



Sullivan County Purchasing  
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Blountville, TN 37617  
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# REAR MOUNT PUMPER FIRE FIGHTING APPARATUS

## RFP # PFVFD2017(AM)

DATE TO OPEN:  
SEPTEMBER 12, 2017  
2:00 PM





OFFICE OF THE SULLIVAN COUNTY PURCHASING AGENT  
3411 HIGHWAY 126 – SUITE 201  
BLOUNTVILLE, TN 37617-0569

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**REQUEST FOR PROPOSAL**

<b>RFP Name / Number</b>	Rear Mount Pumper / # PFVFD2017(AM)
<b>Department</b>	Piney Flats Volunteer Fire Department
<b>Due Date / Time</b>	<b>Tuesday, September 12, 2017 / 2:00 p.m.</b>
<b>Bid Location / Mail Address</b>	Sullivan County Purchasing Department Kristinia Davis, Purchasing Agent 3411 Hwy 126, Suite 201 Blountville, TN 37617
<b>Bid Contact / Telephone</b>	Alan Mahaffey (423) 323-6404; alan.mahaffey@sullivancountyttn.gov

The Sullivan County Purchasing Department is soliciting this Request for Proposal (RFP) regarding the purchase of a **REAR MOUNT PUMPER FIRE FIGHTING APPARATUS** to be operated by the **PINEY FLATS VOLUNTEER FIRE DEPARTMENT**. Sealed proposals are desired from reputable manufacturers of Automotive Fire/Rescue Apparatus in accordance with the attached specifications.

All RFPs and required enclosures shall be presented, signed and delivered to the Sullivan County Purchasing Department (address denoted above) no later than **TUESDAY, SEPTEMBER 12, 2017 @ 2:00 P.M. LATE RESPONSES WILL NOT BE CONSIDERED!** Sullivan County is not responsible for delays in mail deliveries or courier services.

RFP must be presented in a **sealed** envelope, **clearly identifying RFP #PFVFD2017(AM) on the outside.** Telephone, fax or e-mail responses are not acceptable!

All responses to this RFP **must be submitted in duplicate.** Any exception to this requirement may disqualify responding vendor from award consideration.

All RFPs offered must be in strict conformance to the language, specifications, requirements, terms and conditions as stated herein. This RFP must be completed in totality and signed by an authorized agent of the responding company. Any erasures, strike overs and/or changes to prices written in numerals should be initialed by the responding vendor. Any exception to this requirement will disqualify responding vendor from award consideration.

It is the responsibility of each responding vendor to ascertain that all requirements are satisfied. It will be assumed that the vendor has made investigations to be fully informed as to the extent and character of the requirements. Failure to submit a RFP which conforms to the specified content and format requirements will be sufficient cause to disqualify vendor. Additionally, material deficient or incomplete response to the RFP requirements will be cause to disqualify vendor.

If a responding vendor represents more than one fire apparatus company, vendor shall offer only the superior unit that meets and/or exceeds specifications herein. Each responding vendor shall only submit one proposal. Multiple offers from the same vendor will not be acceptable.

During the evaluation period, bidders may be asked to further clarify their proposals or answer questions that may arise during the evaluation of bid. It is the responsibility of the vendor to make clarifications, in writing, on the fire apparatus manufacturer's letterhead and signed by the President and/or General Manager of the manufacturing company. These written clarifications must be received within seventy two (72) hours of when they were requested by the Sullivan County Purchasing Agent. Failure to respond within the allowed time period could deem the bid proposal unresponsive and cause for rejection.

The Sullivan County Purchasing Agent has the right to accept or reject any/all proposals and to waive any informalities or irregularities and/or to reject a bid from any responding vendor who, in the judgment of the purchasing agent, is not





in a position to perform the contract, and/or to reject a bid based on unacceptable provisions of a responding vendor's contract. Sullivan County, on behalf of the Piney Flats Volunteer Fire Department does not obligate itself to accept the lowest and/or any bid. If all responses should be deemed unacceptable, the purchasing agent shall prepare a written determination outlining the nature of such rejection. Should another RFP be prepared, all rejected responses shall remain closed to public inspection until the evaluation of new RFP responses is completed.

Sullivan County, its officers, agents and employees shall be held harmless from liability from any claims, damages and actions of any nature rising from the use of any materials furnished by the responding firm, provided that such liability is not attributable to negligence on the part of the using agency or failure of the using agency to use the materials in the manner outlined.

Any remedies in the vendor's response, including agreement, license agreement, terms, conditions, literature, etc. that may be considered an agreement to waive the legal rights of the citizens of Sullivan County shall be considered cause for rejection.

By submission of this RFP, the vendor certifies total compliance with Title VI and Title VII of the Civil Rights Act of 1964, as amended, and all regulations promulgated thereof.

Failure of Sullivan County to enumerate any federal, state or county regulation in its entirety within this RFP is not cause for the vendor to exclude same.

RFP responses received by the purchasing agent will be tabulated and submitted to the Piney Flats Volunteer Fire Department for evaluations prior to final selection and award.

*CONTACT FOR QUESTIONS REGARDING THE BID PROCESS:*

ALAN MAHAFFEY @ 423-323-6404

alan.mahaffey@sullivancountyttn.gov

OR

kris.davis@sullivancountyttn.gov





# **COLOR-CODED TABLE OF CONTENTS**

**ALL RFP'S MUST BE SUBMITTED IN COLOR-CODED FORMAT OR TABS MAY BE USED TO  
CLEARLY IDENTIFY THE FOLLOWING:**

*(Note: Vendor's duplicate copy may be printed on white paper.)*

<b>REQUEST FOR PROPOSAL</b>	<b>YELLOW</b>
<b>TERMS AND CONDITIONS</b> <b>(GENERAL PROCUREMENT – SULLIVAN COUNTY)</b>	<b>ORANGE</b>
<b>COST ANALYSIS</b>	<b>LIME</b>
<b>SPECIFICATIONS / COMPLIANCE</b>	<b>WHITE</b>
<b>EXHIBITS SECTION</b>	<b>BLUE</b>





## **GENERAL PROCUREMENT TERMS AND CONDITIONS FORM #GPTC1004-14**

### **REQUIREMENTS**

1. Any applicant wishing to be considered as an active trade reference for Sullivan County shall complete an "ACTIVE TRADE REGISTRATION FORM" and verify acceptance of the "GENERAL PROCUREMENT TERMS AND CONDITIONS" by signing, dating and submitting to the Sullivan County Purchasing Agent.

If requested by the Sullivan County Purchasing Agent, applicant shall submit any information, including (but not limited to) portfolios of previous projects, bid bonds, performance/payment bonds, personal references listing, financial reports, certificates of insurance, copies of licenses/permits/certifications and/or any other significant data necessary to establish and/or maintain an active trade reference status.

NOTE: It is the responsibility of each applicant/trade reference to update and communicate, in written form to the Sullivan County Purchasing Agent, any changes, additions, deletions or alterations to the information initially provided on the "Active Trade Registration Form".

2. Any applicant who wishes to do business with Sullivan County shall agree to comply with the Sullivan County General Procurement Terms and Conditions listed herein and including all other related instructions, documents, data, etc. pertaining to the procurement of commodities and/or services.

3. All priced proposals, bids and/or priced quotes must be offered in strict conformance to all language, specifications, requirements, terms and conditions as solicited. Written priced proposals, bids and/or priced quotes must be presented in exact format as solicited. Written priced proposals, bids and/or priced quotes must be completed in totality and signed by an authorized agent of the responding trade reference. Any erasures, strike overs and/or changes to prices written in numerals shall be initialed by the representative of the responding trade reference. Failure to comply will be cause to disqualify award consideration.

4. All formal solicitations must be returned via mail, courier or in person on or before the opening day/time; telephone, fax or e-mail responses are not acceptable. Sullivan County is not responsible for delays by mail or courier. Late priced proposals, bids and/or priced quotes are not acceptable! Priced quotes solicited by fax, must be returned (by fax) to the appropriate procurement officer on the day/time designated.

5. The Sullivan County Purchasing Agent may conduct discussion with the responding trade reference for the purpose of facilitating an understanding of the information submitted.

6. The Sullivan County Purchasing Agent has the right to accept or reject any/all priced proposals, bids and/or priced quotes and to waive any informalities or irregularities and/or to reject a priced proposal, bid and/or priced quote from any responding trade reference who, in the judgment of the Sullivan County Purchasing Agent is not in a position to perform the services, and/or to reject a priced proposal, bid and/or priced quote based on unacceptable provisions of a responding trade reference. Sullivan County does not obligate itself to accept the lowest and/or any priced proposal, bid and/or priced quote. If all responses should be deemed unacceptable, the Sullivan County Purchasing Agent shall prepare a written determination outlining the nature of such rejection.

7. Priced proposals, bids and/or priced quotes may be submitted for all and/or part of the total quantities requested, unless otherwise noted in the priced proposals, bids and/or priced quotes.

8. Priced proposals, bids and/or priced quotes must be presented in the exact format as solicited and, if applicable, bear the handwritten signature of the responding firm's authorized representative. Failure to submit priced proposals, bids and/or priced quotes which conforms to the specified content and format requirements will be sufficient cause to disqualify trade reference. If required by the Sullivan County Purchasing Agent, trade references shall furnish satisfactory evidence of their ability to furnish commodities/services in accordance to the specifications, terms or conditions of the priced proposals, bids and/or priced quotes and shall submit brochure-type information, actual product samples or any other instrument requested. Failure to comply with any requirement, material deficient responses and/or incomplete responses will be cause to disqualify award consideration.

9. Proposals which are solicited for the purposes of qualifying trade references to provide specific services and/or professional services shall be presented to the Sullivan County Purchasing Agent in the same methods as priced proposals, bids and/or priced quotes. A qualifying proposal is generally the first task of a multi-task solicitation, which requires certain data, enclosures and information for the purpose of identifying a trade reference's ability to supply and perform services. Qualifying information requested and received by the Sullivan County Purchasing Agent will remain confidential until proposal has been reviewed, determined compliant and recorded in written tabulation form. If directed by the Sullivan County Commission or any committee thereof, the Sullivan County Purchasing Agent will present the findings for discussion and/or recommendations, prior to proceeding to the next tasks (i.e. compliance, priced proposals, interviews, etc.) in the multi-task procurement processes.

10. The Sullivan County Purchasing Agent reserves the right to use all pertinent information (also learned from sources other than those disclosed in the priced proposal, bid and/or priced quote), that might affect Sullivan County's judgment as to the appropriateness of an award to the best evaluated trade reference. The information may be appended to the priced proposal, bid and/or priced quote evaluation process results. Information on a trade reference from reliable sources (and not within the trade reference's priced proposal, bid and/or priced quote) may also be noted and made part of the evaluation file.



11. Unless otherwise stated by the Sullivan County Purchasing Agent, no trade reference may withdraw any priced proposal, bid and/or priced quote within a period of sixty (60) days (or longer if specifically designated in the solicitation) after the day/time designated as the official deadline for accepting the priced proposal, bid and/or priced quote.
12. Priced proposals, bids and/or priced quotes shall be quoted FOB (delivered) Sullivan County locations, unless otherwise authorized by the Sullivan County Purchasing Agent. Additional charges for shipping, handling, freight, boxing, crating, drayage, etc. will not be acceptable, unless otherwise authorized by the Sullivan County Purchasing Agent.
13. It is the responsibility of each responding trade reference to ascertain that all requirements are satisfied and that all requests are presented and assembled in the format as solicited. It will be assumed that the trade reference has made investigations to be fully informed as to the extent and character of the requirements. If a trade reference is in doubt as to the true meaning of any part of the specifications, instructions, terms, conditions, drawings or other documents, he/she should request an interpretation from the Sullivan County Purchasing Agent. If the solicitation should require an addendum, the Sullivan County Purchasing Agent will forward same in writing to each trade reference to which solicitations were offered.
14. The successful trade reference pledges to Sullivan County that all commodities delivered and all services rendered shall conform to the proposal, specifications, drawings, instruments and descriptions furnished and/or incorporated by reference and will be of merchantable quality, good workmanship, free from defects and fit for the particular purpose purchased. The successful trade reference shall also extend all warranties to Sullivan County allowed under the U.C.C. and shall provide copies of such warranties to Sullivan County. Return of merchandise not meeting warranties shall be at the expense of the trade reference who originally supplied the commodities and/or services.
15. Warranty periods shall not commence until Sullivan County inspects and formally accepts the commodities and/or services. The terms, conditions and timing of acceptance shall be determined by the Sullivan County Purchasing Agent. Acceptance of commodities and/or services does not constitute a waiver of latent or hidden defects or defects not readily detectable.
16. Any statement or words (i.e. must, shall, will, etc) are declarative statements and trade reference must comply with this condition. Failure to comply will be cause to disqualify award consideration.
17. Any exceptions to the specifications in a solicitation must be offered in written form and entitled "exceptions", or as specifically instructed in the solicitation.
18. Any alteration, erasure, addition to, or omission of the solicitation must be properly noted and initialed prior to the day/time the priced proposal, bid and/or priced quote is due. Failure to comply will be cause to disqualify award consideration.
19. Unless qualified by the provision "no substitute", the use of the name of a manufacturer, brand, make or catalog description in specifying an item does not restrict trade references to that manufacturer, brand, make or catalog designation identification. This is used simply to indicate the character, quality and/or performance equivalence of the commodity desired, but the commodity on which priced proposals, bids and/or priced quotes are submitted must be of such character, quality and/or performance equivalence that it will serve the purpose for which it is to be used equally, as well as that specified. In submitting a priced proposal, bid and/or priced quote on a commodity other than as specified, trade reference shall furnish complete data and identification with respect to the substitute commodity he proposes to furnish. Consideration will be given to substitute commodities, if such action is deemed to serve the best interest of Sullivan County. If a trade reference does not indicate that the commodity he proposed to furnish is other than as specified, it will be construed to mean that the trade reference proposes to furnish the exact commodity as described.
20. Where "no substitute" is stated in the solicitation, alternate brands/models will not be considered in the award process, unless otherwise prior approved by the user department(s) and authorized by the Sullivan County Purchasing Agent. Commodities identified as "no substitutes" are products that have been tested and justified to be superior in quality, workmanship and performance, based on the needs of Sullivan County user departments. It is at the sole discretion of any trade reference to offer free product samples to be tested and evaluated by the appropriate user department, to determine if an alternate brand/model meets or exceeds the specification criteria of a "no substitute" commodity. An alternate brand/model offered in a priced proposal, bid and/or priced quote identified as a "no substitute" commodity, that has not been offered for testing and evaluation prior to the solicitation deadline, will be cause to disqualify award consideration.
21. When alternate priced proposals, bids and/or priced quotes reveal more economical services, supplies or materials than those specified, the Sullivan County Purchasing Agent has the right to re-solicit in open market with modified specifications.
22. Prices must be offered per unit, by line item (when applicable) and extended based on the total quantities requested. When pricing is requested in form of specific case quantity, or in hundreds-thousands, it is the responsibility of the trade reference to offer pricing accordingly. Failure to extend the pricing in conformance to our solicitation will be cause to disqualify award consideration. In the event of a disparity between the unit and extended prices, the unit price shall prevail.
23. All prices, notations and/or corrections shall be written in ink and/or typed. Corrections made in any written priced proposal, bid and/or priced quote document must be initialed in ink by the individual signing same. Prior to the opening day/time, trade references can make price corrections on the outside of the envelope (if applicable) containing their written priced proposals, bids and/or priced quotes. Such price corrections will be read aloud by the Sullivan County Purchasing Agent during the public opening and recorded by the appropriate procurement officer for public record.



24. Prices shall be extended in decimals, not fractions. Prices must include all transportation and delivery charges fully prepaid by the trade reference to the Sullivan County destination specified in the priced proposals, bids and/or priced quotes, unless otherwise authorized by the Sullivan County Purchasing Agent.
25. Sullivan County is a government municipality within the State of Tennessee and is exempt from local, state and federal excise, transportation, sales and/or use tax for goods and services purchased for the exclusive use by its departments. The Sullivan County Purchasing Agent will furnish the successful trade reference with a properly executed exemption certificate. In certain circumstances where the Federal Identification Number is required, the Sullivan County Purchasing Agent will authorize same on a valid request form.
26. In the event cash discounts are offered by the trade reference, the discount date shall begin with the date of the invoice or the date of receipt of delivery of all commodities indicated on the purchase order/contract (whichever is the later date). If advantageous to Sullivan County, the Sullivan County Purchasing Agent will consider cash discounts during the evaluation process and award.
27. Tennessee Code Annotated allows cooperative purchasing between government entities within the State of Tennessee. Upon request from another government entity within the State of Tennessee, it will be at the discretion of the responding trade reference to offer identical commodities/services to such entities for the same costs offered to Sullivan County.
28. As approved by the governing board of Sullivan County, the Sullivan County Purchasing Agent enforces a compulsory "Procurement/Credit Card Policy" to any Sullivan County official and/or employee authorized to exploit any form of credit card transactions. The Policy requires the Sullivan County Purchasing Agent to determine the needs for credit, to approve any/all types of allowable credit, to establish credit limits, to maintain an active file of users and signed "Agreements" from authorized officials and/or employees and to execute any/all additions, deletions, changes or cancellations regarding credit card usages. Trade reference is responsible for verifying that any County official and/or employee who charges commodities and/or services have been prior authorized by the Sullivan County Purchasing Agent. Payments for any commodities and/or services charged by an official and/or employee who have not been pre-authorized, will be the sole responsibility of the trade reference allowing the transactions. It is understood that a trade reference cannot create a credit card account for any official, employee, department and/or office of Sullivan County without prior approval from the Sullivan County Purchasing Agent. The initiation and/or issuance of credit card accounts, without authorization from the Sullivan County Purchasing Agent, will not be tolerated!
- a. **GENERAL PROCUREMENT**  
The Sullivan County Purchasing Agent allows general procurement by credit cards for certain commodities and/or services, if same is advantageous and/or cost effective to Sullivan County. Certain procurement officers selected by and working directly under the supervision of the Sullivan County Purchasing Agent who are familiar with the rules, regulations and policies are authorized to use credit cards for specific procurement transactions.
- b. **TRAVEL**  
The Sullivan County Purchasing Agent has established a Global Credit Card account to be used in concurrence with all travel related events. Selected officials and/or employees have been issued individual credit cards in their names, under our major billing account. These credit cards are not approved for general procurement.
- c. **FLEET FUEL**  
The Sullivan County Purchasing Agent has established a Fleet Fuel Credit Card account to be used in concurrence with fleet fuel purchases. Selected officials and/or employees have been issued individual fleet fuel cards in their names, under our major billing account. Fleet fuel cards are only approved for fuel purchases.
- d. **OTHER CREDIT CARD PROCUREMENT**  
The Sullivan County Purchasing Agent must pre-approve any/all procurement/credit cards offered by a trade reference for business purposes. Any trade reference who is interested in offering credit card merchant services to Sullivan County, must contact the Sullivan County Purchasing Agent and schedule an appointment to confer and corroborate all issues, terms and conditions, rules and regulations of Sullivan County's procurement/credit card policy. If trade reference administers credit card services without prior approval from the Sullivan County Purchasing Agent, trade reference is subject to removal from active status and denial of future procurement transactions with Sullivan County government.
29. A trade reference agrees to defend and save Sullivan County from and against all demands, claims, suits, costs, expenses, damages, and judgments based upon infringement of any patents relating to goods specified, or the ordinary use or operation of such goods by the county, or use or operation of such goods in accordance with trade reference's instructions.
30. Purchase orders and/or contracts will be made or entered into with the lowest, responsible, compliant trade reference meeting specifications for the particular grade or class of material, work, or service desired in the best interest and advantage to Sullivan County. Responsible trade references are defined as a trade references whose reputations, past performances, and business and financial capabilities are such that they would be judged by the Sullivan County Purchasing Agent to be capable of satisfying Sullivan County's needs for a specific purchase order and/or contract.
31. Sullivan County reserves the right to determine the award of a purchase order and/or contract either on the basis of the individual items or on the basis of all items included in the priced proposals, bids and/or priced quotes, unless otherwise expressly provided in the priced proposals, bids and/or priced quotes. Sullivan County reserves the right to accept any item or group of items of any kind and to modify or cancel in whole or in part.
32. By submission of a signed priced proposal, bid and/or priced quote, the trade reference certifies total compliance with Title VI and Title VII of the Civil Rights Act of 1964, as amended, and all regulations promulgated there under.



33. It is the policy of Sullivan County that all its services and activities be administered in conformance with the requirements of Title VI of the Civil Rights Act. "Nondiscrimination in Federally Assisted Programs" – "No person in the United States shall, on the grounds of race, color or national origin, be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any program or activity receiving Federal financial assistance." 42 U.S.C. Section 2000 et seq.

34. A trade reference agrees that no person on the grounds of handicap, age, race, color, religion, sex or national origin, shall be excluded from participation in, or be denied benefits of, or otherwise subjected to discrimination in the performance of any services rendered to Sullivan County or in the employment practices of the Trade Reference.

35. A trade reference covenants that it has no public or private interest and shall not acquire directly or indirectly any interest that would conflict in any manner with the provision of its commodities or performance of its services.

36. Any remedies in a priced proposal, bid and/or priced quote, including conformity, license agreement, terms, conditions, literature, etc. that may be considered an agreement to waive the legal rights of the citizens of Sullivan County, will be cause to reject a priced proposal, bid and/or priced quote.

37. Failure of Sullivan County to enumerate any Federal, State or County regulation in a solicitation, is not cause for trade reference to exclude same.

38. A trade reference is assumed to be familiar with and agrees to observe and comply with all federal, state and local laws, statutes, ordinances and regulations in any manner affecting the provision of commodities and/or services and shall obtain all necessary permits, licenses, certifications and/or instruments required.

39. All specifications requested and/or solicited for priced proposals, bids and/or priced quotes are minimum standards. Acceptance of samples does not supersede specifications for quality, unless sample is superior.

40. Samples (when required) must be submitted in accordance to instructions. If requested by the Sullivan County Purchasing Agent, samples (accompanied by descriptive data) shall be delivered within a specific time following the request and must be furnished free of charge. Failure to comply will be cause to disqualify award consideration.

