and clearcoat shall all be from the same manufacturer and specifically approved for use with one another. No crossing of paint products is permitted.
- The exterior of the cab shall be painted prior to the installation of glass, trim, and Yes emblems.

No

- Paint must be either PPG Delfleet or Dupont Impron. No single stage finishes will be accepted.
- All painted surfaces shall be clear coated.
- All surfaces to be painted are to be prepped in accordance with the paint manufacturer's recommendations.
- The total paint film thickness must be within the paint manufacturer's specs for the product being used.
- All components, with the exception of compartments with a different finish, shall be painted inside and out covering all areas to maximize corrosion resistance.
- Any areas where there is metal showing or seam sealer, must have an appropriate primer sealer applied prior to application of the color coats.
- The body shall be sanded and buffed to remove any imperfections from the final finish leaving a smooth, orange peel free, high gloss finish.

# CAB PRIMARY/ LOWER COLOR

•	The lower portion of the cab shall be painted Red with the final color chip/code to be chosen during the pre-build meeting. Color samples must be provided from the paint system to be used at said meeting to allow for the final color to be chosen at that time.	Yes	No
•	<u>CAB SECONDARY/ UPPER COLOR</u> The upper portion of the cab shall be painted white with the final color chip/code to be chosen during the pre-build meeting. Color samples must be provided from the paint system to be used at said meeting to allow for the final color to be chosen at that time.	Yes	No
•	<b>REAR BODY COLOR</b> The rear body shall be painted using the primary color used on the cab.	Yes	No
•	<u>CAB PAINT INTERIOR</u> The visible interior cab structure surfaces shall be painted with a Zolatone #20-72 silver gray texture finish or comparable.	Yes	No

# **PUMP**

- The apparatus shall be equipped with a HALE Qmax XS series 2000 GPM single stage midship mounted centrifugal pump
- The pump shall be driven off a driveline from the transmission
- The pump should be designed and mounted to allow easy removal of the impeller without disturbing piping or other components
- Pump shaft shall be sealed, and shall have only one packing gland designed to easy servicing.
- Pump gearbox shall be designed and sized to handle the appropriate torque, and shall have ample cooling.
- The pump ratio shall be selected to provide maximum performance with the engine/transmission package.
- Anodes shall be provided per pump manufacturer recommendations.
- Two green warning lights shall be provided to indicate to the operator(s) when the pump has completed the shift from Road to Pump position. One light to be located in the truck driving compartment and one light on pump operators panel adjacent to the throttle control. All lights to have appropriate identification/instruction

# **REMOTE THROTTLE CONTROL**

- The pump governor/remote throttle shall be controlled by a Fire Research In Control 400 pressure sensor governor
- The In Control shall regulate the pump pressure and monitor all essential engine parameters.
- LED readouts shall display RPM, PSI, pump discharge and intake pressure, engine oil Yes No pressure, engine temperature, transmission temperature and battery voltage. An audible alarm shall also be part of the system.
- The rpm increase and decrease will be controlled by a control knob on the face of the In Control 400.

# PUMP CONTROL

- Provisions shall be made for placing the pump drive system in operation using controls and switches that are identified and within convenient reach of the operator.
- A "Pump Engaged" indicator shall be provided in the driving compartment and on the operator's panel to indicate that the pump shift process has been successfully completed. An "OK to Pump" indicator shall be provided in the driving compartment to indicate that the pump is engaged, the chassis transmission is in pump gear, and the parking brake is engaged.
- The fire pump-shift system shall be equipped with a means to prevent unintentional movement of the control device from its set position. The system shall include a nameplate indicating the chassis transmission shift selector position to be used for pumping and located so that it can be easily read from the driver's position.
- The system shall include the applicable NFPA standard interlocks, pump shift and OK TO PUMP indicator lights in the cab and pump panel. The fire pump system shall be

Yes No

equipped with an interlock system to ensure that the pump drive system components are properly engaged in the pumping mode of operation so that the pumping system can be safely operated from the pump operator's position.

No

No

No

Yes

Yes

Yes

No

• If applicable, the secondary braking device shall be automatically disengaged for pumping operations.

