



## City of Rochester

Bureau of Purchasing  
City Hall Room 105 A, 30 Church Street  
Rochester, New York 14614-1290  
www.cityofrochester.gov

**PRINTED NAME OF BIDDER**

### **FIRE TRUCK, PROTECTIVES FIRE APPARATUS**

Invitation to Bid No. 425770

Issued: October 20, 2014

PURCHASING BUREAU CONTACT: Tymothi Howard, Sr. Purchaser, 585-428-7219

**Sealed bids are to be returned to the Office of the Purchasing Agent, City Hall Room 105A, Rochester, NY 14614 by the date and time indicated, at which time and place all bids will be opened, read and recorded.**

BID OPENING: Tuesday, November 18, 2014 at 11:00 A.M.

The bidder's attention is directed to the General Conditions and Instructions to Bidders, which appears immediately following this title page and is incorporated into the bidding document and contract by reference.

#### CONTRACT CHARACTERISTICS

(For definitions or explanations, see General Conditions)

Type of Contract: ONE TIME BUY, 120 DAY FIXED PRICE HOLD

Bid Deposit Requirement: 5%, PER SECTION 8

Performance Security Requirement: 50%, PER SECTION 9

Insurance Requirement: NONE

Samples Requirement: UPON REQUEST

Descriptive Literature/Technical Data Requirement: SUBMIT WITH BID.

Bid Identification Document Requirement: YES, SEE SECTION 366.

**BIDDERS:** Please note that prices, company identification and authorized signature are to be entered on the Proposal which appears at the end of the specifications.

Phone: 585.428.7041

Fax: 585.428.6038

TTY: 585.428.6054

EEO/ADA Employer



## FIRE TRUCK, PROTECTIVES FIRE APPARATUS

### 1. **SCOPE**

- 1.1 Sealed proposals are desired from reputable makers of automobile fire apparatus in accordance with these specifications for the piece of apparatus listed as follows:
- 1.2 The City of Rochester intends to purchase one (1) Fire Apparatus Truck, and all other equipment required by the NFPA 1901 Apparatus Standard.

### 2. **PREPARATION OF PROPOSAL**

- 2.1 The proposal is contained in these contract documents and must not be detached here from by any bidder when submitting a proposal.
- 2.2 All blank spaces on the Proposal page of these specifications must be completely and correctly filled in.

### 3. **BASE BID**

- 3.1 The bidder's attention is called to the fact that the Proposal and Bid Form require, under Base Bid, the Net Delivered Unit Price covering the item specified. Any deductions for freight allowance, cash discount, or quantity rebate should be included in the total net price, as given on the bidding sheet, and should not be listed as separate items.
- 3.2 Bids shall be made only on the form(s) provided with this bid invitation.
- 3.3 A bidder may submit only one (1) bid for each type of truck. Multiple bids on the same truck may result in rejection of all bids submitted by that bidder.

### 4. **METHOD OF AWARD**

- 4.1 Award will be made to the responsive and responsible bidder on the basis of the lowest Total Net Delivered Unit Price.
- 4.2 Bidders must provide prices for each option specified in the Proposal. The City reserves the right to determine its lowest cost depending on which, if any, options it chooses to accept, and to award the contract based upon its lowest cost.
- 4.3 The City reserves the right to consider bids on vehicles which take exception to the specifications, and to make an award to a bidder who takes such exceptions if, in the opinion of the Purchasing Agent, the combination of the bid which contains alternatives and the price proposed is in the best interest of the City.
- 4.4 By submitting a bid, the bidder acknowledges and accepts that the Purchasing Agent has sole discretion in determining equivalence of any exceptions or deviations proposed by a bidder.

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### 5. **QUANTITY**

- 5.1 The City anticipates purchasing one (1) truck as specified herein subject to Sections 5.2 and 5.3.
- 5.2 No specific quantities can be given and no guarantee given as to contract value. The contract shall be for the quantities actually ordered during the contract period. Unit price(s) shall be extended for the actual number of units purchased during the contract period.
- 5.3 The City will issue a Purchase Order for the actual number of units to be purchased after the contract has been awarded.

### 6. **PRICES**

- 6.1 Bid prices shall remain constant for one hundred twenty (120) days after award of contract.

### 7. **CONTRACT PERIOD**

This contract shall commence on the date of award and shall terminate at the completion and acceptance by the City of Rochester of any apparatus ordered.

### 8. **BID SECURITY**

A bid security in the amount of five percent (5%) of the base bid must be submitted with the bid. The security may be in the form of a bond, cash, certified check, or irrevocable letter of credit, payable on demand to the City of Rochester. The surety company must be licensed to transact business in the State of New York.

### 9. **PERFORMANCE SECURITY**

- 9.1 The contractor will be required to execute a Performance Security for the furnishing and delivery of this equipment.
- 9.2 The bidder shall, within ten (10) business days after acceptance of the bidder's proposal by the City, furnish the Performance Security for 50% of the total contract price, in the form of a bond, cash, certified check or irrevocable letter of credit, payable on demand to the City of Rochester. The surety company must be licensed to transact business in the State of New York.

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### 10. FAILURE TO FURNISH SECURITY

In the event that the bidder fails to furnish the Performance Security within ten (10) calendar days after notification of Award by the City, the bid deposit of the bidder shall be retained by the City as liquidated damages and not as a penalty, it being now agreed that the sum is a fair estimate of the amount of damages that the City will sustain due to the bidder's failure to furnish the performance security.

### 11. INSTRUCTIONS TO BIDDERS

- 11.1 A bid shall be made only on the form(s) provided with this Invitation, and failure to do so or use of other forms may immediately disqualify the bid.
- 11.2 The contract documents will consist of this Invitation, including the completed Specifications, Proposal, Questionnaire and Exception pages. Additional documents, letters, drawings, etc. will become part of this contract only if they are properly incorporated by specific cross reference on the Proposal, Questionnaire and/or Exception pages. Any discrepancy between items specified or proposed on this Invitation and other documents incorporated by reference will be resolved in favor of this Invitation.
- 11.3 Each bidder must indicate in the Questionnaire whether the vehicle proposed is or is not in compliance (Yes/No) with each item of the Specifications. For each item of non-compliance, the bidder should describe, on the Exception Page, exactly what the bidder will furnish as an alternative to the specifications. Each and every item of non-compliance should be clarified on the Exception Page. Failure to so describe each exception and to otherwise permit the City to easily determine precisely what will be supplied on the vehicle being proposed may, in and of itself, be sufficient cause for rejection of the bid.
- 11.4 Each bidder is required to submit with the bid sufficiently detailed specifications with (D scale sized drawings) drawings and photographs as prepared by their respective manufacturers on the unit being proposed so that the City has background information on details and features of construction that are not specifically mentioned in the documents issued by the City. If there is any deviation between the background information and the City specifications, the City specifications will apply unless a specific exception is taken.
- 11.5 The successful bidder will be required to enter into a contract with the City and to comply fully without exception with the documents issued herewith unless such clarifications, variations, and exceptions are noted on the proper forms issued by the City (i.e., the Specifications, Questionnaire, and Exception forms).
- 11.6 Should the successful bidder, after entering into a contract with the City, fail to furnish the apparatus in compliance with the contract documents, the City will take whatever corrective action is required to meet said contract and deduct all costs, direct and indirect, from the contract payment and/or performance security. Said deductions will be

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in addition to any other penalties specified elsewhere in the bid documents.

**12. COMPLIANCE WITH LAWS**

The bidder shall at all times observe and comply with all laws, ordinances, and regulations of the Federal, State, Local and City Governments, which may in any manner affect the preparation of proposals or the performance of this contract.

**13. TAX**

The City of Rochester is exempt from paying Manufacturer's Excise, Floor or Sales Tax and for that reason, the Bid Price shall not include any tax on the item(s) specified. The City of Rochester will furnish a signed exemption from covering the tax, if any, applying to the item or items covered by these specifications, as may be required by law.

**14. DELIVERY DATE**

14.1 The City of Rochester requires delivery of the Fire Apparatus Truck as soon as possible, but not later than Two Hundred and Forty (240) days from the date of award. The units shall remain the property of the bidder until accepted by the City of Rochester. Upon delivery, the units shall be thoroughly tested in operation of the units as a whole. The successful bidder shall make, at his own expense, any adjustments or alterations that may be required by the City as a result of the operation test.

14.2 Each bidder is required to list on the Proposal and Bid Form the latest date he expects delivery to be made at destination as defined in the "delivery" section. Failure to include a specific date may be sufficient grounds for rejection of bid.

14.3 Quoted delivery dates in excess of Two Hundred and Forty (240) calendar days may, at the City's option, be cause for rejection of the bid.

**15. DELIVERY**

The equipment and components to be furnished under this contract shall be Delivered to the City of Rochester, F.O.B. the ordering agency's facility as described on the Purchase Order(s) which shall be in Rochester, New York.

**16. LATE DELIVERY OF SUPPLIES**

16.1 It is expressly understood and agreed that, as a result of the dangers inherent to the public and because of the monetary losses which will be sustained by the City as a result of failure to deliver the equipment described in the contract on time, time is of the essence in the performance of this contract. It is agreed that damages resulting from late delivery can be neither accurately anticipated nor calculated.

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- 16.2 In the event of the failure of the contractor to deliver the equipment in accordance with the schedule set forth in the subsection titled "delivery date" above, the contractor shall be liable to the City for liquidated damages in the following amounts for each day the equipment is delivered late: Two hundred dollars (\$200.00) per day per vehicle for each day that the Trucks and allied equipment are delivered late.
- 16.3 Any damages so imposed will be deleted from the contract amount and/or the performance security.
- 16.4 At the option of the Purchasing Agent, the City may invoke the DEFAULT provision of this contract in addition to any liquidated damages as outlined above.
- 16.5 For the purposes of this subsection, any days in excess of three (3) days following arrival of the equipment at the destination, as defined in the "delivery" section (not including the day of arrival) which the City expends in inspecting and either accepting or initially rejecting the equipment, shall not be considered as a day the equipment is delivered late.
- 16.6 The City may grant extensions of the time of contract completion for any delays resulting from causes beyond the contractor's control, which are not to be considered normal hazards of the contract. Delays of this classification such as acts of God, disasters, and strikes shall be deducted from the time for which the contractor is liable for liquidated damages.

### 17. **QUALIFICATION OF BIDDER**

- 17.1 The City reserves the right to disqualify any bidder unless the firm submitting the bid can meet the following conditions:
- 17.1.1 That the manufacturer(s) or bidder(s) has in operation a factory adequate for and actively engaged in the manufacture of the equipment which he proposes to furnish.
- 17.1.2 That there are at least ten (10) units similar to the type bid upon which have been in satisfactory operation for a period of at least two (2) years. This shall not be construed as prohibiting the manufacturer from having altered or improved the design or construction of its machinery as evidenced by engineering changes incorporated in the manufacturing blueprints. Manufacturer shall furnish evidence upon request of the Purchasing Agent, that the unit to be furnished has been commercially available through him to the trade for a period of not less than two (2) years and has been fully field tested. The City of Rochester shall verify to its satisfaction that the model to be furnished has met such field tests.
- 17.2 Bids will be considered only from fire apparatus manufacturers and from authorized dealers of fire apparatus manufacturers.

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- 17.3 **NOTE:** In the event a bid is submitted by other than the manufacturer, a certificate executed by the manufacturer may be required stating that the bidder is an authorized agent, dealer or distributor of the manufacturer in the Rochester, New York, area, and that the equipment offered is completely in compliance with the specifications and proposal and will be available during the life of the contract.
- 17.4 No proposal will be accepted from or contract awarded to any person, firm or corporation that has failed to perform faithfully any previous contract with the City.
- 17.5 Bids may be submitted by authorized dealers on behalf of fire apparatus manufacturers. However, contract documents, upon award, must be executed by the fire apparatus manufacturer. Fulfillment of all contractual requirements is the responsibility of the fire apparatus manufacturer, including but not limited to submission of bid bonds, performance bonds, and full compliance with the contract documents and specifications.

### 18. INSPECTION OF WORK

- 18.1 Representatives and/or agents of the City of Rochester, as designated by the Purchasing Agent of the City of Rochester shall, for the purpose of inspection, have free and safe access at any and all reasonable times to the buildings and shops of the contractor, and any subcontractors and material supplies, wherever any items for this contract are being prepared or manufactured.
- 18.2 The cost of any such inspection trip(s) by agent(s) of the City of Rochester will be at the expense of the City of Rochester. A final inspection will be made when the apparatus is ready for delivery and before it leaves the manufacturer's shop.
- 18.3 If, during the final inspection of the item or items to be furnished under this contract, any are found to be defective, fail in any way to meet the terms of the contract, or fail to meet any of the specifications, the item or items will be rejected by the Purchasing Agent of the City of Rochester. Any rejected item or items shall be altered or replaced to comply with the specifications at the expense of the contractor.
- 18.4 If the item or items called for in the specifications are delivered and fail to meet specifications in any respect, the bidder will be notified and will arrange for their removal from the City of Rochester property at no expense to the City of Rochester. If the successful bidder fails to remove the items which, in the opinion of the Purchasing Agent, do not meet specifications, the City will arrange to have such items removed, and any expense connected therewith will be the responsibility of the contractor.

### 19. SUBLETTING

Any portion of this contract may be sublet by the contractor. However, this will not be construed as making the City a party to such a subcontract or subjecting the City to liability of any kind to any subcontractor. No subcontract shall, under any circumstances, relieve the contractor of his liability and obligation under this contract, and despite any such subletting; the City shall only deal directly with the contractor. Subcontractors will be dealt with as representatives of the

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contractor and as such shall be subject to the same requirements as to character and competence as are other employees of the contractor.

**20. CHANGE ORDERS**

Unforeseeable minor changes to the equipment specifications may be made subsequent to the order but prior to delivery, upon the mutual written agreement of the contractor and the City. Such changes are intended to permit modifications for upgrades or improvements during construction which the City determines will improve the quality and/or efficiency of the equipment. Additions or deletions which affect the total cost must be authorized by a Change Order approved by the Purchasing Agent.

**21. PAYMENT OR ACCEPTANCE NOT CONCLUSIVE**

- 21.1 No payment made under the contract shall be conclusive evidence of the performance of the contract, either wholly or in part, and no payment made for the delivery of the items in whole or in part shall be construed as an acceptance of defective work or improper materials, nor relieves the contractor from making good the defects.
- 21.2 The final acceptance shall not be binding upon the City of Rochester should it subsequently develop that the contractor had furnished inferior items or had departed from the specifications and/or the terms of the contract. Should such a condition become evident, the Purchasing Agent of the City of Rochester shall have the right, notwithstanding final acceptance and payment, to cause the items or item to be properly furnished in accordance with the specifications (and drawings, if any) at the cost and expense of the contractor, or his surety, if any.

**22. GUARANTEES AND WARRANTIES**

- 22.1 The contractor shall guarantee all equipment furnished for a period of two (2) years from date of delivery and acceptance if such equipment is not included in the manufacturer's standard warranty. All warranties shall be of the non-declining type.
- 22.2 The contractor hereby warrants and guarantees for a period of two (2) years from date of final acceptance that he will, at his own expense and without any cost to the City, replace all defective parts and make any repairs that may be required or made necessary by reason of defective design, material, or workmanship, or by reason of non-compliance with these specifications.
- 22.3 Any warranty offered by the manufacturer, over and above this two (2) years minimum warranty, shall be deemed to be part and parcel to these specifications.
- 22.4 Contractor shall also furnish a copy of the standard factory warranty.
- 22.5 If the contractor is local, i.e. within the City of Rochester and/or within twenty (20) road miles of the Rochester Police & Fire Academy, 1190 Scottsville Road, the City will deliver the vehicles to the contractor's garage for work to be performed under

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warranty and pick up the vehicles when work is completed.

22.6 If the contractor is not local, all transportation shall be at his own expense.

**23. PAYMENT**

23.1 Payment will be made by the City to the contractor upon submittal of invoices used by the contractor within thirty (30) days after the equipment has been delivered, inspected and accepted, and approved by the City's ordering agency representative for equipment purchases.

23.2 When the vehicle is delivered by the contractor, the City may process the invoice for the full amount of the contract price if the unit is in compliance with the specifications. However, if poor workmanship or deviations from specifications exist, the City may process up to 80% of the contract price upon delivery and delay payment of the balance until contractor has made all necessary corrections.

23.3 The invoice(s) shall be forwarded to the ordering agency.

23.4 The invoice(s) shall include not less than the following:

23.4.1 City Contract Number

23.4.2 City Purchase Order Number

23.4.3 Location and date of of Delivery

23.4.4 Shop Order Number

23.5 Prepayment for any portion of the work will not be made. Bids requiring prepayment will be rejected.

**24. SPECIAL NOTICE TO BIDDERS**

24.1 The successful bidder must furnish to the Purchasing Agent upon his request, a copy of the factory order and number covering the equipment bid upon within five (5) days after the date of the receipt of Purchase Order.

24.2 The Purchasing Agent of the City of Rochester may require the successful bidder to furnish copies of all letters, correspondence or purchase orders placed with the various manufacturers or suppliers for materials, supplies, and equipment being bid upon for which a contract has been awarded, as proof that the contract is being fulfilled as expeditiously as possible. Failure to furnish these documents within five (5) working days after receipt of a written request, or failure to submit documents which clearly demonstrate that the contract will be fulfilled within the required delivery date, may be deemed sufficient grounds for cancellation of the contract. The City of Rochester Purchasing Agent's decision in these matters shall be accepted as final.

25. **DEFAULT**

25.1 The City may, subject to the provisions of paragraph 25.3 below, by written notice of default to the Contractor, terminate the whole or any part of this contract in any one of the following circumstances:

25.1.1 If the contractor fails to make delivery of the supplies or to perform the services within the time specified herein or any extensions thereof.

25.1.2 If the contractor fails to perform any of the other provisions of this contract, or so fails to make progress as to endanger performance of this contract in accordance with its terms, and in either of these two circumstances does not cure such failure within a period of ten (10) days (or such other period as the Purchasing Agent may authorize in writing) after receipt of notice from the Purchasing Agent specifying such failure.

25.2 In the event the Purchasing Agent of the City terminates this contract in whole or in part, the City may procure, upon such terms and in such manner as the Purchasing Agent may deem appropriate, items or services similar to those so terminated, and the contractor shall be liable to the City for any excess costs for such similar items or service; provided, that the contractor shall continue the performance of this contract to the extent not terminated under the provisions of this clause.

25.3 The contractor shall not be liable for any excess costs if acceptable evidence has been submitted to the Purchasing Agent that failure to perform the contract was due to causes beyond the control and without the fault or negligence of the contractor.

26. **DISPUTES**

26.1 Except as otherwise provided in this contract, any dispute concerning a question of fact arising under this contract which is not disposed of shall be decided by the Purchasing Agent, who shall reduce the decision to writing and mail or otherwise furnish a copy thereof to the contractor. The decision of the Purchasing Agent shall be final and binding.

26.2 The detailed design specifications prescribed herein are intended to describe units which have been determined to meet performance parameters and characteristics required by the City of Rochester. Bidders having units which fully meet the intent of the specifications, but which may vary in a non-substantial manner from the specified design characteristics, may offer such equipment as they can demonstrate meets the intended performance requirements. In such case the bidder shall be required to submit with his bid a detailed listing of design variances and a full explanation as to how the units offered will meet the desired performance characteristics. A decision as to equivalency will be made by the Purchasing Agent, whose decision shall be final.

26.3 Any references herein to a particular make or model are not intended to be restrictive, but to set forth an acceptable level of quality, design and performance.

27. **SINGLE SOURCE MANUFACTURER**

Bids shall only be accepted from a single source apparatus manufacturer. The definition of single source manufacturer is company that designs and manufactures their products utilizing an approach that includes complete product integration, including the apparatus chassis, cab, body and pump modules being constructed, assembled, and tested on company premises only. Warranties qualified to the chassis and body design construction (excluding vender component warranties such as engine, axles, and transmission) will be from a single source manufacturer and not separated between manufacturers (i.e. body and chassis). The bidder shall provide evidence of maintaining compliance to this requirement.

28. **DESIGN REQUIREMENTS**

- 28.1 Specified design features of the apparatus have been carefully selected because of their safety, integrity and consistency with existing apparatus. It is expected that all bidders will adhere to the compartment layout, etc., since these features can be produced by all fire apparatus manufacturers.
- 28.2 All components of the vehicle shall be properly engineered with priority given to firefighter safety, as well as ease of operation and maintenance of the apparatus. The vehicle shall be free from hazardous protrusions, angles or sharp corners that might bring injury to a firefighter or equipment.
- 28.3 Such details and other construction features not specifically covered herein shall conform to all State and Federal requirements, and the NFPA Pamphlet No. 1901, "Standard for Automotive Fire Apparatus" in effect at the time the contract is signed.
- 28.4 All water, air, fuel, hydraulic and/or oil lines on the chassis and apparatus shall be properly located, and securely tie-wrapped to prevent scuffing or abrasion. Durable type grommets or loom material shall be used to protect the lines wherever a line passes through the apparatus body or frame rail sections.
- 28.5 All grease fittings, bleeders, filler plugs, drains and check points shall be located so as to be easily accessible. No special tools shall be required to access these components for normal service or maintenance of the vehicle.
- 28.6 All parts and components on the vehicle shall be positioned for ease of inspection, and recognition of wear or failure. Easily removable access or cover plates shall be provided for all items requiring periodic service or adjustment. Access panels shall be of the hinged or quick disconnect design allowing ease of access.
- 28.7 Design of the apparatus shall be such that no disassembly of the body or any of its parts is required for normal maintenance.
- 28.8 All components of the chassis and apparatus shall be protected against rain, snow

**29. ACCEPTANCE TESTS AND REQUIREMENTS**

- 29.1 Acceptance tests on behalf of the purchaser shall be prescribed and conducted prior to delivery or within 10 days after delivery by the manufacturer's representative in the presence of such person or persons as the purchaser may designate in the requirements for delivery.
- 29.2 The apparatus, loaded with a full complement of hose and men, a full water tank, and equipment as specified in "Carrying Capacity" on this page, shall meet the tests on paved roads, dry roads and roads in good condition. Tests shall be on the basis of two runs in opposite directions over the same route, the engine not operating in excess of the manufacturer's maximum rpm.
- 29.3 From a standing start, through the gears, the vehicle shall attain a true speed of 35-mph within 25 seconds. From a steady speed of 15-mph the vehicle shall accelerate to a true speed of 35-mph within 30 seconds.
- 29.4 The vehicle shall attain a minimum top speed of 50-mph on a level road.
- 29.5 The apparatus shall be able to maintain a speed of at least 20-mph on any grade up to and including 6 percent.
- 29.6 **NOTE:** The responsibility for the apparatus and all equipment shall remain with the contractor until the apparatus and equipment are delivered.

**30. FAILURE TO MEET TESTS**

- 30.1 In the event the apparatus fails to meet the test requirements on the first trial, a second trial may be done at the option of the Contractor within thirty days of the date of the first trial. Such trials shall be final and conclusive, and failure to comply with these requirements shall be cause for rejection. Failure to make such changes as the Chief of the Fire Department and/or the purchaser may consider necessary to conform to any clause of the specifications within thirty days after notice is given to the Contractor to make such changes, shall also be cause for rejection of the apparatus.

**31. DOCUMENTATION**

- 31.1 The manufacturer must supply at time of delivery, at least one copy of:

31.1.1 Engine manufacturer's certified brake horsepower curve showing the maximum

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no-load governed speed.

31.1.2 Weight documents from a certified scale showing actual loading on the front axle, rear axle(s), and overall vehicle (without personnel, equipment, or hose)

Yes\_\_\_ No \_\_\_

31.1.3 At least three (3) copies of the complete operation and maintenance manual covering the completed apparatus as delivered, driveline and firefighting equipment delivered with the apparatus.

Yes\_\_\_ No \_\_\_

31.2 NO EXCEPTIONS WILL BE ALLOWED TO ANY OF THE DOCUMENTATION REQUIREMENTS.

Yes\_\_\_ No \_\_\_

31.3 A permanent data plate shall be affixed in the driver's compartment specifying the quantity and type of the following fluids used in the vehicle:

Yes\_\_\_ No \_\_\_

31.3.1 Engine Oil

31.3.2 Engine Coolant

31.3.3 Chassis Transmission Fluid

31.3.4 Drive Axle Lubrication Fluid

31.3.5 Air Conditioning refrigerant

31.3.6 Air Conditioning lubrication oil

31.3.7 Power steering fluid

31.3.8 Cab tilt mechanism fluid

31.3.9 Transfer case fluid

31.3.10 Equipment rack fluid

31.3.11 Air compressor system lubricant

31.3.12 Generator system lubricant

31.4 Permanent placards shall be affixed and visible to all seated occupants instructing the occupants to wear their seat belts.

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Yes\_\_\_ No \_\_\_

31.5 A permanent placard shall be affixed to the rear step area to instruct that riding on the rear step is prohibited.

Yes\_\_\_ No \_\_\_

32. **MAXIMUM HEIGHT**

The maximum height of the apparatus shall not exceed **120.0 inches. NO EXCEPTIONS.**

Yes\_\_\_ No \_\_\_

33. **MAXIMUM LENGTH**

The maximum length of the apparatus shall not exceed **362.0 inches. NO EXCEPTIONS.**

Yes\_\_\_ No \_\_\_

34. **MAX WHEELBASE**

The maximum wheelbase of the apparatus shall not exceed **182.0"**.

Yes\_\_\_ No \_\_\_

35. **ANGLE OF APPROACH**

The angle of approach for the apparatus shall not be less than eight (8) degrees as specified by the current edition of NFPA 1901.

Yes\_\_\_ No \_\_\_

36. **ANGLE OF DEPARTURE**

The angle of departure for the apparatus shall not be less than eight (8) degrees as specified by the current edition of NFPA 1901.

Yes\_\_\_ No \_\_\_

37. **CENTER OF GRAVITY**

37.1 The apparatus, prior to acceptance, will be required to meet the vehicle stability of the applicable NFPA Automotive Fire Apparatus Standard.

Yes\_\_\_ No \_\_\_

37.2 A calculated center of gravity shall be provided. The calculated or measured center of

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gravity (CG) shall be no higher than 80 percent of the rear axle track width.

Yes\_\_\_ No \_\_\_

**38. DEMONSTRATION/TRAINING**

38.1 Fire Department personnel shall be properly instructed as to the proper use of the entire apparatus including, but not limited to, the chassis, the apparatus and all equipment. The demonstration shall be done by a factory trained specialist who shall be responsible for complete instruction as to operation and maintenance of the chassis and the completed vehicle.

Yes\_\_\_ No \_\_\_

38.2 The demonstration specialist shall remain at the Fire Department's location, to be determined, for (3) full working days for every unit delivered, to provide thorough instruction to all personnel, or as instructed by Chief of the Department. All meals, motel and travel costs shall be the responsibility of the successful bidder.

Yes\_\_\_ No \_\_\_

**39. COMPLETE PRINTED MANUAL**

39.1 The manufacturer shall provide with the vehicle upon delivery, two (2) complete delivery manuals. These manuals shall be in not book type binders, with reference tabs for each section of the vehicle. A companion compact disk (CD) with all of the printed material in an electronic format (Adobe Acrobat PDF) shall be provided.

Yes\_\_\_ No \_\_\_

39.2 Within each section shall be:

39.2.1 Individual component manufacturer instruction and parts manuals

39.2.2 Warranty forms for the body

39.2.3 Warranty forms for all major components

39.2.4 Warranty instructions and format to be used in compliance with warranty obligations

39.2.5 Wiring diagrams

39.2.6 Installation instruction and drawings for major parts

39.2.7 Visual graphics and electronic photos for the installation of major parts

39.2.8 Necessary normal routine service forms, publications and components

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of the body portion of the apparatus

- 39.2.9 Technical publications for training and instruction on major body components
  - 39.2.10 Warning and safety related notices for personnel protection.
  - 39.2.11 Cab and chassis manuals on parts, service and maintenance shall be provided.
- 39.3 The manufacturer shall supply details of their manual information with their bid submission.