41. When the solicitation indicates that an item to be purchased is to be equivalent to a specific product, said product and/or its specifications will be available for viewing. Failure on the part of a trade reference to examine product and/or its specifications shall not entitle trade reference to any relief from the conditions imposed in the priced proposal, bid and/or priced quote.

42. If successful trade reference fails to perform or comply with any provision of any terms, conditions, documents referenced and made part of a purchase order and/or contract award, the Sullivan County Purchasing Agent may terminate the purchase order and/or contract, in whole or in part and may consider such failure or noncompliance as a breach of contract. Sullivan County reserves the right to purchase its requirements elsewhere, with or without competitive priced proposals, bids and/or priced quotes.

#### **PROCUREMENT LIMITS**

43. When the amount of the purchase request is estimated under \$6000 per requisition, the procurement officers shall secure pricing and availability from an active trade reference who can supply the commodity and/or service requested (such purchases do not require competitive pricing). If prior authorization is granted by the Sullivan County Purchasing Agent, procurement officers may issue purchase order number confirmations to user departments, via telephone, for the purpose of picking up commodities at the trade references' places of business.

44. When the amount of the purchase request is estimated between \$6000 - \$14,999, the procurement officers shall secure pricing and availability in open market from a minimum of three (3) trade references (if available) either by phone, fax and/or e-mail quotations. A written tabulation of priced quotes is prepared by the appropriate procurement officer and filed for public record.

45. When the amount of the purchase request is estimated at \$15,000 and above, the procurement officers shall secure pricing and availability in open market from a minimum of three (3) trade references (if available) by soliciting a formal Request for Proposal and/or Bid Document. Newspaper advertisement is required. All Requests for Proposals and/or Bid Solicitations will be publicly opened on the day and time specified. Late RFPs and/or Bids are not acceptable! The public is encouraged to attend the openings. All documentation and tabulations will be available for public review after the solicitation information and prices have been evaluated and recorded.

46. When sole source purchases, emergency purchases and/or other exceptions to the procurement limits are applicable; same will be defined in each appropriate file for public record.

#### **AWARD**

47. Award will be made to the lowest responsible qualified trade reference. The quality of the articles to be supplied, their conformity with the specifications, their suitability to the requirements of Sullivan County and the delivery terms will be taken into consideration in making the award.



48. The Sullivan County Purchasing Agent reserves the right to award by item (or part thereof), group of items (or parts thereof), or all items of the priced proposals, bids and/or priced quotes. The Sullivan County Purchasing Agent may award purchase orders and/or contracts to one or more trade references; to reject any and all priced proposals, bids and/or priced quotes in whole or in part; to waive technical defects, irregularities and omissions if in the best interest of Sullivan County.

49. The Sullivan County Purchasing Agent reserves the right to make awards within sixty (60) calendar days (or longer if designated in the solicitation) from the priced proposals, bids and/or priced quotes opening dates, unless otherwise authorized by the Sullivan County Purchasing Agent.

50. If an award, in whole or in part, is delayed beyond a period of sixty (60) days (or longer if designated in the solicitation); such award shall be conditioned upon trade reference's acceptance.

51. The successful trade reference shall not subcontract any portion of the award of a purchase order and/or contract, unless otherwise authorized by the Sullivan County Purchasing Agent.

#### **DELIVERY**

52. It shall be understood and agreed that any and all commodities and/or services offered to Sullivan County shall fully comply with all local, state and federal rules and regulations.

53. All commodities delivered will be new equipment/latest model, new materials and/or new supplies, except as otherwise specifically stated in the solicitation. Where any part of nominal appurtenances of equipment is not described, it shall be understood that all equipment and appurtenances which are usually provided in the manufacturer's stock model shall be furnished. Reconditioned equipment, materials and/or supplies are not acceptable, unless otherwise authorized by the Sullivan County Purchasing Agent.

54. Delivery must be in accordance with the priced proposals, bids and/or priced quotes. If no specific delivery instructions are presented, it will be interpreted to mean prompt delivery. The decision of the Sullivan County Purchasing Agent as to reasonable compliance with delivery terms shall be final. Burden of proof of delay in receipt of order shall rest with the trade reference.

55. Any request for extension of time of delivery from that specified must be approved by the Sullivan County Purchasing Agent; such extension will be applicable to only the particular commodity that is delayed because of unexpected circumstances.

56. Commodities shall be securely and properly packed for shipment, according to accepted standard commercial practice. The containers will remain the property of Sullivan County unless otherwise stated in the solicitation and/or otherwise approved by the Sullivan County Purchasing Agent.

57. Deliveries are subject to recounting by our Central Receiving Department. If discrepancies exist, the trade reference will be notified. Backorders or re-shipment of defective commodities will be noted in writing. Payment will be made only after all items have been received, unless otherwise authorized by the Sullivan County Purchasing Agent. A written revision to the purchase order and/or contract will be processed by the appropriate procurement officer, indicating any/all changes.

58. The time anticipated by trade references for delivery of the items requested must be definitely stated in the priced proposals, bids and/or priced quotes. When time is critical to the award of a commodity and/or service, delivery/performance time may be a factor in determining such award, price notwithstanding.

59. Default by the trade reference concerning delivery as promised is subject to the following: the Sullivan County Purchasing Agent has the right to cancel and repurchase from another source due to non-delivery as promised, and may recover the excess costs by (a) deduction from an unpaid balance due (b) collection against the priced proposal, bid and/or priced quote or performance bond (c) combination of the aforementioned remedies or other remedies provided by law (d) open market purchasing and charging the trade reference the difference in his costs and another source's costs.

#### **PAYMENT**

60. Payment will be made only after the delivery and acceptance of all items, unless partial payments have been otherwise authorized by the Sullivan County Purchasing Agent. Payment will be made only after the presentation of all applicable invoices. All invoices shall be addressed to the accounting department address shown on the purchase order and must clearly indicate the purchase order number on all invoices. Invoices should be mailed in duplicate.

61. Payment for all delivered and accepted commodities/services shall be made to the trade reference in a timely manner, after the receipt of a correct invoice/statement. Where there is a question of non-performance involved, payment will be withheld. In the event cash discount is involved, the withholding of payment as provided herein shall not deprive Sullivan County from taking such a discount.

62. Payment for partial deliveries and/or services will only be considered if delivery circumstances are beyond the control of the trade reference and/or if prior authorization has been given by the Sullivan County Purchasing Agent.

63. Partial payments for contracts and services that are awarded on a timed-payment schedule will be made in accordance to the award, as authorized by the Sullivan County Purchasing Agent. Payments will be authorized only upon receipt of authorized documents reflecting appropriate payments for services rendered.



#### **TRADE REFERENCE GUARANTEE**

64. Acceptance of a purchase order and/or contract by a trade reference guarantees that said trade reference will perform services, supply commodities, etc. in accordance to the specifications, terms and conditions under which it was awarded and within the delivery time specified.

65. A trade reference who accepts a purchase order confirmation and/or contract award guarantees his services/commodities against defective material or workmanship and agrees to repair and/or replace (at the discretion of the Sullivan County Purchasing Agent) any damage or marring occasioned in transit.

66. A trade reference guarantees to furnish adequate protection from damage for all work or workmanship and to repair damages of any kind, for which its workmen are responsible, to the premises or equipment, to its own work or to the work of other trade references.

67. Whenever a delivery is rejected due to non-compliance of the terms and conditions of the services, commodities, etc. the trade reference shall be notified by the Sullivan County Purchasing Agent with reason(s) for such rejection. All rejected deliveries due to the fault of the trade reference shall be held at the trade reference's risk and same shall bear the expense of removal.

68. Changes in or cancellations to a purchase order and/or contract will not be acceptable unless otherwise authorized by the Sullivan County Purchasing Agent. Any/all changes to a purchase order and/or contract (description, pricing, terms, language, etc) will be recognized by a signed and printed "revision" and filed for public record.

#### **TRADE REFERENCE EXPENSES**

69. No fees are applicable to becoming an active trade reference in Sullivan County.

70. Sullivan County accepts no responsibility, whatsoever, for any expenses incurred in the preparation and/or presentation of any priced proposal, bid and/or priced quote. Such expenses are the sole responsibility of the trade reference offering commodities and/or services for award consideration.

71. Sullivan County accepts no responsibility, whatsoever, for any payments of credit card charges made by an unauthorized Sullivan County official and/or employee.  
(REFER TO SECTION 28 FOR EXPLANATION)

#### **INAPPROPRIATION OF FUNDS**

72. Sullivan County can only obligate funds during its current operating year. Funds are appropriated on a fiscal year basis; July 1<sup>st</sup> through June 30<sup>th</sup>. If a purchase order and/or contract is awarded on a multi-term basis (up to 60 months), the Sullivan County Purchasing Agent will renew at the beginning of each fiscal year, obligating only the 12 months of that current operating year. If funds are legally exhausted due to circumstances beyond Sullivan County's control and cannot be obligated past the current fiscal year, the Sullivan County Purchasing Agent has the right to terminate, upon the expenditure of previously appropriated funds or at the end of the current fiscal year (whichever occurs first), with no further obligation owed to and/or by either party and without penalty to either party.

73. In the event that funds are not appropriated for commodities and/or services in any fiscal year and/or insufficient funds exist for the purchase of commodities and/or services, the trade reference accepts that any existing purchase order and/or contract shall expire upon the expenditure of previously appropriated funds or at the end of the current fiscal year (whichever occurs first), with no further obligation owed to and/or by either party and without penalty to either party.

#### **ACCEPTANCE OF TERMS AND CONDITIONS**

SIGNATURE AUTHORIZATION IS CONFIRMATION THAT APPLICANT/TRADE REFERENCE UNDERSTANDS AND ACCEPTS ALL GENERAL TERMS AND CONDITIONS GOVERNING SULLIVAN COUNTY PROCUREMENT PROCESSES AND PLEDGES TO CONDUCT BUSINESS IN ACCORDANCE TO ALL PROPOSALS, SPECIFICATIONS, DRAWINGS, INSTRUMENTS AND DESCRIPTIONS FURNISHED AND/OR INCORPORATED BY REFERENCE TO ALL PRICED PROPOSALS, QUALIFYING PROPOSALS, BIDS AND/OR PRICED QUOTES.

NAME OF TRADE REFERENCE (VENDOR): \_\_\_\_\_

SIGNATURE: \_\_\_\_\_ DATE: \_\_\_\_\_

**COMPLETE, SIGN AND RETURN THIS PAGE --- FORM GPTC1004-14**



# COST SHEET

RFP # PFVFD2017(AM)

FIRE FIGHTING APPARATUS

PINEY FLATS VOLUNTEER FIRE DEPARTMENT

NEW 2017 FIRE FIGHTING APPARATUS TO MEET OR EXCEED SPECIFICATIONS AS REQUESTED

PURCHASE PRICE = \$ \_\_\_\_\_

DELIVERY DATE (in calendar days): \_\_\_\_\_

\*\* PRICE MUST BE GUARANTEED FOR 90 DAYS FROM BID OPENING DATE\*\*

## PAYMENT TERMS

THE TERMS FOR PAYMENT SHALL BE "PAYMENT IN FULL ON DELIVERY AND ACCEPTANCE" FOR THE FIRE APPARATUS.

The undersigned is an authorized representative of the vendor submitting bid and offers the following price (guaranteed for 90 days) for the Fire Fighting Apparatus as specified in the RFP documentation and in compliance with all requirements.

COMPANY NAME \_\_\_\_\_

AUTHORIZED REPRESENTATIVE NAME (PRINTED) \_\_\_\_\_

REPRESENTATIVE'S SIGNATURE \_\_\_\_\_ DATE \_\_\_\_\_

PHONE \_\_\_\_\_ FAX \_\_\_\_\_ EMAIL \_\_\_\_\_



# **SPECIFICATIONS**

**For**

**Piney Flats Fire Department**

**Rear Mount Pumper  
Freightliner M112 4 Door  
DD13 ENGINE**





## **INTRODUCTION**

### **PROPOSAL REQUIREMENTS**

#### **GENERAL INFORMATION**

It is the intent of these specifications to secure apparatus constructed to withstand the severe and continuous use encountered during emergency fire fighting services. The apparatus must be of the latest type, carefully designed and constructed with due consideration to the nature and distribution of the load to be sustained.

These specifications detail the requirements for general design criteria of cab and chassis components, fire pump and related components, water tank, fire body, electrical components, painting, and equipment. In evaluating the bid proposals to determine which proposal is the most advantageous, these major items shall be considered.

Apparatus and equipment must meet the specific requirements and intent of the requirements as specified herein. All items of these specifications shall conform to the character of the proposed apparatus and the purpose for which it is intended. Criteria as specified by the National Fire Protection Association Pamphlet No. 1901, latest edition, entitled "Suggested Specifications for Motor Fire Apparatus", as approved by the American Insurance Association and International Association of Fire Chiefs, are hereby adopted and made a part of these specifications the same as if they were written out in full, insofar as they apply and are not specifically modified in the following detailed specifications. Each bidder shall provide only that equipment as required in the following specifications.

The fire apparatus and equipment to be furnished in meeting these specifications must be the products of an established, reputable fire apparatus and/or equipment manufacturer. Each bidder shall furnish satisfactory evidence of the manufacturer's ability to construct, supply service parts and technical assistance for the apparatus specified. Each bidder must state the location of the factory and location for post delivery service.

#### **BID COMPLIANCE INSTRUCTIONS**

Each bidder must indicate his compliance with these specifications by marking "YES" or "NO" in the appropriate column for each individual paragraph of this specification. Indicating "YES" to a paragraph shall mean full compliance; indicating "NO" shall mean an exception is being taken. Any deviation from the specification, no matter how small, must be so annotated. All exceptions must be fully explained on a separate page, titled "Exceptions", giving reference to the page and paragraph where the exception is being taken. Failure to comply with this requirement shall result in the bid proposal being rejected.

The Sullivan County Purchasing Agent on behalf of Piney Flats Fire Department shall be the sole arbiter as to what exceptions may be allowed or disallowed. In the event a bidder fails to make any indication of compliance for any or all provisions it will be assumed that the bidder is taking total exception to the specification and the bid shall be disallowed.





	Bidder Complies	
	Yes	No
<p><b><u>FIRE APPARATUS DOCUMENTATION</u></b></p> <p>The contractor shall supply, at the time of delivery, at least one (1) copy of the following documents:</p> <p>The manufacturer's record of apparatus construction details, including the following information:</p> <ul style="list-style-type: none"> <li>• Owners name and address</li> <li>• Apparatus manufacturer, model and serial number</li> <li>• Chassis make, model and serial number</li> <li>• Front tire size and total rated capacity in pounds</li> <li>• Rear tire size and total rated capacity in pounds</li> <li>• Chassis weight distribution in pounds with water and manufacturer mounted equipment, front and rear</li> <li>• Engine make, model, serial number, rated horsepower, rated speed and governed speed</li> <li>• Type of fuels and fuel tank capacity</li> <li>• Electrical system voltage and alternator output in amps.</li> <li>• Battery make, model and total capacity in cold crank amps (CCA)</li> <li>• Transmission make, model and serial number. If so equipped chassis transmission PTO(s) make, model and gear ratio</li> <li>• Pump make, model, rated capacity in gallons per minute (liters per minute where applicable) and serial number</li> <li>• Pump transmission make, model, serial number and gear ratio</li> <li>• Auxiliary pump make, model, rated capacity in gallons per minute (liters per minute where applicable) and serial number</li> <li>• Water tank certified capacity in gallons or liters</li> <li>• Paint manufacturer and paint number(s)</li> <li>• Company name and signature of responsible company representative</li> <li>• Certification of slip resistance of all stepping, standing and walking surfaces.</li> </ul> <ul style="list-style-type: none"> <li>• If the apparatus has a fire pump or an industrial supply pump, the pump manufacturer's certification of suction capability.</li> <li>• If the apparatus has a fire pump or an industrial supply pump, a copy of the apparatus manufacturer's approval for stationary pumping applications.</li> <li>• If the apparatus has a fire pump or an industrial supply pump, the engine manufacturers certified brake horsepower curve for the engine furnished, showing the maximum governed speed.</li> <li>• If the apparatus has a fire pump or an industrial supply pump, the pump manufacturer's certification of hydrostatic test.</li> <li>• If the apparatus has a fire pump or an industrial supply pump, the Underwriters Laboratory certification of inspection and test for the fire pump (if applicable).</li> <li>• If the apparatus has a fixed line voltage power source, the certification of the test for the fixed power source (if applicable).</li> <li>• Weight documents from certified scale - showing actual loading on the front axle, rear axle(s) and overall vehicle (with the water tank full but without personnel, equipment and hose) shall be supplied with the complete vehicle to determine compliance with NFPA-1901.</li> </ul>		



	Bidder Complies	
	Yes	No
<ul style="list-style-type: none"> <li>• Written load analysis and results of electrical performance tests.</li> <li>• If the apparatus is equipped with a water tank, the certification of water tank capacity by the tank manufacturer.</li> <li>• The chassis shall be certified by the apparatus manufacturer as conforming to all applicable Federal Motor Vehicle Safety Standards in effect at the date of contract. This shall be attested to by the attachment of a FMVSS certification label on the vehicle by the contractor who shall be recognized as the responsible final manufacturer.</li> </ul> <p><b><u>VEHICLE RECORDS</u></b></p> <p>The successful bidder shall be responsible for preparing and maintaining a record file of parts and assemblies used to manufacture the apparatus. These records shall be maintained in the factory of the bidder for a minimum of twenty (20) years. File shall contain copies of any and all reported deficiencies, all replacement parts required to maintain the apparatus, and original purchase documents including specifications, contract, invoices, incomplete chassis certificates, quality control reports and final delivery acceptance documents. The Piney Flats Fire Department shall have access to any and all documents contained in this file upon official written request.</p> <p><b><u>BIDDER INSTRUCTIONS</u></b></p> <p>Bids shall be addressed and submitted in a sealed envelope via mail, courier or in person. Responses will be accepted by the Purchasing Agent only until the day/time designated above, at which time they will be publicly opened. Responses must clearly identify the RFP# on the outside of the envelope. It is the bidder's responsibility to see that their proposals arrive on time. <b>Late proposals, telegram, facsimile or telephone bids shall not be considered.</b></p> <p>Each bid shall be accompanied by a detailed description of the apparatus and equipment it proposes to furnish. It is the intent of these specifications to cover the furnishing and delivery of a complete and soundly engineered apparatus equipped as specified. Minor details of construction and materials, where not otherwise specified, are left to the discretion of the contractor, who shall be solely responsible for the design and construction of all features.</p> <p>Brand names or model numbers have been specified for some items. These have been carefully selected because of their reliability and availability for replacement locally. In order to be most responsive, items named, or an item "equal to" the particular item specified by brand name or model, should be contained in the bid proposal. It is the bidder's responsibility to prove to Sullivan County and Piney Flats Fire Department that an item bid as "<b>equal to</b>" a particular specified item, is truly of equal quality, design, and function. The Piney Flats Fire Department maintains the right to make a final decision as to the acceptability of an item bid as "equal to" a particular specified item.</p> <p>No exception shall be allowed for any of the aforementioned instructions. Bids not submitted in accordance with these instructions shall be rejected.</p> <p><b><u>TIMELY PROPOSALS</u></b></p> <p>It is the bidder's responsibility to see that their proposals arrive on time. Late proposals, facsimiles, telegrams, or telephone bids shall not be considered.</p> <p><b><u>GENERAL CONSTRUCTION</u></b></p> <p>The complete apparatus, assemblies, subassemblies, component parts, etc., shall be designed and constructed with the due consideration to the nature and distribution of the load to be</p>		



	Bidder Complies	
	Yes	No
<p>sustained and to the general character of the service to which the apparatus is to be subject. All parts of the apparatus shall be designed with a factor of safety, which is equal to or greater than that which is considered standard and acceptable for this class of equipment in firefighting service. All parts of the apparatus shall be strong enough to withstand general service under full load. The apparatus shall be so designed that the various parts and readily accessible for lubrication, inspection, adjustment and repair. Bidder's specifications must meet minimum requirements of N.F.P.A. Pamphlet #1901; Underwriters Laboratories, Inc.; and all State and Federal Department of Transportation vehicle regulations at time of sale of unit.</p> <p>The apparatus shall be designed and constructed, and the equipment so mounted, with due consideration to distribution of the load between front and rear axles that all specified equipment, including a full complement of specified ground ladders, full water tank, loose equipment, and firefighters shall be carried without overloading or injuring the apparatus.</p> <p><b><u>PRODUCT LIABILITY INSURANCE</u></b></p> <ul style="list-style-type: none"> <li> <b><u>COMMERCIAL AUTOMOBILE LIABILITY INSURANCE</u></b>  The successful bidder shall, during the performance of the contract keep in force at least the following minimum limits of commercial automobile liability insurance:  Each Accident Combined Single Limit:\$1,000,000  Coverage shall be written on a Commercial Automobile liability form. </li> <li> <b><u>UMBRELLA/EXCESS LIABILITY INSURANCE</u></b>  The successful bidder shall, during the performance of the contract and for three (3) years following acceptance of the product, keep in force at least the following minimum limits of umbrella liability insurance:    Aggregate: \$25,000,000  Each Occurrence: \$25,000,000    The umbrella policy shall be written on an occurrence basis and at a minimum provide excess to the Bidder's General Liability, Automobile Liability and Employer's Liability policies.  The required limits can be provided by one (1) or more policies provided all other insurance requirements are met.  Coverage shall be provided by a carrier(s) rated A- or better by A.M. Bests.  All policies shall provide a 30 day notice of cancellation to the named insured. The Certificate of Insurance shall provide the following cancellation clause: Should any of the above described policies be cancelled before the expiration date thereof, notice shall be delivered in accordance with the policy provisions. <b>Bidder agrees to furnish owner with a current Certificate of Insurance with the coverages listed above along with its bid. The certificate shall show the purchaser as certificate holder.</b> </li> </ul> <p><b><u>ADDENDA AND INTERPRETATIONS</u></b></p> <p>No interpretation of the meaning of the specifications or other contract documents shall be made to any Bidder verbally. Every request for such interpretation shall be in writing and emailed to the Assistant Purchasing Agent, Alan Mahaffey @ <a href="mailto:alan.mahaffey@sullivancountytn.gov">alan.mahaffey@sullivancountytn.gov</a> and must be received at least ten (10) days prior to the date fixed for the opening of the bids to be given consideration. Any and all such interpretations and any supplemental instructions shall be in the form of written addenda to the specifications which, if issued, shall be posted on <a href="http://www.sullivancountytn.gov">www.sullivancountytn.gov</a> under Purchasing and shall be e-mailed to all prospective Bidders not later than forty-eight (48) hours prior to the date fixed for the opening of bids. Failure of any Bidder to receive any such addendum or interpretation shall not relieve any Bidder from any obligation under his bid as submitted. All addenda so issued become a part of the contract documents.</p>		