### PRIMER

- A Hale ESP environmentally safe oil-less primer shall be provided.
- The priming pump will be positive displacement vane type, electrically driven, and conform to standards outlined in NFPA 1901
- One PVG priming control valve will both open the priming valve and start the priming motor.
- An independently controlled air primer will be provided forward of each master intake

# <u>PIPING</u>

- All piping shall be heavy duty 304 grade schedule 10 Stainless Steel. Only threaded or welded connections shall be used
- In places Stainless Steel Pipe is not feasible, high pressure hose may be used. This hose must have at least a 1200lb burst rating and all fittings must be stainless steel.
- Sweep type elbows shall be utilized in order to reduce friction loss
- All threaded joints shall have non-hardening type sealant for easy removal for repairs.
- All piping, including intake and discharge lines shall be hydrostatically tested.
- A vacuum test shall be applied to the pump, plumbing, and valves to test for leaks.
- The system shall be tested and shall show loss of no more than 10 inches of vacuum over a 5 minute period as required by NFPA section 16.13.6.4.

# AKRON VALVES

All pump intake and discharge valves shall be AKRON 8000 Heavy Duty swing-out series. The valves shall have an all brass body with flow optimizing stainless steel ball, and dual polymer seats. The valves shall be capable of dual directional flow while incorporating a self-locking ball feature using an automatic friction lock design and specially designed flow optimizing stainless steel ball. The valve shall not require the lubrication of seats or any other internal waterway parts, and be capable of swinging out of the waterway for maintenance by the removal of six bolts.

# **INTAKE RELIEF VALVE**

• An Elkhart intake relief valve shall be installed on the intake side of the pump, preset at 125 PSI. It should be adjustable from 75 to 250 psi. The discharge shall be directed away from the operator and labeled "do not cap"

# **U.L. CERTIFICATION**

- The apparatus shall be completely tested and approved by Underwriters Laboratories Incorporated in accordance with their standard practices for pumping engines.
- Test results shall be forwarded to the FD upon delivery.

• Copies of the Pump Manufacturer's Certification of Hydrostatic Test, and Manufacturer's Record of Pumper Construction Details shall be supplied upon delivery.

#### DISCHARGES/INTAKES

• All discharges and intakes must be equipped with a chrome cap, tethered to the apparatus with a chain. Yes

No

No

### **STEAMER INLETS**

- Two (2) 6" NST steamer inlets shall be provided on the pump panels, one (1) left side and one (1) on right side. Both shall have screens.
- Both inlets will be controlled by 6" Hale MIV-E butterfly valves which are electrically operated at the pump operator's panel, with manual backup controls. The pressure relief valves should be preset at 125psi.
- Each valve shall be provided with panel placards indicating control operation. The placards shall have status lights to indicate whether the valve is open, closed, or traversing from one position to another.
- The driver's side shall have a 6" NST cap installed
- The passenger side shall be adapted to a 5" storz with tethered cap.

# FRONT SUCTION

- There shall be a suction intake mounted horizontally through the front bumper of the apparatus. The piping shall be 5" stainless steel and will terminate with a 6" male NST chrome adapter and suction strainer with long handled chrome cap.
- This line shall have drains located where necessary at the lowest points of the piping.
- Piping shall be run in such a way as to not interfere with any chassis components. It should be routed to provide as much ground clearance as possible.
- The suction shall be controlled by a 6" Hale MIV-E butterfly valve that is electrically Yes No operated at the pump operator's panel.
- The valve shall be equipped with panel placards indicating control operation. The placards shall have status lights to indicate whether the valve is open, closed, or traversing from one position to another.

# SUCTION-LEFT SIDE

A 2-1/2" suction valve shall be installed on the left side of the unit with the valve body mounted behind the pump panel, with a 2-1/2" NST chrome inlet swivel, chrome plug and chain, and removable inlet strainer.

# TANK TO PUMP

- There shall be two (2) gated tank to pump lines piped to the tank sump.
- Piping from the sump to the valve shall be 4" diameter.
- The line shall be plumbed directly into the back of the pump for maximum efficiency. Yes
- A full-flow, in line ball valve, with check valve, shall be provided to prevent accidental pressurization of the water tank through the pump connection.
- Controls shall be located at the operator's station and clearly labelled