39.4 Parts Listings within Manuals

The manuals will include part numbers from the apparatus manufacturer cross-referenced to the vendor's parts. This will allow for reference between individual parts and complete installation assemblies as completed by the body builder. The manuals will list all components of the vehicle that include a vendor part utilized in a complete installation via the manufacturers "line item sheet" or "stripper" utilized to manufacture the completed vehicle. These are "As Built" and proposals with "typical" or "generic" manuals will be rejected.

39.5 Illustrative Schematics within Manuals

The manufacturer shall include installation diagrams and drawings of all major Sub-assemblies. This will include components such as ladder rack assemblies, pump panels, tanks, fire pumps, etc. The manufacturer shall submit, with the bid proposal, a sample schematic.

39.6 Electrical Schematics

To maintain the vehicle's electrical systems, the manufacturer shall provide to the schematics of the vehicle. The electrical information shall be provided as follows:

39.6.1 Wiring Systems 12 and 120 Volt:

- 39.6.1.1 Graphic symbols for electrical diagrams
- 39.6.1.2 Wire labeling, imprinting codes and index
- 39.6.1.3 Computer generated electrical schematics indicating the circuit number, wire size, switches, circuit breaker and terminals on the vehicle

40. **CAB TEST INFORMATION**

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The cab shall have successfully achieved survival of the International crash test ECE-R29, Addendum 28, Revision 1 standards as indicated below. It shall also meet SAE J2420 COE Frontal Strength Evaluation Dynamic Loading Heavy Trucks and SAE J2422 Cab Roof Strength Quasi-Static Roof Load test requirements.

Yes\_\_\_ No \_\_\_

**41. APPARATUS DIMENSION DATA**

One (1) highly visible label indicating the overall height, length, and weight of the vehicle shall be installed in the cab dash area.

Yes\_\_\_ No \_\_\_

**42. NO RIDE LABEL**

One (1) "NO RIDERS" label shall be applied on the vehicle at the rear step area or other applicable areas. The label shall warn personnel that riding in or on these areas, while the vehicle is in motion is prohibited.

Yes\_\_\_ No \_\_\_

**43. CAB SEATING POSITION LIMITS**

One (1) label shall be installed in the cab to indicate seating positions for firefighters. A weight allowance of 250 pounds for each shall be factored into the gross vehicle weight rating of the chassis.

Yes\_\_\_ No \_\_\_

**44. HELMET WARNING TAG**

One (1) label shall be installed in the cab, visible from each seating position. The label shall read "DO NOT STORE HELMETS IN CAB WHILE VEHICLE IS IN MOTION." Helmets must be stored in a body compartment.

Yes\_\_\_ No \_\_\_

**45. EXHAUST SYSTEM**

The chassis exhaust shall be modified and redirected to the right side of the apparatus and will exit ahead of the rear wheel.

Yes\_\_\_ No \_\_\_

**46. EXHAUST HEAT SHIELD**

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A heat shield shall be installed under the body in the areas where the exhaust system is routed.

Yes\_\_\_ No \_\_\_

47. **REAR MUD FLAPS**

One (1) pair of black mud flaps shall be installed behind the rear wheels.

Yes\_\_\_ No \_\_\_

48. **MODEL**

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 \_\_\_

49. **MODEL YEAR**

The chassis shall have a vehicle identification number that reflects a 2014 model year.

Yes\_\_\_ No \_\_\_

50. **APPARATUS TYPE**

The apparatus shall be a medium rescue vehicle designed for emergency service use which shall be equipped with body whose primary purpose is provide support at structural and associated fires.

Yes\_\_\_ No \_\_\_

51. **VEHICLE TYPE**

The chassis shall be manufactured for use as a straight truck type vehicle and designed for the installation of a permanently mounted apparatus behind the cab. The apparatus of the vehicle shall be supplied and installed by the apparatus manufacturer.

Yes\_\_\_ No \_\_\_

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52. **AXLE CONFIGURATION**

The chassis shall feature a 4 X 2 axle configuration consisting of a single rear drive axle with a single front steer axle.

Yes\_\_\_ No \_\_\_

53. **GROSS AXLE WEIGHT RATINGS FRONT**

53.1 The front gross axle weight rating (GAWR) of the chassis shall be minimum of 20,000 pounds.

Yes\_\_\_ No \_\_\_

53.2 This front gross axle weight rating shall be adequate to carry the weight of the completed apparatus including all equipment and personnel.

Yes\_\_\_ No \_\_\_

54. **GROSS AXLE WEIGHT RATINGS REAR**

54.1 The rear gross axle weight rating (GAWR) of the chassis shall be minimum of 27,000 pounds.

Yes\_\_\_ No \_\_\_

54.2 This rear gross axle weight rating shall be adequate to carry the weight of the completed apparatus including all equipment and personnel.

Yes\_\_\_ No \_\_\_

55. **CAB STYLE**

55.1 The cab shall be a custom, fully enclosed model designed and built specifically for use as an emergency response vehicle by a company capable of providing a cab and chassis design for all emergency response applications. The cab shall be designed for heavy-duty service utilizing superior strength and capacity for the application of protecting the occupants of the vehicle. This style of cab shall offer eight (8) seating positions.

Yes\_\_\_ No \_\_\_

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- 55.2 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.
- Yes\_\_\_ No \_\_\_
- 55.3 The cab shall be constructed using multiple aluminum extrusions in conjunction with aluminum plate, which shall provide proven strength and the truest, flattest body surfaces. All aluminum welding shall be completed to the American Welding Society and ANSI D1.2-96 requirements for structural welding of aluminum.
- Yes\_\_\_ No \_\_\_
- 55.4 All interior and exterior seams shall be sealed for optimum noise reduction and to provide efficiency for heating and cooling.
- Yes\_\_\_ No \_\_\_
- 55.5 The cab shall be constructed of corrosion resistant minimum nominal thickness of 3/16 inch or equivalent aluminum plate. The cab shall incorporate fitted aluminum extrusions for extreme duty situations and shall meet cab test standards identified previously in these specifications.
- Yes\_\_\_ No \_\_\_
- 55.6 The exterior width of the cab shall not be less than 99.00 inches wide. The overall cab length shall be a minimum of 137.3 inches with a minimum of 60.00 inches from the centerline of the front of the axle to the back of the cab. The cab shall not be more than 125 inches wide, when measured mirror to mirror.
- Yes\_\_\_ No \_\_\_
- 55.7 The cab interior shall be designed to afford the maximum usable interior space and attention to ergonomics.
- Yes\_\_\_ No \_\_\_
- 55.8 A minimum dimension of 25 inches of hip room in the officer's riding position (measured at the top of the lower seat and between vertical face of dog house and the closest protruding vertical face of officer's door, including handles that would affect rider comfort) and legroom shall be a minimum of 29 inches in the officer's riding area (measured from the forward face of seat pedestal to closest vertical face of the front cab wall).
- Yes\_\_\_ No \_\_\_
- 55.9 A minimum dimension of 25 inches of hip room in the driver's riding position (measured at the top of the lower seat and between vertical face of dog house and the closest

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protruding vertical face of driver's door including handles that would affect driver's comfort) and legroom shall be a minimum of 29 inches in the driver's riding area. (Measured from the forward face of seat pedestal to closest vertical face of the front cab wall)

Yes\_\_\_ No \_\_\_

55.10 The bidder shall state dimensions of interior leg room and interior hip room as part of their bid proposal.

Yes\_\_\_ No \_\_\_

55.11 The crew cab floor shall be flat across the entire walking area for ease of movement inside the cab.

Yes\_\_\_ No \_\_\_

55.12 The cab shall include a driver and officer area with two (2) cab doors large enough for personnel in full firefighting gear to enter and exit safely. The doors shall open a minimum of 90 degrees to the adjacent outboard face of the cab.

Yes\_\_\_ No \_\_\_

55.13 The cab shall also include a crew area with up to two (2) cab doors, also large enough for personnel in full firefighting gear to enter and exit safely. The rear doors shall open a minimum of 90 degrees to the adjacent outboard face of the cab.

Yes\_\_\_ No \_\_\_

55.14 Bidder shall state the degree of door openings both minimum and maximum.

Yes\_\_\_ No \_\_\_

55.15 The cab shall incorporate a progressive two (2) step configuration from the ground to the cab floor at each door opening. The progressive steps are vertically staggered and extend the full width of each step well allowing personnel in full firefighting gear to enter and exit the cab easily and safely.

Yes\_\_\_ No \_\_\_

55.16 The first step for the driver and officer area shall maximize the allowable step area to provide safe entry and exit of the cab. The intermediate step shall maximize the allowable step area to provide safe entry and exit of the cab. The height from the first step to the intermediate step and the intermediate step to the cab floor shall not exceed 22.00 inches.

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Yes\_\_\_ No \_\_\_

55.17 The first step for the crew area shall maximize the allowable step area to provide safe entry and exit of the cab. The intermediate step shall maximize the allowable step area to provide safe entry and exit of the cab. The height from the first step to the intermediate step and the intermediate step to the cab floor shall not exceed 22.00 inches.

Yes\_\_\_ No \_\_\_

56. **CAB FRONT FASCIA**

56.1 The cab fascia shall offer a traditional, yet aggressive appearance, in its design and shall be constructed of work-hardened 5052-H32 aluminum super structure which is fully welded to the cab, for a seamless and robust integration.

Yes\_\_\_ No \_\_\_

56.2 The cab fascia will encompass the entire front of the aluminum cab structure from the bottom of the windshield to the bottom of the cab.

Yes\_\_\_ No \_\_\_

56.3 The front cab fascia shall include two (2) molded plastic modules on each side accommodating a total of up to four (4) Hi/Low beam headlights and two (2) turn signal lights or up to four (4) warning lights. A chrome plated molded plastic bezel shall be provided on each side around each set of four lamps.

Yes\_\_\_ No \_\_\_

57. **CAB UNDERCOAT**

There shall be a rubber undercoating applied to the underside of the cab that provides abrasion protection, sound deadening and corrosion protection.

Yes\_\_\_ No \_\_\_

58. **CAB SIDE DRIP RAIL**

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 \_\_\_

NON-OFFICIAL SPEC  
DO NOT USE

59. **CAB PAINT EXTERIOR**

59.1 The cab shall be painted prior to the installation of glass accessories and all other cab trim to ensure complete paint coverage and the maximum in corrosion protection of all metal surfaces. All paint and body work shall be completed per paint manufacturer's specifications and industry standards to include:

59.1.1 Two primer coats

59.1.2 Two finish coats

59.1.3 Prior to the application of any coatings, all surfaces shall be thoroughly cleaned and conditioned to the paint manufacture's specifications.

59.1.4 All paint shall be free of Lead, Chromate and Isocyanides

Yes \_\_\_ No \_\_\_

59.2 All cab and chassis paint shall be guaranteed against paint and metal corrosion for a period of not less than ten years.

Yes \_\_\_ No \_\_\_

59.3 The cab shall then be painted with the upper and lower colors identified below.

Yes \_\_\_ No \_\_\_

59.4 A detailed description shall be provided of the cab, chassis and body preparation, painting and materials with the bidder proposal.

Yes \_\_\_ No \_\_\_

60. **CAB PAINT MANUFACTURER**

The cab shall be painted with PPG Industries paint.

Yes \_\_\_ No \_\_\_

61. **CAB PAINT PRIMARY/LOWER COLOR**

The lower paint color shall be PPG FBCH 71663 Red to be confirmed at preconstruction meeting.

Yes \_\_\_ No \_\_\_

62. **CAB PAINT SECONDARY/UPPER COLOR**

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The secondary/upper paint color shall be PPG FBCH 2185 white to be confirmed at preconstruction meeting.

Yes\_\_\_ No \_\_\_

63. **CAB PAINT EXTERIOR BREAKLINE**

The upper and lower paint shall meet at a break line on the cab which shall be located approximately 1.00 inch below the door windows on each side of the cab. The break line shall continue in a straight line approximately 1.00 inch below the windshields on the front of the cab.

Yes\_\_\_ No \_\_\_

64. **CAB PAINT PINSTRIPE**

Where the upper and lower paint colors meet, a matching red .25 inch pinstripe shall be applied above this break line to offer a more finished look.

Yes\_\_\_ No \_\_\_

65. **CAB PAINT INTERIOR**

The visible cab structure surfaces shall be painted with a silver gray texture finish or equivalent.

Yes\_\_\_ No \_\_\_

66. **CAB ENGINE TUNNEL**

The cab interior shall include an integrated engine tunnel constructed of 5052-H32 Marine Grade, 0.19 inch thick aluminum or equivalent. The tunnel shall be low profile, a maximum of 26 inches high, and shall not hinder movement of offer or driver.

Yes\_\_\_ No \_\_\_

66.1 There shall be a flat mounting plate attached to the rear of the engine tunnel which can be utilized for the mounting of equipment. The plate shall be covered in ARMA coat to match the Engine tunnel and dash.

Yes\_\_\_ No \_\_\_

66.2 There shall be Pac Trac Dual Trac mounted on the rear of the engine tunnel. It shall be

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the full width of the engine tunnel by approximately 21.00 inches high

Yes\_\_\_ No \_\_\_

- 66.3 One Zico 30 minute SCBA air pack mounting bracket with spring tension bracket shall be provided and installed on the kick plate. The mounting bracket shall be specifically designed for the mounting of the drivers Scott 5.5 SCBA air pack. Final mounting location shall be determined at the time of preconstruction.

Yes\_\_\_ No \_\_\_

**67. CAB ENTRY DOORS**

- 67.1 The cab shall include four (4) entry doors, two (2) front doors and two (2) crew doors as high as possible for ease of entering and egress when outfitted with an SCBA. The doors shall be Jersey style and provide approximately 32.00 inches of clearance from the ground to the bottom of the door and constructed of extruded aluminum with a minimum nominal thickness of .125 inch. The exterior skins shall be constructed of .125 inch aluminum plate.

Yes\_\_\_ No \_\_\_

- 67.2 All cab and crew doors shall be of substantial weight for optimum strength and rigidity for the best performance in all cab crash testing. Any cab with front and crew doors manufactured of less than the material thickness of .125 inch in both the extrusion and exterior skin will not be considered.

Yes\_\_\_ No \_\_\_

- 67.3 The doors shall include a rolled style automotive rubber seal around the perimeter of each door frame and door edge which ensures a weather tight fit.

Yes\_\_\_ No \_\_\_

- 67.4 Each door hinge shall be piano style with a 0.38 inch pin and shall be constructed of stainless steel.

Yes\_\_\_ No \_\_\_

**68. OEM WIRING**

The wiring system shall include a custom interface harness provided by the body manufacturer which shall include switches on the dash in the case of a rescue vehicle.

Yes\_\_\_ No \_\_\_

69. **APPARATUS WIRING PROVISION**

69.1 The chassis shall include a single starting electrical system which shall include a 12 volt direct current system, suppressed per SAE J551. The wiring shall be appropriate gauge cross link with 311 degree Fahrenheit insulation. All SAE wires in the chassis shall be color coded and shall include the circuit number and function where possible. The wiring shall be protected by 275 degree Fahrenheit minimum high temperature flame retardant loom.

Yes\_\_\_ No \_\_\_

69.2 An apparatus wiring panel shall be installed on the cab bulkhead below the dash which shall include eight (8) open circuits consisting of three (3) 20 amp, one (1) 30 amp, three (3) 10 amp, and one (1) 15 amp circuit, with relays and breakers with trigger wires which shall be routed to the rocker switch panel.

Yes\_\_\_ No \_\_\_

70. **LOAD MANAGEMENT SYSTEM**

The apparatus shall be equipped with a Class 1 Total System Manager (TSM) for performing electrical load management. The TSM shall have sixteen (16) programmable outputs to supply warning and load switching requirements. Outputs one (1) through twelve (12) shall be independently programmable to activate during the scene mode, the response mode, or both. These outputs can also be programmed to activate with the ignition or master warning switch or to sequence and shed along with the priority. Output thirteen (13) shall be designated to activate a fast idle system. Output fourteen (14) shall provide a low voltage warning for an isolated battery. Output fifteen (15) is a user configurable output and shall be programmable for activating between 10.50 and 15.00 volts. Output sixteen (16) shall provide a low voltage alarm that activates at the NFPA required 11.80 volts. The TSM shall have a digital display to indicate system voltage in normal operation mode and also indicate the output configuration during programming mode. The TSM shall be protected against reverse polarity and shorted outputs and be enclosed in a metal enclosure to enhance EMI/RFI protection.

Yes\_\_\_ No \_\_\_

71. **DATA RECORDING SYSTEM**

71.1 The chassis shall have a Class One Vehicle Data Recorder system installed. The system shall be designed to meet NFPA 1901. The following information shall be recorded:

- 71.1.1 Vehicle Speed
- 71.1.2 Acceleration
- 71.1.3 Deceleration
- 71.1.4 Engine Speed

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- 71.1.5 Engine Throttle Position
- 71.1.6 ABS Event
- 71.1.7 Seat Occupied Status
- 71.1.8 Seat Belt Status
- 71.1.9 Master Optical Warning Device Switch Position
- 71.1.10 Time
- 71.1.11 Date

Yes\_\_\_ No \_\_\_

71.2 Each portion of the data shall be recorded at the specified intervals and stored for the specified length of time to meet NFPA 1901 guidelines and shall be retrievable by connecting a laptop computer to the VDR system.

Yes\_\_\_ No \_\_\_

73. **POWER DISTRIBUTION PANEL - RADIO**

An accessory power distribution panel shall be installed inside the cab, in an accessible way. It shall be located behind the officer's seat, mounted to the cab wall. The panel shall feature ten (10) blade type fuses protected by a 40 amp fuse located at the right side battery cluster. The panel shall be directly wired to a battery and **NOT** a junction. The panel shall be capable of carrying up to a maximum 40 amp battery direct load.

Yes\_\_\_ No \_\_\_

74. **POWER & GROUND STUD**

The electrical distribution panel shall include two (2) power studs. The studs shall be size #10 and each of the power studs shall be circuit protected with a fuse of the specified amperage. One (1) power stud shall be capable of carrying up to a 40 amp battery direct load. One (1) power stud shall be capable of carrying up to a 15 amp ignition switched load. The two (2) power studs shall share one (1) #10 ground stud that shall be 0.38 inch diameter.

Yes\_\_\_ No \_\_\_

75. **ENGINE**

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75.1 The power plant for the vehicle shall offer a diesel fueled turbo charged engine which shall feature a high pressure common rail fuel system and fully integrated electronic controls. This system shall be coupled with a Holset Variable Geometry Turbo™.

Yes\_\_\_ No \_\_\_

75.2 The engine shall be EPA certified to meet the 2014 emissions standards using cooled exhaust gas recirculation and selective catalytic reduction technology. The Cummins ISC 8.3 engine shall consists of an in line six (6) cylinder, four cycle diesel powered engine. The engine shall offer a rating of 320 horse power at 2000 RPM which shall be governed at 2200 RPM. The torque rating shall feature 1050 foot pounds of torque at 1400 RPM with 506 cubic inches (8.3 liter) of displacement. The Cummins ISC 8.3 engine shall feature an electronic governor.

Yes\_\_\_ No \_\_\_

75.3 The engine shall include an engine mounted combination full flow/by-pass oil filter with replaceable spin-on cartridge for use with the engine lubrication system. The engine shall include Citgo brand Citgard 500, or equivalent SAE 15W40 CJ4 low ash engine oil which shall be utilized for proper engine lubrication.

Yes\_\_\_ No \_\_\_

**76. DIESEL PARTICULATE FILTER CONTROLS**

There shall be two (2) controls for the diesel particulate filter. One (1) control shall be for regeneration and one (1) control shall be for regeneration inhibit. The regeneration inhibit switch shall include a guard.

Yes\_\_\_ No \_\_\_

**77. ENGINE PROGRAMMING HIGH IDLE SPEED**

The engine high idle control shall maintain the engine idle at approximately 1250 RPM when engaged.

Yes\_\_\_ No \_\_\_

**78. ENGINE HIGH IDLE CONTROL**

The vehicle shall be equipped with a high-idle speed control which shall be pre-set to maintain the engine idle at a pre-determined rate when activated manually. This device shall operate

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when the master switch is activated and be safety interlocked only to function when the transmission is in neutral with the parking brake set.

Yes\_\_\_ No \_\_\_

79. **ENGINE PROGRAMMING ROAD SPEED GOVERNOR**

The engine shall include programming which will govern the top speed of the vehicle.

Yes\_\_\_ No \_\_\_

80. **AUXILIARY ENGINE BRAKE**

80.1 The engine shall utilize a Jacobs engine brake compatible with the above specified engine.

Yes\_\_\_ No \_\_\_

80.2 A cutout relay shall be installed to disable the engine brake when in pump mode or when an ABS event occurs. The engine brake shall activate at a 0% accelerator throttle position when in operation mode.

Yes\_\_\_ No \_\_\_

81. **AUXILIARY ENGINE BRAKE CONTROL**

81.1 An engine brake control device shall be included. The electronic control device shall activate the engine brake only if all of the following conditions are simultaneously detected:

Yes\_\_\_ No \_\_\_

81.1.1 A valid gear ratio is detected.

Yes\_\_\_ No \_\_\_

81.1.2 The driver has requested or enabled engine compression brake operation.

Yes\_\_\_ No \_\_\_

81.1.3 The throttle is at a minimum engine speed position.

Yes\_\_\_ No \_\_\_

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81.1.4 The electronic controller is not presently attempting to execute an electronically controlled final drive gear shift.

Yes\_\_\_ No \_\_\_

81.2 The engine brake device shall be controlled through an on/off switch and individual low/medium/high selector switches on the Driver's panel. The engine brake status shall be displayed through indicator lights on the dash panel in view of the driver.

Yes\_\_\_ No \_\_\_

**82. FLUID FILLS AND CHECKS**

Proposals including access to fluid checks and fills through the tunnel or by raising the cab shall not be considered.

82.1 For ease of maintenance and access, the following **fluid checks** shall be located at the front grill behind the tilt-able and/or removable mesh panel:

- 82.1.1 Engine Oil
- 82.1.2 Engine Coolant (Sight Glass)
- 82.1.3 Power Steering Fluid
- 82.1.4 Windshield Washer Fluid

Yes\_\_\_ No \_\_\_

82.2 The following fluid fill shall be located behind the tiltable and/or removable mesh panel of the front grill:

- 82.2.1 Engine Oil
- 82.2.2 Power Steering
- 82.2.3 Windshield Washer
- 82.2.4 Engine Coolant

Yes\_\_\_ No \_\_\_

**83. ELECTRONIC ENGINE OIL LEVEL INDICATOR**

The engine oil shall be monitored electronically and shall send a signal to activate a warning

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in the instrument panel when levels fall below normal. The warning shall activate in a low oil situation upon turning on the master battery and ignition switches without the engine running.

Yes\_\_\_ No \_\_\_

**84. ENGINE PROGRAMMING IDLE SPEED**

The engine low idle speed will be programmed at 700 rpm.

Yes\_\_\_ No \_\_\_

**85. ENGINE FAN DRIVE**

85.1 The engine cooling system fan shall incorporate a thermostatically controlled type fan drive.

Yes\_\_\_ No \_\_\_

85.2 When the clutched fan is disengaged it shall facilitate improved vehicle performance, cab heating in cold climates, and fuel economy. The fan clutch design shall be fail safe so that if the clutch drive fails the fan shall engage to prevent engine overheating due to.

Yes\_\_\_ No \_\_\_

**86. ENGINE COOLING SYSTEM**

There shall be a heavy-duty cooling system designed to meet the demands of the emergency response industry. 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 \_\_\_

86.1 Mounts allowing the entire radiator to drop through the frame for service when needed.

Yes\_\_\_ No \_\_\_

86.2 Radiator re-circulation shields to prevent heated air from re-entering the cooling system and affecting performance.

Yes\_\_\_ No \_\_\_

**87. ENGINE COOLING SYSTEM PROTECTION**

The engine cooling system shall include a recirculation shield designed to act as a light duty

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skid plate below the radiator to provide additional protection for the engine cooling system from light impacts, stones, and road debris.

Yes\_\_\_ No \_\_\_

88. **ENGINE COOLANT**

The cooling package shall include Extended Life Coolant (ELC). The coolant shall contain a 50/50 mix of ethylene glycol and de-ionized water to keep the coolant from freezing to a temperature of -34 degrees F.

Yes\_\_\_ No \_\_\_

89. **ENGINE COOLANT FILTER**

An engine coolant filter with a shut-off valve for the inlet and outlet shall be installed on the chassis and meet Cummins manufactures recommendations. The location of the filter shall allow for easy maintenance.

Yes\_\_\_ No \_\_\_

90. **ELECTRONIC COOLANT LEVEL INDICATOR**

The instrument panel shall feature a low engine coolant indicator light which shall be located in the instrument panel. An audible tone alarm shall also be provided to warn of a low coolant incident.

Yes\_\_\_ No \_\_\_

91. **COOLANT HOSES**

The cooling systems hose shall be formed **silicone** hose and formed aluminized steel tubing and include stainless steel constant torque band clamps.

Yes\_\_\_ No \_\_\_

92. **ENGINE COOLANT OVERFLOW BOTTLE**

A remote overflow bottle shall be provided in the case of over filling the coolant system; this is usually done to contain the expansion fluid or overflow in the overflow bottle rather than on the ground.

Yes\_\_\_ No \_\_\_

93. **ENGINE AIR INTAKE**

93.1 The engine air intake system shall meet the requirements of Cummins for air intake requirements for the ICS-8.3.

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Yes\_\_\_ No \_\_\_

- 93.2 The air intake shall be mounted for easy access and as high in the chassis as possible to avoid accidental intake of water. The air intake system shall include a restriction indicator light in the warning light cluster on the instrument panel.

Yes\_\_\_ No \_\_\_

94. **ENGINE EXHAUST SYSTEM**

- 94.1 The exhaust system shall include a diesel particulate filter (DPF), a diesel oxidation catalyst, and a selective catalytic reduction catalyst (SCR) to meet current EPA standards. The urea and water solution shall be injected into the system through the decomposition tube between the DPF and SCR.

Yes\_\_\_ No \_\_\_

- 94.2 The system shall utilize **stainless steel** exhaust tubing between the engine turbo and the DPF.

Yes\_\_\_ No \_\_\_

- 94.3 The DPF, the decomposition tube, and the SCR canister through the end of the tailpipe shall be connected utilizing no leak style clamps. The discharge shall terminate horizontally on the right side of the vehicle ahead of the rear tires.

Yes\_\_\_ No \_\_\_

95. **DIESEL EXHAUST FLUID TANK**

- 95.1 The exhaust system shall include a molded cross linked polyethylene tank for Diesel Exhaust Fluid (DEF). The tank shall have a capacity of no less than 5 gallons and shall be mounted on the chassis frame in an easy to access and refillable location.

Yes\_\_\_ No \_\_\_

- 95.2 The DEF tank shall be designed with capacity for expansion in case of fluid freezing. Engine Coolant, which shall be thermostatically controlled, shall be run through lines in the tank to help prevent the DEF from freezing and to provide a means of thawing the fluid if it should become frozen.

Yes\_\_\_ No \_\_\_

96. **ENGINE EXHAUST ACCESSORIES**

The exhaust system shall be modified to accept a Plymovent exhaust extraction system collar.

Yes\_\_\_ No \_\_\_

97. **ENGINE EXHAUST WRAP**

The exhaust tubing between the engine turbo and the diesel particulate filter (DPF) shall be wrapped with a thermal cover in order to retain the necessary heat for DPF regeneration. The exhaust wrap shall also help protect surrounding components from radiant heat which can be transferred from the exhaust.