	Bidder Complies	
	Yes	No
<p><b><u>PAINT PERFORMANCE CERTIFICATION</u></b></p> <p>The finish paint shall be certified by the apparatus manufacturer as conforming to all applicable Commercial Vehicle Paint Standards in effect at the date of contract. This shall be attested to by the attachment of a PPG certification.</p> <p><b><u>SERVICE CENTER AND PARTS DEPOT</u></b></p> <p>The manufacturer shall have an authorized service center, with a staff of factory-trained mechanics, well versed in all aspects of service for all major components, of the apparatus within a 300-mile radius of the Purchaser. In addition, the manufacturer shall maintain a separate service facility at the manufacturing site, in order to satisfy the need for possible major emergency service work.</p> <p><b><u>SERVICE CENTER INFORMATION</u></b></p> <p>The center must provide a full time staff of experienced technicians with all of the required equipment to provide modern, accurate and efficient service. Bidders shall state the size of their shop and officer area in square feet. They shall state the location of the facility and provide photos of both the exterior and interior of the center. Accuracy of the description of the service center is of great importance.</p> <p><b><u>SPECIAL CONDITIONS</u></b></p> <p>No bid shall be considered unless the bidder can meet the special conditions stated herein.</p> <p>The complete apparatus must be manufactured in the United States of America.</p> <p><b><u>PRICES AND PAYMENTS</u></b></p> <p>The bid price shall be F.O.B. Destination, on a delivered and accepted basis at the Fire Department.</p> <p>Total price on bidder's proposal sheet must include all items listed in these specifications. Listing any items contained in the specification as an extra cost item, unless specifically requested to do so in these specifications, shall automatically be cause for rejection.</p> <p>Bidder shall compute pricing less federal and state taxes. Sullivan County is tax-exempt and will provide tax exemption to successful bidder...</p> <p><b><u>BID EVALUATION</u></b></p> <p>Purchaser, Fire Chief and Purchasing Agent shall evaluate bids received. This evaluation shall be based as a minimum on the following criteria:</p> <ul style="list-style-type: none"> <li>• Commitment for expedient delivery.</li> <li>• Commitment to the general conditions contained herein, including warranty.</li> <li>• Completeness of the proposal, i.e. the degree that it responds to all requirements and requests for information contained herein.</li> <li>• Manufacturing and delivery schedule.</li> <li>• Contractor's demonstrated capabilities and qualifications.</li> <li>• Equipment suppliers and/or local representative's demonstrated capabilities and qualifications.</li> </ul>		



	Bidder Complies	
	Yes	No
<b><u>EXCEPTIONS TO SPECIFICATIONS</u></b>		
<p>Exceptions shall be referenced to the paragraph and page of these specifications where the item appears. Drawings, photographs, and technical information about the exception shall be included as necessary. Any exceptions may be considered during the evaluation process, and the decision shall be final.</p> <p>Proposals taking total exceptions to specifications shall not be accepted.</p>		
<b><u>"OR APPROVED EQUAL" CLAUSE</u></b>		
<p>The mention in the specifications of apparatus, equipment or material by brand name or by such specified description of same as is hereby made, is intended to convey to the bidder's understanding, the degree of excellence required. Any article, equipment, or material, which shall conform to the standards and excellence so established, and is of equal merit, strength, durability and appearance to perform the desired function, is deemed eligible for offer as a substitute. The qualifications of the offering shall be judged as to their conformance with these specifications. Any equipment offered other than herein specified shall be subject to a competitive demonstration and evaluation shall be subject to a competitive demonstration and evaluation by the using department. Such demonstration to be provided on request within ten working days after the receipt of bids.</p> <p>The result of that demonstration and evaluation shall be of prime importance in the recommendation to the governing body for the final contract award.</p>		
<b><u>TECHNICAL INFORMATION</u></b>		
<p>Bidder shall furnish free of charge, upon request, technical information, graphs, charts, photographs, engineering diagrams, steering geometry, drive train certifications, instruction guides, or other documentation as requested to show that the equipment offered fully complies with these specifications.</p>		
<b><u>PROPRIETARY PARTS</u></b>		
<p>It is the intention of the Purchaser for all bidder's to furnish the apparatus with major parts commonly used by the heavy-duty truck manufacturers and open market vendors whereas replacement parts are more readily available and at reduced cost. The use of proprietary parts such as but not limited to axles, suspensions, engines, transmissions, frontal air bags, electronic controls, multiplexing systems, seats, pumps, gauges, foam systems, etc., may not be acceptable by the purchaser.</p>		
<b><u>DELIVERY TIME</u></b>		
<p>Each bidder shall state the completed apparatus delivery time based on the number of calendar days, starting from the date the sales contract is signed and accepted by the apparatus manufacturer.</p> <p>Delivery Time: _____ Calendar days</p>		

	Bidder Complies	
	Yes	No
<p><b><u>SURETY BID BOND</u></b></p> <p>All bidders shall provide a bid bond as security for the bid in the form of a 5% bid bond to accompany their bid. This bid bond shall be issued by a Surety Company who is listed on the U.S. Treasury Department list of acceptable sureties as published in Department Circular 570. The bid bond shall be issued by an authorized representative of the Surety Company and shall be accompanied by a certified power of attorney dated on or before the date of bid. Failure to provide an original, acceptable, valid bid bond with the proposal shall result in the immediate rejection of the bidder's proposal.</p> <p><b><u>PERFORMANCE &amp; PAYMENT BOND</u></b></p> <p>The successful vendor will be required to submit <u>Performance &amp; Payment</u> bonds in the amount of 100% of the purchase price of the specified apparatus, prior to issuance of a purchase confirmation and notice to proceed.</p> <p>With respect to the qualifications of proposed bonds or sureties, the bidder's bonding company must meet the following requirements:</p> <ul style="list-style-type: none"> <li>• An acceptable surety as outlined by the department of treasury on their most recent federal register at a limit of at least \$10,000,000;</li> <li>• A.M. Best rating of "A" or better with a financial rating of at least "VIII"; and licensed as a surety in the state where the sale is to be made.</li> </ul> <p><b><u>FAIR, ETHICAL AND LEGAL COMPETITION</u></b></p> <p>In order to ensure fair, ethical, and legal competition, neither original equipment manufacturer (OEM) nor parent company of the OEM shall have ever been fined or convicted of price fixing, bid rigging, or collusion in any domestic or international fire apparatus market.</p> <p><b><u>NON-COLLUSIVE BIDDING CERTIFICATION</u></b></p> <p>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 thereof certifies as to its own organization, under penalty of perjury, that to the best of their knowledge and belief:</p> <ul style="list-style-type: none"> <li>• The prices in this bid have been arrived at independently without collusion, consultation, communication, or agreement, for purpose of restricting competition, as to any matter relating to sale price with any other bidder or any competitor.</li> <li>• Unless otherwise required by law, the prices that have been quoted in this bid have not been knowingly disclosed by the bidder and shall not knowingly be disclosed by the bidder prior to opening, directly or indirectly, to any other bidder or to any competitor.</li> <li>• No attempt has been 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.</li> <li>• That all requirements of the law including amendatory provisions as to non-collusive bidding have been complied with.</li> </ul> <p><b><u>MATERIAL AND WORKMANSHIP</u></b></p> <p>All equipment furnished shall be guaranteed to be new and of current manufacture, to meet all requirements of these specifications.</p> <p>All workmanship shall be of high quality and accomplished in a professional manner so as to insure a functional apparatus with a pleasing, aesthetic appearance.</p>		



	Bidder Complies	
	Yes	No
<p><b><u>CONTRACT AWARD</u></b></p> <p>The Sullivan County Purchasing Agent reserves the right to accept, reject or award or cancel any or all bids and to waive any informalities, irregularities and technicalities, if same is deemed in the best interest of Sullivan County. Sullivan County does not obligate itself to accept the lowest and/or any bid offered.</p> <p>Sullivan County reserves the right, before awarding the contract, to require a bidder to submit evidence of his qualifications as may be deemed necessary. Documentation, which may be required, is financial soundness, technical competency, and other pertinent qualifications of a bidder, including past performance (experience) with Sullivan County or Piney Flats Fire Department.</p> <p>Upon award of contract, the sales contract shall be between the Purchaser and the manufacturer of the apparatus. Contracts between the Purchaser and a sales representative, dealer, distributor, or agent of the apparatus manufacturer shall not be acceptable. (No Exceptions.)</p> <p><b><u>CONTRACT SPECIALIST</u></b></p> <p>The successful bidder shall designate a contract administrator to provide a single point interface between the purchaser and the contractor on all matters concerning the contract.</p> <p><b><u>APPROVAL DRAWING</u></b></p> <p>A detailed drawing of the apparatus shall be provided to the purchaser for approval before construction begins. A copy of this drawing shall also be provided to the manufacturer's representative. Upon purchaser's approval, the finalized drawing shall become a part of the total contract.</p> <p>The drawing shall show, but is not limited to, such items as the chassis make and model, major components, location of lights, sirens, all compartment locations and dimensions, special suction, discharges, etc. The drawing shall be a visual interpretation of the apparatus as it is to be supplied.</p> <p><b><u>DELIVERY, DELIVERY ENGINEER, AND TESTING</u></b></p> <p>Delivery of the apparatus to the Piney Flats Fire Department shall remain the bidder's responsibility.</p> <p>On initial delivery of the fire apparatus, a qualified and responsible representative of the contractor shall demonstrate the apparatus and provide initial instruction to representatives of the customer regarding the operation, care, and maintenance of the apparatus and equipment supplied.</p> <p><b><u>INSTRUCTION MANUALS/DRAWINGS, SCHEMATIC</u></b></p> <p>In accordance with standard commercial practices, applicable to each vehicle (including body and special equipment) furnished under the contract, the following listed manuals and schematics, in the quantity specified, shall be provided at time of delivery of each vehicle.</p> <p>The contractor shall supply at time of delivery, two (2) CD copies of a complete operation and service manual covering the complete apparatus as delivered and accepted.</p> <p>The manual shall contain the following:</p> <ul style="list-style-type: none"> <li>• Descriptions, specifications, and ratings of chassis, pump (if applicable), and aerial device.</li> <li>• Wiring diagrams.</li> </ul>		

	Bidder Complies	
	Yes	No
<ul style="list-style-type: none"> <li>• Lubrication charts.</li> <li>• Operating instructions for the chassis, any major components such as a pump and any auxiliary systems.</li> <li>• Instructions regarding the frequency and procedures recommended for maintenance.</li> <li>• Parts replacement information.</li> </ul> <p><b><u>VEHICLE FLUIDS PLATE</u></b></p> <p>As required by NFPA-1901, the contractor shall affix a permanent plate in the driver's compartment specifying the quantity and type of the following fluids used in the vehicle:</p> <p>A permanent plate in the driving compartment shall specify the quantity and type of the following fluids used in the vehicle:</p> <ul style="list-style-type: none"> <li>• Engine oil</li> <li>• Engine coolant</li> <li>• Chassis transmission fluid</li> <li>• Pump transmission lubrication fluid</li> <li>• Pump primer fluid</li> <li>• Drive axle(s) lubrication fluid</li> <li>• Air-conditioning refrigerant</li> <li>• Air-conditioning lubrication oil</li> <li>• Power steering fluid</li> <li>• Cab tilt mechanism</li> <li>• Transfer case fluid</li> <li>• Equipment rack fluid</li> <li>• Air compressor system lubricant</li> <li>• Generator system lubricant</li> <li>• Aerial systems</li> </ul> <p><b><u>PRIMARY PLANT CONSTRUCTION</u></b></p> <p>In order to insure top quality construction, maximum assembly line and engineering communication and the highest level of manufacturing supervision the entire apparatus shall be built at the bidders' primary (headquarters) manufacturing facility. Apparatus constructed at satellite plants will not be considered.</p> <p><b><u>REQUIRED PROPOSAL BLUEPRINT</u></b></p> <p>A scale drawing of the specific apparatus being proposed shall be submitted WITH THE BID. Drawings of similar units or demo units shall not be permitted. Bidders should be clear that this provision is requiring a SCALE drawing of the truck which is actually being bid. The drawing shall be done at the manufacturer's facility by the manufacturer's engineering department in order to guarantee the accuracy of the drawing. Failure to comply with this requirement shall be grounds for rejection of the bid!</p> <p><b><u>BODY CONSTRUCTION LIMITATIONS</u></b></p> <p>Apparatus bodies which are either bolted together or make excessive use of adhesives shall not be considered. Similarly, body construction techniques which rely upon space consuming extrusions for structural support shall not be permitted.</p>		



	Bidder Complies	
	Yes	No
<p><b><u>FAMA COMPLIANCE</u></b></p> <p>The apparatus manufacturer must be a current member of the Fire Apparatus Manufacturer's Association (FAMA).</p> <p><b><u>U.S.A. MANUFACTURER</u></b></p> <p>The entire apparatus shall be assembled within the borders of the Continental United States to insure more readily available parts (without added costs and delays caused by tariffs and customs) and service.</p> <p style="text-align: center;">IRAN DIVESTMENT ACT AFFIDAVIDT</p> <p><b><u>QUALITY MANAGEMENT</u></b></p> <p>The manufacturer shall operate a Quality Management System that is certified to ISO 9001 by an organization that is accredited by the ANSI-ASQ National Accreditation Board (ANAB). This type of business management system shall allow the manufacturer to monitor processes to ensure they are effective; keep adequate records; check output for defects, with appropriate and corrective action where necessary; regularly review individual processes and the quality system itself for effectiveness; and facilitate continual improvement.</p> <p>A copy of the registration certificate must be included in the proposal, NO EXCEPTIONS.</p> <p><b><u>STEPPING, STANDING, &amp; WALKING SURFACES</u></b></p> <p>All stepping, standing, and walking surfaces on the body shall meet NFPA #1901 anti-slip standards. Aluminum tread plate utilized for stepping, standing, and walking surfaces shall be Alcoa No-Slip type. This material shall be a minimum 3/16 (0.1875") in thickness. Upon request by the purchaser, the manufacturer shall supply proof of compliance with this requirement. All vertical surfaces on the body, which incorporate aluminum tread plate material, will utilize the same material pattern to provide a consistent overall appearance.</p> <p><b><u>COOPERATIVE PURCHASING</u></b></p> <p>Sullivan County would also like to make the same pricing structure available to other area public agencies and/or municipalities. Bidders shall indicate whether they shall extend pricing. Inclusion is not mandatory and will have no bearing on the contract award. Sullivan County shall not be responsible for other agencies purchase order/contract or contractual remedies with the successful bidder. Such tag-ons shall be done so that Sullivan County or Piney Flats Fire Department has no responsibility for performance by either the manufacturer or the agency using the contract.</p> <p><b><u>UNDERWRITERS LABORATORIES INC. (UL) EXAMINATION AND TEST PROPOSAL</u></b></p> <p>If required by the specific chapters of NFPA-1901, the proposed unit shall be tested and certified by Underwriters Laboratories Inc. (UL) Underwriters Laboratories Inc. (UL) is recognized worldwide as a leading third party product safety certification organization for over 100 years. UL has served on National Fire Protection Association (NFPA) technical committees for over thirty years.</p> <p><b><u>INDEPENDENT TESTING ORGANIZATION QUALIFICATIONS</u></b></p> <ul style="list-style-type: none"> <li>• UL is a nationally recognized testing laboratory recognized by OSHA.</li> <li>• UL complies with the American Society for Testing and Materials (ASTM) Standard ASTM E543 "Determining the Qualifications for Nondestructive Testing Agencies."</li> </ul>		

	Bidder Complies	
	Yes	No
<ul style="list-style-type: none"> <li>• UL has more than 40 years of automotive fire apparatus safety testing experience and 16 years of factory aerial device testing and Certification experience. UL has more than 100 years of experience developing and implementing product safety standards.</li> <li>• UL does not represent, is not associated with, nor is in the manufacture or repair of automotive fire apparatus.</li> <li>• All test work for fire pumps outlined in NFPA 1901, Edition shall be conducted.</li> <li>• UL has included a list of all factory aerial device manufacturers for whom testing is currently being conducted on a regular basis.</li> <li>• UL carries ten million dollars in excess liability insurance for bodily injury and property damage combined.</li> </ul> <p>UL provides the manufacturer a complete written examination and test report for each inspection performed at the manufacturer's facility. This report specifies the points of inspection and results of such examinations and tests.</p> <p>The UL inspectors performing the test work on the units are certified to Level II in the required NDT methods, under the requirements outlined in ASNT document CP-189.</p> <p>The actual person(s) performing the inspection shall present for review proof of Level II Certification in the required NDT methods.</p> <p>The apparatus manufacturer shall designate, in writing, who is qualified to witness and certify these test results.</p> <p>Prior to submittal to the automotive fire apparatus manufacturer, the final Report shall be reviewed by the Supervisor of Fire Equipment Services and a Registered Professional Engineer, both of whom are directly involved with the aerial device certification program at UL.</p> <p>When the unit successfully meets all the requirements outlined in NFPA 1901, 2016 Edition, UL shall issue a Certificate of Automotive Fire Apparatus Examination and Test stating the unit's compliance with NFPA- 1901.</p> <p><b><u>LINE VOLTAGE ELECTRICAL SYSTEM CERTIFICATION</u></b></p> <p>When the unit successfully meets all the requirements outlined in NFPA 1901, 2016 Edition, UL shall issue a Certificate of Automotive Fire Apparatus Examination and Test stating the unit's compliance with the required line voltage section of NFPA.</p> <p><b><u>GENERAL APPARATUS DESCRIPTION "PUMPER"</u></b></p> <p>The unit shall be designed to conform fully to the "Pumper Fire Apparatus" requirements as stated in the NFPA 1901 Standard (2016 Revision), which shall include the following required chapters as stated in this revision:</p> <ul style="list-style-type: none"> <li>• Chapter 1 Administration</li> <li>• Chapter 2 Referenced Publications</li> <li>• Chapter 3 Definitions</li> <li>• Chapter 4 General Requirements</li> <li>• Chapter 5 Pumper Fire Apparatus</li> <li>• Chapter 12 Chassis and Vehicle Components</li> <li>• Chapter 13 Low Voltage Electrical Systems and Warning Devices</li> <li>• Chapter 14 Driving and Crew Areas</li> <li>• Chapter 15 Body, Compartments and Equipment Mounting</li> <li>• Chapter 16 Fire Pumps and Associated Equipment</li> </ul>		



	Bidder Complies	
	Yes	No
<ul style="list-style-type: none"> <li>Chapter 18 Water Tanks</li> <li>Chapter 20 Foam Proportioning Systems</li> <li>Chapter 22 Line Voltage Electrical Systems</li> </ul>		
<b><u>CAB SAFETY SIGNS</u></b>		
The following safety signs shall be provided in the cab:		
<ul style="list-style-type: none"> <li>A label displaying the maximum number of personnel the vehicle is designed to carry shall be visible to the driver.</li> <li>"Occupants will be seated and belted when apparatus is in motion" signs shall be visible from each seat.</li> <li>"Do Not Move Apparatus When Light Is On" sign adjacent to the warning light indicating a hazard if the apparatus is moved (as described in subsequent section).</li> <li>A label displaying the height, length, and GVWR of the vehicle shall be visible to driver.</li> <li>This label shall indicate that the fire department will revise the dimension if vehicle height changes while vehicle is in service.</li> </ul>		
<b><u>CHASSIS DATA LABELS</u></b>		
The following information shall be on labels affixed to the vehicle:		
Fluid Data		
<ul style="list-style-type: none"> <li>Engine Oil</li> <li>Engine Coolant</li> <li>Chassis Transmission Fluid</li> <li>Pump Transmission Lubrication Fluid</li> <li>Pump Primer Fluid (if applicable)</li> <li>Drive Axle(s) Lubrication Fluid</li> <li>Air Conditioning Refrigerant</li> <li>Air Conditioning Lubrication Oil</li> <li>Power Steering Fluid</li> <li>Cab Tilt Mechanism Fluid</li> <li>Transfer Case Fluid (if applicable)</li> <li>Equipment Rack Fluid (if applicable)</li> <li>Air Compressor System Lubricant</li> <li>Generator System Lubricant (if applicable)</li> <li>Front Tire Cold Pressure</li> <li>Rear Tire Cold Pressure</li> <li>Aerial Hydraulic Fluid (if applicable)</li> <li>Maximum Tire Speed Rating</li> </ul>		
Chassis Data		
<ul style="list-style-type: none"> <li>Chassis Manufacturer</li> <li>Production Number</li> <li>Year Built</li> <li>Month Manufactured</li> <li>Vehicle Identification Number</li> </ul>		
Manufacturers weight certification:		
<ul style="list-style-type: none"> <li>Gross Vehicle (or Combination) Weight Rating (GVWR or GCWR)</li> <li>Gross Axle Weight Rating, Front</li> <li>Gross Axle Weight Rating, Rear</li> </ul>		