	<u>TANK FILL - 2-1/2''</u>		
•	There shall be a 2-1/2" tank refill line installed with a 2-1/2" inline valve.	Yes	No
•	Valve shall be controlled at the pump operator's panel and will be clearly marked		
	"TANK FILL".		
	<b>DISCHARGES</b>		
•	All discharges shall be clearly labeled and color coded at the discharge and the	Vaa	No
•	All discharges shall terminate with an NST male thread	res	INO
•	All discharges shall be equipped with tethered abrome eans		
•	Any discharges 3" or greater shall utilize an Akron slove close valve		
•	Any discharge 5° of greater shall utilize all Akton slow close valve		
	PRE-CONNECTED CROSSLAYS		
•	Three (3) preconnected Crosslays shall be provided over the pump panel.		
	• (2) Crosslays each capable of holding 250' of 1.75" double jacket hose with pistol		
	grip nozzle, piping to be 2" and terminate with 1.5" NST threads		
	$\circ$ (1) Crosslay capable of holding 200' of 2.5" double jacket hose with "D" handle	Yes	No
	nozzle, piping to be 2.5" and terminate with 2.5" NST threads		
•	All Cross lays must be equipped with appropriate size swivel joint to allow deployment from either side		
•	Each end of the Crosslavs bin shall have a stainless steel roller with nylon guides to ease		
	in deployment		
•	A vinyl cover shall cover the top and sides of the crosslays and be secured with shock		
	cord		
	DUNNA CE COMDA DEMENT		
•	The remaining space above the nump panel shall be used for additional storage		
•	It shall be finished with a 12g satin finish stainless steel		
	Fold down steps shall be provided to allow easy access from both the right and left side	Yes	No
•	of the apparatus to the dupnage area		
	TRASHLINE		
٠	The left side running board under the pump panel shall feature a "drop in" hose tray		
	capable of holding at least 150' of double jacket 1.75" hose with pistol grip nozzle		
٠	This line should be preconnected, with the pump discharge positioned so the	Yes	No
	preconnected line does not interfere with other pump panel operations		
•	The tray should be able to push up from the running board to avoid damage in the event		
-	of ground confact Drain hales shall be provided in the bettern of the trave		
•	Drain holes shall be provided in the bottom of the tray		
•	Resulting straps shall be provided		
	LDH STORAGE		
٠	The right side running board under the pump panel shall feature a "drop in" hose trav		
	capable of holding at least 25' of 5" LDH hose with a 5" gate valve	Yes	No
•	This line will be preconnected to the right side master intake		
•	The tray should be able to push up from the running board to avoid damage in the event		
	of ground contact		

- Drain holes shall be provided in the bottom of the tray •
- Restraining straps shall be provided ٠

	DISCHARGES LEFT SIDE		
•	Two (2) 2-1/2" discharges shall be located on the left side pump panel and be controlled from the operator's panel.	Yes	No
•	Discharge shall be terminated with a 2-1/2" 30 degree downward sweep and be adapted		
	to 1.75", and capped with a chrome 1.75" cap and retaining chain.		
	DISCHARGES RIGHT SIDE		
•	Two (2) 3" discharges shall be located on the right side pump panel and be controlled		
	from the operator's panel.	Vaa	No
•	(1) 3" discharge shall terminate in a 30 degree downward sweep. This discharge shall	res	INO
	have 2-1/2" and 1.75" fittings and shall be capped with a chrome 1.75" cap and retaining		
	chain		
•	(1) 3" discharge shall terminate with a 5" 30 degree Storz adapter with blind cap and		
	retainer chain. This discharge shall be labelled "LDH Discharge"		
	HOSE BED DISCHARGES		
•	One $2-1/2$ " discharge shall be piped to the left front of the hosehed and be controlled		
-	from the operator's papel		
•	One $2-1/2$ " discharge shall be piped to the right front of the hosebed and be controlled		
	from the operators panel.	Vaa	Ma
•	Discharges shall terminate with 2-1/2" NST thread.	res	INO
•	Discharge position within the hosebed will be determined at pre-build conference but		
	generally will be mounted high enough in the bed to allow easy coupling of hoses.		
	<u>3" DECK GUN DISCHARGE</u>		
•	One (1) 3" deck gun discharge shall be plumbed to center of the dunnage area over the		
	pump.		
•	Piping will be firmly supported and braced.	Yes	No
•	The discharge shall be controlled at the operator's panel.		
•	Discharge shall terminate with 4 bolt flange.		
	DECK CINI		
	<u>DEUK GUN</u> A Task Fores Tips systemd a super shall be superlised and compacted to the deale super		
•	A rask roice rips extend a gun snall de supplied and connected to the deck gun		
	uscharge		

- This shall be wired to the hazard light in the cab ٠
- Yes No A Task Force Tips Safe Tak 1250 deck gun shall be installed on the extend a gun. This • shall be equipped with a 10" stream straightener, stack tips, and come with a portable base.