Yes\_\_\_ No \_\_\_

98. **TRANSMISSION**

98.1 The drive train shall include an Allison Gen IV-E model EVS 3000 torque converting, automatic transmission which shall include electronic controls. The transmission shall feature two (2) 10-bolt PTO pads located on the converter housing.

Yes\_\_\_ No \_\_\_

98.2 The transmission shall include two (2) internal oil filters and manufacture recommended transmission fluid shall be utilized in the lubrication of the EVS transmission. An electronic oil level sensor shall be included with the readout located in the shift selector.

Yes\_\_\_ No \_\_\_

98.3 The Gen IV-E transmission shall include prognostic diagnostic capabilities. These capabilities shall include the monitoring of the fluid life, filter change indication, and transmission clutch maintenance.

Yes\_\_\_ No \_\_\_

98.4 The transmission gear ratios shall be:

10.1.4.1 1st 3.49:1

10.1.4.2 2nd 1.86:1

10.1.4.3 3rd 1.41:1

10.1.4.4 4th 1.00:1

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- 10.1.4.5 5th 0.75:1
- 10.1.4.6 6th 0.65:1 (if applicable)
- 10.1.4.7 Rev 5.03:1

Yes\_\_\_ No \_\_\_

**99. TRANSMISSION PROGRAMMING**

The EVS group package number 127 shall contain the 198 vocational package for the fire service for this apparatus as a Pumper. This package shall incorporate an automatic neutral with selector override. This feature commands the transmission to neutral when the park brake is applied, regardless of drive range requested on the shift selector which requires re-selecting the drive range to shift out of neutral for the override.

Yes\_\_\_ No \_\_\_

- 99.1 The transmission, upon start-up, will automatically select a four (4) speed operation. The fifth speed over drive shall be available with the activation of the mode button on the shifting pad.

Yes\_\_\_ No \_\_\_

**99. ELECTRONIC TRANSMISSION OIL LEVEL INDICATOR**

The transmission fluid shall be monitored electronically and shall send a signal to activate a warning in the instrument panel when levels fall below normal.

Yes\_\_\_ No \_\_\_

**100. TRANSMISSION SHIFT SELECTOR**

An Allison pressure sensitive range selector touch pad shall be provided and located to the right of the driver within clear view and easy reach. The shift selector shall provide an indicator on the digital display and shall alert the driver/operator when a specific maintenance function is required.

Yes\_\_\_ No \_\_\_

**101. TRANSMISSION PRE-SELECT WITH AUXILIARY BRAKE**

When the auxiliary brake is engaged, the transmission shall automatically shift to second gear to decrease the rate of speed assisting the secondary braking system and slowing the vehicle.

Yes\_\_\_ No \_\_\_

102. **TRANSMISSION COOLING SYSTEM**

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

Yes\_\_\_ No \_\_\_

103. **DRIVELINE**

All drivelines shall be heavy duty metal tube and equipped with Spicer 1710 series universal joints. The shafts shall be dynamically balanced prior to installation to alleviate future vibration. In areas of the driveline where a slip shaft is required, the splined slip joint shall be coated with Glide Coat®.

Yes\_\_\_ No \_\_\_

104. **AIR TANK FILL**

An air tank fill nipple shall be installed in the cab of the vehicle so that the vehicles air system can be filled with shop air. Air fill shall have a check valve installed in-line.

Yes\_\_\_ No \_\_\_

105. **AIR TANK FILL LOCATION**

The fill nipple shall be located next to the driver's seat and easily accessible from outside of the cab when the door is open.

Yes\_\_\_ No \_\_\_

106. **FUEL FILTER/WATER SEPARATOR**

106.1 The fuel system shall have a Fuel Pro 382 fuel filter as a primary filter. The fuel filter shall have a drain valve and meet the engine manufactures recommendations for fuel filtering.

Yes\_\_\_ No \_\_\_

106.2 A water in fuel sensor shall be provided and wired to an instrument panel lamp and audible alarm to indicate when water is present in the fuel/water separator.

Yes\_\_\_ No \_\_\_

106.3 A secondary fuel filter shall be included as approved by the engine manufacturer.

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Yes\_\_\_ No \_\_\_

107. **FUEL SHUTOFF VALVES**

Fuel shutoff valves shall be installed in the fuel draw line at the primary fuel filter and the secondary fuel filter to allow the fuel filters to be changed without loss of fuel to the fuel pump.

Yes\_\_\_ No \_\_\_

108. **FUEL TANK**

108.1 The fuel tank shall have a minimum capacity of sixty (50) gallons. The baffled tank shall be made of 14 gauge aluminized steel or equivalent. The exterior of the tank shall be painted with a black anti-corrosive exterior metal treatment finish. This results in a tank which offers the internal and external corrosion resistance.

Yes\_\_\_ No \_\_\_

108.2 The tank shall have a vent port to facilitate venting for rapid filling.

Yes\_\_\_ No \_\_\_

108.3 The fuel tank shall be mounted below the frame, behind the rear axle. Rubber isolating pads shall be provided between the tank and the **Stainless Steel** hanger strap assemblies.

Yes\_\_\_ No \_\_\_

108.4 The chassis fuel lines shall feature an additional 2 feet of length provided so the tank can be easily lowered and removed for service purposes which shall be coiled and secured at the top of the tank.

Yes\_\_\_ No \_\_\_

109. **FRONT AXLE**

A Meritor MFS Easy Steer non-drive axle shall be incorporated as the front axle for the chassis. The axle shall feature:

- 109.1 A capacity of 18,000 pounds
- 109.2 A 3.74" drop and a 71" king pin intersection (KPI)
- 109.3 A conventional style hub with a standard knuckle

Yes\_\_\_ No \_\_\_

110. **FRONT WHEEL BEARING LUBRICATION**

The front axle wheel bearings shall be lubricated with oil. The oil level can be visually checked

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via clear inspection windows in the front axle hubs.

Yes\_\_\_ No \_\_\_

**111. FRONT SHOCK ABSORBERS**

Two (2) Bilstein inert or equivalent, nitrogen gas filled shock absorbers shall be provided and installed as part of the front suspension system.

Yes\_\_\_ No \_\_\_

**112. FRONT SUSPENSION**

The front suspension shall leaf spring pack with the spring capacity rated at a minimum of 20,000 pounds.

Yes\_\_\_ No \_\_\_

**113. STEERING COLUMN/ WHEEL**

113.1 The cab shall include a Douglas Autotech or equivalent steering column which shall include tilt and telescopic adjusting steering wheel located at the driver's position. The steering wheel shall be covered with black polyurethane foam padding.

Yes\_\_\_ No \_\_\_

113.2 The steering column shall contain a horn button, self-canceling turn signal switch.

Yes\_\_\_ No \_\_\_

**114. POWER STEERING PUMP**

The hydraulic power steering pump shall be a TRW PS or equivalent.

**115. POWER STEERING FLUID LEVEL INDICATOR**

The power steering fluid shall be monitored electronically and shall send a signal to activate an audible alarm and visual warning in the instrument panel when fluid level falls below normal.

Yes\_\_\_ No \_\_\_

**116. FRONT AXLE CRAMP ANGLE**

The chassis shall have a front axle cramp angle that averages to 45 degrees, or greater, between the left and right angles.

Yes\_\_\_ No \_\_\_

117. **POWER STEERING GEAR**

The power steering gear shall be a TRW model TAS 65 with an assist cylinder or equivalent.

Yes \_\_\_ No \_\_\_

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118. **CHASSIS ALIGNMENT**

118.1 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 front tires and wheels shall be aligned and toe-in set on the front tires by the chassis manufacturer.

Yes\_\_\_ No \_\_\_

118.2 The completed apparatus shall be rechecked for proper alignment by the body manufacturer after the vehicle has been fully loaded and before being placed into service.

Yes\_\_\_ No \_\_\_

119. **REAR AXLE**

119.1 The rear axle shall be a Meritor model RS-25-160 single drive axle. The axle shall include precision forged, single reduction differential gearing, and shall have a rated capacity of 27,000 pounds.

Yes\_\_\_ No \_\_\_

119.2 The axle shall have heavy-duty Hypoid gearing for longer life, greater strength and quieter operation. Industry-standard wheel ends for compatibility with both disc and drum brakes.

Yes\_\_\_ No \_\_\_

120. **REAR AXLE DIFFERENTIAL LUBRICATION**

The rear axle differential shall be lubricated with oil.

121. **REAR WHEEL BEARING LUBRICATION**

The rear axle wheel bearings shall be lubricated with oil.

Yes\_\_\_ No \_\_\_

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122. **VEHICLE TOP SPEED**

The top speed of the vehicle shall be approximately 65 MPH +/-2 MPH at governed engine RPM, or meet the current NFPA 1901 Standard.

Yes\_\_\_ No \_\_\_

123. **REAR SUSPENSION**

123.1 The single rear axle shall feature a Hendrickson Firemaax™ FMX 272 air suspension. The suspension shall include two optimized air springs mounted to cast structural trailing arms, a transverse cross beam for increased roll stability and two heavy duty shock absorbers, one on each side.

Yes\_\_\_ No \_\_\_

123.2 The suspension shall feature dual air height control valves which shall be installed to ensure equal frame height on both sides of the vehicle regardless of the load.

Yes\_\_\_ No \_\_\_

123.3 The rear suspension capacity shall be rated at 27,000 pounds to meet the rear axle rating selected.

Yes\_\_\_ No \_\_\_

124. **REAR SHOCK ABSORBERS**

Shock absorbers shall be supplied by the suspension manufacturer and installed on the rear axle suspension.

Yes\_\_\_ No \_\_\_

125. **FRONT TIRE**

The front tires shall be Goodyear 315/80/225 "L" tubeless radial G291 WHA highway tread.

Yes\_\_\_ No \_\_\_

The front tire shall be stamped for load capacity.

Yes\_\_\_ No \_\_\_

126. **REAR TIRE**

126.1 The rear tires shall be Goodyear 12R-22.5 "H" tubeless radial G622 Mud and Snow Tires.

Yes\_\_\_ No \_\_\_

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126.2 The rear tire shall be stamped for load capacity.

Yes\_\_\_ No \_\_\_

127. **SPARE TIRE FRONT**

A Goodyear G291 WHA 315/80/225 "L" tire shall be provided on a fully painted spare wheel.

Yes\_\_\_ No \_\_\_

128. **SPARE TIRE REAR**

A Goodyear G622 12R-22.5 "H" tire shall be provided on a fully painted spare wheel.

Yes\_\_\_ No \_\_\_

129. **FRONT WHEEL**

The front wheels shall be hub piloted 22.50 inch X 9.00 inch steel wheels.

Yes\_\_\_ No \_\_\_

130. **REAR WHEEL**

The rear wheels shall be hub piloted, heavy duty, 22.50 inch X 8.25 inch steel wheels.

Yes\_\_\_ No \_\_\_

131. **WHEEL PAINT**

131.1 Each of the steel wheels shall be pretreated to prevent corrosion.

Yes\_\_\_ No \_\_\_

131.2 The wheels shall then be finish painted the same as the primary/lower color of the cab by the chassis manufacturer. The wheels shall include a 2.00 inch PPG silver metallic FDGH-33364 painted accent stripe on the outer edge of each wheel.

Yes\_\_\_ No \_\_\_

132. **BALANCE WHEELS AND TIRES**

All of the wheels and tires, including any spare wheels and tire assemblies, shall be dynamically balanced.

133. **BRAKE SYSTEM**

A rapid build-up air brake system shall be provided. The air brakes shall include a two (2) air tank, three (3) reservoir system. A floor mounted treadle valve shall be mounted inside the cab for graduated control of applying and releasing the brakes. A spring brake valve shall be installed to provide a controlled service brake application during an unlikely event including primary air supply loss. The system shall include an anti-compounding feature. All air reservoirs provided on the chassis shall be labeled for identification.

The rear axle spring brakes shall automatically apply in any situation when the air pressure falls below 25 PSI and shall include a mechanical means for releasing the spring brakes when necessary. An audible alarm shall designate when the system air pressure is below 60 PSI.

A four (4) sensor, four (4) modulator Anti-lock Braking System (ABS) shall be installed on the front and rear axles in order to prevent the brakes from locking or skidding while braking during hard stops or on icy or wet surfaces. This in turn shall allow the driver to maintain steering control under heavy braking and in most instances, shorten the braking distance. The electronic monitoring system shall incorporate diagonal circuitry which shall monitor wheel speed during braking through a sensor and tone ring on each wheel. A dash mounted ABS lamp shall be provided to notify the driver of a system malfunction. The ABS system shall automatically disengage the auxiliary braking system device when required. The speedometer screen shall be capable of reporting all active defaults using PID/SID and FMI standards.

133.1 Brake system shall conform to Federal Regulations MVSS-121, and shall be four (4) wheel S-Cam Drum Brakes/Auto Adjusting Slacks full air and anti-lock braking system (ABS).

Yes\_\_\_ No \_\_\_

133.2 Vehicle's air compressor shall be capable of 18.7 CFM minimum.

Yes\_\_\_ No \_\_\_

133.3 Brake system shall be equipped with Bendix Model AD-IP air dryer heated, and automatic heated moisture ejectors shall be provided in each air tank.

Yes\_\_\_ No \_\_\_

133.4 The ABS system shall automatically disengage the auxiliary braking system device when required.

Yes\_\_\_ No \_\_\_

134. **FRONT BRAKES**

The front brakes shall be Meritor S-cam drum type and sized to load capacity.

Yes\_\_\_ No \_\_\_

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135. **REAR BRAKES**

The rear brakes shall be Meritor S-cam drum type and sized to load capacity.

Yes\_\_\_ No \_\_\_

136. **PARK BRAKE**

Upon application of the push-pull valve in the cab, the rear brakes will engage via mechanical spring force. This is accomplished by dual chamber rear brakes, satisfying the FMVSS parking brake requirements.

Yes\_\_\_ No \_\_\_

137. **PARK BRAKE CONTROL**

137.1 A Meritor-Wabco, or equivalent, manual hand control push-pull style valve shall operate the parking brake system. The control shall be yellow in color.

Yes\_\_\_ No \_\_\_

137.2 The parking brake actuation valve shall be mounted within reach of the driver and officer.

Yes\_\_\_ No \_\_\_

137.3 Actuator shall be guarded from accidental activation.

Yes\_\_\_ No \_\_\_

138. **FRONT BRAKE SLACK ADJUSTERS**

The front brakes shall include Meritor automatic slack adjusters shall be installed on the chassis which features a simple, durable design offering reduced weight. The automatic slack adjusters shall feature a manual adjusting nut which cannot inadvertently be backed off and threaded grease fittings for easy serviceability.

Yes\_\_\_ No \_\_\_

139. **REAR BRAKE SLACK ADJUSTERS**

The rear brakes shall include Meritor automatic slack adjusters installed on the axle which features a simple, durable design offering reduced weight. The automatic slack adjusters shall feature a manual adjusting nut which cannot inadvertently be backed off and threaded grease fittings for easy serviceability.

Yes\_\_\_ No \_\_\_

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140. **FRONT BRAKE DUST SHIELDS**

The front axle shall be equipped with brake dust shields.

Yes\_\_\_ No \_\_\_

141. **REAR BRAKE DUST SHIELDS**

The rear brakes shall be equipped with brake dust shields.

Yes\_\_\_ No \_\_\_

142. **FRONT BRAKE CHAMBERS**

The front brakes shall include brake chambers supplied by Meritor and shall be approved per application.

Yes\_\_\_ No \_\_\_

143. **REAR BRAKE CHAMBERS**

The front brakes shall include brake chambers supplied by Meritor and shall be approved per application.

Yes\_\_\_ No \_\_\_

144. **MOISTURE EJECTORS**

An automatic heated moisture ejector with a manual drain provision shall be installed on **ALL** reservoirs of the air supply system.

Yes\_\_\_ No \_\_\_

145. **AIR GOVERNOR**

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. The air governor shall be integrated in the air dryer assembly.

Yes\_\_\_ No \_\_\_

146. **AIR SUPPLY LINES**

146.1 A dual air system plumbed with color coded tubing air lines shall be installed on the chassis.

Yes\_\_\_ No \_\_\_

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146.2 Brass "Quick-Connect" type fittings shall be used on the nylon tubing.

Yes\_\_\_ No \_\_\_

147. **FRAME**

147.1 Frames rails shall designed and engineered of high strength low alloy steel or equivalent sufficient sections rated by RBM to meet the intent of the specification.

Yes\_\_\_ No \_\_\_

147.2 The frame and cross members shall carry a lifetime warranty to the original purchaser. A copy of the frame warranty shall be made available upon request.

Yes\_\_\_ No \_\_\_

147.3 Proposals offering warranties for frames not including cross members shall not be considered.

Yes\_\_\_ No \_\_\_

147.4 Please provide a detailed description of materials and construction methods utilized in the manufacturing of the proposed frame.

Yes\_\_\_ No \_\_\_

148. **REAR TOW DEVICE**

Two (2) heavy duty painted tow eyes shall be installed extending rearward from the frame at the rear of the chassis.

Yes\_\_\_ No \_\_\_

149. **FRAME PAINT**

The frame shall be powder coated, or equivalent chassis paint black prior to any attachment of components.

Yes\_\_\_ No \_\_\_

150. **FRONT BUMPER**

150.1 A one piece, two (2) rib wrap-around style, polished stainless steel front bumper shall be provided. The material shall be 10 gauge 316 stainless steel, 12.00 inches high.

Yes\_\_\_ No \_\_\_

150.2 The bumper shall be 102" wide and shall be mounted to the frame rails through zinc coated fasteners.

Yes\_\_\_ No \_\_\_

151. **FRONT BUMPER EXTENSION LENGTH**

The front bumper shall be extended approximately 6.00 inches ahead of the cab.

Yes\_\_\_ No \_\_\_

152. **FRONT BUMPER EXTENSION WIDTH**

The front bumper extension shall be full width of the proposed Cab.

Yes\_\_\_ No \_\_\_

153. **FRONT BUMPER APRON**

153.1 The 6.00 inch extended front bumper shall include an apron constructed of 0.19 inch thick embossed aluminum tread plate.

Yes\_\_\_ No \_\_\_

153.2 The apron shall be installed between the bumper and the front face of the cab affixed using stainless steel bolts attaching the apron to the top bumper flange.

Yes\_\_\_ No \_\_\_

154. **AIR HORN**

Two (2) 24.5" Stuttertone chrome plated air horns shall be recess mounted into the front bumper with one positioned on each side.

Yes\_\_\_ No \_\_\_

155. **AIR HORN LOCATION**

The air horns shall be recess mounted in the front bumper face on the left and right side of the bumper in the inboard positions relative to the left and right hand frame rail.

Yes\_\_\_ No \_\_\_

156. **AIR HORN RESERVOIR**

One (1) air tank, with a 1200 cubic inch reservoir, shall be installed on the chassis to act as a supply tank for operating air horns. The reservoir shall be isolated with a 90 PSI pressure protection valve on the reservoir supply side to prevent depletion of the air to the air brake system.

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Yes\_\_\_ No \_\_\_

157. **FRONT BUMPER TOW HOOKS**

Two (2) heavy duty tow eyelets painted to match the chassis frame.

Yes\_\_\_ No \_\_\_

158. **CAB TILT SYSTEM**

The entire cab shall be capable of tilting approximately 45-degrees to allow for easy maintenance of the engine and transmission and provide safety precautions to users.

Yes\_\_\_ No \_\_\_

158.1 There shall be a manual pump incorporated in the event of a system failure to the cab tilt system. The manual pump shall be located on the right side frame rail in an accessible way.

Yes\_\_\_ No \_\_\_

158.2 The cab lock release shall be permanently mounted and within easy reach while operating the cab lift controller.

Yes\_\_\_ No \_\_\_

159. **CAB TILT CONTROL RECEPTACLE**

The cab tilt mechanism shall be electrically controlled by an "up/down" style controller. The controller shall be permanently mounted in the right side forward most compartment of the body as to minimize exposure to the elements and increase accessibility.

Yes\_\_\_ No \_\_\_

160. **CAB WINDSHIELD**

A one (1)-piece, safety glass full width windshield with a full viewing area will be provided

Yes\_\_\_ No \_\_\_

161. **GLASS FRONT DOORS**

The front cab doors shall include a window. These windows shall have the capability to roll down completely into the door housing. This shall be accomplished manually utilizing a crank style handle on the inside of the door. A reinforced window regulator assembly shall be provided for severe duty use. The window shall be trimmed in a black anodized aluminum ring and rubber seal to keep water from entering the cab when closed.

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Yes\_\_\_ No \_\_\_

162. **GLASS REAR DOOR RH**

The rear right hand side door shall include a window. This window shall roll up and down manually utilizing a crank style handle on the inside of the door. A reinforced window regulator assembly shall be provided for severe duty use. The window shall be trimmed in a black anodized aluminum ring and rubber seal to keep water from entering the cab when closed.

Yes\_\_\_ No \_\_\_

163. **GLASS REAR DOOR LH**

The rear left hand side door shall include a window. This window shall roll up and down manually utilizing a crank style handle on the inside of the door. A reinforced window regulator assembly shall be provided for severe duty use. The window shall be trimmed in a black anodized aluminum ring and rubber seal to keep water from entering the cab when closed.

Yes\_\_\_ No \_\_\_

164. **GLASS SIDE MID RH**

The cab shall include a fixed officer's side window glass which shall be located between the cab front and rear doors. The glass shall be 18 inches wide by 24 inches high and shall include a standard automotive tint and shall be trimmed in a black anodized rubber ring for a tight seal when closed.

Yes\_\_\_ No \_\_\_

165. **GLASS SIDE MID LH**

The cab shall include a fixed driver's side window glass which shall be located between the cab front and rear doors. The glass shall be 18 inches wide by 24 inches high and shall include a standard automotive tint and shall be trimmed in a black anodized rubber ring for a tight seal when closed.

Yes\_\_\_ No \_\_\_

166. **CLIMATE CONTROL**

The interior cab climate control shall be comprised of a triple system which shall include a defroster, a cab and crew heater and air conditioner for a complete HVAC system. The front system shall be controlled with a conventional rotary knob control on the dash and the rear overhead system shall be controlled through a conventional rotary knob control in the rear crew area. The HVAC system shall provide sufficient defrosting, heating and cooling to the entire cab without the need for any auxiliary systems.

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Yes\_\_\_ No \_\_\_

166.1 The cab shall be equipped with a doghouse mounted combination defrost/heating and air- conditioning system mounted on the engine tunnel in a central location.

Yes\_\_\_ No \_\_\_

166.2 The system shall offer adjustable louvers. Adequate number of the louvers shall face forward towards the windshield for defrosting. The system shall include adequate number of rearward facing louvers to direct air for the crew area and an adequate number for driver and officer comfort.

Yes\_\_\_ No \_\_\_

166.3 Heat and air circulation shall be provided to the driver and officer foot area of the cab as standard through ducting in the foot well area of both positions.

Yes\_\_\_ No \_\_\_

166.4 All defrost/heating systems shall be plumbed with one (1) "quarter- turn" style seasonal shut-off valve that is accessible without raising the cab.

Yes\_\_\_ No \_\_\_

167. **CLIMATE CONTROL DRAIN**

The climate control system shall include a draining system for water management.

Yes\_\_\_ No \_\_\_

168. **CLIMATE CONTROL ACTIVATION**

The HVAC system shall be controlled from the Driver dash through three (3) turn style knobs for the temperature control, the fan control and for the mode. Fan controls shall also be available to the rear crew area. The heating, defrosting and air conditioning controls shall be on the dash with reach of the driver.

Yes\_\_\_ No \_\_\_

168.1 The front HVAC system controls shall include a minimum of 3 mode positions. One position to allow defroster vents and cab vents functions to work simultaneously, one position for the defrost, and one position for cab vents.

Yes\_\_\_ No \_\_\_

169. **A/C COVER PAINT**

The HVAC cover shall be painted with a silver gray texture finish and match other interior

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painted surfaces.

Yes\_\_\_ No \_\_\_

**170. A/C COMPRESSOR**

The air-conditioning compressor shall be a belt driven, engine mounted, open type compressor that shall be capable of producing the required minimum number of BTU's recommended by the HVAC system manufacture. The compressor shall utilize R-134A refrigerant and PAG oil.

Yes\_\_\_ No \_\_\_

**171. CAB INSULATION**

The cab ceiling and walls shall include 1.00 inch thick in combination of foam insulation and other materials that shall act as a barrier absorbing noise as well as assisting in sustaining the desired climate within the cab interior.

Yes\_\_\_ No \_\_\_

**172. UNDER CAB INSULATION**

172.1 The underside of the cab tunnel surrounding the engine shall be lined with multi-layer insulation, engineered for application inside diesel engine compartments.

Yes\_\_\_ No \_\_\_

172.2 The insulation shall act as a noise barrier, absorbing noise thus keeping the decibel level in the cab well within NFPA recommendations. As an additional benefit, the insulation shall assist in sustaining the desired temperature within the cab interior.

Yes\_\_\_ No \_\_\_

172.3 The insulation shall meet or exceed FMVSS 302 flammability test.

Yes\_\_\_ No \_\_\_

172.4 The insulation shall be cut precisely to fit each section and sealed for additional heat and sound deflection.

Yes\_\_\_ No \_\_\_

**173. INTERIOR TRIM FLOOR**

The floor of the cab shall be covered with a multi-layer mat of sound absorbing closed cell foam with an adequate non-slip vinyl surface. The covering shall be held in place by a pressure sensitive adhesive and aluminum trim molding. All exposed seams shall be sealed with silicone caulk matching the color of the floor mat to reduce the chance of moisture and debris retention.

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Yes\_\_\_ No \_\_\_

174. **INTERIOR TRIM VINYL**

The cab interior shall include trim on the front ceiling, rear crew ceiling, and the cab walls. It shall be easily removable to assist in maintenance. The trim shall be constructed of insulated marine grade vinyl over a hard board backing.

Yes\_\_\_ No \_\_\_

175. **REAR WALL INTERIOR**

The rear wall of the cab shall be trimmed with marine grade vinyl.

Yes\_\_\_ No \_\_\_

176. **HEADER TRIM**

The cab interior shall include a header over the driver and officer dash which shall be constructed of either 5052-H32 Marine Grade, 0.13 inch thick aluminum.

Yes\_\_\_ No \_\_\_

177. **INTERIOR TRIM SUNVISOR**

The header shall include two (2) sun visors, one each side forward of the driver and officer seating positions above the windshield.

Yes\_\_\_ No \_\_\_

178. **TRIM CENTER DASH**

The main center dash area shall be constructed of 5052-H32 Marine Grade, 0.13 inch thick aluminum plate or equivalent. The dash shall include cup holders and storage bins.

Yes\_\_\_ No \_\_\_

179. **TRIM LH DASH**

The left hand dash shall be constructed of 5052-H32 Marine Grade, 0.13 inch thick aluminum plate, or equivalent, for a perfect fit around the instrument panel and the lower control panels to the left and right of the steering column.

Yes\_\_\_ No \_\_\_

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180. **TRIM RH DASH**

The right hand dash shall be constructed of 5052-H32 Marine Grade, 0.13 of an inch thick aluminum plate, or equivalent.

180.1 The officer side of the cab dash shall include a glove compartment with door and latch.

Yes\_\_\_ No \_\_\_

181. **ENGINE TUNNEL TRIM**

The cab engine tunnel shall be covered with a multi-layer mat consisting of 0.25 inch closed cell foam with a 0.06 inch thick non-slip vinyl surface with a pebble grain finish or equivalent. The mat shall be held in place by pressure sensitive adhesive. The engine tunnel mat shall be trimmed with anodized aluminum stair nosing trim for an aesthetically pleasing appearance.

Yes\_\_\_ No \_\_\_

181.1 There shall be a flat mounting plate attached to the rear of the engine tunnel which can be utilized for the mounting of equipment. The plate shall be covered in ARMA coat to match the Engine tunnel and dash.