	Bidder Complies	
	Yes	No
<b><u>ROLLOVER STABILITY</u></b>		
The apparatus shall meet the criteria defined in 4.13.1 for rollover stability as defined in the 2016 NFPA Standard for Automotive Fire Apparatus.		
<b><u>PRINCIPAL APPARATUS DIMENSIONS &amp; G.V.W.R.</u></b>		
The bidder shall include the principal dimensions, front G.A.W.R., rear G.A.W.R., and total G.V.W.R. of the proposed apparatus. Additionally, the bidder shall provide a weight distribution of the fully loaded, completed vehicle; this shall include a filled water tank, specified hose load, miscellaneous equipment allowance in accordance with NFPA-1901 requirements, and an equivalent personnel load of 250 lbs. per seating position.		
<b><u>BIDDER TO SUPPLY AND FILL- IN PROPOSED DIMENSIONS:</u></b>		
<ul style="list-style-type: none"> <li>OVERALL LENGTH: _____"</li> <li>OVERALL WIDTH: _____"</li> <li>OVERALL HEIGHT: _____"</li> <li>WHEELBASE: _____"</li> </ul>		
The axle and total weight ratings of the completed apparatus shall not be less than the following minimum acceptable weight ratings:		
<ul style="list-style-type: none"> <li>MINIMUM FRONT G.A.W.R.: _____ lbs.</li> <li>MINIMUM REAR G.A.W.R.: _____ lbs.</li> <li>MINIMUM TOTAL G.V.W.R.: _____ lbs.</li> </ul>		
<b><u>CRITICAL OVERALL HEIGHT REQUIREMENT</u></b>		
This vehicle has a critical overall height restriction requirement due to fire station door height or obstruction within the fire department/district.		
Maximum overall height of vehicle in the unloaded configuration cannot exceed:		
126" (inches)		
<b><u>2018 FREIGHTLINER M2 112 CONVENTIONAL CHASSIS</u></b>		
SET BACK AXLE - TRUCK		
STRAIGHT TRUCK PROVISION		
LH PRIMARY STEERING LOCATION		



	Bidder Complies	
	Yes	No
<b><u>General Service</u></b>		
TRUCK CONFIGURATION		
DOMICILED, USA 50 STATES (INCLUDING CALIFORNIA AND CARB OPT-IN STATES)		
FIRE SERVICE		
EMERGENCY VEHICLES BUSINESS SEGMENT		
LIQUID BULK COMMODITY		
TERRAIN/DUTY: 100% (ALL) OF THE TIME, IN TRANSIT, IS SPENT ON PAVED ROADS		
MAXIMUM 8% EXPECTED GRADE		
SMOOTH CONCRETE OR ASPHALT PAVEMENT - MOST SEVERE IN-TRANSIT (BETWEEN SITES) ROAD SURFACE		
FREIGHTLINER LEVEL II WARRANTY		
EXPECTED FRONT AXLE(S) LOAD: 14600.0 lbs.		
EXPECTED REAR DRIVE AXLE(S) LOAD: 30000.0 lbs.		
EXPECTED GROSS VEHICLE WEIGHT CAPACITY: 44600.0 lbs.		
<b><u>Truck Service</u></b>		
FIRE TANK/PUMPER - MAIN DRIVELINE DRIVEN SPLIT-SHAFT PTO/PUMP		
KOVATCH MOBILE EQUIPMENT COMPANY		
EXPECTED BODY/PAYLOAD CG HEIGHT ABOVE FRAME "XX" INCHES: 32.0 in		
<b><u>Engine</u></b>		
DETROIT DD13 12.8L 505 HP @ 1625 RPM, 1900 GOV RPM, 1850 LB/FT @ 975 RPM		
<b><u>Electronic Parameters</u></b>		
72 MPH ROAD SPEED LIMIT		
CRUISE CONTROL SPEED LIMIT SAME AS ROAD SPEED LIMIT		
PTO MODE ENGINE RPM LIMIT - 1100 RPM		
PTO MODE BRAKE OVERRIDE - SERVICE BRAKE APPLIED OR PARK BRAKE NOT APPLIED		
PTO RPM WITH CRUISE SET SWITCH - 700 RPM		
PTO RPM WITH CRUISE RESUME SWITCH - 800 RPM		
PTO MODE CANCEL VEHICLE SPEED - 5 MPH		
PTO MODE RPM INCREMENT - 25 RPM		

	Bidder Complies	
	Yes	No
PTO GOVERNOR RAMP RATE - 250 RPM PER SECOND  ONE REMOTE PTO SPEED  REMOTE PTO SPEED 1 SETTING - 900 RPM  SOFT CRUISE CONTROL ENABLED  PTO MINIMUM RPM - 600  <b><u>Engine Equipment</u></b>  2016 ONBOARD DIAGNOSTICS/2010 EPA/CARB/FINAL GHG17 CONFIGURATION  2008 CARB EMISSION CERTIFICATION - CLEAN IDLE (INCLUDES 6X4 INCH LABEL ON LOWER FORWARD CORNER OF DRIVER DOOR)  STANDARD OIL PAN  ENGINE MOUNTED OIL CHECK AND FILL  ONE PIECE VALVE COVER  SIDE OF HOOD AIR INTAKE WITH NFPA COMPLIANT EMBER SCREEN AND FIRE RETARDANT DONALDSON AIR CLEANER  LN 12V 320 AMP 4962PA PAD MOUNT ALTERNATOR  (3) ALLIANCE MODEL 1231, GROUP 31, 12 VOLT MAINTENANCE FREE 3375 CCA THREADED STUD BATTERIES  BATTERY BOX WITH ALUMINUM COVER MOUNTED SHORT SIDE TO RAIL  STANDARD BATTERY JUMPERS  SINGLE BATTERY BOX FRAME MOUNTED LH SIDE UNDER CAB  WIRE GROUND RETURN FOR BATTERY CABLES WITH ADDITIONAL FRAME GROUND RETURN  POLISHED DIAMOND PLATE BATTERY BOX COVER  AUXILIARY POWER NET DISTRIBUTION BLOCK FOR BODY BUILDER USE  POSITIVE LOAD DISCONNECT WITH CAB MOUNTED CONTROL SWITCH MOUNTED OUTBOARD DRIVER SEAT  POSITIVE AND NEGATIVE POSTS FOR JUMPSTART LOCATED ON FRAME NEXT TO STARTER  BW MODEL BA-921 19.0 CFM SINGLE CYLINDER AIR COMPRESSOR WITH SAFETY VALVE  STANDARD MECHANICAL AIR COMPRESSOR GOVERNOR  AIR COMPRESSOR DISCHARGE LINE  GVG, FIRE AND EMERGENCY SERVICE VEHICLES ENGINE WARNING  C-BRAKE BY JACOBS WITH LOW/OFF/HIGH BRAKING DASH SWITCH, ACTIVATES STOP LAMPS		



	Bidder Complies	
	Yes	No
<p>RH OUTBOARD UNDER STEP MOUNTED HORIZONTAL AFTERTREATMENT SYSTEM ASSEMBLY WITH RH HORIZONTAL TAILPIPE EXITING FORWARD OF REAR TIRES</p> <p>ENGINE AFTERTREATMENT DEVICE, AUTOMATIC OVER THE ROAD ACTIVE REGENERATION AND DASH MOUNTED SINGLE REGENERATION REQUEST/INHIBIT SWITCH</p> <p>STANDARD EXHAUST SYSTEM LENGTH</p> <p>RH HORIZONTAL TAILPIPE, EXIT FORWARD OF REAR TIRES AT 90 DEGREES</p> <p>6 GALLON DIESEL EXHAUST FLUID TANK</p> <p>100 PERCENT DIESEL EXHAUST FLUID FILL</p> <p>LH UNDER CAB DIESEL EXHAUST FLUID TANK LOCATION</p> <p>DIESEL EXHAUST FLUID PUMP MOUNTED AFT OF DIESEL EXHAUST FLUID TANK</p> <p>STANDARD DIESEL EXHAUST FLUID TANK CAP</p> <p>BORG WARNER (KYSOR) REAR AIR ON/OFF ENGINE FAN CLUTCH</p> <p>AUTOMATIC FAN CONTROL WITHOUT DASH SWITCH, NON ENGINE MOUNTED</p> <p>DDC SUPPLIED ENGINE MOUNTED FUEL FILTER/FUEL WATER SEPARATOR WITH WATER-IN-FUEL INDICATOR</p> <p>FULL FLOW OIL FILTER</p> <p>1400 SQUARE INCH RADIATOR</p> <p>ANTIFREEZE TO -34F, OAT (NITRITE AND SILICATE FREE) EXTENDED LIFE COOLANT</p> <p>GATES BLUE STRIPE COOLANT HOSES OR EQUIVALENT</p> <p>CONSTANT TENSION HOSE CLAMPS FOR COOLANT HOSES</p> <p>HDEP FIXED RATIO COOLANT PUMP AND RADIATOR DRAIN VALVE WITH FIRE PUMP AUXILIARY ENGINE COOLING</p> <p>ALUMINUM FLYWHEEL HOUSING</p> <p>DELCO 12V MOD 3.175-39MT+ OCP STARTER WITH THERMAL PROTECTION AND INTEGRATED MAGNETIC SWITCH</p> <p><b><u>Transmission</u></b></p> <p><b>ALLISON 4000 EVS AUTOMATIC TRANSMISSION WITH PTO PROVISION</b></p> <p><b><u>Transmission Equipment</u></b></p> <p>ALLISON VOCATIONAL PACKAGE 198 - AVAILABLE ON 3000/4000 PRODUCT FAMILIES WITH VOCATIONAL MODEL EVS</p> <p>ALLISON VOCATIONAL RATING FOR FIRE TRUCK/EMERGENCY VEHICLE APPLICATIONS</p>		

	Bidder Complies	
	Yes	No
<p>AVAILABLE WITH ALL PRODUCT FAMILIES</p> <p>PRIMARY MODE GEARS, LOWEST GEAR 1, START GEAR 1, HIGHEST GEAR 5, AVAILABLE FOR 3000/4000 PRODUCT FAMILIES ONLY</p> <p>SECONDARY MODE GEARS, LOWEST GEAR 1, START GEAR 1, HIGHEST GEAR 5, AVAILABLE FOR 3000/4000 PRODUCT FAMILIES ONLY</p> <p>PRIMARY SHIFT SCHEDULE RECOMMENDED BY DTNA AND ALLISON, THIS DEFINED BY ENGINE AND VOCATIONAL USAGE</p> <p>SECONDARY SHIFT SCHEDULE RECOMMENDED BY DTNA AND ALLISON, THIS DEFINED BY ENGINE AND VOCATIONAL USAGE</p> <p>PRIMARY SHIFT SPEED RECOMMENDED BY DTNA AND ALLISON, THIS DEFINED BY ENGINE AND VOCATIONAL USAGE</p> <p>SECONDARY SHIFT SPEED RECOMMENDED BY DTNA AND ALLISON, THIS DEFINED BY ENGINE AND VOCATIONAL USAGE</p> <p>LOAD BASED SHIFT SCHEDULE AND VEHICLE ACCELERATION CONTROL RECOMMENDED BY DTNA AND ALLISON, THIS DEFINED VOCATIONAL USAGE</p> <p>NEUTRAL AT STOP - DISABLED, FUELSENSE - DISABLED</p> <p>DRIVER SWITCH INPUT - DEFAULT - NO SWITCHES</p> <p>VEHICLE INTERFACE WIRING CONNECTOR WITH PDM AND NO BLUNT CUTS, AT BACK OF CAB</p> <p>ELECTRONIC TRANSMISSION CUSTOMER ACCESS CONNECTOR FIREWALL MOUNTED</p> <p>(2) CUSTOMER INSTALLED CHELSEA 277 SERIES PTO'S</p> <p>PTO MOUNTING, LH SIDE AND TOP RH SIDE OF MAIN TRANSMISSION</p> <p>MAGNETIC PLUGS, ENGINE DRAIN, TRANSMISSION DRAIN, AXLE(S) FILL AND DRAIN</p> <p>PUSH BUTTON ELECTRONIC SHIFT CONTROL, DASH MOUNTED</p> <p>TRANSMISSION PROGNOSTICS - ENABLED 2013</p> <p>WATER TO OIL TRANSMISSION COOLER, FRAME MOUNTED</p> <p>TRANSMISSION OIL CHECK AND FILL WITH ELECTRONIC OIL LEVEL CHECK</p> <p>SYNTHETIC TRANSMISSION FLUID (TES-295 COMPLIANT)</p> <p>***UNLOCK 6<sup>th</sup> GEAR TOP SPEED 75 MPH</p> <p><b><u>Front Axle and Equipment</u></b></p> <p>DETROIT DA-F-14.7-3 14,700# FF1 71.5 KPI/3.74 DROP SINGLE FRONT AXLE</p> <p>BENDIX ADB22X-V AIR DISC FRONT BRAKES</p> <p>NON-ASBESTOS FRONT BRAKE LINING</p>		



	Bidder Complies	
	Yes	No
<p>FRONT DISC BRAKE ROTORS</p> <p>FRONT BRAKE DUST SHIELDS</p> <p>FRONT OIL SEALS</p> <p>VENTED FRONT HUB CAPS WITH WINDOW, CENTER AND SIDE PLUGS - OIL</p> <p>STANDARD SPINDLE NUTS FOR ALL AXLES</p> <p>FRONT AIR DISC BRAKE INTERNAL ADJUSTERS</p> <p>TRW TAS-85 POWER STEERING</p> <p>POWER STEERING PUMP</p> <p>2 QUART SEE THROUGH POWER STEERING RESERVOIR</p> <p>ORGANIC SAE 80/90 FRONT AXLE LUBE</p> <p><b><u>Front Suspension</u></b></p> <p>14,600# TAPERLEAF FRONT SUSPENSION</p> <p>MAINTENANCE FREE RUBBER BUSHINGS - FRONT SUSPENSION</p> <p>NO FRONT SUSPENSION SPRING BRACKET OPTIONS</p> <p>FRONT SHOCK ABSORBERS</p> <p><b><u>Rear Axle and Equipment</u></b></p> <p>RS-30-185 30,000# U-SERIES SINGLE REAR AXLE</p> <p>4.56 REAR AXLE RATIO</p> <p>*** Will want to look at gear ratios and pick at pre-construction.</p> <p>IRON REAR AXLE CARRIER WITH STANDARD AXLE HOUSING</p> <p>MXL 18N MERITOR EXTENDED LUBE MAIN DRIVELINE WITH FULL ROUND YOKES</p> <p>DRIVER CONTROLLED TRACTION DIFFERENTIAL - SINGLE REAR AXLE</p> <p><b>(1) DRIVER CONTROLLED DIFFERENTIAL LOCK REAR VALVE FOR SINGLE DRIVE AXLE</b></p> <p>BLINKING LAMP WITH EACH MODE SWITCH, DIFFERENTIAL UNLOCK WITH IGNITION OFF, ACTIVE &lt;5 MPH</p> <p>MERITOR 16.5X7 P CAM REAR BRAKES, DOUBLE ANCHOR, CAST SHOES</p> <p>FIRE AND EMERGENCY SEVERE SERVICE NON-ASBESTOS REAR BRAKE LINING</p> <p>BRAKE CAMS AND CHAMBERS ON FORWARD SIDE OF DRIVE AXLE(S)</p> <p>WEBB CAST IRON REAR BRAKE DRUMS</p>		

	Bidder Complies	
	Yes	No
<p>REAR BRAKE DUST SHIELDS</p> <p>REAR OIL SEALS</p> <p>WABCO TRISTOP D LONGSTROKE 1-DRIVE AXLE SPRING PARKING CHAMBERS</p> <p>HALDEX AUTOMATIC REAR SLACK ADJUSTERS</p> <p>ORGANIC SAE 80/90 REAR AXLE LUBE</p> <p><b><u>Rear Suspension</u></b></p> <p>30,000# FLAT LEAF SPRING REAR SUSPENSION WITH HELPER AND RADIUS ROD</p> <p>SPRING SUSPENSION - NO AXLE SPACERS</p> <p>STANDARD AXLE SEATS IN AXLE CLAMP GROUP</p> <p>FORE/AFT CONTROL RODS</p> <p><b><u>Brake System</u></b></p> <p>AIR BRAKE PACKAGE</p> <p>WABCO 4S/4M ABS WITH TRACTION CONTROL</p> <p>REINFORCED NYLON, FABRIC BRAID AND WIRE BRAID CHASSIS AIR LINES</p> <p>FIBER BRAID PARKING BRAKE HOSE</p> <p>STANDARD BRAKE SYSTEM VALVES</p> <p>STANDARD AIR SYSTEM PRESSURE PROTECTION SYSTEM</p> <p>STD U.S. FRONT BRAKE VALVE</p> <p>RELAY VALVE WITH 5-8 PSI CRACK PRESSURE, NO REAR PROPORTIONING VALVE</p> <p>BW AD-9SI BRAKE LINE AIR DRYER WITH HEATER</p> <p>AIR DRYER MOUNTED INBOARD ON LH RAIL</p> <p>STEEL AIR TANKS MOUNTED AFT INSIDE AND/OR BELOW FRAME JUST FORWARD OF REAR SUSPENSION</p> <p>CLEAR FRAME RAILS FROM BACK OF CAB TO FRONT REAR SUSPENSION BRACKET, BOTH RAILS OUTBOARD</p> <p>PULL CABLES ON ALL AIR RESERVOIR(S)</p> <p><b><u>Trailer Connections</u></b></p> <p>UPGRADED CHASSIS MULTIPLEXING UNIT</p>		



	Bidder Complies	
	Yes	No
UPGRADED BULKHEAD MULTIPLEXING UNIT		
NO HIGH CURRENT TRAILER/BODY CABLE		
<b><u>Wheelbase &amp; Frame</u></b>		
5740MM (226 INCH) WHEELBASE		
11/32X3-1/2X10-15/16 INCH STEEL FRAME (8.73MMX277.8MM/0.344X10.94 INCH) 120KSI		
1/4 INCH (6.35MM) C-CHANNEL INNER FRAME REINFORCEMENT		
2150MM (85 INCH) REAR FRAME OVERHANG		
FRAME OVERHANG RANGE: 81 INCH TO 90 INCH		
SQUARE END OF FRAME		
FRONT CLOSING CROSSMEMBER		
STANDARD WEIGHT ENGINE CROSSMEMBER		
STANDARD MIDSHIP #1 CROSSMEMBER(S)		
STANDARD REARMOST CROSSMEMBER		
STANDARD SUSPENSION CROSSMEMBER		
<b><u>Chassis Equipment</u></b>		
THREE-PIECE 14 INCH CHROMED STEEL BUMPER WITH COLLAPSIBLE ENDS		
REMOVABLE FRONT TOW HOOKS STORED ON THE CHASSIS FRAME		
BUMPER MOUNTING FOR SINGLE LICENSE PLATE		
FENDER AND FRONT OF HOOD MOUNTED FRONT MUDFLAPS		
GRADE 8 THREADED HEX HEADED FRAME FASTENERS		
LEVEL FRAME RAILS (+1%, -0%) WHEN CHASSIS IS LOADED TO FRONT AND REAR SUSPENSION RATINGS		
TANK BODY 1501 TO 3000 GALLONS		
<b><u>Fuel Tanks</u></b>		
<b>70 GALLON/264 LITER ALUMINUM FUEL TANK - LH</b>		
25 INCH DIAMETER FUEL TANK(S)		
POLISHING OF FUEL/HYDRAULIC TANK(S) WITH POLISHED STAINLESS STEEL BANDS		
FUEL TANK(S) FORWARD		

	Bidder Complies	
	Yes	No
<p>POLISHED STEP FINISH</p> <p>CHROME FUEL TANK CAP(S)</p> <p>EQUIFLO INBOARD FUEL SYSTEM</p> <p>HIGH TEMPERATURE REINFORCED NYLON FUEL LINE</p> <p>FUEL COOLER MOUNTED LEFT HAND IN RAIL</p> <p><b><u>Tires</u></b></p> <p>MICHELIN XZE 12R22.5 16 PLY RADIAL FRONT TIRES</p> <p>MICHELIN X WORKS Z 315/80R22.5 20 PLY RADIAL REAR TIRES</p> <p><b><u>Hubs</u></b></p> <p>CONMET PRESET PLUS PREMIUM IRON FRONT HUBS</p> <p>WEBB IRON REAR HUBS</p> <p><b><u>Wheels</u></b></p> <p>ALCOA ULTRA ONE 89U64X 22.5X9.00 10-HUB PILOT 5.99 INSET ALUMINUM FRONT WHEELS</p> <p>ALCOA ULTRA ONE 89U64X 22.5X9.00 10-HUB PILOT 5.99 INSET ALUMINUM REAR WHEELS</p> <p>POLISHED BOTH SIDES FRONT WHEELS WITH DURA-BRIGHT FINISH</p> <p>POLISHED OUTER (DISHED SIDE) REAR WHEELS WITH OUTER ONLY DURA-BRIGHT FINISH</p> <p>FRONT WHEEL MOUNTING NUTS</p> <p>REAR WHEEL MOUNTING NUTS</p> <p><b><u>Cab Exterior</u></b></p> <p>160 INCH BBC HIGH-ROOF ALUMINUM CONVENTIONAL CREW CAB</p> <p>AIR CAB MOUNTS</p> <p>CAB ROOF REINFORCEMENTS FOR ROOF MOUNTED COMPONENTS</p> <p>NONREMOVABLE BUGSCREEN MOUNTED BEHIND GRILLE</p> <p>BOLT-ON MOLDED FLEXIBLE FENDER EXTENSIONS</p> <p>LH AND RH EXTERIOR GRAB HANDLES WITH SINGLE RUBBER INSERT</p> <p>HOOD MOUNTED CHROMED PLASTIC GRILLE</p>		