#### PUMP MASTER DRAIN

• A master drain that will have the capacity to drain all lines and main pump at the same time shall be installed. The master drain will be mounted on the left side panel and will be readily accessible.

### **BALL VALVE DRAINS**

- The apparatus shall be equipped with drains to allow draining for the pump and all water carrying lines and accessories. All 2" or larger discharge valves shall be equipped with a 3/4" drain valves.
- The drains shall have an all brass body. The drains shall have NPT female inlets on both ends. The drains shall be controlled by lift lever chrome handles and contain placards with the appropriate color code and label to identify the line.
- All drains must be easily accessible from the exterior of the apparatus without opening the pump house or tilting the cab.

#### ENGINE COOLER

- The supplementary heat exchanger cooling system supplied on the chassis shall be completed to the panel to permit water from the discharge side of the pump to be circulated through the engine cooling system.
- Coolant inlet and outlet shall be continuous, preventing intermixing of engine coolant and pump water.
- The heat exchanger shall be of brass construction, with control valve located on operator's panel.

#### **INDEPENDENT PUMP MODULE**

• The pump module shall be a self-supported structure mounted independently from the body and chassis cab. The pump module shall be fabricated and constructed from the same material as the body. The design shall allow for normal frame deflection without imposing stress on the pump module structure. The pump module shall consist of a welded tubular stainless steel frame work, properly braced to withstand chassis frame flexing. The pump module shall be bolted to the frame rails of the chassis.

#### SIDE MOUNTED OPERATOR'S PANEL

- The pump house shall be a properly supported structure mounted between the body and chassis cab and shall be bolted to the chassis frame rails. The panel shall be supported by 1-1/2" stainless steel tubing.
- The pump and all of the pump mounted valves shall be completely enclosed by the pump house design.
- Left and right side pump house panels shall consist of upper and lower stainless steel removable panels.
- Stainless panels to be brushed satin finish 12 gauge 304 material to ensure longevity.
- The left and right sides of the pump house shall include a hinged upper panel allowing access to the pump

Yes No

Yes No

Yes No

Yes No

All pump panel controls shall be designed and positioned in an organized manner, while Yes No minimizing linkages to the pump. Installation and routing should ensure no binding occurs during operation

#### **RUNNING BOARDS**

- Running boards shall be provided on each side of the apparatus under the pump panels. Yes No Running boards will be full width, constructed of Stainless Steel, and feature a non-slip surface with holes to allow for drainage.
- Running boards must support a static load of at least 500lbs.

### PANEL LIGHTING

- The drivers and officer's side pump panel shall be clearly illuminated with sufficient LED lighting. Lights shall be protected from damage.
- One light will activate when the pump is shifted in pump gear. All other lights will be controlled by a weatherproof switch located on the driver's side pump panel.

<u>PANEL IDENTIFICATION</u>
 Engraved color coded identification plates shall be provided for all gauges, controls, connections, switches, inlets, and discharges.

# SIDE MOUNTED OPERATOR'S PANEL

- The following items shall be located on the left side pump panel:
- Individual 0-400# compound discharge gauges shall be provided for each 1.5" or larger discharge
- One (1) engine voltmeter
- One (1) waterproof engine tachometer
- One (1) auxiliary engine cooler control (heat exchanger)
- Two (2) UL test connections
- One (1) master pump house lighting switch
- Pressure Governor Control
- One (1) primer control
- All discharge controls
- Master Intake and Discharge gauges
- One (1) tank fill/pump bypass control
- One (1) tank to pump valve control
- One (1) pump ENGAGED indicator light
- One pump certification plate
- One airhorn activation switch

# WATER LEVEL GAUGES

- The apparatus shall be equipped with the following water level gauges:
- An innovative controls IC-10 tank level monitor system shall be installed.
  - One (10) LED indicator shall be installed at the operator's panel
  - One (5) LED auto-dimming indicator shall be installed in the cab in the vicinity of the operator

Yes No

Yes No

- Three Whelen PSTANK water level light strips shall be supplied, these shall feature four colors of LED lights to indicate water tank level
  - $\circ~$  (1) Mounted on each side of the operator cab behind the rear doors, high on the cab
  - (1) Mounted on the rear of the apparatus

# WATER TANK

- Water tank shall have a capacity of at least 2,500g of water
- Tank shall be designed to provide maximum water flow from all discharges
- Tank shall be constructed of at least <sup>1</sup>/<sub>2</sub>" thick polypropylene, and must be baffled appropriately