Yes\_\_\_ No \_\_\_

181.2 There shall be Pac Trac Dual Trac mounted on the rear of the engine tunnel. It shall be the full width of the engine tunnel by approximately 21.00 inches high.

Yes\_\_\_ No \_\_\_

182. **CENTER DASH CONSOLE**

The dash and front portion of the tunnel shall include an angled modular aluminum console centered between the driver and officer positions. There shall be the availability of pre wiring for specific components.

Yes\_\_\_ No \_\_\_

182.1 The console shall feature a heavy duty housing constructed from 3/16 aluminum.

Yes\_\_\_ No \_\_\_

182.2 Optimal heating and cooling of cab occupants, HVAC louvers shall be integrated into the gauge panel with a total of six (6) louvers; three louvers pointing at the driver and three louvers pointing at the officer.

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Yes\_\_\_ No \_\_\_

182.3 For improved safety cab switches and controls shall be ergonomically located within easy reach of the driver when in the seated position with seatbelts fastened.

Yes\_\_\_ No \_\_\_

182.4 A hinged access panel constructed from 3/16 aluminum and shall include keyed, locking latches. The access panels shall be provided for maintenance and for access to controls, components and gauge assemblies.

Yes\_\_\_ No \_\_\_

183. **POWER POINT DASH MOUNT**

The cab shall include three (3) 12 volt cigarette lighter type receptacles in the center cab dash to provide a power source for 12 volt electrical equipment. Two (2) receptacles shall be wired to be live with the battery master switch. (1) 12 volt cigarette lighter type receptacle shall be provided in the same location as above, but be direct wired to battery to provide a live source for cell phone charging. Fuses for the receptacles shall be located inside center dash fuse panel.

Yes\_\_\_ No \_\_\_

184. **STEP TRIM**

The lower cab steps at all doors shall be finished with a grip strut material. The intermediate cab steps shall be finished with an embossed aluminum tread plate.

Yes\_\_\_ No \_\_\_

185. **STEP TRIM KICKPLATE**

The cab step risers at all doors, the vertical section of all steps, shall include an aluminum tread plate finish. The kick plate shall be flared at the bottom.

Yes\_\_\_ No \_\_\_

186. **INTERIOR DOOR TRIM**

The doors of the cab shall include an aluminum plate the same weight and grade as the cab on the interior of the door. The plate shall be fastened to the door using oval head ¼ -20 **stainless steel** machine screws into appropriate sized **stainless steel** "nut-inserts".

Yes\_\_\_ No \_\_\_

187. **CAB DOOR TRIM REFLECTIVE**

Cab door reflective trim shall be applied in accordance with NFPA 14.1.6.

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Yes\_\_\_ No \_\_\_

188. **INTERIOR GRAB HANDLE "A" PILLAR**

There shall be two (2) rubber covered grab handles. Handles shall be installed inside the cab, one on each "A" post at the left and right door openings. The handles shall be located to assist personnel in entering and exiting the cab.

Yes\_\_\_ No \_\_\_

189. **INTERIOR GRAB HANDLE FRONT DOOR**

Each front door shall include one (1) ergonomically contoured rubber covered grab handle. The handles shall assist personnel entering and exiting the cab and mounted forward as to not interfere with riders comfort.

Yes\_\_\_ No \_\_\_

190. **INTERIOR GRAB HANDLE REAR DOOR**

Each rear door shall include one (1) ergonomically contoured rubber covered grab handle. The handles shall assist personnel entering and exiting the cab and mounted forward as to not interfere with riders comfort.

Yes\_\_\_ No \_\_\_

191. **CAB PAINT INTERIOR DOOR TRIM**

The inner door panel surfaces shall be painted with a silver gray ARMA coat texture finish.

Yes\_\_\_ No \_\_\_

192. **HEADER TRIM INTERIOR PAINT**

The header area aluminum shall be coated with silver gray ARMA coat texture finish.

Yes\_\_\_ No \_\_\_

193. **TRIM CENTER DASH INTERIOR PAINT**

The entire center dash shall be coated with a silver gray ARMA coat texture finish. Any pods attached to the dash shall also be painted this color.

Yes\_\_\_ No \_\_\_

194. **TRIM LH DASH INTERIOR PAINT**

The left hand dash shall be painted with a silver gray ARMA coat texture finish.

Yes\_\_\_ No \_\_\_

95. **TRIM RH DASH INTERIOR PAINT**

The right hand dash shall be painted with a silver gray ARMA coat texture finish.

Yes\_\_\_ No \_\_\_

196. **DASH PANEL GROUP**

The main center dash area shall include removable panels located to provide access to required cab components. The center panels shall be within comfortable reach of both the driver and officer.

Yes\_\_\_ No \_\_\_

197. **SWITCHES CENTER PANEL**

The center dash panel shall include rocker switches as specified by cab manufacturer. The final location and amount of switches shall be determined at pre-construction.

Yes\_\_\_ No \_\_\_

198. **SWITCHES LEFT PANEL**

198.1 The left dash panel shall include eight (8) switches in a single row configuration or as specified by cab manufacturer. Five (5) of the switches shall be rocker type and the left three (3) shall be the headlight switch, the instrument lamp dimmer switch and the windshield wiper/washer control switch, or as specified by cab manufacturer.

Yes\_\_\_ No \_\_\_

198.2 A rocker switch with a blank legend installed directly above shall be provided for any position not designated by a specific option. The non-designated switches shall be two-position, black switches with a green indicator light. Each blank switch legend can be custom engraved by the body manufacturer. All switch legends shall have backlighting provided.

Yes\_\_\_ No \_\_\_

199. **REMOTE SPEEDOMETER**

There shall be a remote speedometer located within view of the officers riding position.

Yes\_\_\_ No \_\_\_

200. **SEAT BELT WARNING**

A seat belt warning system, integrated with the Vehicle Data Recorder system, shall be installed

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for each seat within the cab. The system shall activate an indicator light in the instrument panel, a digital seat position indicator with a seat position legend in the switch panel, and an audible alarm.

Yes\_\_\_\_ No\_\_\_\_

201. **SEAT MATERIAL**

The seats shall include a covering of high strength, wear resistant fabric made of durable ballistic polyester.

Yes\_\_\_\_ No\_\_\_\_

202. **SEAT COLOR**

All seats supplied with the chassis shall be black in color. All seats shall include red seat belts.

Yes\_\_\_ No \_\_\_

203. **SEAT DRIVER**

203.1 The driver's seat shall be an H.O. Bostrom Sierra Air-140 ABTS air suspended seat.

Yes\_\_\_ No \_\_\_

203.2 The seat shall feature an all belts to seat (ABTS) style of safety restraint. The ABTS feature shall include a three-point shoulder harness with the lap belt and automatic retractor as an integral part of the seat assembly. The buckle portion of the seat belt shall extend from the seat base towards the driver position within easy reach of the occupant.

Yes\_\_\_ No \_\_\_

203.3 This model of seat shall be certified to comply with relevant FMVSS, NFPA, ECE and EN 1848:2 performance standards in effect at the time of manufacture.

Yes\_\_\_ No \_\_\_

204. **SEAT BACK DRIVER**

The driver's seat shall feature a two (2) way adjustable lumbar support and offer an infinite fully reclining adjustable titling seat back. The seat back shall also feature a contoured head rest.

Yes\_\_\_ No \_\_\_

205. **SEAT OFFICER**

205.1 The officer's seat shall be a H.O. Bostrom Firefighter series Tanker 450 ABTS. The seat

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shall feature a tapered and padded seat, and cushion. The seat shall be mounted in a fixed position. This model of seat shall be certified to comply with relevant FMVSS, NFPA, ECE and EN 1848:2 performance standards in effect at the time of manufacture.

Yes\_\_\_ No \_\_\_

205.2 The seat shall feature an all belts to seat (ABTS) style of safety restraint. The ABTS feature shall include a three-point shoulder harness with the lap belt and automatic retractor as an integral part of the seat assembly. The buckle portion of the seat belt shall extend from the seat base towards the driver position within easy reach of the occupant.

Yes\_\_\_ No \_\_\_

206. **SEAT BACK OFFICER**

206.1 The officer's seat shall feature a SecureAll™ SCBA locking system. The bracket shall be easily adjustable to accommodate a Scott 5.5 SCBA bottle. All adjustment points shall utilize similar hardware and adjustments shall be made with one tool.

Yes\_\_\_ No \_\_\_

206.2 The SecureAll™ shall include a release handle which shall be integrated into the seat cushion for quick and easy release.

Yes\_\_\_ No \_\_\_

207. **SEAT REAR FACING OUTER LOCATION**

The crew area shall include two (2) rear facing crew seats, which include one (1) located directly behind the driver seat and one (1) located directly behind the officer seat.

Yes\_\_\_ No \_\_\_

208. **SEAT CREW REAR FACING OUTER**

208.1 Two (2) rearward facing outer crew seats shall be a H. O. Bostrom Tanker 450 ABTS. The seat shall feature a tapered and padded seat, and cushion. The seat shall be mounted in a fixed position. This model of seat shall be certified to comply with relevant FMVSS, NFPA, ECE and EN 1848:2 performance standards in effect at the time of manufacture.

Yes\_\_\_ No \_\_\_

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208.2 The seat shall feature an all belts to seat (ABTS) style of safety restraint. The ABTS feature shall include a three-point shoulder harness with the lap belt and automatic retractor as an integral part of the seat assembly. The buckle portion of the seat belt shall extend from the seat base towards the driver position within easy reach of the occupant.

Yes\_\_\_ No \_\_\_

**209. SEAT BACK REAR FACING OUTER**

209.1 The rear facing seat shall feature a SecureAll™ SCBA locking system. The bracket shall be easily adjustable to accommodate a Scott 5.5 SCBA bottle. All adjustment points shall utilize similar hardware and adjustments shall be made with one tool.

Yes\_\_\_ No \_\_\_

209.2 The SecureAll™ shall include a release handle which shall be integrated into the center of the bottom seat cushion for easy access and to eliminate hooking the release handle with clothing or other equipment.

Yes\_\_\_ No \_\_\_

209.3 The seat back shall include a removable padded cover which shall be provided over the SCBA cavity.

Yes\_\_\_ No \_\_\_

**210. SEAT BELT ORIENTATION CREW**

The crew position seat belts shall follow the standard orientation which extends from the outboard shoulder extending to the inboard hip.

Yes\_\_\_ No \_\_\_

**211. SEAT FORWARD FACING OUTER LOCATION**

The crew area shall include two (2) forward facing outboard seats, which include one (1) located next to the outer wall of the cab on the driver side of the cab and one (1) located next to the outer wall on the officer side of the cab.

Yes\_\_\_ No \_\_\_

**212. SEAT CREW FORWARD FACING OUTER**

The crew area shall include a seat in the forward facing outer position which shall be a flip-up jump seat style. The seat shall feature a padded seat, and cushion which shall be hinged and attached to the wall providing optimum space savings. The seat shall remain in the stored

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position until occupied. This model of seat shall be certified to comply with relevant FMVSS, NFPA, ECE and EN 1848:2 performance standards in effect at the time of manufacture.

Yes\_\_\_ No \_\_\_

**213. SEAT BACK FORWARD FACING OUTER**

213.1 The rear wall padded trim shall act as the backrest for each seat.

Yes\_\_\_ No \_\_\_

213.2 There shall be a red, three-point shoulder harness with lap belt and an automatic retractor attached to the cab and available to the seat. The buckle portion of the seat belt shall be mounted on a rigid or semi-rigid stalk such that the buckle remains positioned in an accessible location. The seat belt assembly anchorages shall conform to the Federal Safety Standard (FMVSS) No. 210, "Seat belt assembly anchorages".

Yes\_\_\_ No \_\_\_

**214. SEAT MOUNTING FORWARD FACING OUTER**

The forward facing outer seat shall be mounted in the furthest outboard position facing the front of the cab.

Yes\_\_\_ No \_\_\_

**215. SEAT FORWARD FACING CENTER LOCATION**

The crew area shall include two (2) forward facing center crew seats with both located at the center of the rear wall.

Yes\_\_\_ No \_\_\_

**216. SEAT CREW FORWARD FACING CENTER**

216.1 The crew area seats shall feature a SecureAll™ SCBA locking system. The bracket shall be easily adjustable to accommodate a Scott 5.5 SCBA bottle. All adjustment points shall utilize similar hardware and adjustments shall be made with one tool.

Yes\_\_\_ No\_\_\_

216.2 The seats shall feature an all belts to seat (ABTS) style of safety restraint. The ABTS feature shall include a three-point shoulder harness with the lap belt and automatic retractor as an integral part of the seat assembly. The buckle portion of the seat belt shall extend from the seat base towards the driver and officer position within easy reach of the occupant.

Yes\_\_\_ No \_\_\_

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216.3 This model of seat shall be certified to comply with relevant FMVSS, NFPA, ECE and EN 1848:2 performance standards in effect at the time of manufacture.

Yes\_\_\_ No \_\_\_

217. **SEAT BACK FORWARD FACING CENTER**

217.1 The back forward facing seat shall feature a SecureAll™ SCBA locking system. The bracket shall be easily adjustable to accommodate a Scott 5.5 SCBA bottle. All adjustment points shall utilize similar hardware and adjustments shall be made with one tool.

Yes\_\_\_ No \_\_\_

217.2 The SecureAll™ shall include a release handle which shall be integrated into the seat cushion for quick and easy release. This shall eliminate the need for straps or pull cords to interfere with other SCBA equipment.

Yes\_\_\_ No \_\_\_

217.3 The seat back shall include a removable padded cover which shall be provided over the SCBA cavity.

Yes\_\_\_ No \_\_\_

218. **SEAT MOUNTING FORWARD FACING CENTER**

The forward facing center seats shall be installed facing the front of the cab.

Yes\_\_\_ No \_\_\_

219. **SEAT FRAME FORWARD FACING**

The forward facing center seating positions shall include an enclosed seat frame which is located and installed on the rear wall. The seat frame shall be size to accommodate mounting of seating. The seat frame shall be constructed of 5052-H32 Marine Grade 0.19 inch thick aluminum plate, or equivalent. The seat box shall be painted with the same color as the interior.

Yes\_\_\_ No \_\_\_

220. **SEAT FRAME FORWARD FACING STORAGE ACCESS**

There shall be two (2) access points to the seat frame storage area, one (1) on each side of the seat frame. Each access point shall be covered by a hinged door which shall maximize access to compartment.

Yes\_\_\_ No \_\_\_

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221. **CAB FRONT UNDERSEAT STORAGE ACCESS**

The left and right under seat storage areas shall have a solid aluminum hinged door with non-locking latch.

Yes\_\_\_ No \_\_\_

222. **SEAT COMPARTMENT DOOR FINISH**

All under seat storage compartment access doors shall have a ARMA coat silver gray texture.

Yes\_\_\_ No \_\_\_

223. **HELMET STORAGE SHIPLOOSE QUANTITY**

The ship loose items shall include six (6) helmet storage brackets.

Yes\_\_\_ No \_\_\_

224. **HELMET STORAGE SHIPLOOSE**

The ship loose items shall include Ziamatic model UHH-1 helmet storage designed to meet current NFPA regulations. The UHH-1 shall securely fasten fire helmets to flat cab surfaces. The UHH-1 utilizes a helmet hook and an adjustable strap to accommodate nearly any helmet size or configuration.

Yes\_\_\_ No \_\_\_

225. **WINDSHIELD WIPER SYSTEM**

The cab shall include a dual arm wiper system which shall clear the windshield of water, ice and debris. There shall be two (2) windshield wipers which shall be affixed to a radial wet arm. The wiper motor shall be activated by an intermittent wiper control located within easy reach of the driver's position.

Yes\_\_\_ No \_\_\_

225.1 The wipers shall turn off and park when the parking brake is set.

Yes\_\_\_ No \_\_\_

226. **CAB DOOR HARDWARE**

226.1 The cab entry doors shall be equipped with exterior pull handles, or equivalent, suitable for use while wearing firefighter gloves.

Yes\_\_\_ No \_\_\_

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226.2 The interior exit door handles shall be flush paddle type with a maintenance free finish, which are incorporated into the upper door panel.

Yes\_\_\_ No \_\_\_

**227. GRAB HANDLES**

The cab shall include one (1) 18.00 inch knurled, anti-slip, one-piece exterior assist handle behind each cab door, or equivalent. The grab handle shall be not greater than 1.25 inch diameter to enable non-slip assistance with a gloved hand.

Yes\_\_\_ No \_\_\_

**228. REARVIEW MIRRORS**

Retrac Aerodynamic West Coast style single vision mirror heads model 613260 shall be provided and installed on each of the front cab doors. The mirrors shall be mounted via 1 inch diameter tubular stainless steel arms to provide a rigid mounting reducing mirror vibration.

The mirrors shall measure 8 inches wide by 19 inches high and shall include an 8 inch convex mirror with a stainless steel back, model 980-4, installed below the flat glass to provide a wider field of vision. The flat mirror shall be motorized with remote horizontal and vertical adjustment. The convex mirrors shall be manually adjustable.

Yes\_\_\_ No \_\_\_

**229. CAB FENDER**

The cab wheel wells shall include full width, 14 gauge 304 polished, stainless steel cab fenders to resist corrosion and enable easier cleaning maintenance. The inner liner, measuring 18 inches wide shall be constructed of plastic with an outer fenderette measuring 2.5 inches wide.

Yes\_\_\_ No \_\_\_

**230. MUD FLAPS FRONT**

The front wheel wells shall have mud flaps installed on them.

Yes\_\_\_ No \_\_\_

**231. IGNITION**

231.1 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. A chrome push type starter button shall be provided adjacent to the master battery and ignition switches.

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Yes\_\_\_ No \_\_\_

231.2 The starter button shall only operate when both the master battery and ignition switches are in the "ON" position.

Yes\_\_\_ No \_\_\_

232. **BATTERIES**

The single start electrical system shall include (6) **Interstate** brand Group 31 950 CCA batteries with a 210 minute reserve capacity and 4/0 welding type dual path starter cables per SAE J541. The cables shall have encapsulated ends with heat shrink and sealant.

Yes\_\_\_ No \_\_\_

233. **BATTERY TRAY**

233.1 The batteries shall be installed on a **stainless steel** battery tray located on the left side of the chassis, securely bolted to the frame rails.

Yes\_\_\_ No \_\_\_

233.2 The battery tray shall include drain holes in the bottom for sufficient drainage of water. A durable, non-conducting, interlocking mat made by Dri-Dek or equivalent material shall be installed in the bottom of the tray to allow for air flow and help prevent moisture build up. The batteries shall be held in place by non-conducting resin hold down boards.

Yes\_\_\_ No \_\_\_

234. **BATTERY BOX COVER**

The battery box shall include a **stainless steel** cover which protects the top of the batteries.

Yes\_\_\_ No \_\_\_

235. **BATTERY CABLE**

The starting system shall include cables which shall be protected by 275° F minimum, high temperature flame retardant loom, sealed and encapsulated at the ends with heat shrink and sealant.

Yes\_\_\_ No \_\_\_

236. **BATTERY JUMPER STUDS**

The starting system shall include battery jumper studs. These studs shall be located in the forward most portion of the driver's side lower step. The studs shall allow the vehicle to be jump started, charged, or the cab to be raised in an emergency in the event of battery failure.

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Yes\_\_\_ No \_\_\_

237. **ALTERNATOR**

The charging system shall include a 320 amp Leece Neville 12 volt alternator. The alternator shall include a self-excited integral regulator.

Yes\_\_\_ No \_\_\_

238. **BATTERY CONDITIONER**

One (1) Kussmaul Autocharge 1200 model #091-53-12, 40 amp fully automatic high output battery charger shall be wired to the 12 volt battery system. The charger unit shall be mounted in a clean dry area and will be accessible for service and/or maintenance.

Yes\_\_\_ No \_\_\_

239. **BATTERY CONDITIONER DISPLAY**

One (1) Kussmaul model 091-94 universal single battery bank voltage display shall be supplied with the charger. The battery conditioner display shall be mounted in a place where it can be easily viewed from the outside the cab on the drivers side.

Yes\_\_\_ No \_\_\_

240. **ELECTRICAL INLET**

A 20 amp Autp-eject electrical receptacle shall be supplied and wired to the battery conditioner.

Yes\_\_\_ No \_\_\_

241. **ELECTRICAL INLET LOCATION**

The shore power plug shall be located over the left front wheel of the custom chassis.

Yes\_\_\_ No \_\_\_

242. **ELECTRICAL INLET COLOR**

The electrical inlet connection shall include a yellow cover.

Yes\_\_\_ No \_\_\_

243. **HEADLIGHTS**

The cab front shall include four (4) rectangular halogen headlamps with separate high and low beams mounted in bright chrome bezels. The headlamps shall provide an alternating warning pattern when vehicle is in emergency response mode and be deactivated per NFPA 1901. The

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headlamps shall be equipped with the "Daytime Running" light feature, which shall illuminate the headlights to 80% brilliance when the ignition switch is in the "On" position and the parking brake is released.

Yes\_\_\_ No \_\_\_

**244. FRONT TURN SIGNALS**

The front fascia shall include two (2) Federal Signal Quadra Flare 4.00 inch X 6.00 inch programmable LED, amber in color and act as turn signal devices, light heads which shall be installed outboard in polished aluminum castings above the outer warning lamps and headlights.

Yes\_\_\_ No \_\_\_

**245. HEADLIGHT LOCATION**

The headlights shall be located on the front fascia of the cab directly below the front turn signals.

Yes\_\_\_ No \_\_\_

**246. SIDE TURN/MARKER LIGHTS**

The sides of the cab shall include (2) **Trucklite Model 33** LED side marker/turn signal lights shall be provided just behind the front cab radius corners. Light shall be mounted using a rubber grommet.

Yes\_\_\_ No \_\_\_

**247. MARKER AND ICC LIGHTS**

In accordance with FMVSS, there shall be five (5) **Trucklite Model 33** cab LED marker lamps designating identification, center and clearance provided. These lights shall be installed on the face of the cab within full view of other vehicles from ground level.

Yes\_\_\_ No \_\_\_

**248. 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.

Yes\_\_\_ No \_\_\_

249. **AUXILIARY MARKER/TURN LIGHTS**

The sides of the cab shall include (2) **Trucklite Model 33** LED side marker/turn signal lights. The lights shall operate as a side clearance marker and turn signal. The lights shall be mounted to the side of the cabs just above the wheel well.

Yes\_\_\_ No \_\_\_

250. **GROUND LIGHTS**

Each door shall include a **Trucklite 44347C** ground light mounted to the underside of the cab step below each door using rubber grommets. The lights shall be 4.00 inches round LED. The ground lighting shall be activated by the opening of the respective door as well as being activated when the parking brake is set.

Yes\_\_\_ No \_\_\_

251. **STEP LIGHTS**

The middle step located at each door shall include a recess mounted **Trucklite 44347C** ground light 4.00 inch round LED light which shall activate with the opening of the respective door.

Yes\_\_\_ No \_\_\_

252. **UNDER BUMPER LIGHTS**

There shall be two (2) **Trucklite 44347C** ground lights mounted under the bumper. The bumper ground lighting shall be interlocked with the park brake and the marker light activation.

Yes\_\_\_ No \_\_\_

253. **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 \_\_\_

254. **ROOF MOUNT LED SCENE LIGHT**

254.1 Two (2) **Fire Research Focus LED model FCA800- V15** contour roof mount light shall be installed. The mounting brackets shall attach to the bottom of the lamp head and be machined to conform to the roof radius. Wiring shall extend from a weatherproof strain relief at the rear of the lamp head.

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Yes\_\_\_ No \_\_\_

254.2 The lamp head shall have ten (10) ultra-bright white LEDs. It shall operate at 12/24 volts DC, draw 13/6.5 amps, and generate 15,000 lumens. The lamp head shall direct 50 percent of the light onto the action area while providing 50 percent to illuminate the working area. The lamp head shall incorporate heat-dissipating fins and be no more than 4" high by 11 1/2" wide. The lamp head and mounting arm shall be powder coated white. The floodlight shall be for fire service use.

Yes\_\_\_ No \_\_\_

**255. FRONT SCENE LIGHT LOCATION**

There shall be two (2) scene lights mounted to the front brow of the cab in the outboard position centered over the outer front marker lights.

Yes\_\_\_ No \_\_\_

**256. FRONT SCENE LIGHTS ACTIVATION**

The front scene lighting shall be activated by a rocker switch within reach of the driver.

Yes\_\_\_ No \_\_\_

**257. INTERIOR OVERHEAD LIGHTS**

257.1 Each cab door shall include an LED lamp with a red and a clear lens. The clear lamp shall illuminate with the opening of each respective door with both the red and clear portions of the lamp activated by individual switches on each lamp.

Yes\_\_\_ No \_\_\_

257.2 An additional three (3) light module with dual map lights shall be located over the engine tunnel which can be activated by individual switches on the lamp. The exact location shall be determined at pre-construction.

Yes\_\_\_ No \_\_\_

**258. "DO NOT MOVE" APPARATUS LIGHT**

258.1 The front headliner of the cab shall include a red flashing light, located in the center for greatest visibility. In addition to the flashing red light, an audible alarm shall be included which shall sound when a door is open and the parking brake is released.

Yes\_\_\_ No \_\_\_

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258.2 The light and alarm shall be interlocked for activation when a cab door is not firmly closed, an apparatus cabinet door is not closed and the parking brake is released.

Yes\_\_\_ No \_\_\_

259. **MASTER WARNING SWITCH**

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 Warning" 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.

Yes\_\_\_ No \_\_\_

260. **HEADLIGHT FLASHER**

260.1 An alternating high beam headlamp flashing system shall be installed into the high beam headlamp circuit which shall allow the high beams to flash alternately from left to right.

Yes\_\_\_ No \_\_\_

260.2 Deliberate operator selection of high beams will override the flashing function until low beams are again selected. Per NFPA these clear flashing lights will also be disabled "On Scene" when the park brake is applied.

Yes\_\_\_ No \_\_\_

261. **HEADLIGHT FLASHER SWITCH**

The flashing headlights shall be activated through a rocker switch on the main switch panel. The rocker switch shall be clearly labeled for identification.

Yes\_\_\_ No \_\_\_

262. **INBOARD FRONT WARNING LIGHTS**

262.1 The chassis shall include two (2) Federal Quadra Flare LED's warning lights, one (1) each side, which shall offer multiple flash patterns including steady burn for solid colors and multiple flash patterns for split colors. The lights shall be surface mounted to the front fascia of the cab within a chrome bezel in the inboard position.

Yes\_\_\_ No \_\_\_

262.2 The front warning lights mounted on the fascia in the inboard positions shall be red with a red lens.

Yes\_\_\_ No \_\_\_

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263. **OUTBOARD FRONT WARNING LIGHTS**

263.1 The chassis shall include two (2) Federal Quadra Flare LED's warning lights, one (1) each side, which shall offer multiple flash patterns including steady burn for solid colors and multiple flash patterns for split colors. The lights shall be surface mounted to the front fascia of the cab within a chrome bezel in the outboard position.

Yes\_\_\_ No \_\_\_

263.2 The front warning lights mounted on the fascia for the outboard position shall be white with a clear lens.

Yes\_\_\_ No \_\_\_

264. **FRONT WARNING SWITCH**

The front warning lights shall be controlled via rocker switch on the main panel. This switch shall be clearly labeled for identification.

Yes\_\_\_ No \_\_\_

265. **INTERSECTION WARNING LIGHTS**

One (1) pair of Federal Signal QuadraFlare, model QL64XF-L, series red Solaris LED warning lights shall be installed, one each side of the chassis cab. **The light shall include a red lens with red LEDs** and the dimensions of the light shall be approximately 4 inches by 6 inches. A QL64MC chrome trim bezel shall be provided.