	Bidder Complies	
	Yes	No
<p>CHROME HOOD MOUNTED AIR INTAKE GRILLE</p> <p>FIBERGLASS HOOD</p> <p>SINGLE ELECTRIC HORN</p> <p>DOOR LOCKS AND IGNITION SWITCH KEYED THE SAME</p> <p>REAR LICENSE PLATE MOUNT END OF FRAME</p> <p>INTEGRAL HEADLIGHT/MARKER ASSEMBLY WITH CHROME BEZEL</p> <p>LED AERODYNAMIC MARKER LIGHTS</p> <p>HEADLIGHTS ON WITH WIPERS, WITH DAYTIME RUNNING LIGHTS</p> <p>TRUCK-LITE 3 CHAMBER MODULES WITH 45 SERIES SEALED BEAM LAMPS</p> <p>STANDARD FRONT TURN SIGNAL LAMPS</p> <p>DUAL WEST COAST BRIGHT FINISH HEATED MIRRORS WITH LH AND RH REMOTE</p> <p>DOOR MOUNTED MIRRORS</p> <p>102 INCH EQUIPMENT WIDTH</p> <p>LH AND RH 8 INCH BRIGHT FINISH CONVEX MIRRORS MOUNTED UNDER PRIMARY MIRRORS</p> <p>RH DOWN VIEW MIRROR</p> <p>STANDARD SIDE/REAR REFLECTORS</p> <p>RH AFTERTREATMENT SYSTEM CAB ACCESS WITH POLISHED DIAMOND PLATE COVER</p> <p>NO REAR WINDOW</p> <p>TINTED DOOR GLASS LH AND RH WITH TINTED NON-OPERATING WING WINDOWS****</p> <p>MANUAL DOOR WINDOW REGULATORS</p> <p>TINTED WINDSHIELD</p> <p>2 GALLON WINDSHIELD WASHER RESERVOIR WITHOUT FLUID LEVEL INDICATOR, FRAME MOUNTED</p> <p><b><u>Cab Interior</u></b></p> <p>OPAL GRAY VINYL INTERIOR</p> <p>MOLDED PLASTIC DOOR PANEL</p> <p>MOLDED PLASTIC DOOR PANEL</p> <p>BLACK MATS WITH SINGLE INSULATION</p> <p>NO DASH MOUNTED ASH TRAYS AND LIGHTER</p> <p>FORWARD ROOF MOUNTED CONSOLE WITH UPPER STORAGE COMPARTMENTS WITHOUT</p>		

	Bidder Complies	
	Yes	No
<p>NETTING</p> <p>IN DASH STORAGE BIN</p> <p>(2) CUP HOLDERS LH AND RH DASH</p> <p>GRAY/CHARCOAL FLAT DASH</p> <p>SMART SWITCH EXPANSION MODULE</p> <p>HEATER, DEFROSTER AND AIR CONDITIONER</p> <p>STANDARD HVAC DUCTING</p> <p>MAIN HVAC CONTROLS WITH RECIRCULATION SWITCH</p> <p>AUXILIARY HEATER/AIR CONDITIONER WITH CONSTANT OUTLET TEMPERATURE CONTROL</p> <p>STANDARD HEATER PLUMBING</p> <p>DENSO HEAVY DUTY AIR CONDITIONER COMPRESSOR</p> <p>BINARY CONTROL, R-134A</p> <p>PREMIUM INSULATION</p> <p>SOLID-STATE CIRCUIT PROTECTION AND FUSES</p> <p>12V NEGATIVE GROUND ELECTRICAL SYSTEM</p> <p>DOOR ACTIVATED DOME/RED MAP LIGHTS, FORWARD LH AND RH AND REAR LH, RH AND CENTER</p> <p>CAB DOOR LATCHES WITH MANUAL DOOR LOCKS</p> <p>(1) 12 VOLT POWER SUPPLY IN DASH</p> <p>SEATS INC 911 UNIVERSAL SERIES HIGH BACK AIR SUSPENSION DRIVER SEAT WITH NFPA 1901-2009 COMPLIANT SEAT SENSOR</p> <p>SEATS INC 911 UNIVERSAL SERIES SCBA NON SUSPENSION PASSENGER SEAT WITH UNDERSEAT STORAGE AND NFPA 1901-2009 COMPLIANT SEAT SENSOR</p> <p>SEATS INC 911 UNIVERSAL SERIES SCBA NON SUSPENSION LH, RH AND CENTER REAR PASSENGER SEATS WITH UNDER SEAT STORAGE AND NFPA 1901-2009 COMPLIANT SEAT SENSOR</p> <p>LH AND RH INTEGRAL DOOR PANEL ARMRESTS</p> <p>GRAY VINYL DRIVER SEAT COVER WITH GRAY CORDURA CLOTH BOLSTER AND HEADREST</p> <p>GRAY VINYL FRONT PASSENGER SEAT COVER WITH GRAY CORDURA CLOTH BOLSTER AND HEADREST</p> <p>GRAY VINYL REAR PASSENGER SEAT COVER WITH GRAY CORDURA CLOTH BOLSTER AND HEADREST</p> <p>NFPA 1901-2009 HIGH VISIBILITY ORANGE SEAT BELTS</p>		



	Bidder Complies	
	Yes	No
ADJUSTABLE TILT AND TELESCOPING STEERING COLUMN		
4-SPOKE 18 INCH (450MM) STEERING WHEEL		
DRIVER AND PASSENGER INTERIOR SUN VISORS		
<b><u>Instruments &amp; Controls</u></b>		
GRAY DRIVER INSTRUMENT PANEL		
GRAY CENTER INSTRUMENT PANEL		
ENGINE REMOTE INTERFACE WITH PARK BRAKE INTERLOCK		
BLACK GAUGE BEZELS		
LOW AIR PRESSURE INDICATOR LIGHT AND AUDIBLE ALARM		
2 INCH PRIMARY AND SECONDARY AIR PRESSURE GAUGES		
ENGINE COMPARTMENT MOUNTED AIR RESTRICTION INDICATOR WITH GRADUATIONS, WITH WARNING LIGHT IN DASH		
ELECTRONIC CRUISE CONTROL WITH SWITCHES IN LH SWITCH PANEL		
KEY OPERATED IGNITION SWITCH AND INTEGRAL START POSITION; 4 POSITION OFF/RUN/START/ACCESSORY		
ICU3S, 132X48 DISPLAY WITH DIAGNOSTICS, 28 LED WARNING LAMPS AND DATA LINKED		
HEAVY DUTY ONBOARD DIAGNOSTICS INTERFACE CONNECTOR LOCATED BELOW LH DASH		
2 INCH ELECTRIC FUEL GAUGE		
FUEL FILTER RESTRICTION INDICATOR		
ENGINE REMOTE INTERFACE NOT CONFIGURED		
ENGINE REMOTE INTERFACE CONNECTOR IN ENGINE COMPARTMENT		
ELECTRICAL ENGINE COOLANT TEMPERATURE GAUGE		
2 INCH TRANSMISSION OIL TEMPERATURE GAUGE		
ENGINE AND TRIP HOUR METERS INTEGRAL WITHIN DRIVER DISPLAY		
CUSTOMER FURNISHED AND INSTALLED PTO CONTROLS		
ENHANCED STABILITY CONTROL		
NO LANE DEPARTURE WARNING SYSTEM		
ELECTRIC ENGINE OIL PRESSURE GAUGE		
OVERHEAD INSTRUMENT PANEL		
NFPA VEHICLE DATA RECORDER AND SEATBELT DISPLAY		

	Bidder Complies	
	Yes	No
<p>AM/FM/WB WORLD TUNER RADIO WITH SIRIUS XM, CD PLAYER, BLUETOOTH, IPOD INTERFACE AND USB AND AUXILIARY INPUTS, J1939</p> <p>DASH MOUNTED RADIO</p> <p>(2) RADIO SPEAKERS IN CAB</p> <p>AM/FM ANTENNA MOUNTED ON FORWARD LH ROOF</p> <p>INTEROPERABLE SDAR ANTENNA</p> <p>ELECTRONIC MPH SPEEDOMETER WITH SECONDARY KPH SCALE, WITHOUT ODOMETER</p> <p>STANDARD VEHICLE SPEED SENSOR</p> <p>ELECTRONIC 3000 RPM TACHOMETER</p> <p>VT-HU CONNECTIVITY PLATFORM HARDWARE</p> <p>2 YEARS DETROIT CONNECT BASE PACKAGE (VIRTUAL TECHNICIAN, DETROIT CONNECT PORTAL ACCESS) FOR VT-HU CONNECTIVITY PLATFORM</p> <p>NO ZONAR SERVICES SELECTED</p> <p>IGNITION SWITCH CONTROLLED ENGINE STOP</p> <p>DIGITAL VOLTAGE DISPLAY INTEGRAL WITH DRIVER DISPLAY</p> <p>SINGLE ELECTRIC WINDSHIELD WIPER MOTOR WITH DELAY PROGRAMMED TO SLOWEST SPEED WITH PARK BRAKE SET</p> <p>MARKER LIGHT SWITCH INTEGRAL WITH HEADLIGHT SWITCH</p> <p>ALTERNATING FLASHING HEADLAMP SYSTEM WITH BODY BUILDER CONTROLLED ENGAGEMENT</p> <p>ONE VALVE PARKING BRAKE SYSTEM WITH DASH VALVE CONTROL AUTONEUTRAL AND WARNING INDICATOR</p> <p>SELF CANCELING TURN SIGNAL SWITCH WITH DIMMER, WASHER/WIPER AND HAZARD IN HANDLE</p> <p>INTEGRAL ELECTRONIC TURN SIGNAL FLASHER WITH HAZARD LAMPS OVERRIDING STOP LAMPS</p> <p>NO MISCELLANEOUS GAUGES</p> <p><b><u>Design</u></b></p> <p>PAINT: ONE SOLID COLOR</p>		



	Bidder Complies	
	Yes	No
<p><b><u>Color</u></b></p> <p>CAB COLOR A: L6572EB SIMON RED ELITE BC</p> <p>BLACK, HIGH SOLIDS POLYURETHANE CHASSIS PAINT</p> <p>NO FUEL TANK CABINET PAINT</p> <p>STANDARD E COAT/UNDERCOATING</p> <p><b><u>Certification / Compliance</u></b></p> <p>U.S. FMVSS CERTIFICATION, EXCEPT SALES CABS AND GLIDER KITS</p> <p><b><u>CHASSIS PAYMENT</u></b></p> <p>The fire department shall pay for the chassis upon receipt of the chassis by the apparatus manufacturer. The total chassis payment shall be _____.</p> <p><b><u>EMBER SEPARATOR</u></b></p> <p>An air inlet shall be equipped with a stainless mesh screen for separating water and burning embers from the air intake system such that particulate matter larger than 0.039" (1.0 mm) in diameter cannot reach the air filter element.</p> <p><b><u>SEAT BELT CLARIFICATION</u></b></p> <p>Red seat belts shall be provided if available from the chassis manufacturer.</p> <p><b><u>BUMPER EXTENSION</u></b></p> <p>A 12" high, 96" wide, two (2) ribbed, bright finish stainless steel front bumper shall be provided. A twenty four (24) inch front bumper extension, with aluminum tread plate gravel shield, shall be provided.</p> <p><b><u>AUXILIARY AIR INLET</u></b></p> <p>A quick disconnect male auxiliary air inlet shall be provided at the driver's side door area at a location to be determined at a pre-construction conference. A mating quick disconnect female connector shall be shipped loose with the apparatus. This shall allow a Purchaser furnished external air supply to be connected to the chassis air system.</p> <p><b><u>RIGHT SIDE CAB STEP AREA TREAD PLATE</u></b></p> <p>The right side cab step area shall be overlaid with polished aluminum tread plate. A single cab entry step, level with the right side running board shall be furnished. Step areas shall be fabricated from Alcoa "No-Slip" tread plate.</p> <p><b><u>LEFT SIDE CAB STEP AREA TREAD PLATE</u></b></p> <p>The left side cab step area shall be overlaid with polished aluminum tread plate. A single cab entry step, level with the left side running board shall be furnished. Step areas shall be fabricated from Alcoa "No-Slip" tread plate.</p>		

	Bidder Complies	
	Yes	No
<p><b><u>CENTER CONSOLE</u></b></p> <p>A center console fabricated from 1/8" aluminum shall be furnished and shall be located between the driver and officer's seats.</p> <p>The forward area of the console shall have a mounting surface for emergency lighting switch panels and/or electronic siren control boxes within reach of the driver or officer. In addition, the console shall be equipped with two (2) map/notebook storage pockets at the rear of the console.</p> <p>The console shall be finished with a gray textured paint to match the interior of the chassis.</p> <p>Console dimensions are based on current International cab models. Other specified commercial cabs (or changes to the International cab) may result in varied dimensions.</p> <p><b><u>ANTENNA INSTALLATION</u></b></p> <p>One (1) antenna mounting base(s) model #MATM with 17' of coaxial cable shall be provided and installed on the cab roof. The attached antenna wire(s) shall be run to the right side cab dash area.</p> <p>The Fire Department is responsible to have the correct antenna whip installed once the apparatus is delivered.</p> <p><b><u>HOSEREEL COMPARTMENT - UNDER REAR CAB DOOR OFFICER SIDE</u></b></p> <p>A hose reel compartment shall be mounted under the officer side rear cab door. The compartment shall be constructed of 3/16" aluminum diamond tread and 3/16" aluminum plate. This compartment shall utilize the maximum amount of space available.</p> <p>Recessed rollers will be provided around the hose reel opening to allow the hose to be easily deployed.</p> <p><b><u>TIRE CHAINS</u></b></p> <p>One (1) set of On Spot tire chains for a single axle chassis shall be installed. A switch shall be provided to control the activation of the chains.</p> <p><b><u>TIRE PRESSURE MONITORING DEVICES</u></b></p> <p>Each tire shall be equipped with an LED tire alert pressure management system (Vecsafe equal) that shall monitor tire pressure. A chrome plated brass sensor shall be provided on the valve stem of each tire.</p> <p>The sensor shall calibrate to the tire pressure when installed on the valve stem for pressures between 20 and 120 psi. The sensor shall activate an integral battery operated LED when the pressure of that tire drops 8 psi.</p> <p>Removing the cap from the valve stem shall indicate the functionality of the sensor and battery. If the sensor and battery are in working condition, the LED shall immediately start blinking.</p> <p>The tire pressure monitoring caps shall be shipped loose.</p>		

	Bidder Complies	
	Yes	No
<b><u>FREIGHTLINER - CAB STEP LIGHTS</u></b>		
<p>Tecniq E-03 step lights shall be provided, one (1) near each cab door to illuminate the cab stepping surfaces. The step lights shall be mounted in a convenient location so as to provide appropriate illumination to the cab stepping surfaces. The step lights shall automatically activate when the park brake is applied and marker lights are active.</p>		
<b><u>AUXILIARY AIR MANIFOLD - COMMERCIAL CHASSIS</u></b>		
<p>All auxiliary air devices on the commercial chassis shall be fed from a common manifold. The common manifold shall be installed at an accessible location near the chassis air tanks. The manifold shall be fed by a 3/8" synflex air line plumbed from the primary air tank using a pressure protection valve. Unused ports shall be closed off using an appropriately sized plug.</p>		
<p>The officer's seat shall include a Zico Inc EZ-Loc SCBA Locking System. The bracket system shall be free of straps and clamps that may interfere with auxiliary equipment on SCBA units. A patented ratchet design locks the SCBA over a range of engagement, so that even in a partially closed position there is never any doubt that the bottle is secure. EZ-Loc shall come standard with the adjustable foot plate for on the fly adjustments. NFPA 1901, 2016 compliant and third party tested to exceed NFPA 9G standard. EZ-Loc fits most SCBAs with only minor adjustments.</p>		
<p>The standard release handle shall be integrated into the seat cushion for quick and easy release and shall eliminate the need for straps or pull cords to interfere with other SCBA equipment.</p>		
<p>Each forward facing seat shall include a Zico EZ-Loc SCBA Locking System. The bracket system shall be free of straps and clamps that may interfere with auxiliary equipment on SCBA units. A patented ratchet design locks the SCBA over a range of engagement, so that even in a partially closed position there is never any doubt that the bottle is secure. EZ-Loc shall come standard with the adjustable foot plate for on the fly adjustments. NFPA 1901, 2016 compliant and third party tested to exceed NFPA 9G standard. EZ-Loc fits most SCBAs with only minor adjustments.</p>		
<p>The standard release handle shall be integrated into the seat cushion for quick and easy release and shall eliminate the need for straps or pull cords to interfere with other SCBA equipment.</p>		
AKRON/WELDON SEAT BELT WARNING SYSTEM - PROVIDED WITH CHASSIS		
FIVE (5) SEATING POSITIONS - PROVIDED WITH CHASSIS		
AKRON/WELDON VEHICLE DATA RECORDER - PROVIDED WITH CHASSIS		
<b><u>VEHICLE DATA RECORDER DOWNLOAD HARNESS</u></b>		
<p>A Weldon model #0L40-2597-00 VDR download harness shall be supplied with the system to allow the data to be downloaded to a computer.</p>		
<b><u>BUMPER CROSSLAYS</u></b>		
<p>Two (2) full width crosslays shall be provided recessed into the bumper extension. The forward crosslay shall be sized to accommodate 200' of 1.75" pre-connected attack hose and the rearward crosslay shall be sized to accommodate 100' of 1.75" pre-connected attack hose. The design of these crosslays shall not impede into the cab tilt area or require any removal of covers, walls, etc. for tilting of the cab hood to full tilt position. The front and rear walls shall be raised approximately 4" to allow for additional hose storage as well as placement of the loops for the crosslay cover.</p>		



	Bidder Complies	
	Yes	No
<p>Each vertical edge of the crosslays hosebed shall be trimmed with stainless steel rollers on each side of the vehicle to assist in hose removal. Only the most rearward vertical edge of the rear crosslay and the most forward vertical edge of the forward crosslay shall be provided with a roller.</p> <p>Each front crosslay shall be equipped with Dri-Dek material to provide drainage and ventilation for the fire hose.</p> <p>A full width vinyl cover shall be installed over the crosslay storage area across the front bumper. Bungee loops shall be provided along the sides and ends to secure the cover to the front bumper. The cover shall not impede the tilting of the cab or require any removal/special storage of the lid to accommodate cab tilt.</p> <p><b><u>BUMPER GUIDE RODS</u></b></p> <p>Lighted LED bumper guide rods shall be mounted on the front bumper ends. The guide rods shall allow the driver to gauge the clearance between the front bumper and potential obstacles. The parking lights shall activate the guide pole lights.</p> <p>***** CHASSIS/BODY ELECTRICAL &amp; ACCESSORIES *****</p> <p><b><u>COMMERCIAL CHASSIS ELECTRICAL SYSTEM</u></b></p> <p>The commercial chassis electrical system shall be provided as furnished by the original manufacturer. A customized interface shall be provided and designed, so as not to disturb any of the required chassis functions. The necessary interfaces shall only be provided in areas where load management is allowed or with accessory components provided on the chassis.</p> <p><b><u>12 VOLT ELECTRICAL SYSTEM TESTING</u></b></p> <p>The apparatus low voltage electrical system shall be tested and certified by the manufacturer. The certification shall be provided with the apparatus. All tests shall be performed with air temperature between 0°F and 100°F.</p> <p>The following three (3) tests shall be performed in order. Before each test, the batteries shall be fully charged.</p> <p><b><u>TEST #1-RESERVE CAPACITY TEST</u></b></p> <p>The engine shall be started and kept running until the engine and engine compartment temperatures are stabilized at normal operating temperatures and the battery system is fully charged. The engine shall be shut off and the minimum continuous electrical load shall be activated for 10 minutes. All electrical loads shall be turned off prior to attempting to restart the engine. The battery system shall then be capable of restarting the engine. Failure to restart the engine shall be considered a test failure.</p> <p><b><u>TEST #2-ALTERNATOR PERFORMANCE TEST AT IDLE</u></b></p> <p>The minimum continuous electrical load shall be activated with the engine running at idle speed. The engine temperature shall be stabilized at normal operating temperature. The battery system shall be tested to detect the presence of battery discharge current. The detection of battery discharge current shall be considered a test failure.</p>		

	Bidder Complies	
	Yes	No
<p><b><u>TEST #3-ALTERNATOR PERFORMANCE TEST AT FULL LOAD</u></b></p> <p>The total continuous electrical load shall be activated with the engine running up to the engine manufacturers governed speed. The test duration shall be a minimum of 2 hours. Activation of the load management system shall be permitted during this test. However, an alarm sounded due to excessive battery discharge, as detected by the system, or a system voltage of less than 11.7 volts DC for a 12 volt system, for more than 120 seconds, shall be considered a test failure.</p> <p><b><u>LOW VOLTAGE ALARM TEST</u></b></p> <p>Following completion of the preceding tests, the engine shall be shut off. The total continuous electrical load shall be activated and shall continue to be applied until the excessive battery discharge alarm is activated.</p> <p>The battery voltage shall be measured at the battery terminals. With the load still applied, a reading of less than 11.7 volts shall be considered a test failure. The battery system shall then be able to restart the engine.</p> <p>At time of delivery, documentation shall be provided with the following information:</p> <ul style="list-style-type: none"> <li>• Documentation of the electrical system performance test</li> <li>• A written load analysis of the following;</li> <li>• Nameplate rating of the alternator</li> <li>• Alternator rating at idle while meeting the minimum continuous electrical load</li> <li>• Each component load comprising the minimum continuous electrical load.</li> <li>• Additional loads that, when added to the minimum continuous load, determine the total connected load.</li> <li>• Each individual intermittent load.</li> </ul> <p><b><u>ELECTRICAL MANAGEMENT SYSTEM</u></b></p> <p>A Class 1 ES-Key Electrical Management System shall be utilized on the chassis for all functions applicable. The system shall consist of the following components:</p> <p>The High Density I/O Node (Super Node) shall have the ability to perform the following functions:</p> <ul style="list-style-type: none"> <li>• A modem with a RS232 computer interface and standard telephone jack used to not only program the multiplex system but also serve as a factory direct gateway into the vehicle from any Class 1 multiplex authorized service facility.</li> <li>• A Universal System Manager (USM), which acts as the main controlling component of the multiplexing system shall be provided and factory programmed to DOT, NFPA, SAE, and the manufacturer and Piney Flats Fire Department specifications. The programming shall be done by the manufacturer's engineering department. The ES-Key system installation shall comply with SAE J 551 requirements regarding Electromagnetic and Radio Frequency interference (EMI, RFI), as well as utilize components and wiring practices that insure the system is protected against corrosion, excessive temperatures, water, excessive physical, and vibration damage by any equipment installed on the vehicle at the time of delivery.</li> <li>• A series of Multiplexing Input/Output jacks shall be provided. The Input/Output jacks shall permit the multiplexing system to reduce the amount of wiring and components used as compared to non-multiplexed apparatus. These jacks shall vary in I/O configuration and shall possess individual output internal circuit protection.</li> </ul>		