• The fill tower and overflow shall be positioned in a manner which provides maximum hose storage

- The tank must carry a lifetime warranty
- Water tank must be installed per manufactures recommendations

# **DUMP VALVES**

- The apparatus shall be equipped with (3) Newton Electric dump valves
- In cab switches shall be guarded to prevent accidental activation
- There shall be one 10" dump valve located in the center rear of the apparatus at the low point of the tank
  - $\circ$  (1) switch will be located in the cab within easy reach of the operator
  - (1) weather proof switch will be located on each side of the valve on the rear of the apparatus
- There shall be one model 1080 dump valve installed between the rear wheels on each side of the apparatus. This valve should electronically extend at least 16". The valve should be located behind the body panels and extend automatically on opening. Each shall be equipped with an automatic door painted to match the lower body color.
  - $\circ$  (1) switch for each will be located in the cab within easy reach of the operator
  - $\circ$  (1) weatherproof switch for each will be located on the rear of the apparatus on the appropriate side in the vicinity of the rear dump valve switches.

# **DIRECT TANK FILL**

- There shall be two direct tank fills on the rear of the apparatus
- These shall be 2.5" fills and equipped with an internal check valve to prevent water from escaping the tank
- Both shall include an air bleeder and quarter turn shut off
- Both fills shall terminate with a 5" storz fitting
- The 5" storz fittings shall be adapted to a 2.5" NST fitting with a tethered cap

# **BODY CONSTRUCTION**

- The complete apparatus body and sub frame, including compartments shall be fabricated of a minimum of 12-gauge stainless steel.
- The stainless steel shall meet or exceed the corrosion resistance of grade 304 with a tensile strength of at least 87,000 psi and a yield strength of at least 39,000 psi.
- Compartments shall be formed from a single sheet of metal when possible. The exterior of the compartments shall be solid seam welded.

Yes No

Yes No

Yes No

- The interior of the compartments shall have a swirl finish applied.
- The subframe shall be stainless steel measuring a minimum of 1.5" x 3". Stainless steel cross members measuring at least 3" shall be spaced no more than 24" apart.
- The frame rails and subframe shall be separated by a heavy-duty rubber sill or comparable.

#### **REAR BUMPER**

- The bumper will be constructed of a minimum of 14 gauge stainless steel with indented perforations. The perforations shall allow water and other debris to flow through rather than becoming trapped within the stepping surface. The stainless steel material shall have a mirror finish.
- The bumper shall be designed to absorb the shock of a rear impact while minimizing damage to the apparatus body and frame, and be able to support a minimum static load of 500 pounds per NFPA section 15-7.2.

#### <u>TRIM</u>

The rear portion of the unit, excluding compartment doors will be covered with chevrons Yes No Front exterior wall of the front compartments shall be covered with mirrored finish ٠ stainless steel diamond plate. The exterior of the side body fenders shall be covered with mirrored finish stainless steel ٠ diamond plate. All edges shall be sealed with a silicone base caulking to prevent water from being ٠ trapped between the stainless surfaces. **STEPPING, STANDING, & WALKING SURFACES** All stepping, standing, and walking surfaces on the body shall meet NFPA #1901 anti Yes No slip standards. **DRIP RAILS** Bright finished "J" channel shall be provided over each lower side body compartment and • Yes No at the front and rear of the compartments.

#### **RUB RAILS**

• Stainless Steel run rails shall be installed along the lower perimeter on both sides of the Yes No body. Rails shall be designed for easy replacement using standard hand tools.

#### WHEEL WELLS

- 12 gauge stainless steel wheel wells shall be an integral part of the body construction.
- Wheel wells shall be painted black.
- Wheel wells and cabinetry are to be designed so road debris will not be trapped on top of the cabinets.
- Full one piece circular 24" deep wheel well liners shall be installed. The fender flares shall be bright polished stainless steel and are attached to the wheel well using stainless steel bolts.

Yes No

Yes No

Yes

No

**REMOVAL OF BODY** Yes No The completed body with all related parts will be able to be removed in its entirety and accompany the water tank when removed.

#### FASTENERS

•	All fasteners used in the construction of the apparatus shall be appropriate for the					
	material used. Where different materials come in contact, isolators shall be used when	res	INO			
	necessary.					