Yes\_\_\_ No \_\_\_

266. **INTERSECTION WARNING LIGHTS LOCATION**

The intersection lights shall be mounted in the rear position on the side of the bumper.

Yes\_\_\_ No \_\_\_

267. **SIDE AND INTERSECTION WARNING LIGHT SWITCH**

The side and intersection warning lights shall be controlled via rocker switch on the main panel. This switch shall be clearly labeled for identification.

Yes\_\_\_ No \_\_\_

268. **LIGHTBAR PROVISION**

There shall be two (2) junction boxes located on the left and right hand sides of the roof with electrical connections for two (2) light bars. The light bars shall be provided and installed by the

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body manufacturer.

Yes\_\_\_ No \_\_\_

**269. LIGHTBAR SWITCH**

The light bars shall be controlled through a rocker switch located on the main switch panel. This switch shall be clearly labeled for identification.

Yes\_\_\_ No \_\_\_

**270. INTERIOR DOOR WARNING LIGHTS**

The interior panels of each door shall include one (1) red warning light. Each light shall be installed using recessed rubber grommet mount. Each light shall activate with a flashing pattern when the door is in the open position to serve as a warning to oncoming traffic.

Yes\_\_\_ No \_\_\_

**271. HORN BUTTON SELECTOR SWITCH**

A rocker switch shall be installed in the switch panel between the driver and officer 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 FMVSS requirements.

Yes\_\_\_ No \_\_\_

**272. AIR HORN ACTIVATION**

272.1 The air horn activation shall be accomplished by the steering wheel horn button and a driver and officer's mounted **Linemaster model SP491-S81** foot switch, or equivalent.

Yes\_\_\_ No \_\_\_

272.2 The air horn foot switches shall be mounted to the departments' specifications determined at preconstruction.

Yes\_\_\_ No \_\_\_

**273. BACK-UP ALARM**

One (1) automatic electric back-up alarm shall be wired to the back-up light circuit, and mounted under the rear of the apparatus body.

Yes\_\_\_ No \_\_\_

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### 274. INSTRUMENTATION

An ergonomically designed instrument panel shall be provided. Each gauge shall be backlit with LED lamps. The instrumentation system shall be multiplexed and shall receive ABS, engine, and transmission information over the data bus to reduce redundant sensors and wiring.

274.1 The instrument panel shall contain the following gauges:

- One (1) electronic speedometer
- One (1) electronic tachometer
- One (1) two-movement gauge displaying primary system, and secondary system air volumes. A red indicator light in the gauge shall indicate a low air pressure
- An integral LCD odometer/trip odometer
- Transmission Temperature in degrees Fahrenheit gauge
- Provision to display certain diagnostic functions
- Provisions to display engine oil pressure, coolant temperature, fuel level, voltmeter, and an indicator bar displaying Diesel Exhaust Fluid (DEF) LED bar
- A red indicator light in the gauge shall indicate a low engine oil pressure.
- A red indicator on the gauge showing critical levels of coolant temperature.
- A red indicator light in the gauge shall indicate high coolant temperature.
- An amber indicator light shall indicate low fuel at 25% tank level.
- A red indicator light shall indicate high or low system voltage.
- An amber indicator light shall indicate low levels of DEF.

Yes \_\_\_ No \_\_\_

274.2 The instrument panel shall include a light bar that will contain the following LED indicator lights:

- Low Primary Air Pressure (located in gauge)
- Low Secondary Air Pressure (located in gauge)
- Stop Engine-indicates critical engine fault
- Air Filter Restricted-indicates excessive engine air intake restriction
- Park Brake-indicates parking brake is set
- Seat Belt Indicator-indicates when a seat is occupied and corresponding seat belt remains unfastened
- Volts-indicates high or low system voltage (located in gauge)
- Low Oil Pressure-indicates low engine oil pressure (located in gauge)
- High Coolant Temperature-indicates excessive engine coolant temperature (located in gauge)
- DEF Level Bar-DEF level is at critically low level (located in gauge)
- MIL-indicates an engine emission control system fault
- Check Engine-indicates engine fault
- Check Trans-indicates transmission fault

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- High Transmission Temperature-indicates excessive transmission oil temperature
- ABS-indicates anti-lock brake system fault
- Wait to Start-indicates active engine air preheat cycle
- HEST-indicates a high exhaust system temperature
- Water in Fuel-indicates presence of water in fuel filter
- DPF-indicates a restriction of the diesel particulate filter
- Regen Inhibit-indicates regeneration has been postponed due to user interaction
- Range Inhibit-indicates a transmission operation is prevented and requested shift request may not occur.
- SRS-indicates a problem in the RollTek supplemental restraint system
- Low Fuel-indicates low fuel, (located in gauge)
- DEF-indicates a low level of DEF fluid (located in gauge)
- DEF Level Bar-DEF level is at a low level (located in gauge)
- Left and Right turn signal indicators
- ATC-indicates low wheel traction for automatic traction control equipped vehicles, also indicates mud/snow mode is active for ATC system
- High Idle-indicates engine high idle is active.
- Cruise Control-indicates cruise control is active
- Auxiliary Brake-indicates secondary braking device is active
- DEF Level Bar-indicates useable levels of DEF: 25%, 50%, 75%, 100% (located in gauge)
- High Beam Indicator

Yes\_\_\_ No \_\_\_

### 274.4 CONSTANT AUDIBLE ALARMS FROM GAUGE PACKAGE

- High Trans Temp
- High or Low Voltage
- Seatbelt
- Check Engine
- Check Transmission
- Stop Engine
- Low Air Pressure
- Fuel Low
- Water in Fuel
- ESC
- High Coolant Temperature
- Low Engine Oil Pressure
- Low Coolant Level

Yes\_\_\_ No \_\_\_

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274.3 The instrument panel shall include a oscillating audible alarm from the gauge package as follows:

- Air Filter
- Extended Left and Right Turn remaining on
- Cab Ajar
- Door Ajar
- Low Oil Level

Yes\_\_\_ No \_\_\_

274.4 The instrument panel shall include a colored backlighting. The instrumentation gauges and the switch panel legends shall be backlit using LED backlighting. Color shall be easily visible in darkness.

Yes\_\_\_ No \_\_\_

275. **COMMUNICATION ANTENNAS**

Two (2) antenna bases, for use with **NMO type** antennas, shall be mounted on the roof of the cab. One (1) shall be located on the left hand front corner of the cab roof, and one (1) shall be located on the right hand front corner of the cab roof. Both shall be mounted so that they do not interfere with light bars or other roof mounted equipment. The antenna bases shall both be **Antenex model MABVT8** made for either a 0.375 inch or 0.75 inch receiving hole in the antenna and shall include at least **20 feet of RG58 4U** cable with no connector at the radio end of the cable. The antenna base design provides the most corrosion resistance and best power transfer available from a high temper all brass construction and gold plated contact design.

Yes\_\_\_ No \_\_\_

276. **COMMUNICATION ANTENNA CABLE ROUTING**

The antenna cables shall be routed from the antenna bases mounted on the roof to the area behind the officers' seat.

Yes\_\_\_ No \_\_\_

277. **FIRE EXTINGUISHER**

A 2.50 pound D.O.T approved fire extinguisher with BC rating shall be shipped loose with the cab.

Yes\_\_\_ No \_\_\_

278. **ROAD SAFETY KIT**

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The cab and chassis shall include one (1) emergency road side triangle kit.

Yes\_\_\_ No \_\_\_

279. **ENGINE AND TRANSMISSION OPERATION MANUALS**

There shall be **two (2) printed hard copy sets of the engine operation manual** and **two (2) printed hard copy sets of the transmission operation manual** specific to the model ordered included with the chassis in the ship loose items.

Yes\_\_\_ No \_\_\_

280. **ENGINE SERVICE MANUALS**

There shall be **two (2) printed hard copy sets of Cummins ISC engine service reference manuals** which shall be provided with the chassis.

Yes\_\_\_ No \_\_\_

281. **TRANSMISSION SERVICE MANUALS**

There shall be **two (2) printed hard copy sets of Allison 3000 transmission service manuals** included with the chassis.

Yes\_\_\_ No \_\_\_

282. **AS BUILT WIRING DIAGRAMS**

The cab and chassis shall include **two (2) digital copies** and **two (2) printed hard copies** of wiring schematics and option wiring diagrams.

Yes\_\_\_ No \_\_\_

283. **ENGINE DIAGNOSTIC SOFTWARE**

A hard copy of Cummins INSITE PRO, a windows based diagnostic software with the current year license shall be included. INSITE Pro Industrial version shall be acceptable in the case that the PRO series is unavailable to department.

Yes\_\_\_ No \_\_\_

284. **ALUMINUM BODY**

The body shall be fabricated of aluminum extrusions, 3/16 inch thickness minimum, smooth aluminum sheet, 3/16 inch minimum and aluminum treadplate, 125 inch minimum.

Yes\_\_\_ No \_\_\_

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284. **BODY CONSTRUCTION MATERIAL DETAILS**

284.1 Please provide a full description for materials including: grade, thickness and tensile strength of the proposed material and construction of the body.

Yes\_\_\_ No \_\_\_

284.2 Compartments to be sweep out design and to be water and dust proof. All compartments shall be made to the maximum practical dimensions to provide maximum storage capacity.

Yes\_\_\_ No \_\_\_

284.3 All exterior compartments shall have polished aluminum drip moldings installed above the doors where necessary to prevent water from entering the compartments.

Yes\_\_\_ No \_\_\_

284.4 Wheel well panels shall be formed aluminum that is welded in place. There shall be no visible bolt heads, retention nuts or fasteners on the exterior surface of the panel. To fully protect the wheel well area from road debris and to aid in cleaning, a full depth radius wheel well liner shall be provided. The frame side of the wheel well area on each side of the opening shall be attached to the frame side of the front and rear compartments. All seams on the frame side of the body shall be welded and caulked to prevent moisture from entering the compartments.

Yes\_\_\_ No \_\_\_

284.5 The rear wheel wells shall be radius cut. A polished type 304 stainless steel radius fenderette shall be furnished at each rear wheel well opening, held in place with concealed stainless steel fasteners with nylon isolators to prevent contact of the fastener with the wheel well housing panel. A black rubber gasket shall be installed between the stainless fenderette and the apparatus body sides.

Yes\_\_\_ No \_\_\_

285. **FASTENERS**

285.1 All aluminum and stainless steel components shall be attached using stainless steel fasteners.

Yes\_\_\_ No \_\_\_

285.2 Door hinges, handrails and running boards shall be attached using minimum ¼ inch diameter machine bolt fasteners.

Yes\_\_\_ No \_\_\_

285.3 3/16 inch diameter fasteners shall only be used in nonstructural areas such as; door handles, trim moldings, gauge mounting, etc.

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Yes\_\_\_ No \_\_\_

286. **ELECTROLYSIS CORROSION CONTROL**

286.1 The apparatus shall be assembled using ECK or electrolysis corrosion control, on all high corrosion potential areas, such as door latches, door hinges, trim plates, fenderette, etc. This coating is a high zinc compound that shall act as a sacrificial barrier to prevent electrolysis and corrosion between dissimilar metals. This shall be in addition to any other barrier material that may be used.

Yes\_\_\_ No \_\_\_

286.2 All ¼ inch diameter and smaller screws and bolts shall be **stainless steel**.

Yes\_\_\_ No \_\_\_

287. **COMPARTMENT FLOORS**

The compartment floors shall be constructed of smooth aluminum material, to match the compartment interior walls.

Yes\_\_\_ No \_\_\_

288. **BODY SUB-FRAME**

The apparatus body sub frame shall be constructed of corrosion resistant heavy steel structural channel or aluminum structural material.

Yes\_\_\_ No \_\_\_

289. **BODY SUB FRAME MATERIAL DETAIL**

289.1 Please provide a full description including: grade, thickness and tensile strength of the proposed material and construction of the body sub frame.

Yes\_\_\_ No \_\_\_

289.2 There shall be a barrier provided between the sub frame and body to prevent electrolysis.

Yes\_\_\_ No \_\_\_

289.3 This sub frame shall carry the weight of the apparatus body and equipment.

Yes\_\_\_ No \_\_\_

290. **BODY CONFIGURATION**

**FIRE TRUCK, PROTECTIVES FIRE APPARATUS**

The apparatus body shall be at least to 210 inches long, and shall be identified on proposal drawings.

Yes\_\_\_ No \_\_\_

**291. SINGLE AXLE WHEEL AREA**

291.1 For ease of accessibility and maintenance, wheel well panels shall be painted smooth aluminum plate that is welded in place.

Yes\_\_\_ No \_\_\_

291.2 To fully protect the wheel well area from road debris and to aid in cleaning, a full depth (minimum of 25 inches) radius wheel well liner shall be provided. Wheel well liner shall be smooth aluminum to prevent corrosion.

Yes\_\_\_ No \_\_\_

**292. FENDERETTES**

The rear wheel wells shall be radius cut for a streamlined appearance. A polished stainless fenderette shall be furnished at each rear wheel well opening, held in place with concealed stainless steel fasteners.

Yes\_\_\_ No \_\_\_

**293. COMPARTMENT DIMENSIONS**

293.1 The left side compartments on the pumper body shall have the maximum available length, height and depth dimensions. These dimensions shall remain consistent for the full height and depth of the compartment.

Yes\_\_\_ No \_\_\_

293.2 The lower right side and left side compartments on the pumper body shall be at least 26 inches deep.

Yes\_\_\_ No \_\_\_

293.3 Please provide a detailed description of body compartment dimensions including: interior, door frame opening and finished opening.

Yes\_\_\_ No \_\_\_

**294. BODY WIDTH**

The overall width of the apparatus body shall not exceed 100 inches.

Yes\_\_\_ No \_\_\_

295. **COMPARTMENT HEIGHT LEFT SIDE**

The L1, L2, and L4 compartments shall not be less than 63.00 inches. L3 compartment shall not be less than 32 inches.

Yes\_\_\_ No \_\_\_

296. **COMPARTMENT HEIGHT RIGHT SIDE**

The R1, R2, and R4 compartments shall not be less than 63.00 inches. R3 compartment shall not be less than 32 inches.

Yes\_\_\_ No \_\_\_

297. **COMPARTMENT DOORS**

The so specified doors shall be AMDOR® brand "roll-up" doors.

Yes\_\_\_ No \_\_\_

298. **"ROLL-UP" DOORS**

Exterior side equipment compartments so specified shall be equipped with AMDOR® brand roll-up shutter doors to be installed as specified herein. The door shall be located above and outside of the interior of the compartments thereby protecting the door in the raised position from possible damage by the shifting of equipment. The door roll mechanism shall also be protected from possible damage should equipment shift while the vehicle is in transit with the door in the closed position. When the door is raised, the location of the drum assembly shall not allow water drainage from the doors into any portion of the interior of the compartment, thereby preventing the accumulation of water, snow, or ice from damaging the equipment located therein.

Yes\_\_\_ No \_\_\_

298.1 Door ajar switch system shall be provided by AMDOR® and **shall include** magnetic proximity based components. The switches shall be mounted as high in the compartment as possible and protected from equipment entering and leaving such compartment. The switch shall be ground switched.

Yes\_\_\_ No \_\_\_

298.2 Nylon straps shall be provided and installed on each roll up door. The straps shall be a highly visible color.

Yes\_\_\_ No \_\_\_

290. **"ROLL-UP" DOOR DRIP PANS**

An aluminum drip pan shall be provided under the roll up door, and shall have drain lines installed that discharge outside the compartment.

291. **SAFE-STEPS**

In order to safely access equipment stored in the upper section of the compartments, heavy duty drop down door steps shall be provided at the bases of the high side equipment compartments ahead of and behind the rear wheels. The drop down door steps and the roll up doors of each compartment will operate independently of each other and shall have no exposed mechanical devices or hinges. An aluminum NFPA compliant tread plate stepping surface shall be provided full width of the compartment and no less than 16" in depth. Each shall withstand a static load of 800 pounds. Four (4) gas filled spring loaded door openers shall assist in opening and closing.

Yes\_\_\_ No \_\_\_

392. **SAFE-STEPS FINISH**

When in the closed position, the safe step door exterior shall have a polished aluminum tread plate finished surface.

Yes\_\_\_ No \_\_\_

293. **L1- LEFT FRONT COMPARTMENT**

293.1 There shall be one (1) full height compartment located at the front of the body. The compartment shall be equipped with a full height single natural finish roll up door and shall not be less than 40 inches in width. One (1) louver with filter shall be installed in the compartment for ventilation.

Yes\_\_\_ No \_\_\_

293.1.1 The bottom of the compartment shall be fitted with removable vinyl Turtle Tile matting. The matting shall be interlocking modules approximately 12 inch square by 9/16 inch thick.

Yes\_\_\_ No \_\_\_

293.2 **ADJUSTABLE SHELVING TRACKS**

293.2.1 The compartments shall be equipped with two (2) aluminum adjustable tracks, vertically mounted, that are bolted in place for adjustable shelving and equipment mounting.

Yes\_\_\_ No \_\_\_

293.3 **ADJUSTABLE SHELF**

**FIRE TRUCK, PROTECTIVES FIRE APPARATUS**

- 293.3.1 One (1) adjustable shelf shall be constructed of .190 inch smooth aluminum plate with 1.5 inches formed vertical lip front & back. Shelf supports on each side to be constructed of .188 inch aluminum and bolted to an aluminum extrusion (mounted vertically) by use of 3/8 inch bolts and spring-loaded cam locks.

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Yes\_\_\_ No \_\_\_

293.3.2 The shelf/tray shall be fitted with removable vinyl Turtle Tile matting. The vinyl matting shall be interlocking modules approximately 12 inches square by 9/16 inch thick.

Yes\_\_\_ No \_\_\_

293.4 ROLLOUT ALUMINUM TOOL BOARD (500 POUND)

293.4.1 One (1) roll-out tool board panel shall be mounted vertically within compartment. The panel and tracks shall be rated to a maximum load of 500 lb. Panel to be formed of .188 inch smooth aluminum with an opening to accommodate a gloved-hand to slide tool board. The tool board shall slide out to full extension of the compartment, with a device to hold the tool board in both fully-extended and stored positions.

Yes\_\_\_ No \_\_\_

293.5 COMPARTMENT DIVIDER

293.5.1 One (1) compartment divider constructed from 5/16 inch smooth aluminum material shall be installed. The divider shall be bolted in for ease of removal.

Yes\_\_\_ No \_\_\_

293.6 SCBA CYLINDER STORAGE

293.6.1 One (1) formed aluminum storage unit shall be provided to store eighteen (18) fire department-supplied Scott 5.5 30 minute SCBA air cylinders. The storage unit shall be horizontally installed and shall be provided with a 1/8 inch rubber lining for durability and to provide scuff protection to the air cylinders. The aluminum storage unit shall measure approximately 38.0-inches wide by 20.0-inches high and have a sanded aluminum finish. The face of the storage unit shall be recess cut to allow easy removal of each SCBA bottle with a gloved hand.

Yes\_\_\_ No \_\_\_

293.7 COMPARTMENT LIGHTING

293.7.1 The compartment lights used shall be manufactured by **AMDOR**.

Yes\_\_\_ No \_\_\_

293.7.2 Lights shall be mounted overhead, one on each side of the tool board.

Yes\_\_\_ No \_\_\_

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293.7.3 The compartment lights shall be controlled by the door ajar switch located on each compartment.

Yes\_\_\_ No \_\_\_

**294. L2 - LEFT FRONT COMPARTMENT - AHEAD OF REAR WHEELS**

294.1 There shall be one (1) full height compartment located at the front of the body. The compartment shall be equipped with a full height single natural finish roll up door and shall not be less than 40 inches in width. One (1) louver with filter shall be installed in the compartment for ventilation.

Yes\_\_\_ No \_\_\_

**294.2 ADJUSTABLE SHELVING TRACKS**

294.2.1 The compartments shall be equipped with two (2) aluminum adjustable tracks, vertically mounted, that are bolted in place for adjustable shelving and equipment mounting.

Yes\_\_\_ No \_\_\_

**294.3 ADJUSTABLE SHELF**

294.3.1 One (1) adjustable shelf shall be constructed of .190 inch smooth aluminum plate with 1.5 inches formed vertical lip front & back. Shelf supports on each side to be constructed of .188 inch aluminum and bolted to an aluminum extrusion (mounted vertically) by use of 3/8 inch bolts and spring-loaded cam locks.

Yes\_\_\_ No \_\_\_

294.3.2 The shelf/tray shall be fitted with removable vinyl Turtle Tile matting. The vinyl matting shall be interlocking modules approximately 12 inches square by 9/16 inch thick.

Yes\_\_\_ No \_\_\_

**294.4 ROLL OUT TRAY (1000 POUND)**

294.4.1 One (1) full width, half (1/2) depth roll-out equipment tray shall be installed in the compartment. The tray with sealed roller bearing tracks and steel angle framework shall be rated to a maximum load of 1,000 lbs. Tray shall be of a closed-in design, formed of .188 inch smooth aluminum plate, fabricated with two (2) inch sides. Reflective material measuring 1 inch x 6 inches shall be installed on the front corner both on the face and side of. The tray unit shall roll out to full extension of the compartment, with latching mechanism to hold

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tray in both fully-extended and stored positions.

Yes\_\_\_ No \_\_\_

**294.5 SCBA CYLINDER STORAGE**

294.5.1 One (1) formed aluminum storage unit shall be provided to store eighteen (18) fire department-supplied Scott 5.5 30 minute SCBA air cylinders. The storage unit shall be horizontally installed and shall be provided with a 1/8 inch rubber lining for durability and to provide scuff protection to the air cylinders. The aluminum storage unit shall measure approximately 38.0-inches wide by 20.0-inches high and have a sanded aluminum finish. The face of the storage unit shall be recess cut to allow easy removal of each SCBA bottle with a gloved hand.

Yes\_\_\_ No \_\_\_

**294.6 COMPARTMENT LIGHTING**

294.6.1 The compartment lights used shall be manufactured by **AMDOR**.

Yes\_\_\_ No \_\_\_

294.6.2 The compartment lights shall be controlled by the door ajar switch located on each compartment.

Yes\_\_\_ No \_\_\_

**295. L3 - LEFT UPPER COMPARTMENT- ABOVE REAR WHEELS**

295.1 There shall be one (1) upper compartment located be above the rear wheels. The compartment shall be equipped with a single natural finish roll up door and shall not be less than 56 inches in width. One (1) louver with filter shall be installed in the compartment for ventilation.

Yes\_\_\_ No \_\_\_

**295.2 ROLL OUT TRAY (1000 POUND)**

295.2.1 One (1) full width, half (1/2) depth roll-out equipment tray shall be installed in the compartment. The tray with sealed roller bearing tracks and steel angle framework shall be rated to a maximum load of 1,000 lbs. Tray shall be of a closed-in design, formed of .188 smooth aluminum plate, fabricated with two (2) inch sides. Reflective material measuring 1 inch x 6 inch shall be installed on the front corner both on the face and side of tray for firefighter safety. The tray unit shall roll out to full extension of the compartment, with latching mechanism to hold tray in both fully-extended and stored positions.

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Yes\_\_\_ No \_\_\_

295.3 COMPARTMENT LIGHTING

295.3.1 The compartment lights used shall be manufactured by **AMDOR**.

Yes\_\_\_ No \_\_\_

295.3.2 The compartment lights shall be controlled by the door ajar switch located on each compartment.

Yes\_\_\_ No \_\_\_

296. **L4 - LEFT REAR COMPARTMENT- BEHIND REAR WHEELS**

296.1 There shall be one (1) full height compartment located behind the rear wheels. The compartment shall be equipped with a full height single natural finish roll up door and shall not be less than 48 inches in width. One (1) louver with filter shall be installed in the compartment for ventilation.

Yes\_\_\_ No \_\_\_

296.1.1 The bottom of the compartment shall be fitted with removable vinyl Turtle Tile matting. The matting shall be interlocking modules approximately 12 inch square by 9/16 inch thick.

Yes\_\_\_ No \_\_\_

296.2 ADJUSTABLE SHELVING TRACKS

296.2.1 The compartments shall be equipped with two (2) aluminum adjustable tracks, vertically mounted, that are bolted in place for adjustable shelving and equipment mounting.

Yes\_\_\_ No \_\_\_

296.3 ADJUSTABLE SHELVES

296.3.1 Two (2) adjustable shelves shall be constructed of .190 inch smooth aluminum plate with 1.5 inches formed vertical lip front & back. Shelf supports on each side to be constructed of .188 inch aluminum and bolted to an aluminum extrusion (mounted vertically) by use of 3/8 inch bolts and spring-loaded cam locks.

Yes\_\_\_ No \_\_\_

296.3.2 The shelves/trays shall be fitted with removable vinyl Turtle Tile matting. The vinyl matting shall be interlocking modules approximately 12 inches square by 9/16 inch thick.

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Yes\_\_\_ No \_\_\_

296.4 ROLL OUT TRAY (500 POUND)

296.4.1 One (1) full width rollout equipment tray shall be installed in the 26.0-inch deep compartment. The 500 pound rated tracks shall have roller bearings. The tray shall be constructed of .188 inch smooth aluminum plate, fabricated with four 3 inch sides. The unit shall roll fully out of the compartment, with a gas operator to hold tray in both the "in and out" positions.

Yes\_\_\_ No \_\_\_

296.5 COMPARTMENT LIGHTING

296.5.1 The compartment lights used shall be manufactured by **AMDOR**.

Yes\_\_\_ No \_\_\_

296.5.2 The compartment lights shall be controlled by the door ajar switch located on each compartment.

Yes\_\_\_ No \_\_\_

297. **R1- RIGHT FRONT COMPARTMENT**

297.1 There shall be one (1) full height compartment located at the front of the body. The compartment shall be equipped with a full height single natural finish roll up door and shall not be less than 40 inches in width. One (1) louver with filter shall be installed in the compartment for ventilation.

Yes\_\_\_ No \_\_\_

297.1.1 The bottom of the compartment shall be fitted with removable vinyl Turtle Tile matting. The matting shall be interlocking modules approximately 12 inch square by 9/16 inch thick.

Yes\_\_\_ No \_\_\_

297.2 ADJUSTABLE SHELVING TRACKS

297.2.1 The compartments shall be equipped with two (2) aluminum adjustable tracks, vertically mounted, that are bolted in place for adjustable shelving and equipment mounting.

Yes\_\_\_ No \_\_\_

297.3 ADJUSTABLE SHELF

**FIRE TRUCK, PROTECTIVES FIRE APPARATUS**

297.3.1 One (1) adjustable shelf shall be constructed of .190 inch smooth aluminum plate with 1.5 inches formed vertical lip front & back. Shelf supports on each side to be constructed of .188 inch aluminum and bolted to an aluminum extrusion (mounted vertically) by use of 3/8 inch bolts and spring-loaded cam locks.

Yes\_\_\_ No \_\_\_

297.3.2 The shelf/tray shall be fitted with removable vinyl Turtle Tile matting. The vinyl matting shall be interlocking modules approximately 12 inches square by 9/16 inch thick.

Yes\_\_\_ No \_\_\_

**297.4 ROLLOUT ALUMINUM TOOL BOARDS (500 POUND)**

297.4.1 Two (2) roll-out tool board panels shall be mounted vertically within compartment. The panels and tracks shall be rated to a maximum load of 500 lb. Panel to be formed of .188 inch smooth aluminum with an opening to accommodate a gloved-hand to slide tool board. The tool boards shall slide out to full extension of the compartment, with a device to hold the tool boards in both fully-extended and stored positions.

Yes\_\_\_ No \_\_\_

**297.5 COMPARTMENT DIVIDER**

297.5.1 One (1) compartment divider constructed from 3/16 inch smooth aluminum material shall be installed. The divider shall be bolted in for ease of removal.