	Bidder Complies	
	Yes	No
<p>The System shall also consist of a programmable switches that shall be installed and allow the operator to control the programmed functions of each individual switch.</p> <p>Diagnostic software shall be provided to download data from the on board ES-KEY system. This software shall have the ability to view system input/output (I/O) information, and include a connection from a computer to the vehicle.</p> <p><b><u>CHASSIS DIAGNOSTICS SYSTEM</u></b></p> <p>Diagnostic ports shall be accessible while standing on the ground and located inside the driver's side door left of the steering column. The diagnostic panel shall allow diagnostic tools such as computers to connect to various vehicle systems for improved troubleshooting providing a lower cost of ownership. Diagnostic switches shall allow engine and ABS systems to provide blink codes should a problem exist.</p> <p>The diagnostic system shall include the following:</p> <ul style="list-style-type: none"> <li>• A single port to monitor the engine, transmission and ABS system and diagnostics of the roll sensor (if applicable)</li> <li>• Engine diagnostic switch (blink codes)</li> <li>• ABS diagnostic switch (blink codes)</li> <li>• Allison Transmission Codes (through touch pad shifter)</li> </ul> <p><b><u>AUTOMATIC HIGH IDLE</u></b></p> <p>This feature automatically increases engine rpm to high idle setting in attempt to maintain sufficient alternator output. System voltage is monitored and when a 12.8 VDC or lower reading is observed for longer than one minute, the feature is activated. If all safety interlocks, such as neutral safety and park brake, are met the engine rpm shall increase. This feature shall activate for ten minute intervals until a 13.0 VDC reading is reached.</p> <p><b><u>BATTERY DISCONNECT SWITCH</u></b></p> <p>The chassis batteries shall be wired in parallel to a single 12 volt electrical system, controlled through a heavy duty master disconnect switch. The master disconnect switch shall be located within easy access of the driver upon entering or exiting the cab.</p> <p><b><u>BATTERY JUMPER STUDS</u></b></p> <p>A set of Cole Hersee battery jumper studs, model #46210-02 (red) and #46210-03 (black) shall be provided to allow the battery system to be jump started or charged from an external source. The studs shall be located on the back wall of the drivers step well. Each stud shall be equipped with both a rubber protector cap and a 2" square non-conductive plate to prevent accidental shorting.</p> <p><b><u>120 VOLT SHORELINE CONNECTION - "SUPER" AUTO EJECT</u></b></p> <p>One (1) Kussmaul "Super" Auto Eject model 091-55-20-120, automatic, 120 volt, 20 amp shoreline disconnect shall be provided for the on board, 110 volt battery charging systems.</p> <p>The disconnect shall be equipped with a NEMA 5-20 P male receptacle, which shall automatically eject the shoreline when the vehicle starter is energized. The mating connector shall be included with the auto eject and shall be provided as loose equipment. A label shall be provided indicating voltage and amperage ratings.</p>		



	Bidder Complies	
	Yes	No
<p><b><u>SHORELINE POWER INLET PLATE</u></b></p> <p>A shoreline power receptacle information plate shall be permanently affixed at or near the power inlet. The plate shall indicate the following:</p> <ul style="list-style-type: none"> <li>• Type of Line Voltage</li> <li>• Current Rating in Amps Power Inlet Type (DC or AC).</li> </ul> <p>The Kussmaul auto-eject connection shall be equipped with a Red weatherproof cover.</p> <p>The shoreline receptacle shall be located in the driver's cab step well in a pre-determined location by the manufacturer.</p> <p><b><u>BATTERY CHARGER</u></b></p> <p>A ProMariner, ProNautic 1240P, fully automatic battery charger shall be provided for maintaining the vehicle battery system. The charger shall feature a four (4) stage automatic charging system that shall extend the battery life and usage with multi-stage charging featuring a fast charge and a float/maintenance mode. A LED status center, built into the charger, shall provide at-a-glance status of fast charge, conditioning, ready (float/maintenance) and battery type selection. Output current shall be 40 amperes @ 12 volt DC.</p> <p><b><u>REMOTE DISPLAY</u></b></p> <p>A Kussmaul # 091-94-12 single bar-graph voltage indicator shall be installed to monitor the battery voltage.</p> <p><b><u>SHORELINE RECEPTACLE</u></b></p> <p>One (1) 120 volt 5-15 R household type receptacle(s) shall be located in the rear crew area of the cab as directed. The receptacle(s) shall be wired into the shoreline receptacle to provide a 120 volt power source for fire department equipment.</p> <p><b><u>SHORELINE RECEPTACLE</u></b></p> <p>One (1) 120 volt 5-15 R household type receptacle(s) shall be located in the specified body compartment as directed. The receptacle(s) shall be wired into the shoreline receptacle to provide a 120 volt power source for fire department equipment.</p> <p><b><u>EMERGENCY/AUXILIARY SWITCHES</u></b></p> <p>The commercial cab shall be equipped with an area for component switching within easy reach of the driver and or officer. This switch package shall separate the emergency / auxiliary electrical functions from the regular chassis functions. A minimum of six (6) programmable CAN Bus Eaton model #E33 switches with integral indicator lights shall be provided.</p> <p>The six (6) switches shall be located in the cab near the driver for warning lights and auxiliary controls. A master warning switch shall be provided, which shall allow pre-setting of emergency light switches and shall have a red integral indicator light.</p> <p>All switches, (other than the master switch), shall have switch function labeling and an integral indicator light.</p>		

	Bidder Complies	
	Yes	No
<p><b><u>"DO NOT MOVE APPARATUS" WARNING LIGHT WITH AUDIBLE ALARM</u></b></p> <p>A 1" round, red flashing warning light with an integral audible alarm, shall be functionally located in the cab to signal when an unsafe condition is present such as an open cab door or body compartment door, an extended ladder rack, a deployed stabilizer, an extended light tower or any other device which is opened, extended or deployed which may cause damage to the apparatus if it is moved.</p> <p>This light shall be activated through the parking brake switch to signal when the parking brake is released. This light shall be labeled "DO NOT MOVE TRUCK".</p> <p><b><u>USB CHARGING PORT NEAR DRIVER</u></b></p> <p>One (1) round USB charging port(s) shall be installed in the cab of the truck for the fire departments accessory devices. Each port shall have two (2) USB connections and shall have a 5 volt, 2.1 amp max output. The port(s) shall be located as directed near the driver's seating position for devices such as cellular phones.</p> <p><b><u>USB CHARGING PORT NEAR OFFICER</u></b></p> <p>One (1) round USB charging port(s) shall be installed in the cab of the truck for the fire departments accessory devices. Each port shall have two (2) USB connections and shall have a 5 volt, 2.1 amp max output. The port(s) shall be located as directed near the officer's seating position for devices such as cellular phones.</p> <p><b><u>BLUE SEA FUSE BLOCK - 12 CIRCUIT IN REAR CREW AREA</u></b></p> <p>A Blue Sea 5026B, 12 circuit fuse block, shall be installed behind the officer's seat. This block has maximum amperage of 60 Amps per block and 30 Amps per circuit.</p> <p><b><u>IGNITION STUD - REAR CREW AREA</u></b></p> <p>An ignition stud shall be installed in the rear crew area for items needing an ignition circuit (i.e. mobile radio). This stud has maximum amperage of 20 Amps.</p> <p><b><u>DOT MARKER LIGHTS AND REFLECTORS</u></b></p> <p>Cab marker lights and signaling devices shall be as provided on the commercial chassis cab from the original chassis manufacturer. FMVSS reflectors shall be also be provided as required.</p> <p>Optronics model MCL82RB red LED marker lights with integral reflectors shall be provided at the lower side rear, one (1) each side.</p> <p>Optronics Model #STL71AMB yellow LED side marker and turn lights shall be provided on the apparatus rear body fender, one (1) each side if the apparatus is 30' long or longer.</p> <p>Optronics MCL65 red LED clearance lights shall be provided on the apparatus rear upper, one (1) each side at the outermost practical location.</p> <p>Optronics MCL12 LED 3-lamp identification bar will be provided on the apparatus rear center. The lights shall be red in color.</p> <p>Truck-Lite # 98034Y yellow reflectors shall be provided on the apparatus body lower side, as far forward and low as practical, one (1) each side if the apparatus is 30' long or longer.</p>		

	Bidder Complies	
	Yes	No
<p>Truck-Lite # 98034R red reflectors shall be provided on the apparatus rear, one (1) each side at the outermost practical location.</p> <p><b><u>LED LICENSE PLATE LIGHT - REAR</u></b></p> <p>One (1) TecNiq model #L10 LED license plate light shall be provided above the mounting position of the license plate. The light shall be clear in color and shall have a chrome finish.</p> <p><b><u>TAIL, STOP, TURN AND BACK-UP LIGHTS</u></b></p> <p>Two (2) Whelen 600 series, 4-1/8" x 6-1/2", LED red combination tail and stop lights, shall be mounted one each side at the rear of the body.</p> <p>Two (2) Whelen 600 series, 4-1/8" x 6-1/2", LED amber arrow turn signal lights, shall be mounted one each side, on a vertical plane with the tail/stop lights.</p> <p>Two (2) Whelen 600 series, 4-1/8" x 6-1/2", LED white back-up lights, shall be mounted one each side on a vertical plane with the turn/tail/stop signals. These lights shall activate when the transmission is placed in reverse gear.</p> <p>Two (2) Whelen PLAST4V mounting flanges, installed one (1) on each side, shall be provided to mount the lights described above in one common mounting flange. The fourth opening shall be for the lower rear warning lights.</p> <p>The lights shall be mounted in order, from top to bottom, as described above.</p> <p><b><u>BODY STEP LIGHTS</u></b></p> <p>Polished stainless steel, TecNiq Eon 3-LED horizontal surface mounted body step lights shall be provided and controlled with marker light actuation. Step lights shall be located to properly illuminate all body access steps and walkway areas and shall include a mounting gasket to provide a watertight seal.</p> <p><b><u>DUNNAGE AREA LIGHTING</u></b></p> <p>Two (2) stainless steel, TecNiq Eon 3-LED horizontal surface mounted lights shall be provided in the dunnage area to provide adequate illumination of this area. These lights shall be switched in the same manner as the step lights.</p> <p><b><u>HOSE BED LIGHTS</u></b></p> <p>One (1) ROM LED surface mounted lights shall be mounted in the hose bed on the front wall to illuminate the hose bed area.</p> <p><b><u>HOSE BED WORK LIGHT - SWITCH</u></b></p> <p>The hose bed work light shall have a protected 12-volt switch at the rear body panel. The switch will be labeled "HOSE BED WORK LIGHTS".</p> <p><b><u>SCENE LIGHTS - REAR OF BODY</u></b></p> <p>Two (2) Whelen # 9SC0ENZR super LED scene lights shall be provided, one on each side of the rear body panel in a chrome plated flange. The scene lights shall be wired through the load management system.</p>		



	Bidder Complies	
	Yes	No
<p><b><u>SCENE LIGHTS - DRIVER SIDE OF BODY</u></b></p> <p>Two (2) Whelen # 9SC0ENZR super LED scene lights shall be provided. The scene lights shall be installed one rearward and one forward on the driver side of the body in a chrome plated flange. The scene lights shall be wired through the load management system.</p> <p><b><u>SCENE LIGHTS - OFFICER SIDE OF BODY</u></b></p> <p>Two (2) Whelen # 9SC0ENZR super LED scene lights shall be provided. The scene lights shall be installed one rearward and one forward on the officer side of the body in a chrome plated flange. The scene lights shall be wired through the load management system.</p> <p><b><u>REAR OF BODY LIGHT SWITCHING - CAB</u></b></p> <p>A switch shall be provided in the cab warning light switch console to turn the rear of body lights on and off.</p> <p><b><u>DRIVER SIDE OF BODY LIGHT SWITCHING - CAB</u></b></p> <p>A switch shall be provided in the cab warning light switch console to turn the driver side of body lights on and off.</p> <p><b><u>OFFICER SIDE OF BODY LIGHT SWITCHING - CAB</u></b></p> <p>A switch shall be provided in the cab warning light switch console to turn the officer side of body lights on and off.</p> <p><b><u>REAR SCENE LIGHTS - ADDITIONAL ACTIVATION</u></b></p> <p>In addition to the cab mounted switch for the rear scene lights, the rear scene lights shall illuminate when the transmission is placed in reverse gear and the apparatus is operating as an emergency vehicle (Primary Warning switch on).</p> <p><b><u>GROUND LIGHTS - CAB</u></b></p> <p>One (1) ROM V4 12" LED ground light shall be provided under each side cab door entrance step, four (4) total. The lights shall be mounted in ROM standalone aluminum mounting track with mounting slots at each end. The ground lights shall turn on automatically with each respective door jamb switch and also by a master ground light switch in the warning light switch console.</p> <p>Each light shall illuminate an area at a minimum 30" outward from the edge of the vehicle.</p> <p><b><u>GROUND LIGHTS - MIDSHIP</u></b></p> <p>One (1) ROM V4 12" LED ground light shall be provided under each mid ship compartment, total of two (2). The lights shall be mounted in ROM standalone aluminum mounting track with mounting slots at each end. The ground lights shall be activated by a master ground light switch in the cab and shall be wired through the load management system.</p> <p><b><u>GROUND LIGHTS - REAR</u></b></p> <p>One (1) ROM V4 12" LED ground light shall be provided under each rear body corner, two (2) total. The lights shall be mounted in ROM standalone aluminum mounting track with mounting slots at each end. The ground lights shall be activated by a master ground light switch in the cab and shall be wired through the load management system.</p>		

	Bidder Complies	
	Yes	No
<p>The lights shall be positioned to illuminate the ground under the rear tailboard.</p> <p><b><u>GROUND LIGHT SWITCHING</u></b></p> <p>The cab and body ground lights shall activate by engaging the parking brake.</p> <p><b><u>GROUND LIGHT SWITCHING</u></b></p> <p>The cab and body ground lights shall activate by placing the transmission in reverse.</p> <p><b><u>DRIVING LIGHTS</u></b></p> <p>Two (2) Peterson model #581C- 2PL LED, auxiliary driving lights shall be provided. The driving lights shall be mounted in the front bumper of the chassis and controlled by a switch located on the cab dash.</p> <p><b><u>12 VOLT BODY ELECTRICAL SYSTEM</u></b></p> <p>All electrical lines in the body shall be protected by automatic circuit breakers, conveniently located to permit ease of service. Flashers, heavy solenoids and other major electrical controls shall be located in a central area near the circuit breakers.</p> <p>All lines shall be color and function coded every 3", easy to identify, oversized for the intended loads and installed in accordance with a detailed diagram. A complete wiring diagram shall be supplied with the apparatus.</p> <p>Wiring shall be carefully protected from weather elements and snagging. Heavy duty loom shall be used for the entire length. Grommets shall be utilized where wiring passes through panels.</p> <p>In order to minimize the risk of heat damage, wires run in the engine compartment area shall be carefully installed and suitably protected by the installation of heat resistant shielded loom.</p> <p>All electrical equipment shall be installed to conform to the latest federal standards as outlined in NFPA 1901.</p> <p><b><u>PUMP ENCLOSURE WORK LIGHTS</u></b></p> <p>Two (2) Tecniq model #E18 lights shall be provided inside the pump enclosure providing 800 lumens each. Each light shall have their own independent switch incorporated into the light head.</p> <p><b><u>ENGINE COMPARTMENT WORK LIGHTS</u></b></p> <p>Two (2) Tecniq model #E18 LED lights shall be provided inside the engine enclosure that will provide 800 lumens each. Each light shall have their own independent switch incorporated into the light head.</p> <p><b><u>COMPARTMENT LIGHT ACTIVATION</u></b></p> <p>Compartment lighting shall be switched either from an integral switch as provided by the roll up door manufacturer or a magnetic proximity switch if it is a vendor's proprietary door and approved by the purchaser.</p> <p><b><u>ROM TRACK MOUNTED DUAL COLOR WHITE/RED COMPARTMENT LIGHTS - LED</u></b></p> <p>Each individual, equipment storage compartment shall be equipped with the ROM DuroStrip</p>		

	Bidder Complies	
	Yes	No
<p>White/Red lights on the forward and rear edge of each body door opening. The lights shall be mounted in an anodized aluminum track provided by ROM either as a stand-alone unit or an integrated part of the roll up shutter door track. The lights shall be designed and manufactured to be water proof meeting the IPX7 industry standard and shall include a streamline optic lens and a fixed lumen output across 9-16vdc. Each LED module shall be of interlocking design and shall be able to be serviced/replaced without the removal of light assembly or shutter door. A switch to control the color selection shall be located in the pump operator's compartment.</p> <p><b><u>NFPA AUDIBLE AND LIGHTING WARNING PACKAGE</u></b></p> <p>The following warning light package shall include all of the minimum warning light and actuation requirements for the current revision of the NFPA 1901 Fire Apparatus Standard. The lighting as specified shall meet the requirements for both "Clearing Right of Way" and "Blocking Right of Way" which includes disabling all white warning lights when the apparatus is in "Blocking Right of Way" mode.</p> <p><b><u>LIGHT PACKAGE ACTUATION CONTROLS</u></b></p> <p>The entire warning light package shall be actuated with a single warning light switch located on the cab switch panel. The wiring for the warning light package shall engage all of the lights required for "Clearing Right of Way" mode when the vehicle parking brake is not engaged. An automatic control system shall be provided to switch the warning lights to the "Blocking Right of Way" mode when the vehicle parking brake is engaged.</p> <p><b><u>WARNING LIGHT FLASH PATTERN</u></b></p> <p>All of the perimeter warning lights shall be set to a default NFPA compliant flash pattern as provided by the light manufacturer.</p> <p><b><u>UPPER LEVEL LIGHTING - WHELEN</u></b></p> <p><b><u>NFPA ZONE A, UPPER</u></b></p> <p>A Whelen #F4N2QLED "Edge Freedom Series IV", 55" LED cab roof warning light bar shall be furnished and rigidly mounted on top of the cab roof.</p> <p>The light bar shall be equipped with the following:</p> <ul style="list-style-type: none"> <li>• Clear Lenses</li> <li>• Two Front Corner Red Linear LEDs</li> <li>• Two Red Forward Facing Linear LEDs</li> <li>• Two White Forward Facing Linear LEDs</li> <li>• Two Red End Linear LEDs.</li> </ul> <p>If equipped, the forward facing white lights shall be automatically disabled for the "Blocking Right of Way" mode.</p> <p>The Freedom light bar shall be equipped with one (1) pair(s) of # F4DLR red LED warning lights.</p> <p>The Freedom light bar shall be equipped with one (1) pair(s) of # F4DLC white LED warning lights.</p>		



	Bidder Complies	
	Yes	No
<p><b><u>NFPA ZONE C, UPPER</u></b></p> <p>Two (2) Whelen 90**5F*R, 900 super LED light heads shall be furnished and mounted one (1) each side on the upper rear face of the body, facing rear.</p> <p>Each light head shall be equipped with red LEDs and a clear lens.</p> <p>The lights shall be installed with a chrome plated mounting flange.</p> <p><b><u>NFPA ZONES B &amp; D REAR, UPPER</u></b></p> <p>Two (2) Whelen 90**5F*R, 900 super LED light heads shall be furnished and mounted one (1) each side on the upper side face, towards the rear of the body, facing to each side of the unit.</p> <p>Each light head shall be equipped with red LEDs and a clear lens.</p> <p>The lights shall be installed with a chrome plated mounting flange.</p> <p><b><u>NFPA ZONES B &amp; D FRONT, UPPER</u></b></p> <p>Two (2) Whelen 90**5F*R, 900 super LED light heads shall be furnished and mounted one (1) each side on the upper side face, towards the front of the body, facing to each side of the unit.</p> <p>Each light head shall be equipped with red LEDs and a clear lens.</p> <p>The lights shall be installed with a chrome plated mounting flange.</p> <p><b><u>LOWER LEVEL LIGHTING - WHELEN</u></b></p> <p><b><u>NFPA ZONE A, LOWER</u></b></p> <p>Two (2) Whelen 60*02F*R 600 super LED light heads shall be provided and installed one (1) each side.</p> <p>Each light head shall be equipped with red LEDs and a clear lens.</p> <p>The lights shall be installed with a chrome plated mounting flange.</p> <p>The lower zone A warning lights shall be mounted in the commercial chassis grille no higher than 62" from ground level.</p> <p><b><u>NFPA ZONE C, LOWER</u></b></p> <p>Two (2) Whelen 60*02F*R 600 super LED light heads shall be provided and installed one (1) each side directly below the DOT stop, tail, turn and backup lights.</p> <p>Each light head shall be equipped with red LEDs and a clear lens.</p> <p>The lights shall be installed with a chrome plated mounting flange.</p>		

	Bidder Complies	
	Yes	No
<p><b><u>NFPA ZONES B &amp; D FRONT, LOWER</u></b></p> <p>Two (2) Whelen 60*02F*R 600 super LED light heads shall be provided and installed one (1) each side.</p> <p>Each light head shall be equipped with red LEDs and a clear lens.</p> <p>The lights shall be installed with a chrome plated mounting flange.</p> <p>The lower zone B &amp; D warning lights shall be mounted on the sides of the commercial chassis hood at or forward of the centerline of the front axle. The light shall be mounted no higher than 62" from ground level.</p> <p><b><u>NFPA ZONES B &amp; D MIDSHIP, LOWER</u></b></p> <p>Two (2) Whelen 60*02F*R 600 super LED light heads shall be provided and installed one (1) each side under the cab crew doors.</p> <p>Each light head shall be equipped with red LEDs and a clear lens.</p> <p>The lights shall be installed with a chrome plated mounting flange.</p> <p><b><u>NFPA ZONES B &amp; D REAR, LOWER</u></b></p> <p>Two (2) Whelen 70*02F*R 700 super LED light heads shall be provided and installed one (1) each side.</p> <p>Each light head shall be equipped with red LEDs and a clear lens.</p> <p>The lights shall be installed with a chrome plated mounting flange.</p> <p><b><u>WARNING LIGHT SYSTEM CERTIFICATION</u></b></p> <p>The warning light system(s) specified above shall not exceed a combined total amperage draw of 45 AMPS with all lights activated in either the "Clearing Right of Way" or the "Blocking Right of Way" mode.</p> <p>The warning light system(s) shall be certified by the light system manufacturer(s), to meet all of the requirements in the current revision of the NFPA 1901 Fire Apparatus Standard as noted in the General Requirements section of these specifications. The NFPA required "Certificate of Compliance" shall be provided with the completed apparatus.</p> <p>Any large truck as defined by NFPA shall have the lower zone warning lights mounted no higher than 62" to the optical center of the warning light from ground level.</p> <p><b><u>ROTO-RAY WARNING LIGHT</u></b></p> <p>A Roto-Ray LED model #4000 rotating, three (3) light, warning light shall be installed on the front of the cab below the windshield. The <u>Roto-Ray</u> light shall have three LED beam lights that shall and rotate at 200 rpm in a vertical plane.</p> <p>The Roto-Ray shall be provided in addition to the NFPA required Optical Warning Light Package and shall be switched independently from the light package. The light shall be wired so that the light is disabled while the parking brake is engaged.</p>		