#### **COMPARTMENTS AND STORAGE**

The FD is looking for maximum storage space. Bidders are encouraged to use any combination of through the tank storage, hydraulic rack's, slide out trays, hinged tool boards, and any other system which provides space for the secure storage of all equipment while staying within the apparatus size requirements. No space shall be wasted on the apparatus, all should be utilized for storage.

- All compartment interiors shall be left natural stainless steel and be given a swirl finish. •
- All compartments must have a minimum of (2) 4" louvered vents mounted on the back • wall
- All compartment shall have a black poly dry-deck type material with tapered end •
- R.O.M. LED V3 or comparable compartment lighting shall be provided to provide full • illumination of all compartments.
- All proposals shall include a print with an identification number for each compartment. Dimensions and total storage space per compartment shall be detailed in the proposal

#### **HOSE BED**

- A stainless steel hose bed with swirl finish shall be located above the water tank. The hose bed front and side walls shall be free of all sharp objects to prevent hose damage. There shall be removable floor sections with adequate grating to allow for drainage and ventilation.
- Three full length hose bed dividers shall be provided. These shall be fully adjustable from • side to side the full width of the hose bed. Dividers shall be free of sharp edges
- A black hose bed cover shall be provided, and will be secured with shock cord. Cover ٠ shall enclose all exposed portions of the hose bed.

#### **HOSE BED CONFIGURATION AND CAPACITY**

- Left side of hose bed
  - Must hold a minimum of 350' of 2.5" Double Jacket hose.
- Center of hose bed
  - Must hold a minimum of 3,200' of 5" rubber jacket LDH
- Right side of hose bed
  - Must hold a minimum of 300' of Double Jacket 3.5" hose. This hose shall be preconnected to a 2.5" discharge mounted high on the front of the hose bed. The hose line will terminate with a 3 way valve consisting of (1) 2.5" discharge and (2) 1.75" discharge, which will be mounted on the rear of the apparatus.

Yes No

Yes No

#### HAND RAILS AND STEPS

• The rear of the apparatus shall feature adequate steps and hand rails to allow easy and safe access to the hose bed area from both the right and left sides. All steps and rails shall be rated for a minimum of 500lbs.

# AIR BOTTLE STORAGE COMPARTMENTS (SINGLE BOTTLE)

The apparatus must have storage for a minimum of (6) Scott brand 4500 PSI 30 minute SCBA cylinders with appropriate latching doors. This storage may not be inside any of the main body compartments. The cylinders shall be separated, and the compartments must be designed and constructed to prevent damage to the cylinders. The preferred location is around the rear wheel wells.

### HOSEBED TARP

- A Black vinyl hosebed cover shall be provided with shock cord fasteners and rear weighted flap.
- Specification shall include dimensions and specifications of cover for replacement if needed.
   Yes No

#### COMPARTMENT DOORS

- The apparatus will be equipped with Stainless Steel hinged doors. All doors will be designed for maximum durability. The interiors will be finished with a stainless steel swirl finish. The doors must be constructed in such a way that tools and equipment can be mounted to the inside of them.
- The doors must make a watertight seal when closed.
- Compartment doors will have stainless steel flush bent "D" ring handles. Latching mechanism shall be non-locking safety slam positive latch. Gasket material is placed between the door handles and outer door panels to prevent electrolytic reaction between dissimilar metals to protect paint finish.
- The doors must have a shock or other automatic device to keep them in the open position.
- All hinged doors shall have power lift gas filled cylinders installed, which shall assist with closing once past the halfway point
- Closure shall assist in the closing of door once it has past the halfway point
- All doors shall open to at least 90 degrees

#### **LETTERING**

• All lettering, striping, breaklines, and other graphics features shall match the existing Canton Engine 4. This apparatus will be available for viewing during the pre-bid Yes No conference.

#### **REFLECTIVE STRIPING**

- A 4" wide white reflective stripe shall be applied to the unit in a straight line. The vinyl shall be 3M reflective.
- Per NFPA 15.9.3.1 this shall include at least 50 percent of the cab and body length on each side, excluding the pump panel areas, and at least 25 percent of the width of the front of the apparatus.

Yes No

# **REFLECTIVE CHEVRON - NFPA 15.9.3.2**

• 50 percent of the rear-facing vertical surfaces, visible from the rear of the apparatus, shall be equipped with retro-reflective striping in a chevron pattern sloping downward and away from the centerline of the vehicle at an angle of 45 degrees. Each stripe shall be 6" in width.

Yes No

• Stripe Colors will be Red & Yellow.