Yes\_\_\_ No \_\_\_

**297.6 SCBA CYLINDER STORAGE**

297.6.1 One (1) formed aluminum storage unit shall be provided to store eighteen (18) fire department-supplied Scott 5.5 30 minute SCBA air cylinders. The storage unit shall be horizontally installed and shall be provided with a 1/8 inch rubber lining for durability and to provide scuff protection to the air cylinders. The aluminum storage unit shall measure approximately 38.0-inches wide by 20.0-inches high and have a sanded aluminum finish. The face of the storage unit shall be recess cut to allow easy removal of each SCBA bottle with a gloved hand.

Yes\_\_\_ No \_\_\_

**297.7 COMPARTMENT LIGHTING**

**FIRE TRUCK, PROTECTIVES FIRE APPARATUS**

297.7.1 The compartment lights used shall be manufactured by **AMDOR**.

Yes\_\_\_ No \_\_\_

297.1.2 The compartment lights shall be controlled by the door ajar switch located on each compartment.

Yes\_\_\_ No \_\_\_

298. **R2 - RIGHT FRONT COMPARTMENT - AHEAD OF REAR WHEELS**

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## FIRE TRUCK, PROTECTIVES FIRE APPARATUS

298.1 There shall be one (1) full height compartment located at the front of the body. The compartment shall be equipped with a full height single natural finish roll up door and shall not be less than 40 inches in width. One (1) louver with filter shall be installed in the compartment for ventilation.

Yes\_\_\_ No \_\_\_

### 298.2 ADJUSTABLE SHELVING TRACKS

298.2.1 The compartments shall be equipped with two (2) aluminum adjustable tracks, vertically mounted, that are bolted in place for adjustable shelving and equipment mounting.

Yes\_\_\_ No \_\_\_

### 298.3 ADJUSTABLE SHELF

298.3.1 One (1) adjustable shelf shall be constructed of .190 inch smooth aluminum plate with 1.5 inches formed vertical lip front & back. Shelf supports on each side to be constructed of .188 inch aluminum and bolted to an aluminum extrusion (mounted vertically) by use of 3/8 inch bolts and spring-loaded cam locks.

Yes\_\_\_ No \_\_\_

398.3.2 The shelf/tray shall be fitted with removable vinyl Turtle Tile matting. The vinyl matting shall be interlocking modules approximately 12 inches square by 9/16 inch thick.

Yes\_\_\_ No \_\_\_

### 298.4 ROLL OUT TRAY (1000 POUND)

298.4.1 One (1) full width, half (1/2) depth roll-out equipment tray shall be installed in the compartment. The tray with sealed roller bearing tracks and steel angle framework shall be rated to a maximum load of 1,000 lbs. Tray shall be of a closed-in design, formed of .188 inch smooth aluminum plate, fabricated with two (2) inch sides. Reflective material measuring 1 inch x 6 inches shall be installed on the front corner both on the face and side of. The tray unit shall roll out to full extension of the compartment, with latching mechanism to hold tray in both fully-extended and stored positions.

Yes\_\_\_ No \_\_\_

### 298.5 SCBA CYLINDER STORAGE

**FIRE TRUCK, PROTECTIVES FIRE APPARATUS**

298.5.1 One (1) formed aluminum storage unit shall be provided to store eighteen (18) fire department-supplied Scott 5.5 30 minute SCBA air cylinders. The storage unit shall be horizontally installed and shall be provided with a 1/8 inch rubber lining for durability and to provide scuff protection to the air cylinders. The aluminum storage unit shall measure approximately 38.0-inches wide by 20.0- inches high and have a sanded aluminum finish. The face of the storage unit shall be recess cut to allow easy removal of each SCBA bottle with a gloved hand.

Yes\_\_\_ No \_\_\_

**298.6 COMPARTMENT LIGHTING**

298.6.1 The compartment lights used shall be manufactured by **AMDOR**.

Yes\_\_\_ No \_\_\_

298.6.2 The compartment lights shall be controlled by the door ajar switch located on each compartment.

Yes\_\_\_ No \_\_\_

**299. R3 - RIGHT UPPER COMPARTMENT- ABOVE REAR WHEELS**

299.1 There shall be one (1) upper compartment located be above the rear wheels. The compartment shall be equipped with a single natural finish roll up door and shall not be less than 56 inches in width. One (1) louver with filter shall be installed in the compartment for ventilation.

Yes\_\_\_ No \_\_\_

**299.2 ROLL OUT TRAY (1000 POUND)**

299.2.1 One (1) full width, half (1/2) depth roll-out equipment tray shall be installed in the compartment. The tray with sealed roller bearing tracks and steel angle framework shall be rated to a maximum load of 1,000 lbs. Tray shall be of a closed-in design, formed of .188 smooth aluminum plate, fabricated with two (2) inch sides. Reflective material measuring 1 inch x 6 inch shall be installed on the front corner both on the face and side of tray for firefighter safety. The tray unit shall roll out to full extension of the compartment, with latching mechanism to hold tray in both fully-extended and stored positions.

Yes\_\_\_ No \_\_\_

**299.3 COMPARTMENT LIGHTING**

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299.3.1 The compartment lights used shall be manufactured by **AMDOR**.

Yes\_\_\_ No \_\_\_

299.3.2 The compartment lights shall be controlled by the door ajar switch located on each compartment.

Yes\_\_\_ No \_\_\_

300. **R4 - RIGHT REAR COMPARTMENT- BEHIND REAR WHEELS**

300.1 There shall be one (1) full height compartment located behind the rear wheels. The compartment shall be equipped with a full height single natural finish roll up door and shall not be less than 48 inches in width. One (1) louver with filter shall be installed in the compartment for ventilation.

Yes\_\_\_ No \_\_\_

300.1.1 The bottom of the compartment shall be fitted with removable vinyl Turtle Tile matting. The matting shall be interlocking modules approximately 12 inch square by 9/16 inch thick

Yes\_\_\_ No \_\_\_

300.2 **ADJUSTABLE SHELVING TRACKS**

300.2.1 The compartments shall be equipped with two (2) aluminum adjustable tracks, vertically mounted, that are bolted in place for adjustable shelving and equipment mounting.

Yes\_\_\_ No \_\_\_

300.3 **ADJUSTABLE SHELF**

300.3.1 One (1) adjustable shelf shall be constructed of .190 inch smooth aluminum plate with 1.5 inches formed vertical lip front & back. Shelf supports on each side to be constructed of .188 inch aluminum and bolted to an aluminum extrusion (mounted vertically) by use of 3/8 inch bolts and spring-loaded cam locks.

Yes\_\_\_ No \_\_\_

300.3.2 The shelves/trays shall be fitted with removable vinyl Turtle Tile matting. The vinyl matting shall be interlocking modules approximately 12 inches square by 9/16 inch thick.

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Yes\_\_\_ No \_\_\_

300.4 ROLL OUT TRAY (500 POUND)

300.4.1 One (1) full width rollout equipment tray shall be installed in the 26.0-inch deep compartment. The 500 pound rated tracks shall have roller bearings. The tray shall be constructed of .188 inch smooth aluminum plate, fabricated with four 3 inch sides. The unit shall roll fully out of the compartment, with a gas operator to hold tray in both the "in and out" positions.

Yes\_\_\_ No \_\_\_

300.5 COMPARTMENT LIGHTING

300.5.1 The compartment lights used shall be manufactured by **AMDOR**.

Yes\_\_\_ No \_\_\_

300.5.2 The compartment lights shall be controlled by the door ajar switch located on each compartment.

Yes\_\_\_ No \_\_\_

301. **B1- REAR CENTER COMPARTMENT**

301.1 There shall be one (1) low compartment located at the rear of the apparatus. The compartment shall be equipped with a low natural finish roll up door and shall not be less than 42 inches in width. One (1) louver with filter shall be installed in the compartment for ventilation.

Yes\_\_\_ No \_\_\_

301.2 HOSE STORAGE

301.2.1 Two (2) fixed and seven (7) adjustable vertical dividers shall be provided for the storage of four (4) 50 foot lengths of 2.5 inch DJ hose and four (4) 50 foot lengths of 1 ¾ inch DJ hose.

Yes\_\_\_ No \_\_\_

301.3 ROLL OUT TRAY (500 POUND)

301.3.1 One (1) full width rollout equipment tray shall be installed in the 26.0-inch deep compartment. The 500 pound rated tracks shall have roller bearings. The tray shall be constructed of .188 inch smooth aluminum plate,

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fabricated with four  
3 inch sides. The unit shall roll fully out of the compartment, with a  
gas operator to hold tray in both the "in and out" positions.

Yes\_\_\_ No \_\_\_

**301.4 PULL-OUT AND DROP DOWN**

301.4.1 One (1) 250 pound capacity rollout and drop-down tray shall be installed in the specified compartment. The tray shall be constructed of aluminum with 3 inch edges on each side. The tray shall be equipped with roller bearing wheels. The track assembly allows the tray to roll out of compartment while dropping downward at approximately a 30 degree angle.

Yes\_\_\_ No \_\_\_

**301.5 COMPARTMENT LIGHTING**

301.5.1 The compartment lights used shall be manufactured by **AMDOR**.

Yes\_\_\_ No \_\_\_

301.5.2 The compartment lights shall be controlled by the door ajar switch located on each compartment.

Yes\_\_\_ No \_\_\_

**302. B1A - UPPER REAR CENTER COMPARTMENT**

302.1 There shall be a compartment located at the rear of the apparatus body directly above the main compartment. A horizontally hinged rear access door constructed of 3/16 inch smooth aluminum shall be provided with two (2) gas shocks, and a quarter turn slam style latch mechanism.

Yes\_\_\_ No \_\_\_

302.1.1 Storage provisions for the following customer supplied items shall be provided:

One (1) – 6 foot Pike Pole

One (1) – 10 foot Picture Pole

One (1) – 6 foot folding Attic Ladder

One (1) – 6 foot folding A-frame Ladder

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Five (5) – 10 foot lengths of three (3) inch Hard Suction Hose with cam style locks and barrel strainer.

Yes\_\_\_ No \_\_\_

**303. REAR STEP – 10 INCH BOLT ON**

303.1 A 10 inch deep step or suitable step detailed below shall be provided at the rear of the apparatus body, recessed in place and easily removable for replacement or repair. The tailboard shall be constructed of .188 inch aluminum diamond plate or equal non-slip surface in compliance with NFPA #1901 standards.

Yes\_\_\_ No \_\_\_

303.2 The maximum height of the step assembly shall be no more than 24 inches from the ground when the apparatus is in the loaded condition. A label shall be provided warning personnel that riding on the rear step while the apparatus is in motion is prohibited.

Yes\_\_\_ No \_\_\_

303.3 The rear step shall be provided with a multi-directional aggressive gripping surface incorporated into the aluminum diamond plate rear step and shall comply with NFPA #1901 standards. The gripping surface shall be up to 10 inches wide.

Yes\_\_\_ No \_\_\_

303.4 A slide out step shall be required and shall double the working depth of the fixed step. The step shall be of simple design and not use a bearing style sliding track. The step shall be fabricated of slip resistant NFPA 1901 compliant grating, and lock in both the in and out positions. The step width shall be approximately 48 inches.

Yes\_\_\_ No \_\_\_

**304. GENERATOR**

The generator shall be one (1) Harrison MPC Hydraulic Driven Generator rated at 25,000 watts, 104/208 amps, 120/240VAC, 60Hz, 1-phase.

**304.1 GENERATOR DRIVE**

The generator shall use an PTO driven axial piston variable displacement hydraulic pump. The generator shall be capable of being used while vehicle is either

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stationary or in motion.

Yes\_\_\_ No \_\_\_

**304.2 ELECTRICAL SYSTEM INSTALLATION**

The line voltage electrical system shall comply with the applicable NFPA standards and shall also comply with applicable sections of the National Electric Code #70 standards. Line voltage carrying equipment downstream of the power source shall be "listed" (where available) and installed in accordance with manufacturer's instructions. The electrical equipment installed shall be suitable for intended use and type locations (wet, dry, or underbody and chassis).

The grounding and bonding shall comply to applicable sections of NFPA standards. The chassis frame rail, body sheet metal, and cab sheet metal shall be properly bonded per NFPA schematic. The bonding copper conductor shall be rated at 115 % of current rating of power source.

Over-Current Protection Panel

Manually re-settable over current devices shall be installed to protect the line voltage electrical system components. A main over current protection device shall be provided that is either incorporated in the power source or is connected to the power source by a power supply assembly. The size of the main over current protection device shall not exceed 110 percent of the nameplate amperage rating on the power source specification label or the rating of the next larger available size over current protection device where so recommended by the power source manufacturer.

The conductor used in the power supply assembly between the output terminals of the power source and the main over current protection device shall not exceed 144 inches in length. Over this length, a master circuit breaker shall be provided near the generator in accessible location.

Over current protection devices shall be provided for each individual circuit and shall be sized at not less than 15 amps in accordance with NEC. Each over current protection device shall be marked to identify the function of the circuit it protects. The circuit breaker panel and instruments shall be located so that all circuit breakers are readily visible under normal operating conditions. The panel shall be readily visible and located so that there is unimpeded access to the panel board controls.

The chassis engine shall have a governor capable of maintaining engine speed within the limits required by the generator to meet frequency control.

Labeling Of Equipment

All circuit breakers shall be labeled. All interior and exterior outlets shall be provided with labels indicating output amperage, voltage and phase.

Instruction Label

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A label that provides the operator with the essential power source operating instructions, including the power-up and power-down sequence shall be permanently attached to the apparatus at any point where such operations can take place.

Yes \_\_\_ No \_\_\_

### 305. CIRCUIT BREAKER BOX

One (1) circuit breaker box for single phase voltage equipment shall be provided capable of holding twenty (10) breakers.

Yes \_\_\_ No \_\_\_

### 306. CIRCUIT BREAKER BOX LOCATION

The circuit breaker box shall be installed on the side wall towards the front of the apparatus in the (R2) ahead of rear wheel body compartment.

The breaker box shall be recess mounted to a compartment wall. The breaker box and individual breakers shall be labeled using durable adhesive screen printed labels. Due to high wear, labels that are hand written or computer printed shall not be acceptable.

Yes \_\_\_ No \_\_\_

### 307. GENERATOR INSTRUMENTS

Fire Research FROG-D model FDA100 series generator display kit shall be installed to monitor a single phase, 50/60 Hz generator. The kit shall include a display module, voltage transformer, two (2) current transformers, and cables. The display module shall consolidate five (5) generator monitoring instruments into one device. The display case shall be waterproof and have dimensions not to exceed 4 ¼ inches high by 4 1/4 inches wide by 3 ¼ inches deep.

The following continuous displays shall be provided with super bright LED digits more than ½ an inch high:

- Generator frequency in hertz
- Line 1 current in amperes
- Line 2 current in amperes
- Generator voltage in volts

The program shall support the accumulation of elapsed generator hours and the monitoring of hydraulic oil temperature. Generator hours and oil temperature shall be displayed at the push of a button. Audible warning alarm outputs are provided for generator overload, over/under voltage fluctuations, and high oil temperature.

The panel shall be located next to circuit breaker panel.

The instrument panel for the generator shall be installed next to the breaker panel.

Yes\_\_\_ No \_\_\_

308. **LINE VOLTAGE WIRING INSTALLATION**

Line voltage wiring in the vehicle shall be through Carflex, or equal flexible moisture resistant reinforced conduit, with proper seal-tight connectors and hardware. Type THHN or Type SO stranded copper conductors with 600-volt insulation rated for at least 194 degrees shall be installed in the conduit. All electrical junction boxes shall conform to the National Electric Code and be accessible for service.

Electrical conduit shall be supported within 6 inches of any junction box and at a minimum of every 24 inches of run. Supports shall be made of corrosion protected metal and that does not cut or abrade the conduit and shall be mechanically fastened to the vehicle.

Electrical conduit shall not be attached to chassis suspension components, water or fuel lines, air or air brake lines, fire pump piping, hydraulic lines, exhaust system components, or low voltage wiring and shall be separated by a minimum of 12 inches from exhaust piping or properly shielded and separated from fuel lines by a minimum of 6 inches distance.

All wiring connections and terminations shall provide a positive mechanical and electrical connection. Connectors shall be installed in accordance with the manufacturer's instructions. Use of wire nuts or insulation displacement and insulation piercing connectors shall be avoided.

Yes\_\_\_ No \_\_\_

309. **120V ELECTRIC RECEPTACLE -- TWIST LOCK**

Four (4) 120-volt 20 amp twist lock (NEMA L5-20) receptacle with spring loaded black weatherproof cover shall be provided.

- One (1) electric receptacle shall be located in the left side exterior L2 body compartment.
- One (1) electric receptacle shall be located in the right side exterior R2 body compartment.
- Two (2) electric receptacles shall be located directly inside the door of the B1 rear compartment.

Yes\_\_\_ No \_\_\_

310. **240V ELECTRIC RECEPTACLE -- TWIST LOCK**

Two (2) electric 240v receptacles shall be located in the exterior body compartments. One receptacle shall be located in the R2 compartment and the other in the L2

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compartment.

- A 240-volt 20 amp twist lock (NEMA L6-20) receptacle with spring loaded yellow weatherproof cover shall be provided.

Yes\_\_\_ No \_\_\_

**311. ELECTRIC CABLE REELS**

Three (3) Hannay ECR-1600 series electric cable reel with an electric rewind shall be installed on the vehicle. The reel shall be designed for use with 240 volt, four (4) wire cable. The duty

rating of the cable reel shall be for continuous usage. The reel shall be installed so that it is easily accessible for cord access and maintenance. A 12-volt motor controlled by a push button switch located in a convenient position and properly labeled shall perform the electric rewind function.

The installation of the cable reels shall meet applicable sections of the NFPA standards. Reel Capacity

The reel shall be sized to hold 110 percent of the capacity needed for the specified cable length. The wire size shall be in accordance with the National Electric Code.

Labeling

An information label shall be installed in a location visible adjacent to any permanently connected reel with the following data:

- Voltage
- Phase
- Current type
- Current rating
- Total cable length.

Electrical Supply Wiring To Reel

The wiring shall end in a sealed conduit box at the reel with mechanical connectors to allow removal of the reel. Appropriately, sized wire and circuit breakers shall be utilized.

The electric cable reels shall be transversely staggered in the upper dunnage area above the L2/R2 compartments. Exact mounting locations are to be determined at pre- construction.

Two hundred foot (200') length of 10/4 black electric cable shall be installed with specified plugs. The cable shall be type SEO-WA with a 30 amp, 240 volt rating.

The electric cable shall be configured so as to be hard wired directly to a junction box.

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One (1) ball stop shall be attached to the electric cable to prevent total re-wind and to allow the cable to remain at a reachable position. The ball shall positively attach to the cable and be bright orange in color for high visibility.

Yes\_\_\_ No \_\_\_

**312. JUNCTION BOXES**

One (1) Circle-D model PF51G-5 yellow electrical junction box shall have a 12" pigtail with a NEMA L14-30 twist-lock plug for connection to **each cord reel**. The unit shall have an integral pilot light to indicate electrical current.

Each unit shall be equipped with four (4) 120 volt 20 amp NEMA L5-20 twist-lock receptacles, each with a hinged, weatherproof cover. The two (2) receptacles closest to the junction box inlet shall be a circuit and the remaining two (2) receptacles shall be on a separate second circuit. Each circuit shall have a 20 amp circuit breaker.

One (1) aluminum storage bracket designed to hold an electric junction box shall be supplied. The holder shall be mounted in the same compartment as the specified cable reel.

One (1) four-sided nylon roller unit for the electric cable shall be installed on specified reels. The roller unit shall be mounted in the specified location to permit the cable to feed directly off the reel.

Yes\_\_\_ No \_\_\_

**313. FRONT BODY PROTECTION PANELS**

Aluminum tread plate overlays and panels shall be installed on the front of the body from the lower edge to the top of the compartment doors. The material shall be bolted in place and sealed to prevent any moisture entry between the overlay and the body structure.

**314. REAR BODY PROTECTION PANELS**

Smooth aluminum shall be installed on the rear of the body, to allow for the proper application and installation of a "Chevron" stripe on the rear.

Yes\_\_\_ No \_\_\_

**315. FUEL TANK ACCESS PANEL**

There shall be a removable panel in the rear compartment, used to gain access to the fuel tank and fuel gauge-sending unit.

Yes\_\_\_ No \_\_\_

**316. EXTRUDED ALUMINUM RUB RAILS**

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316.1 Full body length polished aluminum rub rails shall be bolted in place on the lower right and left body sides. The side rub rails shall be a heavy extruded aluminum "C" channel.

Yes\_\_\_ No \_\_\_

316.2 The rub rail shall be furnished with integral red and white Scotchlite reflective stripe along the body from the front body corner to the rear of the apparatus.

Yes\_\_\_ No \_\_\_

316.3 The top of the rub rail shall be furnished with grip tape.

Yes\_\_\_ No \_\_\_

**317. WHEEL WELL PROVISION - LEFT SIDE**

317.1 The wheel well provisions shall be located on the left side of the apparatus, ahead of the rear wheels.

Yes\_\_\_ No \_\_\_

317.2 Three (3) SCBA storage compartments shall be provided in the rear wheel well area. A painted aluminum door shall be installed.

Yes\_\_\_ No \_\_\_

317.3 One (1) one-inch wide loop of black webbing shall be installed in each SCBA compartment to prevent the bottle from sliding out of the compartment in case of door failure. The loop shall be mounted, centered in the compartment and shall hang within one-inch of the compartment floor to allow the bottle to pass by the strap when the bottle is placed in the compartment. The strap shall loop over the valve.

Yes\_\_\_ No \_\_\_

**318. FUEL PIPING AND FILL CAP**

There shall be a fuel fill cap provided in the recessed area of the left side rear wheel well clearly marked, "DIESEL FUEL ONLY". The fill shall be piped to the fuel tank.

Yes\_\_\_ No \_\_\_

**319. WHEEL WELL PROVISION – RIGHT SIDE**

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319.1 The wheel well provisions shall be located on the right side of the apparatus, ahead of the rear wheels.

Yes\_\_\_ No \_\_\_

319.2 Two (2) fire extinguishers and one (1) SCBA storage compartment shall be provided in the rear wheel well area. The compartment shall be designed with ample room for (1) 2.5 gallon H2O extinguisher and (1) #20 BC extinguisher. A painted aluminum door shall be installed.

Yes\_\_\_ No \_\_\_

319.3 One (1) one-inch wide loop of black webbing shall be installed in each SCBA compartment to prevent the bottle from sliding out of the compartment in case of door failure. The loop shall be mounted, centered in the compartment and shall hang within one-inch of the compartment floor to allow the bottle to pass by the strap when the bottle is placed in the compartment. The strap shall loop over the valve.

Yes\_\_\_ No \_\_\_

**320. WHEEL WELL PROVISION LOCATION**

320.1 The wheel well provisions shall be located on the right side of the apparatus, behind the rear wheels.

Yes\_\_\_ No \_\_\_

320.2 One (1) CO2 extinguisher storage compartment shall be provided and located in the rear wheel well of the apparatus body. The compartment shall be a minimum of 26 inches deep.

Yes\_\_\_ No \_\_\_

320.3 The cylinder storage compartment shall be constructed entirely of aluminum. The door assemblies shall be provided with a gasket between door and body side, bolted in-place and removable for repair or replacement.

Yes\_\_\_ No \_\_\_

320.4 Compartment shall be provided with SCBA cylinder scuff protection. A painted aluminum door shall be installed.

Yes\_\_\_ No \_\_\_

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320.5 Two (2) one-inch wide loop of black webbing shall be installed in each SCBA compartment to prevent the bottle from sliding out of the compartment in case of door failure. The loop shall be mounted, centered in the compartment and shall hang within one-inch of the compartment floor to allow the bottle to pass by the strap when the bottle is placed in the compartment. The strap shall loop over the valve.

Yes\_\_\_ No \_\_\_

**321. LOW VOLTAGE ELECTRICAL SYSTEM SPECIFICATIONS**

321.1 The electrical system shall include all panels, electrical components, switches and relays, wiring harnesses and other electrical components. The electrical equipment installed by the apparatus manufacturer shall conform to current automotive electrical system standards, the latest Federal DOT standards, and the requirements of the applicable NFPA standards.

Yes\_\_\_ No \_\_\_

321.2 All wiring shall be stranded copper or copper alloy conductors of a gauge rated to carry 125 percent of the maximum current for the protected circuit. Voltage drops in all wiring from the power source to the using device shall not exceed 10 percent. The wiring and wiring harness and insulation shall be in conformance to applicable SAE and NFPA standards. The wiring harness shall conform to SAE J-1128 with GXL temperature properties. All exposed wiring shall be protected in a loom with a minimum 289 degree Fahrenheit rating. All wiring looms shall be properly supported and attached to body members. The electrical conductors shall be constructed in accordance with applicable SAE standards, except when good engineering practice requires special construction.

Yes\_\_\_ No \_\_\_

321.3 The wiring connections and terminations shall use a method that provides a positive mechanical and electrical connection and shall be installed in accordance with the device manufacturer's instructions. Electrical connections shall be with mechanical type fasteners and large rubber grommets where wiring passes through metal panels.

Yes\_\_\_ No \_\_\_

321.4 The wiring between the cab and body shall be joined using Deutsche type connectors or an enclosed in a terminal junction panel area. This system will permit body removal with minimal impact on the apparatus electrical system. All connections shall be crimp-type with insulated shanks to resist moisture and foreign debris such as grease and road grime. Weather-resistant connectors shall be provided throughout to ensure the integrity of the electrical system.

Yes\_\_\_ No \_\_\_

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321.5 There shall be no exposed electrical cabling, harnesses, or terminal connections located in compartments, unless they are enclosed in a junction box or covered with a removable electrical panel. The wiring shall be secured in place and protected against heat, liquid contaminants and damage. Wiring shall be uniquely identified every three- inches by color coding or permanent marking with a circuit function code and identified on a reference chart or electrical wiring schematic per requirements of applicable NFPA #1901 standards.

Yes\_\_\_ No \_\_\_

321.6 The electrical circuits shall be provided with low voltage overcurrent protective devices.

Such devices shall be accessible and located in required terminal connection locations or weather resistant enclosures. The overcurrent protection shall be suitable for electrical equipment and shall be automatic reset type and meet SAE standards. All electrical equipment, switches, relays, terminals, and connectors shall have a direct current rating of 125 percent of maximum current for which the circuit is protected. The system shall have electro-magnetic interference suppression provided as required in applicable SAE standards.

Yes\_\_\_ No \_\_\_

322. **NFPA REQUIRED TESTING OF ELECTRICAL SYSTEM**

The apparatus shall be electrically tested upon completion of the vehicle and prior to delivery. The electrical testing, certifications, and test results shall be submitted with delivery documentation per requirements of the applicable NFPA standards.

Yes\_\_\_ No \_\_\_

323. **WEATHER PROOF ELECTRICAL JUNCTION BOX**

All electrical junction boxes shall be a **sealed weather proof box** and located away from water spray conditions. The main body junction panel shall house the automatic reset breakers and relays where required.

Yes\_\_\_ No \_\_\_

324. **DASH MOUNTED EMERGENCY ELECTRICAL SWITCH PANEL**

An electrical switch panel shall be designed and mounted in the cab dash area. The configuration of the switches shall be determined at pre- construction.

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Yes\_\_\_ No \_\_\_

325. **SWITCHES**

325.1 All emergency light switches shall be lighted, rocker style. Switches shall be internally lit when the switch circuit is in the on position. A plug-in identification label is to be provided and installed adjacent to each rocker switch with backlighting provided behind the label.

Yes\_\_\_ No \_\_\_

325.2 An internally lighted "master" switch, red in color, shall be provided and wired through the load manager to activate power to the emergency lights.