	Bidder Complies	
	Yes	No
<p>The Roto-Ray shall have the following led colors with clear lenses:</p> <ul style="list-style-type: none"> <li>• Red</li> <li>• Red</li> <li>• White</li> </ul> <p>***** AUDIBLE WARNING EQUIPMENT *****</p> <p><b><u>BACK-UP ALARM</u></b></p> <p>A Code 3, model # CA278, 87dBA back-up alarm, shall be provided and installed at the rear of the apparatus under the tailboard. The back-up alarm shall activate automatically when the transmission is placed in reverse gear and the ignition is "on".</p> <p><b><u>AIR HORNS</u></b></p> <p>Two (2) chrome plated air horns shall be at the front of the vehicle. The air horns shall be mounted in full compliance with NFPA-1901. The supply lines shall be dual 1/4" lines with equal distance from each horn.</p> <p>Each air horn shall be recessed in the front bumper, one (1) on the driver's side and one (1) on the officer's side.</p> <p>The air horn(s) shall be controlled by a single ceiling mounted lanyard cable, located in the center of the cab.</p> <p><b><u>ELECTRONIC SIREN</u></b></p> <p>One (1) Whelen # 295SLSA1, 100 watt electronic siren shall be provided featuring: bottom mount control head in cab, "Si-Test" self-diagnostic feature, six (6) function siren, radio repeat and public address.</p> <p>The electronic siren and speaker shall meet the NFPA required SAE certification to ensure compatibility between the siren and speaker.</p> <p>One (1) Whelen, model # SP123BMC with chrome plated ABS outer flange, siren speakers shall be provided, recessed in the front bumper and wired to the electronic siren.</p> <p><b><u>FEDERAL Q2B MECHANICAL SIREN</u></b></p> <p>One (1) Federal Model #Q2B mechanical siren shall be provided to provide audible warning.</p> <p>The Q2B siren shall be semi-recessed into the center of the front bumper. The siren shall be recessed so the front grille portion of the siren is exposed and protruding beyond the bumper.</p> <p>Two (2) switches shall be provided, one (1) dash switch for the officer and one (1) foot switch for the driver. A siren brake button shall be provided near the driver's position.</p> <p>**** PUMP AND PLUMBING ****</p> <p><b><u>PUMP</u></b></p> <ul style="list-style-type: none"> <li>• WATEROUS S-100</li> <li>• 2000 G.P.M.</li> <li>• SINGLE STAGE</li> </ul> <p>The pump shall be of a size and design to mount on the chassis rails of commercial and</p>		



	Bidder Complies	
	Yes	No
<p>custom truck chassis, and have the capacity of 2000 gallons per minute, NFPA-1901 rated performance.</p> <p>The pump must deliver the percentage of rated capacity at the pressure listed below:</p> <ul style="list-style-type: none"> <li>• 100% of rated capacity at 150 P.S.I. net pump pressure</li> <li>• 100% of rated capacity at 165 P.S.I. net pump pressure</li> <li>• 70% of rated capacity at 200 P.S.I. net pump pressure</li> <li>• 50% of rated capacity at 250 P.S.I. net pump pressure.</li> </ul> <p><b><u>PUMP CONSTRUCTION</u></b></p> <p>The entire pump shall be cast, manufactured and tested at the pump manufacturer's factory.</p> <p>The pump shall be driven by a drive line from the truck transmission and split shaft gear box. The engine shall provide sufficient horsepower and RPM to enable the pump to meet and exceed its rated performance.</p> <p>The entire pump, both suction and discharge passages, shall be hydrostatically tested to a pressure of 500 PSI. The pump shall be fully tested at the pump manufacturer's factory to performance specs as outlined by the latest NFPA-1901. Pump shall be free from objectionable pulsation and vibration.</p> <p>The pump body and related parts shall be of fine grain alloy cast iron with a minimum tensile strength of 30,000 PSI. All moving parts in contact with water shall be of high quality bronze or stainless steel. Pumps utilizing castings made of lower tensile strength cast iron are not acceptable.</p> <p><b><u>PUMP SHAFT</u></b></p> <p>The pump shaft shall be made of Stainless Steel and shall be rigidly supported by two (2) bearings. It shall contain a spring loaded mechanical seal which eliminates leakage and routine maintenance.</p> <p><b><u>PUMP IMPELLER (SINGLE STAGE)</u></b></p> <p>The pump impeller shall be hard fine grain bronze. Each impeller is balanced both mechanically and hydraulically before assembly. The impeller shall be flame plated to assure longer life, despite the presence of abrasives in the water.</p> <p><b><u>MECHANICAL PUMP SEALS</u></b></p> <p>Stuffing boxes shall be integral with the pump body and be equipped with self-adjusting, maintenance free mechanical shaft seals.</p> <p><b><u>PUMP TRANSMISSION</u></b></p> <p>The pump transmission shall be all aluminum "C20" model, rigidly attached to the pump body assembly and be of latest design incorporating a high strength involute tooth-form Hy-Vo chain drive. The driven sprockets shall be capable of operating at high speeds to provide smooth, quiet transfer of power. The shift engagement shall be accomplished by a free-sliding collar and shall incorporate an internal locking mechanism to insure that the collar shall be maintained in ROAD or PUMP position.</p> <p><b><u>PUMP RATIO</u></b></p> <p>The pump ratio shall be selected by the apparatus manufacturer to give maximum performance with the engine and transmission selected.</p>		

	Bidder Complies	
	Yes	No
<p>The manufacturer shall supply at time of delivery copies of the pump manufacturer's certification of hydrostatic testing, the engine manufacturer's current certified brake horsepower curve.</p> <p><b><u>MAIN PUMP MOUNTS</u></b></p> <p>Extra heavy duty pump mounting brackets shall be furnished. These shall be bolted to the frame rails in such a position to perfectly align the pump so that the angular velocity of the drive line joints shall be the same on each end of the drive shaft. This shall assure full capacity performance with a minimum of vibration. Mounting hardware shall utilize Grade 8 bolts.</p> <p><b><u>PUMP MANIFOLDS</u></b></p> <p>A custom made suction and discharge manifold shall be constructed from stainless steel and/or flexible tubing. The manifold shall be designed to provide maximum efficiency for the suction inlets and the discharges. .</p> <p>***** <b>PRESSURE CONTROL &amp; ACCESSORIES</b> *****</p> <p><b><u>PRESSURE RELIEF VALVE</u></b></p> <p>A Waterous relief valve system shall be positive and quick acting, and shall have a control valve to provide instantaneous hydraulic lock-out which does not require the operator to cancel out or disturb the pressure setting. Relief valve control (pilot valve) shall be protected from malfunction due to sand or other sediment in the water by a strainer which can be removed, cleaned and replaced from the operator's panel while the pump is operating. Relief valve indicator lights shall be provided and mounted on the panel adjacent to the pilot valve assembly. The indicator lights are to be "amber" and marked OPEN to indicate the relief valve is bypassing and "green" marked CLOSED to indicate when the relief valve is closed.</p> <p><b><u>CLASS ONE STAINLESS INTAKE RELIEF VALVE</u></b></p> <p>The apparatus shall be equipped with a Class 1 inlet relief valve that is of all stainless steel construction. The relief valve shall comply with <u>NFPA</u> 1901. It shall have an adjustable pressure relief setting from 75 psi to 350 psi and is factory preset at 125 psi. The relief valve shall be used on the inlet side of the pump or on a designated <u>LDH</u> discharge outlet.</p> <p><b><u>PUMP CERTIFICATION</u></b></p> <p>The pump shall be third party performance tested to meet the requirements of NFPA-1901. To ensure top quality and integrity, the test company shall be Underwriters Laboratories (UL).</p> <p><b><u>PUMP PRIMER</u></b></p> <p>The priming pump will be a Trident air primer system. A push in primer handle will open the priming valve and prime the pump.</p> <p><b><u>DRIVER SIDE MIV REMOTE PRIMING VALVE</u></b></p> <p>An additional primer control valve shall be furnished to prime the driver side MIV. The Trident Emergency products RPV (remote priming valve) shall activate using the same air that powers the AirPrime™ system when the coinciding panel valve is depressed.</p> <p><b><u>OFFICER SIDE MIV REMOTE PRIMING VALVE</u></b></p> <p>An additional primer control valve shall be furnished to prime the officer side MIV. The</p>		

	Bidder Complies	
	Yes	No
<p>Trident Emergency products RPV (remote priming valve) shall activate using the same air that powers the AirPrime™ system when the coinciding panel valve is depressed.</p> <p><b><u>MASTER DRAIN VALVE</u></b></p> <p>A Class One, rotary type, 12 port multiple master drain valve shall be provided and controlled at the lower portion of the side pump panel. The valve shall be located in pump compartment lower than the main body and connected in such a manner as to allow complete water drainage of the pump body and all required accessories. Water shall be drained below the apparatus body and away from the pump operator.</p> <p><b><u>INDIVIDUAL BLEEDERS AND DRAINS</u></b></p> <p>All lines shall drain through the master drain valve or shall be equipped with individual drain valves, easily accessible and labeled.</p> <p>One (1) individual "Innovative Control" lift up drain valve shall be furnished for each 1-1/2" or larger discharge port and each 2-1/2" gated auxiliary suction.</p> <p>Drain/bleeder valves shall be located at the bottom of the pump module panels.</p> <p>All drains and bleeders shall discharge below the apparatus.</p> <p><b><u>SYNFLEX SUCTION, DISCHARGE, PRESSURE AND CONTROL LINES</u></b></p> <p>Small lines within the pump enclosure shall be constructed from Synflex hose. Uses include, but are not limited to such lines as priming control, gauge lines, drain lines, air control valves, pump shift, supplemental cooling, foam flush and air bleeder valves.</p> <p><b><u>ANODE BLOCKS</u></b></p> <p>Two (2) Watrous zinc anode blocks shall be provided and located on the suction side of the pump to protect the pump from corrosion.</p> <p>The Anodes shall be painted Safety Yellow for identification purposes.</p> <p><b><u>PUMP OVERHEAT INDICATOR SYSTEM</u></b></p> <p>A Watrous Overheat Protection Manager (OPM) shall be provided to serve as a safety device by releasing hot water from the discharge area of the pump to the ground. The OPM consists of a valve that opens when the water in the pump reaches 140 F (60 C) and a warning light that is triggered by a thermal switch when the water in the pump reaches 180 F (82 C). The warning light acts as an additional protection device if the temperature inside the pump keeps rising although the valve is open. The OPM valve and switch are both mounted on two 1/2" tapped holes located near the center discharge area of the pump.</p> <p>An audible alarm shall be provided on the operator's panel to alert the operator when the thermal relief valve is activated.</p> <p><b><u>PUMP MODULE</u></b></p> <p>The pump module shall be designed as an integral self-supported structure within the rear of the apparatus body. The design must allow normal frame deflection without imposing stress on the pump module structure.</p> <p>The pump module shall be a welded frame work utilizing structural components properly</p>		



	Bidder Complies	
	Yes	No
braced to withstand the rigors of chassis frame flex. The pump module shall be constructed from the same material utilized for the body construction.		
<b><u>PUMP ENCLOSURE HEATER</u></b>		
The pump enclosure shall be equipped with one (1) Hades 20,000 BTU hot water heater which utilizes chassis engine coolant run through heater hoses to prevent freezing of pump components during pumping operations in low temperature climates. The heater shall be switched in the cab.		
<b><u>PUMP HEAT PAN</u></b>		
A bolt-on pump heat pan fabricated from 1/8" aluminum shall be provided on the underside of the pump enclosure to act as a supplementary heating system by heat during low temperature pumping operations.		
The heat pan shall have a slide out, removable bottom panel which should be removed for warm weather usage.		
<b>***** PUMP SUCTIONS &amp; AUXILIARY INLETS *****</b>		
<b><u>SUCTION INLETS</u></b>		
Two (2) 6" N.S.T. suction inlets shall be provided on the rear panel, one towards the driver side and one towards the officer side. A removable strainer shall be installed on each inlet.		
<b><u>MONARCH INTAKE BUTTERFLY VALVE - ELECTRICALLY OPERATED - DRIVER SIDE</u></b>		
The fire pump shall be fitted with a Waterous "Monarch" valve, on the driver side main suction inlet. The valve shall be mounted between the suction tube extension and the suction tube, and shall be recessed behind the operator's panel. The valve body and all related components that are in contact with water shall be manufactured of fine grained, corrosion resistant bronze. The valve shall incorporate a pressure relief valve, set at the pump manufacturer's facility to a rating of 125 PSI. The pressure relief valve shall provide protection for the suction hose even with the valve in the closed position. The valve shall incorporate a NFPA compliant, large diameter hose air bleed valve, controlled at the operator's panel.		
The valve shall be electrically operated by a toggle switch control, mounted near the suction inlet. The electric control shall incorporate a placard with status lights to indicate whether the valve is in the closed, open or throttled position. The valve shall not be able to move from fully open to fully closed in under three (3) seconds, in compliance with NFPA-1901.		
<b><u>MONARCH INTAKE BUTTERFLY VALVE - ELECTRICALLY OPERATED - OFFICER SIDE</u></b>		
The fire pump shall be fitted with a Waterous "Monarch" valve, on the officer side main suction inlet. The valve shall be mounted between the suction tube extension and the suction tube, and shall be recessed behind the operator's panel. The valve body and all related components that are in contact with water shall be manufactured of fine grained, corrosion resistant bronze. The valve shall incorporate a pressure relief valve, set at the pump manufacturer's facility to a rating of 125 PSI. The pressure relief valve shall provide protection for the suction hose even with the valve in the closed position. The valve shall incorporate a NFPA compliant, large diameter hose air bleed valve, controlled at the operator's panel.		
The valve shall be electrically operated by a toggle switch control, mounted near the suction inlet. The electric control shall incorporate a placard with status lights to indicate whether the valve is in the closed, open or throttled position. The valve shall not be able to move from fully open to fully		

	Bidder Complies	
	Yes	No
<p>closed in under three (3) seconds, in compliance with NFPA-1901.</p> <p><b><u>PUMP SUCTION ENDS</u></b></p> <p>The main pump suction inlets shall be furnished with a short suction end, terminating with only the suction threads protruding through the rear panel to minimize the distance an exterior appliance protrudes beyond the pump panel.</p> <p>A 6" NST chrome plated long handle pressure vented cap shall be installed on each main inlet of the pump.</p> <p><b><u>AUXILIARY SIDE SUCTION(S)</u></b></p> <p>One (1) 2-1/2" auxiliary suction shall be provided at the driver side of the main inlet at the rear of the apparatus. The 2-1/2" auxiliary suction shall terminate with a removable strainer chrome plated 2-1/2" NST female swivel with a chrome plated plug and retaining chain.</p> <p>An Akron Brass 2 1/2" Generation II Swing-Out™ Valve shall be provided for the driver's side auxiliary suction. The valve shall have an all brass body with flow optimizing stainless steel ball and dual polymer seats.</p> <p>A 1/4 turn swing control handle shall be provided on the driver side auxiliary suction valve.</p> <p><b><u>TANK TO PUMP</u></b></p> <p>One (1) 4" tank to pump line shall be, piped through the front bulkhead of the tank with a 90 degree elbow down into the tank sump. This line shall be plumbed directly into the rear of the pump suction manifold for maximum efficiency.</p> <p>A check valve shall be provided to prevent accidental pressurization of the water tank through the pump connection. Connection from the valve to the tank shall be made by using a non-collapsible flexible rubber hose.</p> <p>An Akron Brass 3" Generation II Swing-Out™ Valve shall be provided between the pump suction manifold and the water tank. The valve shall have an all brass body with flow optimizing stainless steel ball and dual polymer seats.</p> <p>The tank to pump valve shall be air operated with a Class One air cylinder and control switch located on the operator's panel with function plate.</p> <p><b><u>TANK FILL</u></b></p> <p>One (1) 2" gated full flow pump to tank refill line controlled at the pump panel shall be provided. A deflector shield inside the tank shall be furnished. Tank fill plumbing shall utilize 2" high pressure hose for tank connection to accommodate flexing between components.</p> <p>An Akron Brass 2" Generation II Swing-Out™ Valve shall be provided between the pump discharge manifold and the water tank. The valve shall have an all brass body with flow optimizing stainless steel ball and dual polymer seats.</p> <p>A push/pull control handle shall be located on the operator's panel with function plate.</p>		

	Bidder Complies	
	Yes	No
<p><b>***** DISCHARGES &amp; ACCESSORIES - REAR MOUNT *****</b></p> <p><b><u>REAR MAIN DISCHARGE #1</u></b></p> <p>A discharge shall be provided and located at the rear pump panel. The rear discharge # 1 shall terminate with NST threads, through the rear panel above the main pump intake.</p> <p>The main pump discharge shall be plumbed directly from the pump discharge manifold utilizing direct connect discharge valve flanges.</p> <p>An Akron Brass 2 1/2" Generation II Swing-Out™ Valve shall be provided for the rear #1 discharge. The valve shall have an all brass body with flow optimizing stainless steel ball and dual polymer seats.</p> <p>The discharge valve shall be equipped with a straight 2 1/2" NST adapter that shall be equipped with a 2 1/2" NST, 30-degree, chrome plated elbow.</p> <p>A 2 1/2 " NST chrome plated pressure vented cap shall be installed on the rear #1 discharge.</p> <p>The rear # 1 discharge valve shall be controlled by a push/pull handle located on the operator's panel.</p> <p>The rear # 1 discharge shall be equipped with a Class One 2 1/2" pressure gauge which shall contain a vibration dampened internal mechanism. To prevent internal freezing, the stem and Bourdon tube shall be filled with low temperature oil and be sealed from the water system using an isolating diaphragm located in the stem. A bright metal bezel shall be supplied for resistance to corrosion and to protect the lens and case from damage.</p> <p>The pressure gauge shall be illuminated internally using light emitting diodes, which shall be wired through the pump panel light circuit. The gauge face shall be white with black numerals.</p> <p>The color of the illuminated Class One gauge shall be Red.</p> <p><b><u>REAR MAIN DISCHARGE #2</u></b></p> <p>A discharge shall be provided and located at the rear pump panel. The rear discharge # 2 shall terminate with NST threads, through the rear panel above the main pump intake.</p> <p>The main pump discharge shall be plumbed directly from the pump discharge manifold utilizing direct connect discharge valve flanges.</p> <p>An Akron Brass 2 1/2" Generation II Swing-Out™ Valve shall be provided for the rear #2 discharge. The valve shall have an all brass body with flow optimizing stainless steel ball and dual polymer seat.</p> <p>The discharge valve shall be equipped with a straight 2 1/2" NST adapter that shall be equipped with a 2 1/2" NST, 30-degree, chrome plated elbow.</p> <p>A 2 1/2" NST chrome plated pressure vented cap shall be installed on the rear # 2 discharge.</p> <p>The rear # 2 discharge valve shall be controlled by a push/pull handle located on the operator's panel.</p> <p>The rear # 2 discharge shall be equipped with a Class One 2 1/2" pressure gauge which shall</p>		



	Bidder Complies	
	Yes	No
<p>contain a vibration dampened internal mechanism. To prevent internal freezing, the stem and Bourdon tube shall be filled with low temperature oil and be sealed from the water system using an isolating diaphragm located in the stem. A bright metal bezel shall be supplied for resistance to corrosion and to protect the lens and case from damage.</p> <p>The pressure gauge shall be illuminated internally using light emitting diodes, which shall be wired through the pump panel light circuit. The gauge face shall be white with black numerals.</p> <p>The color of the illuminated Class One gauge shall be Red.</p> <p><b><u>REAR MAIN DISCHARGE #3</u></b></p> <p>A discharge shall be provided and located at the rear pump panel. The rear discharge #3 shall terminate with NST threads, through the rear panel above the main pump intake.</p> <p>The main pump discharge shall be plumbed directly from the pump discharge manifold utilizing direct connect discharge valve flanges.</p> <p>An Akron Brass 3" Generation II Swing-Out™ Valve shall be provided for the rear #3 discharge. The valve shall have an all brass body with flow optimizing stainless steel ball and dual polymer seats.</p> <p>The discharge valve shall be equipped with a straight 3" NST adapter that shall be equipped with a 3" NST, 30-degree, chrome plated elbow.</p> <p>The rear #3 discharge cap provided as standard equipment shall be deleted.</p> <p>A 3" NSTF X 5" Storz Kocheck S37S straight adapter with cap shall be provided on the rear #3 discharge.</p> <p>The rear #3 discharge valve shall be gated with an Akron Hand wheel controlled, inline valve. The valve shall be controlled at the pump operator's panel with a chrome plated hand wheel and mechanical valve position indicator.</p> <p>The rear # 3 discharge shall be equipped with a Class One 2 1/2" pressure gauge which shall contain a vibration dampened internal mechanism. To prevent internal freezing, the stem and Bourdon tube shall be filled with low temperature oil and be sealed from the water system using an isolating diaphragm located in the stem. A bright metal bezel shall be supplied for resistance to corrosion and to protect the lens and case from damage.</p> <p>The pressure gauge shall be illuminated internally using light emitting diodes, which shall be wired through the pump panel light circuit. The gauge face shall be white with black numerals.</p> <p>The color of the illuminated Class One gauge shall be Red.</p> <p><b><u>REAR MAIN DISCHARGE #4</u></b></p> <p>A discharge shall be provided and located at the rear pump panel. The rear discharge #4 shall terminate with NST threads, through the rear panel above the main pump intake.</p> <p>The main pump discharge shall be plumbed directly from the pump discharge manifold utilizing direct connect discharge valve flanges.</p> <p>An Akron Brass 3" Generation II Swing-Out™ Valve shall be provided for the rear #4</p>		