# EQUIPMENT SUPPLIED BY BIDDER

The apparatus shall come equipped with the following equipment. Bidder shall furnish and install the equipment, mount, and when applicable wire. Exact mounting locations will be determined upon bid award. The apparatus delivery shall not be considered complete until all equipment is supplied and installed.

- (3) Three lengths of Fire Equip brand 6" x 10' PVC hard suction hose with 6" NST connectors and folding handles
- (2) Two Kochek LL607 low level strainers, 6" NST connection, 1.5" Female NST
- (1) Task Force Tips BlitzFire monitor mounted on the rear of the apparatus
- (1) Duo Safety Series 1200 28' 2 section aluminum extension ladder
- (1) Duo Safety Series 585 10' aluminum closet ladder
- (1) Duo Safety Series 775 14' aluminum roof ladder
- 8' Poly Pike Pole
- 12' Poly Pike Pole
- (2) New York style all steel 6' hooks
- (6) Stream light Fire Vulcan LED flashlights with Chargers installed in cab

# **OPTION 1 – Trade in**

Trade in will be available for viewing during the pre-bid conference.

Trade in has current DOT and Pump Certifications and is currently in service

Below specifications current as of 10/23/17 Mileage: 36,709 Engine Hours: 3,990

- 1991 Simon Duplex / Marion Engine Tanker
- Tandem rear axles
- Automatic Transmission
- 6 person enclosed cab, (5) SCBA seats
- 1500g Poly Water Tank
- 1500GPM Hale pump
- Manual Rear Dump Valve

# **OPTION 2**

The FD is looking to optimize storage space and keep all equipment organized and secure for longevity and quick deployment. Bidders are encouraged to use any combination of commercially available or custom fabricated mounts, dividers, shelves, drawers, trays, or other means to accomplish this for the below equipment. These solutions shall be bolted into place whenever possible to allow future removal/reorganization. Costs associated with this equipment storage shall be listed under Option 2 and not included in the total bid price. Storage solutions and overall use of space will be considered when awarding bid. All of the below equipment is provided by the FD.

Power Tools and Related

- (1) Honda EU2000 Generator with tele-light attachment
- (1) Husqvarna 440 Chain Saw with 18" bar
- (3) Round 1 quart fuel containers
- (1) 1 Quart bar and chain lube container

Hose and related

- (3) 50' rolls of DJ 1.75" hose
- (2) 50' rolls of DJ 2.5" hose
- (2) hydrant bags measuring approx. 2' x 2' x 2'.
- (3) 20lb Fire extinguishers, (1) Water, (1) Dry Chemical, (1) CO2
- (2) low level strainers
- (1) floating Kochek "big water" type strainer.

Engineers Compartment

- (12) adaptors ranging from 1.75" 3.5"
- (1) 6" NST to 5" storz adaptor
- (1) 6" Storz to 4.5" NST adaptor
- (1) 2.5" to double 1.75" gated wye
- (1) Rubber Mallet

Misc.

- (2) 5-gallon plastic foam containers
- (1) Standard 5-gallon plastic bucket for sand/speedy dry
- (8) Road Flares
- (8) 24" Traffic Cones
- (2) 14' x 14' salvage covers
- (1) 16" Box Fan
- Junkin Plastic Break-away stokes basket
- Scott RIT 3 pack
- 15g metal trash can (chimney kit)

#### NON-COLLUSION AND ETHICS AFFIDAVIT (Must Complete)

STATE OF		Date	
COUNTY OF)	) 55.		
		(affiant) being first duly sworn, deposes and says that:	

1) That I am over the age of 18 and understand the obligations of an oath.

2) That I am the owner, partner, officer, representative, or agent of \_\_\_\_\_\_, the bidder/proposer that has submitted the attached bid/proposal.

3) That I am fully informed respecting the preparation and contents of the attached bid/proposal and of all pertinent circumstances respecting such bid/proposal.

4) That such bid/proposal is genuine and is not collusive or a sham bid/proposal.

5) That neither the said bidder/proposer nor any of its officers, partners, owners, agents, representatives, employees, or parties in interest, including the affiant, has in any way colluded, conspired, connived or agreed, directly or indirectly with any other bidder/proposer, firm or person to submit a collusive or sham bid/proposal in connection with the contract for which the attached bid/proposal has been submitted or to refrain from bidding/proposing in connection with such contract, or has in any manner, directly or indirectly, sought by agreement, collusion, communication or conference with any other bidder/proposer, firm or person to fix the price or prices in the attached bid/proposal or any other bidder, or to fix any overhead, profit or cost element of the bid/proposal prices or the bid proposal price of any other bidder/proposer, or to secure through any collusion, conspiracy, connivance or unlawful agreement and advantage against the Town of Canton or any person interested in the proposed contract.