Yes\_\_\_ No \_\_\_

326. **FRC LED TELESCOPING LIGHT POLE**

326.1 Two (2) Fire Research Focus LED model FCA530-Q14 side mount push up telescopic light shall be installed. The light pole shall be anodized aluminum and have a knurled twist lock mechanism to secure the extension pole in position. The extension pole shall rotate 360 degrees. The outer pole shall be a grooved aluminum extrusion and qualify as an NFPA compliant handrail. The pole mounting brackets shall have a 3 1/2 inch offset. Wiring shall extend from the pole bottom with a 4 foot retractile cord.

Yes\_\_\_ No \_\_\_

326.2 The lamphead shall have ten (10) ultra-bright white LEDs. It shall operate at 12/24 volts DC, draw 13/6.5 amps, and generate 14,000 lumens. The lamphead shall direct 50 percent of the light or to the action area while providing 50 percent to illuminate the working area. The lamphead angle of elevation shall be adjustable at a pivot in the mounting arm and the position locked with a round knurled locking knob. The lamphead shall incorporate heat-dissipating fins and be no more than 5 inches deep by 3 3/8 inches high by 11 1/2 inches wide. The lamphead and mounting arm shall be powder coated white. The floodlight shall be for fire service use.

Yes\_\_\_ No \_\_\_

327. **LIGHT MOUNTING LOCATION**

The mounting location for the specified light shall be on the rear of the cab.

Yes\_\_\_ No \_\_\_

328. **LIGHT SWITCH LOCATION**

Two (2) switches shall be installed on the cab dash within easy reach of driver to activate the side scene lights upon engagement.

Yes\_\_\_ No \_\_\_

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329. **HAND LIGHTS**

All NFPA required portable hand lights will be supplied and installed by the Customer before the apparatus is placed into service.

Yes\_\_\_ No \_\_\_

330. **MARKER LIGHTS**

LED marker lights shall be installed on the vehicle in conformance to the Department of Transportation requirements.

Yes\_\_\_ No \_\_\_

331. **LICENSE PLATE BRACKET**

One (1) license plate mounting provisions shall be provided at the rear bumper and be illuminated by a LED light.

Yes\_\_\_ No \_\_\_

332. **TAIL LIGHTS**

Two (2) Federal Signal LED, tail brake lights shall be provided.

Yes\_\_\_ No \_\_\_

333. **TURN SIGNALS**

Two (2) Federal Signal LED, turn signals shall be provided.

Yes\_\_\_ No \_\_\_

334. **BACKUP LIGHTS**

334.1 Two (2) Federal Quadra Flare LED, backup lights shall be installed on the rear of the apparatus body.

Yes\_\_\_ No \_\_\_

334.2 One (1) manual backup light switch shall be installed on the rear panel of the apparatus body.

Yes\_\_\_ No \_\_\_

NON-OFFICIAL SPEC  
DO NOT USE

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335. **FOUR LIGHT BEZEL**

Two (2) tail light cluster bezels shall be supplied. Each bezel shall be designed to hold the specified rear lights located at the lower rear corners of the body.

Yes\_\_\_ No \_\_\_

336. **MID BODY TURN SIGNALS**

Two (2) mid body LED turn signals shall be provided. The LED lights shall be **Trucklite Model 33** lights. The location of the turn lights shall be at mid-body near the rear wheel axle.

Yes\_\_\_ No \_\_\_

337. **REAR STEP GROUND LIGHTS**

337.1 Two (2) LED **Trucklite 44347C** ground lights shall be mounted to the underside of the rear step below each door using rubber grommets. The lights shall be 4.00 inches round LED.

Yes\_\_\_ No \_\_\_

337.2 The ground lights shall automatically activate when the parking brake is applied.

Yes\_\_\_ No \_\_\_

338. **FRC TELESCOPIC TRIPOD WITH LIGHT POLE**

Four (4) Tele-Lite, Inc. model TT-LEDTR-120 telescopic tripod with LED scene light shall be provided. The heavy duty aluminum tripod and light pole shall be polished, etched and anodized. The tripod shall have an extended height 40 inches, retracted height of 47 inches, rotate 360 degrees and utilize a non-corrosive handle and clamp assembly to secure the height and position of the directed light. A 3/4 inch NPT female adaptor shall be installed at the top of the inner tube for attachment of the lamphead. The round folding legs shall be fabricated from anodized aluminum tubing and have rubberized feet to ensure stability and prevent damage.

An internal cord shall power the light and extend from the bottom of the pole in a coiled fashion for attachment to a power source. The cord will be equipped with a NEMA plug. Plug configuration options available: NEMA L5-15 twist lock, NEMA L5-20 twist lock or NEMA Standard household 5-15. The lamphead shall have sixty (60) ultra-bright white LEDs, 48 for flood lighting and 12 to provide a spot light beam pattern. It shall operate at 120 volts AC, draw 2 amps, and generate 20,000 lumens of light. The lamphead shall have a unique lens that directs flood lighting onto the work area and focuses the spot light beam into the distance. The lamphead shall have the ability to be adjusted for angle and rotation. The lamphead

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shall be no more than 5 3/8 inches high by 14 inches wide by 3 3/4 inches deep and have a heat resistant handle. The lamphed and mounting arm shall be powder coated. The bulb shall be accessible through the front.

Yes\_\_\_ No \_\_\_

338.1 The lights shall be installed at the rear of the apparatus body two (2) on each side.

Yes\_\_\_ No \_\_\_

338.2 On/off switches for the flood lights shall be located on the base of the lamp housing.

Yes\_\_\_ No \_\_\_

339. **LIGHT POLE MOUNTING LOCATION**

The mounting location for the specified lights shall be on the rear of the body.

Yes\_\_\_ No \_\_\_

340. **REAR SCENE LIGHT SWITCH LOCATION**

340.1 One (1) switch shall be installed on the cab dash within easy reach of both the driver and officer to activate the rear scene lights upon engagement.

Yes\_\_\_ No \_\_\_

340.2 The rear scene lights shall activate automatically upon placing the transmission into reverse.

Yes\_\_\_ No \_\_\_

341. **MECHANICAL SIREN**

One (1) Federal Signal Q2B mechanical siren shall be pedestal mounted on the left/driver's side of the front bumper as space allows. The "Q" siren shall feature a highly polished chrome body and grille. The siren's distinctive mechanical wail sound shall produce 123 db at 10 feet. The siren control switches shall be installed in the cab.

Yes\_\_\_ No \_\_\_

342. **SIREN CONTROL**

**FIRE TRUCK, PROTECTIVES FIRE APPARATUS**

One (1) foot switch shall be provided on the driver's side of the cab floor and one (1) foot switch shall be provided on the officer's side of the cab floor to activate the Federal Signal Q2B siren. Floor switches shall be mounted on 30 degree aluminum tread plate brackets.

Yes\_\_\_ No \_\_\_

**343. SIREN BRAKE**

One (1) push button siren brake to silence the Federal Signal Q2B siren shall be provided on the driver's side dash.

Yes\_\_\_ No \_\_\_

**344. LIGHTBAR**

Federal Signal - 535NFPA8P2, 8-Pod ViewPoint SL Lightbar, (14) 6-LED Solaris Reflectors- Red, (4) 6-LED Solaris Reflectors-White, Domes 1,2,4,5,7 & 8 are Red, Dome 3 is White and Dome 6 shall provide an Opticom Pre-emption signal control device. The Pre-emption code shall be provided at pre-construction.

Yes\_\_\_ No \_\_\_

**345. UPPER REAR WARNING LIGHTS**

One (1) pair of Federal Signal, model QL91XF R, QuadraFlare series red Solaris LED warning lights shall be installed, one each side of the upper rear of the apparatus body. The light shall include a red lens with red LEDs, and the dimensions of the light shall be approximately 7 inches x 9 inches. QuadraFlares shall have 19 internal flash patterns, but can also be synchronized with other warning lights. There shall be chrome bezels supplied and installed on the warning lights.

Yes\_\_\_ No \_\_\_

345.1 There shall be chrome bezels supplied and installed on the warning lights.

Yes\_\_\_ No \_\_\_

**346. REAR WARNING LIGHT MOUNTING**

The upper rear lights shall be mounted to the body using stainless screws and a gasket between the light and the body.

Yes\_\_\_ No \_\_\_

**347. LOWER FRONT WARNING LIGHTS**

**FIRE TRUCK, PROTECTIVES FIRE APPARATUS**

One (1) pair of Federal Quadra Flare red LED, warning lights shall be installed one each side of the chassis cab. The dimensions of the lights shall be 4 inches x 6 inches.

Yes\_\_\_ No \_\_\_

347.1 There shall be chrome bezels supplied and installed on the warning lights.

Yes\_\_\_ No \_\_\_

**348. INTERSECTION WARNING LIGHTS**

One (1) pair of Federal Quadra Flare red LED, warning lights shall be installed one each side of the chassis cab. The dimensions of the lights shall be 4 inches x 6 inches.

Yes\_\_\_ No \_\_\_

348.1 There shall be chrome bezels supplied and installed on the warning lights.

Yes\_\_\_ No \_\_\_

**349. LOWER MID-BODY WARNING LIGHTS**

One (1) pair of Federal Signal Viper series, surface mounted red LED warning lights shall be installed, one each side of the apparatus, mid-body. The dimensions of the lights shall be 2.4 inches x 5.7 inches x 1 inch.

Yes\_\_\_ No \_\_\_

349.1 Lights shall be mounted in the rub rails.

Yes\_\_\_ No \_\_\_

349.2 There shall be chrome bezels supplied and installed on the warning lights.

Yes\_\_\_ No \_\_\_

**350. LOWER REAR SIDE WARNING LIGHTS**

One (1) pair of Federal Signal Viper series surface mounted red LED, warning lights shall be installed, one each side of the apparatus, mid-body. The dimensions of the lights shall be 2.4 inches x 5.7 inches x 1 inch.

Yes\_\_\_ No \_\_\_

**FIRE TRUCK, PROTECTIVES FIRE APPARATUS**

350.1 Lights shall be mounted in the rub rails.

Yes\_\_\_ No \_\_\_

350.2 There shall be chrome bezels supplied and installed on the warning lights.

Yes\_\_\_ No \_\_\_

351. **LOWER REAR WARNING LIGHTS**

One (1) pair of Federal Quadra Flare (1) red and (1) blue LED, warning lights shall be installed one each side of the body. The dimensions of the lights shall be 4 inches x 6 inches.

Yes\_\_\_ No \_\_\_

351.2 Mounting of the lower rear warning lights shall be in the rear DOT lighting bezel.

Yes\_\_\_ No \_\_\_

352. **BODY PAINT PROCESS DETAILS**

352.1 Please provide a full description of the body painting process including: surface preparation, caulking and paint materials.

Yes\_\_\_ No \_\_\_

352.2 All bright metal fittings, if unavailable in stainless steel shall be heavily chrome plated. Iron fittings shall be copper plated prior to chrome plating.

Yes\_\_\_ No \_\_\_

353. **INTERIOR COMPARTMENT FINISH**

The interior compartment walls shall be left natural aluminum finish. The compartments shall be caulked with a urethane caulk to maintain a weather tight seal.

Yes\_\_\_ No \_\_\_

354. **CAB UNDERCOATING**

The cab fenders and entire underside of the four-door custom chassis cab is to be cleaned and properly prepared for application of a sprayed on automotive type undercoating for added corrosion resistance. Undercoating is to be a solvent based, rubberized coating, black in color.

Yes\_\_\_ No \_\_\_

FIRE TRUCK, PROTECTIVES FIRE APPARATUS

355. **BODY UNDERCOATING**

The entire underside of the single axle apparatus body is to be cleaned and properly prepared for application of a sprayed on automotive type undercoating for added corrosion resistance. Undercoating is to be a solvent based, rubberized coating, black in color.

Yes\_\_\_ No \_\_\_

356. **LETTERING**

The dealer shall furnish lettering to similarly match the current apparatus. Graphics design shall be approved at the pre-construction meeting.

Yes\_\_\_ No \_\_\_

357. **CAB AND BODY STRIPE**

A straight White Scotchlite reflective stripe, 6 inch minimum in width, shall be applied horizontally around the cab and body in compliance with applicable NFPA 1901 standards. The purchaser shall specify the location of the stripe at pre-construction.

Yes\_\_\_ No \_\_\_

358. **COLOR OF STRIPING MATERIAL**

The color of the 3M brand striping material shall be white.

Yes\_\_\_ No \_\_\_

359. **CHEVRON STRIPING**

The entire rear portion of the body shall have 3M reflective red and amber striping installed. The chevron style striping shall be applied at a 45-degree upward angle pointing towards the center upper portion of the rear panel.

Yes\_\_\_ No \_\_\_

360. **FIRE EXTINGUISHER**

All NFPA required fire extinguishers will be supplied and installed by the Customer before the apparatus is placed into service.

Yes\_\_\_ No \_\_\_

361. **MISCELLANEOUS HARDWARE**

**FIRE TRUCK, PROTECTIVES FIRE APPARATUS**

Miscellaneous loose hardware consisting of bolts, nuts, washers, and screws shall be supplied with the apparatus at time of delivery.

Yes\_\_\_ No \_\_\_

362. **ENGINE WARRANTY**

The Cummins engine shall be warranted for a period of five (5) years or 100,000 miles, whichever occurs first.

Yes\_\_\_ No \_\_\_

363. **TRANSMISSION WARRANTY**

The Allison EVS series transmission shall be warranted for a period of five (5) years with **unlimited mileage**. Parts and labor shall be included in the warranty.

Yes\_\_\_ No \_\_\_

364. **FRONT AXLE WARRANTY**

The front axle shall be warranted by Meritor for two (2) years with unlimited miles under the general service application. Details of the Meritor warranty are provided on the PDF document attached to this option.

Yes\_\_\_ No \_\_\_

365. **REAR AXLE WARRANTY**

The rear axle shall be warranted by Meritor for two (2) years with unlimited miles under the general service application. Details of the Meritor warranty are provided on the PDF document attached to this option.

Yes\_\_\_ No \_\_\_

366. **BIDDER IDENTIFICATION DOCUMENTS**

Bidders are required to provide additional documentation as indicated in this section:

366.1 Bidder must submit along with Proposal Page, the bidder's W-9 Form.

366.2 Upon request of the City, the bidder must provide the City with one of the following:

366.2.1 A copy of the bidder's IRS Form SS-4 EIN Assignment Letter.

366.2.2 A copy of the bidder's IRS Form 147C.

367. **NON-COLLUSIVE BIDDING CERTIFICATION**

**FIRE TRUCK, PROTECTIVES FIRE APPARATUS**

- 367.1 By submission of this bid, each bidder and each person signing on behalf of any bidder certifies, and in the case of a joint bid each party certifies as to its own organization, under penalty of perjury, that to the best of its knowledge and belief:
- 367.2 The prices in this bid have been arrived at independently without collusion, consultation, communication, or agreement for the purpose of restricting competition, as to any matter relating to such prices with any other bidder or with any competitor.
- 367.3 Unless otherwise required by law, the prices which have been quoted in this bid have not knowingly been disclosed by the bidder and will not knowingly be disclosed prior to the bid opening, directly or indirectly, to any other bidder or to any competitor.
- 367.4 No attempt has been or will be made by the bidder to induce any other person, partnership or corporation to submit or not to submit a bid for the purpose of restricting competition.

NON-OFFICIAL SPEC  
DO NOT USE



FIRE TRUCK, PROTECTIVES FIRE APPARATUS

PROPOSAL

**OPTIONAL BID ITEMS:**

**A. RAISED CAB ROOF**

The cab shall be a custom, fully enclosed model with a raised roof over the driver, officer, and crew area to match the height of the body. Design, construction and materials shall conform to all specifications in addition to specifications outlined in the Cab Style section of this specification.

\$ \_\_\_\_\_  
TOTAL

**B. BACK-UP CAMERA SYSTEM**

One (1) Safety Vision camera system shall be furnished utilizing a SV-610 camera which provides a wide field of view and picture quality. A sealed camera enclosure shall be utilized along with electronic connections. The 6.8" color monitor shall be a SV-LCD68 and include a SV-LCDCB control box and cable connection assembly.

\$ \_\_\_\_\_  
TOTAL

**C. 3- INCH HARD SUCTION HOSE**

Five (5) – 10 foot lengths of three (3) inch Hard Suction Hose with cam style locks and barrel strainer.

\$ \_\_\_\_\_  
TOTAL

\_\_\_\_\_  
Authorized Signature

\_\_\_\_\_  
Typed Name and Title of Authorized Signer

\_\_\_\_\_  
Typed Name of Company

FIRE TRUCK, PROTECTIVES FIRE APPARATUS

QUESTIONNAIRE FOR CITY SPECIFICATIONS

TO BE FILLED IN BY THE BIDDER AND PRESENTED WITH THE BID PROPOSAL

PROPOSED UNIT: \_\_\_\_\_

MAKE \_\_\_\_\_

MODEL \_\_\_\_\_

YEAR \_\_\_\_\_

GVW \_\_\_\_\_

APPROX. WEIGHT \_\_\_\_\_ lb.

GENERAL DIMENSIONS:

WHEELBASE \_\_\_\_\_ in. C.A. \_\_\_\_\_ in.

OVERALL LENGTH \_\_\_\_\_ in. OVERALL HEIGHT \_\_\_\_\_ in.

OVERALL WIDTH \_\_\_\_\_ in.

FRAME: \_\_\_\_\_

TYPE STEEL \_\_\_\_\_

SIDE RAIL DIMENSIONS \_\_\_\_\_

SECTION MODULUS \_\_\_\_\_

YIELD POINT \_\_\_\_\_

RESISTING BENDING MOMENTS \_\_\_\_\_

\_\_\_\_\_  
Authorized Signature

\_\_\_\_\_  
Typed Name and Title of Authorized Signer

\_\_\_\_\_  
Typed Name of Company

FIRE TRUCK, PROTECTIVES FIRE APPARATUS  
QUESTIONNAIRE FOR CITY SPECIFICATIONS

TO BE FILLED IN BY THE BIDDER AND PRESENTED WITH THE BID PROPOSAL

REINFORCEMENT \_\_\_\_\_

FULL LENGTH YES \_\_\_ NO \_\_\_

FULL WIDTH YES \_\_\_ NO \_\_\_

CAB:

METAL GAUGE (THICKNESS)

OUTSIDE SKIN \_\_\_\_\_

DOORS \_\_\_\_\_

BODY \_\_\_\_\_

CAB INTERIOR COLOR \_\_\_\_\_

ENGINE:

MAKE \_\_\_\_\_

MODEL \_\_\_\_\_

NET S.A.E. BRAKE HORSEPOWER \_\_\_\_\_ AT \_\_\_\_\_

\_\_\_\_\_ RPM NET S.A.E.

TORQUE \_\_\_\_\_ LB. FT.

NON-OFFICIAL SPEC  
DO NOT USE

\_\_\_\_\_  
Authorized Signature

\_\_\_\_\_  
Typed Name and Title of Authorized Signer

\_\_\_\_\_  
Typed Name of Company

FIRE TRUCK, PROTECTIVES FIRE APPARATUS

QUESTIONNAIRE FOR CITY SPECIFICATIONS

TO BE FILLED IN BY THE BIDDER AND PRESENTED WITH THE BID PROPOSAL

NUMBER OF CYLINDERS \_\_\_\_\_

LUBE SYSTEM OIL CAPACITY \_\_\_\_\_ U.S. gal.

COOLANT CAPACITY \_\_\_\_\_ U.S. gal.

AIR CLEANER:

MAKE \_\_\_\_\_ MODEL \_\_\_\_\_ CAPACITY \_\_\_\_\_

COOLING SYSTEM:

CAPACITY OF ENTIRE SYSTEM \_\_\_\_\_ QT.

TYPE OF RADIATOR \_\_\_\_\_

WHEELS: FRONT TYPE \_\_\_\_\_ MAKE \_\_\_\_\_

SIZE \_\_\_\_\_ CAPACITY \_\_\_\_\_

REAR TYPE \_\_\_\_\_ MAKE \_\_\_\_\_

SIZE \_\_\_\_\_ CAPACITY \_\_\_\_\_  
mm \_\_\_\_\_

TIRES: FRONT MAKE \_\_\_\_\_

TYPE \_\_\_\_\_

MATERIAL \_\_\_\_\_

\_\_\_\_\_  
Authorized Signature

\_\_\_\_\_  
Typed Name and Title of Authorized Signer

\_\_\_\_\_  
Typed Name of Company

FIRE TRUCK, PROTECTIVES FIRE APPARATUS

QUESTIONNAIRE FOR CITY SPECIFICATIONS

TO BE FILLED IN BY THE BIDDER AND PRESENTED WITH THE BID PROPOSAL

SIZE \_\_\_\_\_

PLY RATING \_\_\_\_\_

CAPACITY \_\_\_\_\_

REAR MAKE \_\_\_\_\_

TYPE \_\_\_\_\_

MATERIAL \_\_\_\_\_

SIZE \_\_\_\_\_

PLY RATING \_\_\_\_\_

CAPACITY \_\_\_\_\_

BATTERY(S): VOLTAGE \_\_\_\_\_ AMP. HRS.

GROUP \_\_\_\_\_ MAKE \_\_\_\_\_

ALTERNATOR: MAKE \_\_\_\_\_ MODEL \_\_\_\_\_

CHARGING R.P.M. \_\_\_\_\_

CAPACITY RATING \_\_\_\_\_

STARTER: MAKE \_\_\_\_\_ MODEL \_\_\_\_\_

\_\_\_\_\_  
Authorized Signature

\_\_\_\_\_  
Typed Name and Title of Authorized Signer

FIRE TRUCK, PROTECTIVES FIRE APPARATUS

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Typed Name of Company

NON-OFFICIAL SPEC  
DO NOT USE

FIRE TRUCK, PROTECTIVES FIRE APPARATUS

QUESTIONNAIRE FOR CITY SPECIFICATIONS

TO BE FILLED IN BY THE BIDDER AND PRESENTED WITH THE BID PROPOSAL

TORQUE RATING

FIRE PUMP:                      MAKE                                      MODEL

UNDERCOATING: MATERIAL \_\_\_\_\_

MANUFACTURER \_\_\_\_\_

ADDRESS \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

MIL SPEC. NO. \_\_\_\_\_

ADDRESS WHERE UNDERCOATING IS TO BE DONE:

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_  
Authorized Signature

\_\_\_\_\_  
Typed Name and Title of Authorized Signer

\_\_\_\_\_  
Typed Name of Company

NON-OFFICIAL SPEC  
DO NOT USE

FIRE TRUCK, PROTECTIVES FIRE APPARATUS

EXCEPTION FORM FOR CITY SPECIFICATIONS

TO BE FILLED IN BY BIDDER AND PRESENTED WITH BID PROPOSAL

ON THIS FORM, THE BIDDER MUST IDENTIFY AND EXPLAIN EACH EXCEPTION NOTED ON THE SPECIFICATIONS, WITH REFERENCE MADE TO EACH PAGE AND PARAGRAPH TO WHICH THE EXCEPTION APPLIES.

It shall be understood that if no exceptions are taken, the vendor shall supply each item as specified. (USE ADDITIONAL PAGES IF NECESSARY)

REFERENCE  
NUMBER

DESCRIPTION

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NON-OFFICIAL SPEC  
DO NOT USE

FIRE TRUCK, PROTECTIVES FIRE APPARATUS

PROPOSAL

PRINT OR TYPE THE FOLLOWING INFORMATION:

\_\_\_\_\_  
Name of Firm or Corporation

\_\_\_\_\_  
Street Address

\_\_\_\_\_  
City

\_\_\_\_\_  
State

\_\_\_\_\_  
Zip Code

\_\_\_\_\_  
Telephone/Fax No./ Cell No.

\_\_\_\_\_  
Federal Employer ID No.

\_\_\_\_\_  
E-mail Address of Recipient of Contract Awards and Extensions

\_\_\_\_\_  
Date

\*\*\*\*\*

ACCEPTED ON BEHALF OF THE CITY OF ROCHESTER FOR:

\_\_\_\_\_  
Contract No.:

\_\_\_\_\_  
Contract Term:

\_\_\_\_\_  
Purchasing Agent

\_\_\_\_\_  
Date:



**City of Rochester**

**Bureau of Purchasing**

**Department of Finance**

## **GENERAL CONDITIONS AND INSTRUCTIONS TO BIDDERS**

(Vendor: The general rules and conditions which follow apply to all purchases and become a definite part of each formal invitation to bid, purchase order or other award issued by the City Purchasing Agent, unless otherwise specified. Bidders or their authorized representative are expected to fully inform themselves as to the conditions, requirements and specifications before submitting bids. Failure to do so will be at the bidder's own risk and he cannot secure relief on the plea of error.)

Subject to applicable Federal, State and Local laws, ordinances, rules, regulations and limitations, bids on all advertisements and invitations issued by the Department of Finance, Purchasing Bureau will bind bidders to applicable conditions and requirements herein set forth unless otherwise specified in the Invitation to Bid.

### **CONDITIONS OF BIDDING**

1. **Proposal Forms:** Bids shall be submitted only on the forms provided by the City. The bidder shall retain one copy for his files and submit two (2) copies signed and sealed in the envelope provided by the City for that purpose. When using an envelope other than the one provided by the City, the following required information must be entered in the lower left corner on the face of the envelope: Bid Number, Bid Title, Bid Open Date and Time, and Submitted By. The envelope must be mailed or hand delivered to the Office of the Purchasing Agent, City Hall, Room 105A, 30 Church St., Rochester, NY 14614.
2. **Late Bids:** Formal bids, amendments thereto, or requests for withdrawal of bids received by the City after time specified for bid opening will not be considered.
3. **Withdrawal of Bids:** A written request for the withdrawal of a bid or any part thereof may be granted if the request is received by the City prior to the specified time of opening.
4. **Mailing of Bids:** Bids which are to be publicly opened will have attached a special mailing envelope which must be used by bidders in presenting such bids. In the event that the bid contains bulky subject material, the special mailing envelope must be firmly affixed to any other wrapper being used. Bids not received in the actual office of the Purchasing Agent at the time established for bid opening will not be considered, even if mailed earlier.
5. **Completeness:** All information required by Invitation to Bid must be supplied to constitute a proper bid.
6. **Bids Binding 45 Days:** Unless otherwise specified, all formal bids submitted shall be binding for forty-five (45) days following bid opening date unless the bidder(s), upon request of the Purchasing Agent, agrees to an extension.
7. **Conditional Bids:** Qualified bids are subject to rejection in whole or in part.
8. **Payment Terms:** Prompt payment discounts allowing less than thirty (30) days for discount to apply shall not be considered as a cost factor in the evaluation of bids. In connection with any

prompt payment discount offered, time will be computed from the date of receipt of correct invoice or receipt and acceptance of shipment, whichever is later.

9. **Bids for All or Part:** Unless otherwise specified by the City or by the bidder, the Purchasing Agent reserves the right to make award on all items, or on any of the items according to the best interests of the City. The Purchasing Agent shall further have the right to award separate items or groups to different vendors. Bidder may restrict his bid to consideration in the aggregate by so stating, but should name a unit price on each item bid upon; any bid in which the bidder names a total price of all the articles without quoting a price on each and every separate item may be rejected at the option of the City.
10. **Errors in Bids:** When an error is made in extending total prices, the unit bid price will govern. Carelessness in quoting prices, or in preparation of bid otherwise, will not relieve the bidder. Erasures or changes in bids should be initialed.
11. **Questions Re: Specifications:** Except for Public Works, any information relative to interpretation of specifications and drawings shall be requested of the Purchasing Agent, in writing, in ample time before the opening of bids.

DO NOT MAKE INQUIRES BY PHONE OR IN PERSON.

No inquiries, if received within five (5) days of the date set for the opening of bids, will be given any consideration. Any interpretation made to prospective bidders will be expressed in the form of an addendum to the specifications which, if issued, will be sent by ordinary or certified mail, at the City's option, to all prospective bidders no later than three (3) days before the date set for opening of bids. Oral answers will not be binding on the City.