6) That any officer, agent, employee or consultant for the Town of Canton is directly or indirectly interested in the bid/proposal, or in supplies, materials, equipment, work or labor to which it relates, or in any of the profits thereof.

7) That I have reviewed the Canton Code of Ethics, Ordinance No. 230 and acknowledge that I and the bidder/proposer are not in violation of the Code of Ethics and hereby agree to abide by the Code of Ethics during the time of any contract award.

Date this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_.

(Signed) \_\_\_\_\_ Affiant

(Title) \_\_\_\_\_

On this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_, before me personally appeared \_\_\_\_\_, who made oath that he/she has read the foregoing Non-Collusive and Ethics Affidavit and that based on his/her own knowledge believe the same to be true.

Notary Public (My Comm. Expires Commissioner of the Superior Court

)

#### LOCAL PREFERENCE AFFIDAVIT (If Applicable)

STATE OF)		
) ss COUNTY OF)	Date	
	(affiant), being first duly sworn, depose	es and says that:
1) That I am over the age of 18 and u	inderstand the obligations of an oath.	
2) That I am the owner, partner, offic submitted the attached bid/proposal.	er, representative, or agent of	, the bidder/proposer that has
<ol> <li>That bidder/proposer has a princip Town of Canton.</li> </ol>	bal place of business located at	, which is in the
4) That the bidder/proposer is current sewer use fees.	t on all taxes, both personal and real estate	e, and all fees, including, but not limited to
5) That if bidder/proposer is not the obidder/proposer is submitting proof the personnel property tax bill.	owner of the real estate where such principa at such address is the bona fide principal p	al place of business is located, then place of business, such as a lease or
6) That bidder/proposer has read the that it is a qualified "Town Based Res	Local Bidder Preference Policy and being sident Bidder" as specified in the Policy.	aware of its terms and conditions, swears
(Signed)	Affiant	

(Title)\_\_\_\_\_

On this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_, before me personally appeared \_\_\_\_\_, who made oath that he/she has read the foregoing Local Preference Affidavit and that based on his/her own knowledge believe the same to be true.

Notary Public (My Comm. Expires Commissioner of the Superior Court

)

#### LOCAL BIDDER PREFERENCE POLICY

On any item, project or service which value exceeds \$7,500 or which is advertised through a competitive bid process and in which there is a qualified Town Based Resident Bidder, the lowest responsible bidder shall be determined in the following order:

1. A Town Based Resident Bidder which has submitted a bid not more than 10% higher than the lowest responsible bid may be awarded the bid provided such Town Based Resident Bidder agrees to accept the award of the bid at the amount of the lowest responsible bidder.

2. If more than one Town Based Resident Bidder has submitted a bid not more than 10% higher than the lowest responsible bid, the lowest responsible bidder shall be that one of the Town Based Resident Bidders which submitted the lowest bid.

3. Otherwise, the award will go to the lowest responsible bidder who would qualify if there were no Town Based Resident Bidder.

Any local vendor meeting the requirements of a Town Based Resident Bidder, as defined below, responding to the solicitation shall be required to submit a signed Local Bidder Affidavit Form with the bid submittal. Failure to submit an affidavit form, may at the option of the Town, result in disqualification as a local vendor and ineligibility for contract award.

The term "Town Based Resident Bidder" shall mean any business with a principal place of business located within the Town of Canton. A business shall not be considered to be a Town Based Resident Bidder unless evidence to establish that such business has a bona fide principal place of business in Canton is included with each bid submitted by the business. Such evidence may include documentation of ownership, or a long-term lease of the real estate from which the principal place of business is operated or payment of property taxes on the personal property of the business to be used in the performance of the bid.

The Local Bidder Preference process shall not apply under the following circumstances:

1) Professional services contracts which are awarded on subjective criteria in addition to cost.

2) Contracts using state, federal or other funds that have regulations disallowing such practice.

3) If the qualified Town Based Resident Bidder is not current in the payment of all local taxes.

4) Bids made through regional organizations or state agencies such as state contracts, CRCOG or CIRMA, when the product or services offered have already been selected through a competitive process.

5) Bids received through a reverse auction process.