12. **Response to Invitations:** In the event you cannot submit a bid on our requirements, as set forth in the "Invitation, Bid, and Agreement" attached hereto, please return the Invitation, Bid and Contract form with an explanation as to why you are unable to bid on these requirements. (Because of the large number of firms listed on the City's qualified lists of Bidders, it is necessary to delete from these lists the names of those persons, firms or corporation who fail to respond after having been invited to bid on a commodity or commodities for three successive bid openings). City reserves the right to delete.
13. **Multiple Bids:** No bidder will be allowed to offer more than one price on each item even though he may feel that he has two or more types or styles that will meet specifications. Bidders must determine for themselves which to offer. IF THE BIDDER SHOULD SUBMIT MORE THAN ONE PRICE ON ANY ITEM, ALL PRICES FOR THAT ITEM MAY BE REJECTED AT THE DISCRETION OF THE CITY PURCHASING AGENT.
14. **Taxes:** The City of Rochester is exempt from State and Local sales and use taxes under Certificate No. AC 946 and is exempt from paying Federal excise taxes.
15. **Catalogs:** Each bidder shall submit in duplicate where necessary or when requested by the Purchasing Agent, catalogs, descriptive literature, and detailed drawings, fully detailing features, designs, construction, finishes and the like necessary to fully describe the material or work he proposes to furnish.
16. **Competency of Bidder:** No proposal will be accepted from or contract awarded to any person, firm or corporation that is in arrears or is in default to the City upon any debt or contract, or that is a defaulter, as surety or otherwise, upon any obligation to said City or had failed to perform faithfully within the prior three (3) years of any contract with the City. The bidder must present within 48 hours of a request evidence satisfactory to the Purchasing Agent of performance ability

and possession of necessary facilities, pecuniary resources and adequate insurance to comply with the terms of these specifications and contract documents.

### BID DEPOSIT

17. **Bid Bond, Cash, Certified or Cashier's Check:** When required, each bid shall be accompanied by a bid bond signed by a surety company authorized to do business in the State of New York, or by a cashier's check, certified business check, Treasurer's check or other direct obligation drawn on a responsible bank doing business in the United States, and shall be made payable to the City of Rochester, unless the bidder has on file with the Purchasing Agent an annual bid bond approved by the City with an uncommitted balance equal to the certified check requirements. When computing amount of Bid for Certified Check purposes, do NOT deduct for trade-ins. U.S. Postal Money Orders are acceptable in lieu of certified checks.

18. **Annual Bid Bonds:** Bidders who regularly do business with the City shall be permitted to file with the Purchasing Bureau an annual bid bond in the amount specified below. Such annual bonds shall be acceptable as surety in lieu of the furnishing of surety with each individual transaction.

Annual bid bonds shall be in an amount as determined by the bidder, of no less than Three Thousand Five Hundred Dollars (\$3,500.00). If at any time the requirements of a specific bid invitation exceed the amount of the annual bid bond, or should the aggregate amount of the bid security requirements on all unresolved bids submitted by your firm exceed the amount of the annual bid bond, additional surety will be required in the appropriate sum.

19. **Performance Bond:** The successful bidder or bidders on this bid must furnish a performance bond as indicated on the bid cover made out to the City of Rochester, prepared on an approved form or on a form supplied by an approved surety, as security for the faithful performance of his contract, within ten (10) days of his notification that his bid has been accepted. The surety thereon must be such surety company or companies as are authorized and licensed to transact business in the State of New York. Attorneys in fact who sign bid bonds must file with each bond a certified copy of their power of attorney to sign said bonds.

The successful bidder or bidders, upon failure or refusal to furnish within ten (10) days after his notification the required performance bond, shall forfeit to the City of Rochester as liquidated damages their bid deposit. At its option, the City shall have the right to accept cash, certified checks, letters of credit or such other security as the City deems appropriate in satisfaction of the foregoing bond requirements.

20. **Samples:** The samples submitted by bidders on items which they have received an award may be retained by the City until the delivery of contracted items is completed and accepted. Bidders whose samples are retained may remove them after delivery is accepted. Bidders who are not awarded a bid must remove their samples as soon as possible after award has been made on the item or items for which the samples had been submitted. The City will not be responsible for such samples if not removed by the bidder within thirty (30) days after the award has been made.

Bidders shall make all arrangements for delivery of samples to place designated by the City as well as the removal of samples. Cost of delivery and removal of samples shall be borne by the bidder. All samples packages should be marked "Samples for Purchasing Bureau" and each sample should bear the name of the bidder, item number, bid number, and shall be carefully tagged or marked in a substantial manner. Failure of the bidder to clearly identify samples as indicated may be considered sufficient reason for rejection of bid, and in such cases the City will not be liable for the loss of samples.

## SPECIFICATIONS

21. **Trade Names:** In cases where an item is identified by a manufacturer's name, trade name, catalog number or reference, it is understood that the bidder proposes to furnish the item so identified and does not propose to furnish an "equal" unless the proposed "equal" is definitely indicated therein by the bidder.

The reference to a name brand is intended to be descriptive but not restrictive and only to indicate to the prospective bidder articles that will be satisfactory. Bids on other makes and catalogs will be considered, provided each bidder clearly states on the face of his proposal exactly what he proposes to furnish, and forwards with his bid, a cut, illustration, or other descriptive matter which will clearly indicate the character of the article covered by the bid.

The Purchasing Agent hereby reserves the right to approve as an equal, or to reject as not being equal, any article the bidder proposes to furnish which contains major or minor variations from specification requirements but may comply substantially therewith.

If no particular brand, model, or make is specified, and if no data are required to be submitted with the bid, the successful contractor, after award and before manufacture or shipment, may be required to submit working drawings or detailed descriptive data sufficient to enable the Purchasing Agent to judge if each requirement of the specifications is being complied with.

22. **Formal Specifications:** The Bidder shall abide by and comply with the true intent of the specifications and not take advantage of any unintentional error or omission, but shall fully complete every part as the true intent and meaning of the specifications and drawings. Whenever herein mention is made of any article, material, or workmanship to be in accordance with laws, ordinances, building codes, underwriter's codes, A.S.T.M. standards, or similar expressions, the requirements of these laws, ordinances, etc. shall be construed as the minimum requirements of these specifications.

## AWARD

23. **Award or Rejection of Bids:** The contract will be awarded to the lowest responsible and responsive bidder complying with the provisions of the Invitation, provided the bid price is reasonable and it is to the interest of the City to accept it. The Purchasing Agent reserves the right to reject any or all bids and to waive any informality in bids received whenever such rejection or waiver is in the interest of the City. The Purchasing Agent also reserves the right to reject the bid of a bidder who has previously failed to perform properly or complete on time contracts of a similar nature, or a bid of a bidder where investigation shows the bidder is not in a position to perform the contract.

In determining responsibility, the following other qualifications, in addition to price, will be considered by the Purchasing Agent:

- a) The ability, capacity and skill of the bidder to perform the service required within the specified time.
- b) The character, integrity, reputation, judgment, experience and efficiency of the bidder.
- c) The quality of performance of previous contracts or services.
- d) The previous and existing compliance by the bidder with laws and ordinances relating to previous contracts with the City and to the bidder's employment practices.

e) The sufficiency of the final resources and ability of the bidder to perform the contract or provide services.

f) The quality, availability and adaptability of the supplies or contractual services to the particular use required.

g) The ability of the bidder to provide future maintenance and service for the use of the subject of the contract.

h) Whether the bidder is in arrears to the City, in debt on contract, is a defaulter on surety to the City, or whether the bidder's taxes or assessments are delinquent.

l) Such other information as may be secured by the Purchasing Agent having a bearing on the decision to make the award.

In determining a bidder's responsiveness, the Purchasing Agent shall consider material deviations from the advertised specifications which materially affect price, quantity, quality or limit the bidder's liability.

24. **Notice of Acceptance:** A written award (or Acceptance of Bid) mailed (or otherwise furnished) to the successful Bidder within the time for acceptance specified in the Invitation to Bid shall be deemed to result in a binding contract without further action by either party.
25. **Tie Bids:** If two or more bidders submit identical bids and are equally qualified, the decision of the City to make award to one or more of such bidders shall be final. Selection may be made by drawing lots.
26. **Resident Bidders - Preference:** Price and other factors being equal, preference may be given first to resident bidders of the City, except when in the judgment of the City such purchases would operate to the disadvantage of the City, and selection by drawing lots shall not apply where the tie bids are between a resident and non-resident bidder.
27. **Specific Bid Quantities:** Where quantities are specifically stated, acceptance will bind the City to order quantities specified and to pay for at contract prices all such supplies or services delivered that meet specifications and conditions of the contract. However, the City will not be required to accept delivery of any unordered balances as of the contract expiration date unless the contractor furnishes the Purchasing Agent with a statement of unordered balances not later than ten (10) days after the termination date of the contract.
28. **Requirements Bid Quantities:** On "Requirements" bids, acceptance will bind the City to pay for, at unit bid prices, only quantities ordered and delivered.
29. **Availability of Funds:** The City shall be obligated to pay for goods and services received only to the extent that money has been appropriated and encumbered for such purpose. The contractor in turn shall be obligated to perform only so long as money is available to pay for the goods and services it supplies. If this contract extends through one fiscal year of the City into the next year, the City's obligations hereunder shall be specifically limited to and shall be conditioned upon the appropriations for such following year.
30. **Contract Alterations:** The contractual terms, conditions and provisions of this contract, including all general conditions and instructions to bidders, shall not be modified by the bidder. The Purchasing Agent shall have the right, at his option, to treat any bid submitted with additional or differing contract provisions as informal or to ignore such additional provisions and to award as if

such additional provisions had not been submitted by the bidder. This section shall not apply if the request for bids or the specifications specifically invite the bidder to submit additional or modifying provisions, but only to the extent that such additional or modifying provisions are requested by and are acceptable to the Purchasing Agent. Where the bidder submits a bid for goods or services which vary from the City's specifications, the decision of the Purchasing Agent of whether such goods or services are functionally equivalent to the goods or services requested by the City shall be final. Alterations or changes in the specifications of the goods or services furnished under this contract can only be made upon the written authorization signed by the Purchasing Agent, and any other alteration or modification that is not signed by the Purchasing Agent or his designated representative shall be void. Alterations in contract language shall further require the approval of the City Department of Law.

31. **Term of Contract:** This contract shall remain in force for the period specified unless extended by mutual consent of both parties or terminated as provided herein.
32. **Termination of Contracts:** Contracts shall remain in force for full periods specified and until all articles ordered before date of termination shall have been satisfactorily delivered and accepted and thereafter until all requirements and conditions shall have been met, unless:
  - a) terminated prior to expiration date by satisfactory deliveries of entire contract requirements.
  - b) extended upon written authorization of the Purchasing Agent and accepted by contractor, to permit ordering of unordered balances or additional quantities at contract prices and in accordance with contract terms.
33. **Subletting of Contract:** It is mutually understood and agreed that the Contractor shall not assign, transfer, convey, sublet or otherwise dispose of his contract or his right, title or interest therein, or his power to execute such contract, to any other person, firm or corporation without the previous written consent of the City Purchasing Agent, but in no case shall such consent relieve the Contractor from his obligations, or change the terms of the contract.
34. **Default:** The contract may be cancelled or annulled by the Purchasing Agent in whole or in part by written notice of default to the Contractor upon non-performance or violation of contract terms. An award may be made to next low bidder, or, articles specified may be purchased on the open market similar to those so terminated. In either event, the defaulting Contractor (or his surety) shall be liable to the City for costs to the City in excess of the defaulted contract prices. Provided, that the contractor shall continue the performance of this contract to the extent not terminated under the provisions of this clause. Failure of the contractor to deliver materials or services within the time stipulated on his bid, unless extended in writing by the Purchasing Agent, shall constitute contract default.
35. **Delivery Failures:** Failure of a Contractor to deliver within the time specified, or within reasonable time as interpreted by the Purchasing Agent, or failure to make replacements of rejected articles when so requested, immediately or as directed by the Purchasing Agent, shall constitute authority for the Purchasing Agent to purchase in the open market articles of comparable grade to replace the articles rejected or not delivered. On all such purchases, the Contractor shall reimburse the City within a reasonable time specified by the Purchasing Agent, for any expense incurred in excess of contract prices or the City shall have the right to deduct such amount from monies owed the defaulting Contractor. Such purchases shall be deducted from contract quantities. Should public necessity demand it, the City reserves the right to use or consume articles delivered which are substandard in quality, subject to an adjustment in price to be determined by the Purchasing Agent.

36. **Non-Liability:** The Contractor shall not be liable in damages for delay in shipment or failure to deliver when such delay or failure is the result of fire, flood, strike, act of God, act of government, act of an alien enemy or by any other circumstances which, in the Purchasing Agent's opinion, is beyond the control of the contractor. Under such circumstances, however, the Purchasing Agent may at his discretion, cancel the contract.

37. **New Goods, Fresh Stock:** All contracts, unless otherwise specifically stated, shall produce new commodities, fresh stock, latest model, design or pack.

38. **Equal Employment Opportunities:**

a) The City of Rochester, New York reaffirms its policy of Equal Opportunity in its commitment to require all contractors, lessors, vendors and suppliers doing business with the City to follow a policy of Equal Employment Opportunity, in accordance with the requirements set forth herein. This policy is adopted pursuant to the City's Affirmative Action Plan, Article XV, Contract Compliance. The City does not discriminate on the basis of handicap status as defined in 31 CFR Part 51, in admission, access to, or treatment or employment in its programs and activities. The City is including this policy statement in all bidding documents, contracts, and leases. Contractors, lessors, vendors and suppliers shall agree to comply with State and Federal Equal Opportunity laws and regulations and Federal regulations 31 CFR Part 51 and shall submit documentation regarding Equal Employment Opportunity upon the City's request.

b) Definitions:

1. Good Faith Effort - shall mean every reasonable attempt to comply with the provisions of this policy by making every reasonable effort to achieve a level of employment of minority groups and female workers that is consistent with their presence in the local work force.
2. Minority Group Persons - shall mean a person of Black, Spanish surname American, Asian American, or American Indian ethnic or racial origin and identity.

c) Compliance. The Contractor shall comply with all of the following provisions of the Equal Employment Opportunity Requirement:

1) The Contractor agrees that he will not discriminate against any employee for employment because of race, color, religion, sex, age, or of employees for performance of work under this Agreement or any subcontract hereunder, the Contractor and its subcontractors, if any, shall not, by reason of race, creed, color, sex, age or national origin, discriminate against any person who is qualified and available to perform the work to which the employment relates. The Contractor agrees to take affirmative action to ensure that applicants are employed, and that applicants are hired and that employees are treated during their employment, without regard to their race, color, religion, sex, age or national origin.

2) If the Contractor is found guilty of discrimination in employment on the grounds of race, color, sex, religion, age or national origin by any court or administrative agency that has jurisdiction pursuant to any State or Federal Equal Employment Opportunity Laws or regulations, such determination will be deemed to be a breach of contract, and this Agreement will be terminated in whole or part without any penalty or damages to the City on account of such cancellation or termination and the Contractor shall be disqualified from thereafter selling to, submitting bids to, or receiving awards of contract with the City of Rochester for goods, work, or services until such time as the Contractor can

demonstrate its compliance with this policy and all applicable Federal and State Equal Opportunity laws and regulations.

3. The Contractor shall cause the foregoing provisions to be inserted in all subcontracts, if any, for any work covered by this Agreement so that such provisions will be binding upon each subcontractor, provided that the foregoing provisions shall not apply to subcontracts for standard commercial supplies or raw materials.

39. **Purchase of Products from Companies Doing Business in Northern Ireland Supporting Fair Employment:**

1. The vendor understands that the City has adopted a policy prohibiting contracting for goods or services with a person, firm, or corporation doing business in Northern Ireland, who does not support fair employment without religious discrimination and does not cooperate with agencies monitoring equal opportunity employment.

2. If, because of applicable law, a contract is awarded to a contractor who does not support equal opportunity employment without religious discrimination, the contractor must submit a statement to the Director of Finance detailing the reasons for such non-support of fair employment.

40. **Guarantee:** Unless otherwise specified, the Contractor shall unconditionally guarantee the materials and workmanship of all equipment furnished by him for a period of one year from date of acceptance of the items delivered and installed, unless otherwise specified herein. If, within the guarantee period, any defects or signs of deterioration are noted, which, in the opinion of the City are due to faulty design and installation, workmanship, or materials, the Contractor, at his expense, shall repair or adjust the equipment or parts to correct the condition, or he shall replace the part or entire unit to the complete satisfaction of the City. These repairs, replacements or adjustments shall be made only at such time as will be designated by the City as least detrimental to the operation of City business.

41. **Placing of Orders:** Orders against contracts will be placed with the Contractor on either a Purchase Order or Blanket Purchase Order executed and released by the Purchasing Agent. Telephone orders placed directly with the contractor by the ordering Agency may be authorized by the Purchasing Agent only after execution of a Blanket Purchase Order.

42. **Provisions for Other Agencies:** Unless otherwise stipulated by the bidder, the bidder agrees when submitting his bid that he will make available to all City agencies and departments and the City School District the bid prices he submits in accordance with the bid terms and conditions, should any said department or agency wish to buy under this bid proposal.

#### DELIVERY PROVISIONS

43. **Responsibility for Materials Shipped and Risk of Loss:** The Contractor shall be responsible for the materials or supplies covered by this contract until they are delivered to the designated point and received, properly installed if necessary, and accepted by the City and the Contractor shall bear all risk on rejected materials or supplies. Rejected materials or supplies must be removed by and at the expense of the Contractor promptly after notification of rejection, unless public health and safety require immediate destruction or other disposal of rejected delivery. Upon failure to do so within ten (10) days after notification, the City may return the rejected materials or supplies to the contractor at his risk and expense, or dispose of them as its own property.

44. **Inspections:** Inspection and acceptance of materials or supplies will be made after delivery. Final inspection shall be conclusive except as regards latent defects, fraud, or such gross mistakes as amount to fraud. Final inspection and acceptance or rejection of the materials or supplies will be

made as promptly as practicable, but failure to inspect and accept or reject materials or supplies shall not impose liability on the City for such materials or supplies as are not in accordance with the specifications. All delivered materials shall be accepted subject to inspection and physical count.

45. **Time of delivery:** Deliveries will be accepted between 9:00 A.M. and 4:00 P.M. on weekdays only. No deliveries will be accepted on Saturdays, Sundays or Holidays.
46. **Packing Slips or Delivery Tickets:** All shipments or deliveries shall be accompanied by Packing Slips or Delivery Tickets and shall contain the following information for each item delivered:

The Purchase Order Number

The Name of the Article and Stock Number (Supplier's)

The Quantity Ordered

The Quantity Shipped

The Quantity Back Ordered

The Name of the Contractor

Bidders are cautioned that failure to comply with these conditions SHALL BE CONSIDERED SUFFICIENT REASON FOR REFUSAL TO ACCEPT THE GOODS.

47. **FOB Destination Delivery:** Unless otherwise specifically stated in the City's request for bids, all goods, equipment and materials shall be delivered to the location designated by the City. The bidder shall include in his bid price all reasonable and necessary transportation, shipping, handling and delivery charges. Delivery shall not be complete until the goods, etc. are placed in the building, room, or other location specified by the City, either in the bid documents or in the Purchase Order.
48. **General Guaranty:** Contractor agrees to:
- a) save the City, its agents and employees harmless from liability of any nature or kind for the use of copyrighted or non-copyrighted composition, secret process, patented or non-patented invention, article or appliance furnished or used in the performance of the contract which the contractor is not the patentee, assignee, licensee or owner.
  - b) protect the City against latent defective material or workmanship and to repair or replace any damages or marring occasioned in transit or delivery.
  - c) furnish adequate protection against damage to all work and to repair damages of any kind, to the building or equipment, to his own work or to the work of other contractors for which he or his workmen are responsible.
  - d) pay for all permits, licenses and fees and give all notices and comply with all laws, ordinances, rules and regulations of the City and the State of New York.
49. **Indemnity:** Contractor shall indemnify, keep and save harmless the City, its agents, officials and employees, against all injuries, death, loss, damages, claims, patent claims, suits, liabilities, judgments, costs and expenses, which may in anyway accrue against the City in consequence of the granting of this contract or which may in anyway result therefrom, whether or not it shall be

alleged or determined that the act was caused through negligence or omission of the Contractor or his employees, of the subcontractor or his employees, if any, and the Contractor shall, at his own expense, appear, defend and pay all charges of attorneys and all costs and other expenses arising therefrom or incurred in connection therewith, and if any judgment shall be rendered against the City in any such action, the Contractor shall at his own expense, satisfy and discharge the same. Contractor expressly understands and agrees that any performance bond or insurance protection required by this contract, or otherwise provided by Contractor, shall in no way limit the responsibility to indemnify, keep and save harmless and defend the City as herein provided.

50. **Collusive Bidding:** The Bidder certifies that his bid is made without any previous understanding, agreement or connection with any person, firm or corporation making a bid for the same project without prior knowledge of competitive prices, and is in all respects fair, without outside control, collusion, fraud or otherwise illegal action.
51. **Identical Bidding:** Executive Order No. 10946: All identical bids submitted to the City as a result of advertised procurement for materials, supplies, equipment or services exceeding \$1,000.00 in total amount may at the discretion of the City, be reported to the Attorney General of the United States in accordance with Form DJ-1510 and the Presidential Order dated April 24, 1961 for possible violation and enforcement of antitrust laws.
52. **Employees Not To Benefit:** As a prerequisite for the payment pursuant to the terms of this contract, there shall be furnished to the City a statement under oath that no employee or officer of the City, or members of his or her immediate family, including spouse, parents, or children, or any person representing or purporting to represent any member or members of the elected governing body has received or has been promised directly or indirectly, any financial benefit, by way of fee, commission, finder's fee, political contribution, or any other similar form of remuneration and/or on account of the acts of awarding and/or executing the contract. Upon request by the City, as a prerequisite to payment pursuant to the terms of this contract, there will be furnished to the requester, under oath, answers to any interrogatories related to a possible conflict of interest as herein embodied. Any contract made or entered into where it is discovered that violation of the intent of this provision exists shall be declared null and void and all monies received by the Contractor shall be returned to the City.

Any person executing a false statement or violating the provisions of this section shall be subject to possible prosecution.

53. **Child Labor:** Pursuant to Resolution No. 37-38 of the City of Rochester, the bidder certifies to the best of his/her knowledge that Child Labor has not been employed in the manufacture of the materials, supplies, the containers thereof, or services represented hereon.
54. **Prevailing Wages:** Bidder hereby certifies that to the extent applicable to this contract the wage rates to be paid to employees on this contract shall be in conformity with the wage rates established by the Comptroller pursuant to and in conformity with Section 220 of the New York State Labor Law. To the extent that prevailing wages are not applicable to the contract, the bidder hereby certifies that he/she shall pay employees working hereunder the minimum wages established by law.
55. **Testimony Concerning Contracts:** The refusal of the vendor, or any of its officers, directors, partners, members or agents, when called before a Grand Jury, to testify concerning any transaction or contract had with the State of New York, any political subdivision thereof, a public authority or with any public department, agency or official of the State of New York or of any political subdivision thereof or of a public authority, to sign a waiver of immunity against subsequent criminal prosecution or to answer any relevant questions concerning such transaction or contract, shall disqualify the vendor and such officer, director, member or agent thereof from thereafter selling to or submitting bids to or receiving awards from or entering into any contracts with any municipal corporation in the

State of New York or any public department, agency or official thereof, for goods, works or services, for a period of five (5) years after such refusal and any or all contracts made with any municipal corporation or a public department, agency or official thereof, by such person, and by any firm, partnership or corporation of which he is a member, partner, director or officer, may be cancelled or terminated by the municipal corporation without any liability on the part of the municipal corporation or any penalty or damages on account of such cancellation or termination.

56. **Status As Independent Contractor:** The Contractor, in accordance with his status as an independent contractor, covenants and agrees that he shall conduct himself in a manner consistent with such status, that he will neither hold himself nor his employees out as, nor claim to be an officer or employee of the City by reason hereof, and that he and his employees will not by reason hereof, make any claim, demand or application for any right or privilege applicable to an officer or employee of the City, including but not limited to Workers' Compensation coverage, unemployment insurance benefits, social security coverage, and retirement membership or credit.
57. **Audit:** The Contractor agrees to permit on-site inspection and auditing of all records, books, papers, and documents associated with this Agreement by authorized representatives of the City, and further agrees to provide necessary staff support for the performance of such audit. The Contractor agrees to maintain for a period of three (3) consecutive years following termination of this Agreement any and all records, reports and other documentation arising from the performance of this agreement; however, this period shall be extended beyond three years for any and all records and information pertaining to unresolved questions, which have been brought to the Contractor's attention by written notice by the City.
58. **Compliance With All Laws:** The Contractor agrees that, during the performance of the work required pursuant to this Agreement, the Contractor, and all employees working under his direction, shall strictly comply with all local, state or federal laws, ordinances, rules or regulations controlling or limiting in any way their actions during their said performance of the work required by this Agreement. Furthermore, each and every provision of law and contractual clause required by law to be inserted in this Agreement shall be deemed to be inserted herein. If, through mistake or otherwise, any such provision is not inserted or is not correctly inserted, then upon the application of either party this Agreement shall be forthwith physically amended to make such insertion or correction.
59. **Extent of Agreement:** This Agreement constitutes the entire and integrated Agreement between and among the parties hereto and supersedes any and all prior negotiations, agreements, and conditions, whether written or oral. Any modification or amendment to this Agreement shall be void unless it is in writing and subscribed by the party to be charged or by its authorized agent.
60. **Law and Forum:** This Agreement shall be governed by and under the laws of the State of New York and the Charter of the City of Rochester. The parties further agree that the Supreme Court of the State of New York, held in and for the County of Monroe shall be the forum to resolve disputes arising out of either this agreement or work performed according thereto. The parties waive all other venue or forum selections. The parties may agree between themselves on alternative forums.
61. **No Waiver:** In the event that the terms and conditions of this agreement are not strictly enforced by the City, such non-enforcement shall not act as or be deemed to act as a waiver or modification of this Agreement, nor shall such non-enforcement prevent the City from enforcing each and every term of this Agreement thereafter.
62. **Severability:** If any provision of this Agreement is held invalid by a court of law, the remainder of this Agreement shall not be affected thereby, if such remainder would then continue to conform to the laws of the State of New York.

## NOTICE TO BIDDERS

Effective October 1, 1984, Section 38, Part a) of the General Conditions and Instructions to Bidders incorporated in this document has been amended to read:

38. Equal Opportunities:

- a) The City of Rochester, New York reaffirms its policy of equal opportunity in its commitment to require all contractors, lessors, vendors, and suppliers doing business with the City to follow a policy of equal opportunity, in accordance with the requirements set forth herein. This policy is adopted pursuant to the City's Affirmative Action Plan, Article XV, Contract Compliance. The City does not discriminate on the basis of handicap status as defined in 31 CFR Part 51, in admission, access to, or treatment or employment in its programs or activities. The City is including these policy statements in all bidding documents, contracts, and leases. Contractors, lessors, vendors, and suppliers shall agree to comply with State and Federal equal opportunity laws and regulations and Federal regulation 31 CFR Part 51 and shall submit documentation regarding equal opportunity upon the City's request.

Effective June 15, 1989, the General Condition and Instructions to Bidders incorporated in this document has been amended by the insertion of the following new section:

38(A). Purchase of Products from Companies Doing Business in Northern Ireland Supporting Fair Employment

- 1) The vendor understands that the City has adopted a policy prohibiting contracting for goods or services with a person, firm, or corporation doing business in Northern Ireland, who does not support fair employment without religious discrimination and does not cooperate with agencies monitoring equal opportunity employment.
- 2) If, because of applicable law, a contract is awarded to a contractor who does not support equal opportunity employment without religious discrimination, the contractor must submit a statement to the Director of Finance detailing the reason for such nonsupport of fair employment.