	Bidder Complies	
	Yes	No
<p>discharge. The valve shall have an all brass body with flow optimizing stainless steel ball and dual polymer seats.</p> <p>The discharge valve shall be equipped with a straight 3" NST adapter that shall be equipped with a 3" NST, 30-degree, chrome plated elbow.</p> <p>The rear #4 discharge cap provided as standard equipment shall be deleted.</p> <p>A 3" NSTF X 5" Storz KocheK S37S straight adapter with cap shall be provided on the rear #4 discharge.</p> <p>The rear #4 discharge valve shall be gated with an Akron Hand wheel controlled, inline valve. The valve shall be controlled at the pump operator's panel with a chrome plated hand wheel and mechanical valve position indicator.</p> <p>The rear # 4 discharge shall be equipped with a Class One 2 1/2" pressure gauge which shall contain a vibration dampened internal mechanism. To prevent internal freezing, the stem and Bourdon tube shall be filled with low temperature oil and be sealed from the water system using an isolating diaphragm located in the stem. A bright metal bezel shall be supplied for resistance to corrosion and to protect the lens and case from damage.</p> <p>The pressure gauge shall be illuminated internally using light emitting diodes, which shall be wired through the pump panel light circuit. The gauge face shall be white with black numerals.</p> <p>The color of the illuminated Class One gauge shall be Red.</p> <p><b><u>DRIVER SIDE REAR DISCHARGE</u></b></p> <p>A 2 1/2" NST rear discharge shall be provided at the rear of the vehicle, plumbed from the pump.</p> <p>The rear discharge shall be plumbed through a pipe sleeve integrated into the water tank that shall terminate on the rear body panel, on the driver side of the body below the hosebed.</p> <p>The driver side rear discharge pipe shall be equipped with a chrome 2 1/2" NSTM thread adapter.</p> <p>The driver side rear discharge shall be plumbed utilizing 2 1/2" schedule 10 stainless steel piping, 45 degree elbows and a limited number of 90 degree sweep elbows in an assembly from the pump to the rear of the vehicle.</p> <p>A minimum of one (1) grooved pipe coupling shall be furnished in this assembly to allow for flex and serviceability.</p> <p>An Akron Brass 2 1/2" Generation II Swing-Out™ Valve shall be provided for the driver's side rear discharge. The valve shall have an all brass body with flow optimizing stainless steel ball and dual polymer seats.</p> <p>The driver side rear discharge valve shall be controlled by a push/pull handle located on the operator's panel.</p> <p>One (1) 2 1/2" NST chrome plated pressure vented cap with 30 degree elbow shall be installed at the driver side rear discharge.</p> <p>The driver side rear discharge shall be equipped with a Class One 2 1/2" pressure gauge which shall contain a vibration dampened internal mechanism. To prevent internal freezing, the stem</p>		

	Bidder Complies	
	Yes	No
<p>and Bourdon tube shall be filled with low temperature oil and be sealed from the water system using an isolating diaphragm located in the stem. A bright metal bezel shall be supplied for resistance to corrosion and to protect the lens and case from damage.</p> <p>The pressure gauge shall be illuminated internally using light emitting diodes, which shall be wired through the pump panel light circuit. The gauge face shall be white with black numerals.</p> <p>The color of the illuminated Class One gauge shall be Red.</p> <p><b><u>DECK GUN DISCHARGE</u></b></p> <p>A deck gun discharge shall be plumbed from the pump to an area on top of the vehicle. The deck gun piping shall be firmly supported and braced.</p> <p>The deck gun discharge shall be located in the hose bed towards the officer's side of the vehicle near the rear of the apparatus. A pedestal type, 1/4" steel plate support assembly shall be provided to stabilize deck gun plumbing below deck gun mount flange.</p> <p>The deck gun discharge pipe shall terminate with a 4-bolt flange.</p> <p>The deck gun piping shall be designed so the overall height of the deck gun in the mounted/stowed position does not exceed the tallest point on the cab/body.</p> <p>The deck gun discharge shall be plumbed utilizing 3" schedule 10 stainless steel piping, 45 degree elbows and a limited number of 90 degree sweep elbows in an assembly from the pump to the deck gun location.</p> <p>A minimum of one (1) grooved pipe coupling shall be furnished in this assembly to allow for flex and serviceability.</p> <p>An Akron Brass 3" Generation II Swing-Out™ Valve shall be provided for the deck gun discharge. The valve shall have an all brass body with flow optimizing stainless steel ball and dual polymer seats.</p> <p>The deck gun discharge shall be gated with an Akron Hand wheel controlled, inline valve. The valve shall be controlled at the pump operator's panel with a chrome plated hand wheel and mechanical valve position indicator.</p> <p>The deck gun discharge shall be equipped with a Class One 2 1/2" pressure gauge which shall contain a vibration dampened internal mechanism. To prevent internal freezing, the stem and Bourdon tube shall be filled with low temperature oil and be sealed from the water system using an isolating diaphragm located in the stem. A bright metal bezel shall be supplied for resistance to corrosion and to protect the lens and case from damage.</p> <p>The pressure gauge shall be illuminated internally using light emitting diodes, which shall be wired through the pump panel light circuit. The gauge face shall be white with black numerals.</p> <p>The color of the illuminated Class One gauge shall be Red.</p> <p><b><u>FRONT DISCHARGE - REARWARD CROSSLAY</u></b></p> <p>A 1 1/2" front #1 discharge shall be plumbed to the front bumper rearward crosslay.</p> <p>The front #1 discharge shall terminate with a brass 1 1/2" NST chicksan swivel adapter below the front bumper rearward crosslay.</p>		



	Bidder Complies	
	Yes	No
<p>The front #1 discharge shall be plumbed utilizing 2" schedule 10 stainless steel piping and/or flexible hose, 45 degree elbows and a limited number of 90 degree sweep elbows in an assembly from the pump to the front of the vehicle.</p> <p>A minimum of one (1) grooved pipe coupling shall be furnished in this assembly to allow for flex and serviceability. Automatic discharge drains shall be provided at all low points in the plumbing.</p> <p>An Akron Brass 2" Generation II Swing-Out™ Valve shall be provided for the front #1 discharge. The valve shall have an all brass body with flow optimizing stainless steel ball and dual polymer seats.</p> <p>The front #1 discharge valve shall be controlled by a push/pull handle located on the operator's panel.</p> <p>The front #1 discharge cap provided as standard equipment shall be deleted.</p> <p>The front #1 discharge shall be equipped with a Class One 2 1/2" pressure gauge which shall contain a vibration dampened internal mechanism. To prevent internal freezing, the stem and Bourdon tube shall be filled with low temperature oil and be sealed from the water system using an isolating diaphragm located in the stem. A bright metal bezel shall be supplied for resistance to corrosion and to protect the lens and case from damage.</p> <p>The pressure gauge shall be illuminated internally using light emitting diodes, which shall be wired through the pump panel light circuit. The gauge face shall be white with black numerals.</p> <p>The color of the illuminated Class One gauge shall be Red, on the front #1 discharge.</p> <p><b><u>FRONT DISCHARGE - FORWARD CROSSLAY</u></b></p> <p>A 1 1/2" front discharge shall be plumbed to the front bumper forward crosslay.</p> <p>The front #2 discharge shall terminate with a brass 1 1/2" NST chicksan swivel adapter below the front bumper forward crosslay.</p> <p>The front discharge shall be plumbed utilizing 2" schedule 10 stainless steel piping and/or flexible hose, 45 degree elbows and a limited number of 90 degree sweep elbows in an assembly from the pump to the front of the vehicle.</p> <p>A minimum of one (1) grooved pipe coupling shall be furnished in this assembly to allow for flex and serviceability. Automatic discharge drains shall be provided at all low points in the plumbing.</p> <p>An Akron Brass 2" Generation II Swing-Out™ Valve shall be provided for the front #2 discharge. The valve shall have an all brass body with flow optimizing stainless steel ball and dual polymer seats.</p> <p>The front #2 discharge valve shall be controlled by a push/pull handle located on the operator's panel.</p> <p>The front #2 discharge cap provided as standard equipment shall be deleted.</p> <p>The front #2 discharge shall be equipped with a Class One 2 1/2" pressure gauge which shall contain a vibration dampened internal mechanism. To prevent internal freezing, the stem and Bourdon tube shall be filled with low temperature oil and be sealed from the water system using an isolating diaphragm located in the stem. A bright metal bezel shall be supplied for resistance to corrosion and to protect the lens and case from damage.</p>		

	Bidder Complies	
	Yes	No
<p>The pressure gauge shall be illuminated internally using light emitting diodes, which shall be wired through the pump panel light circuit. The gauge face shall be white with black numerals.</p> <p>The color of the illuminated Class One gauge shall be Blue, on the front #2 discharge.</p> <p><b><u>HORIZONTAL SPEEDLAY #1</u></b></p> <p>Speedlay #1 shall be a transverse hose bed, which shall be designed as an integral part of the front body module. Hose deployment shall be accomplished from either side of the apparatus. The speedlay hose bed flooring shall be designed to be removable, constructed from brushed finish, perforated aluminum material.</p> <p><b><u>SPEEDLAY #1 SLIDE-OUT TRAY</u></b></p> <p>A 3/16" aluminum, three (3) sided, "J" shaped slide out tray shall be provided for speedlay #1 to allow easy loading of the hose off the vehicle. The tray shall be designed to slide out from either side of the vehicle. The sides and floor of the opening shall be lined with Nylatron to assist in the loading of the tray.</p> <p>The tray shall have a cut out on each side of the tray so it may be used as a handle to remove the tray. The handle area shall extend passed the side panel on each end of the tray to allow removal of the tray without getting fingers caught in the latch tray mechanism.</p> <p>A cadmium plated thumb type latches shall be provided for the tray to secure the tray in the speedlay opening.</p> <p>The speedlay #1 discharge shall terminate through the rear wall of the hosebed with a 2 1/2" NSTM chicksan swivel adapter. The hosebed rear wall shall be slotted to allow the swivel to through the wall, allowing the pre-connected hose to be pulled off either side of the apparatus without kinking the hose at the coupling connection.</p> <p>Speedlay #1 shall be designed to have a <u>minimum total capacity of 3.5 cubic feet as required by NFPA -1901</u> to accommodate a minimum of 200 feet of 2 1/2" fire hose. The hose shall be loaded in a triple stack configuration.</p> <p>The speedlay #1 discharge shall be plumbed utilizing 2 1/2" schedule 10 stainless steel piping and/or flexible hose, 45 degree elbows and a limited number of 90 degree sweep elbows in an assembly from the pump to speedlay hosebed.</p> <p>A minimum of one (1) grooved pipe coupling shall be furnished in this assembly to allow for flex and serviceability.</p> <p>An Akron Brass 2 1/2" Generation II Swing-Out™ Valve shall be provided for the speedlay #1 discharge. The valve shall have an all brass body with flow optimizing stainless steel ball and dual polymer seats.</p> <p>The speedlay #1 discharge valve shall be controlled by a push/pull handle located on the operator's panel.</p> <p>The speedlay #1 discharge shall be equipped with a Class One 2 1/2" pressure gauge which shall contain a vibration dampened internal mechanism. To prevent internal freezing, the stem and Bourdon tube shall be filled with low temperature oil and be sealed from the water system using an isolating diaphragm located in the stem. A bright metal bezel shall be supplied for resistance to corrosion and to protect the lens and case from damage.</p>		

	Bidder Complies	
	Yes	No
<p>The pressure gauge shall be illuminated internally using light emitting diodes, which shall be wired through the pump panel light circuit. The gauge face shall be white with black numerals.</p> <p>The color of the illuminated Class One gauge shall be Green.</p> <p><b><u>HORIZONTAL SPEEDLAY #2</u></b></p> <p>Speedlay #2 shall be a transverse hose bed, which shall be designed as an integral part of the front body module just above the lower speedlay. Hose deployment shall be accomplished from either side of the apparatus. The speedlay hose bed flooring shall be designed to be removable, constructed from brushed finish, perforated aluminum material.</p> <p><b><u>SPEEDLAY #2 SLIDE-OUT TRAY</u></b></p> <p>A 3/16" aluminum, three (3) sided, "J" shaped slide out tray shall be provided for speedlay #2 to allow easy loading of the hose off the vehicle. The tray shall be designed to slide out from either side of the vehicle. The sides and floor of the opening shall be lined with Nylatron to assist in the loading of the tray.</p> <p>The tray shall have a cut out on each side of the tray so it may be used as a handle to remove the tray. The handle area shall extend passed the side panel on each end of the tray to allow removal of the tray without getting fingers caught in the latch tray mechanism.</p> <p>A cadmium plated thumb type latches shall be provided for the tray to secure the tray in the speedlay opening.</p> <p>The speedlay #2 discharge shall terminate through the rear wall of the hosebed with a 1 1/2" NSTM chicksan swivel adapter. The hosebed rear wall shall be slotted to allow the swivel to through the wall, allowing the pre-connected hose to be pulled off either side of the apparatus without kinking the hose at the coupling connection.</p> <p><u>Speedlay #2 shall be designed to have a minimum total capacity of 3.5 cubic feet as required by NFPA -1901 to accommodate a minimum of 200 feet of 1-3/4" fire hose. The hose shall be loaded in a double stack configuration.</u></p> <p>The speedlay #2 discharge shall be plumbed utilizing 2" schedule 10 stainless steel piping and/or flexible hose, 45 degree elbows and a limited number of 90 degree sweep elbows in an assembly from the pump to speedlay hosebed.</p> <p>A minimum of one (1) grooved pipe coupling shall be furnished in this assembly to allow for flex and serviceability.</p> <p>An Akron Brass 2" Generation II Swing-Out™ Valve shall be provided for the speedlay #2 discharge. The valve shall have an all brass body with flow optimizing stainless steel ball and dual polymer seats.</p> <p>The speedlay #2 discharge valve shall be controlled by a push/pull handle located on the operator's panel.</p> <p>The speedlay #2 discharge shall be equipped with a Class One 2 1/2" pressure gauge which shall contain a vibration dampened internal mechanism. To prevent internal freezing, the stem and Bourdon tube shall be filled with low temperature oil and be sealed from the water system using an isolating diaphragm located in the stem. A bright metal bezel shall be supplied for resistance to corrosion and to protect the lens and case from damage.</p>		



	Bidder Complies	
	Yes	No
<p>The pressure gauge shall be illuminated internally using light emitting diodes, which shall be wired through the pump panel light circuit. The gauge face shall be white with black numerals.</p> <p>The color of the illuminated Class One gauge shall be Yellow.</p> <p><b><u>HORIZONTAL SPEEDLAY #3</u></b></p> <p>Speedlay #3 shall be a transverse hose bed, which shall be designed as an integral part of the front body module just above the lower speedlay. Hose deployment shall be accomplished from either side of the apparatus. The speedlay hose bed flooring shall be designed to be removable, constructed from brushed finish, perforated aluminum material.</p> <p><b><u>SPEEDLAY #3 SLIDE-OUT TRAY</u></b></p> <p>A 3/16" aluminum, three (3) sided, "J" shaped slide out tray shall be provided for speedlay #3 to allow easy loading of the hose off the vehicle. The tray shall be designed to slide out from either side of the vehicle. The sides and floor of the opening shall be lined with Nylatron to assist in the loading of the tray.</p> <p>The tray shall have a cut out on each side of the tray so it may be used as a handle to remove the tray. The handle area shall extend passed the side panel on each end of the tray to allow removal of the tray without getting fingers caught in the latch tray mechanism.</p> <p>A cadmium plated thumb type latches shall be provided for the tray to secure the tray in the speedlay opening.</p> <p>The speedlay #3 discharge shall terminate through the rear wall of the hosebed with a 1 1/2" NSTM chickensn swivel adapter. The hosebed rear wall shall be slotted to allow the swivel to through the wall, allowing the pre-connected hose to be pulled off either side of the apparatus without kinking the hose at the coupling connection.</p> <p><u>Speedlay #3 shall be designed to have a minimum total capacity of 3.5 cubic feet as required by NFPA -1901 to accommodate a minimum of 200 feet of 1-3/4" fire hose. The hose shall be loaded in a double stack configuration.</u></p> <p>The speedlay #3 discharge shall be plumbed utilizing 2" schedule 10 stainless steel piping and/or flexible hose, 45 degree elbows and a limited number of 90 degree sweep elbows in an assembly from the pump to speedlay hosebed.</p> <p>A minimum of one (1) grooved pipe coupling shall be furnished in this assembly to allow for flex and serviceability.</p> <p>An Akron Brass 2" Generation II Swing-Out™ Valve shall be provided for the speedlay #3 discharge. The valve shall have an all brass body with flow optimizing stainless steel ball and dual polymer seats.</p> <p>The speedlay #3 discharge valve shall be controlled by a push/pull handle located on the operator's panel.</p> <p>The speedlay #3 discharge shall be equipped with a Class One 2 1/2" pressure gauge which shall contain a vibration dampened internal mechanism. To prevent internal freezing, the stem and Bourdon tube shall be filled with low temperature oil and be sealed from the water system using an isolating diaphragm located in the stem. A bright metal bezel shall be supplied for resistance to corrosion and to protect the lens and case from damage.</p>		

	Bidder Complies	
	Yes	No
<p>The pressure gauge shall be illuminated internally using light emitting diodes, which shall be wired through the pump panel light circuit. The gauge face shall be white with black numerals.</p> <p>The color of the illuminated Class One gauge shall be White.</p> <p><b><u>BOOSTER REEL #1 DISCHARGE</u></b></p> <p>A 1 1/2" booster reel discharge shall be plumbed from the pump to the booster reel.</p> <p>The booster reel discharge shall be plumbed from the valve to the hose reel utilizing 1" high pressure hose. The end of the hose connected to the hose reel shall be equipped with a swivel end for ease in hose replacement.</p> <p>A 1 1/2" Akron, #8800 series, full flow, stainless steel ball valve shall be provided for the booster reel #1 discharge.</p> <p>The booster reel discharge valve shall be controlled by a push/pull handle located on the operator's panel.</p> <p>The booster reel discharge shall be equipped with a 2 1/2" diameter Innovative Controls pressure gauge. The gauge shall have a rugged corrosion free stainless steel case and clear scratch resistant molded crystals with captive O-ring seals to ensure distortion free viewing and seal the gauge. The gauge shall be filled with glycerin to dampen shock and vibration, lubricate the internal mechanisms, prevent lens condensation and ensure proper operation from -40°F to +160°F.</p> <p>The gauge shall exceed ANSI B40.1 Grade A requirements with an accuracy of +/- 1.5% full scale and include a size appropriate phosphorous bronze bourdon tube with a reinforced lap joint and large tube base to increase the tube life and gauge accuracy.</p> <p>A polished chrome-plated stainless steel bezel shall be provided to prevent corrosion and protect the lens and gauge case. The gauge shall have black graphics on a white background.</p> <p><b><u>BOOSTER REEL #1</u></b></p> <p>One (1) Hannay, aluminum, Super Booster, electric rewind booster reel shall be furnished. The reel shall be equipped with a one (1) inch 90° full flow swivel joint and an adjustable brake for freewheeling, drag or full lock operation.</p> <p>The booster reel #1 shall be mounted in a hose reel compartment below the officer's side rear cab door. The compartment shall be constructed of 3/16" aluminum tread plate and 3/16" smooth aluminum plate. This compartment shall utilize the maximum amount of space available.</p> <p>Booster reel rewind shall be controlled by a push button near the reel. The booster reel circuit shall be equipped with a shielded toggle switch to act as a booster reel disconnect to avoid accidental actuation of the booster reel rewind button.</p> <p>Each booster reel shall be equipped with 200' of 3/4" booster hose in 100' sections. Each length shall be fitted with NST couplings.</p> <p>***** <b>CONCENTRATE PIPING &amp; FOAM SYSTEM</b> *****</p> <p>The foam proportioning system shall be supplied from the foam concentrate storage tank/s. The tank/s shall be constructed of materials compatible with foam concentrates being used in the system. Tank capacity, venting, fill opening and foam outlet plumbing connections shall be in accordance with NFPA requirements. Foam tank lid shall be sealed and latched in accordance with</p>		

	Bidder Complies	
	Yes	No
<p>NFPA standards. If required a provision shall be made for installation of low tank level sensors and routing of the wiring for the sensors.</p> <p><b><u>FOAM PRO POWER-FILL</u></b></p> <p>The apparatus shall be equipped with an electronic, automatic, concentrate refill system. System shall operate independently of the foam proportioner allowing simultaneous use. Refill operation shall not require apparatus or fire pump to be running. The system shall be capable of handling Class A or Class B foam concentrates, emulsifiers, gels and decontamination concentrates. The apparatus shall be plumbed from the externally accessed intake/flush ports to the concentrate cell following manufacturer's recommendations. The external fill and flush connections to be quick-connect, cam-lock type. Internal piping to incorporate check valves to prevent back flow. Concentrate tank inlet shall be positioned to minimize agitation per manufacturers recommendations. The refill operation shall be based on direct measurement of concentrate level in tank. System must be capable of automatically stopping when cell is full and include a manual override feature. The system shall be equipped with an electronic control suitable for installation on the pump panel. Incorporated within the control shall be a microprocessor that receives input from the system while controlling foam concentrate pump output. An all bronze three-way valve shall be included to allow the operator to flush system after use. Valve control, intake and flush ports shall be located within corresponding panel plate.</p> <p>The system shall enable the operator to perform the following control/operation functions and status indicators for the refill operation:</p> <ul style="list-style-type: none"> <li>• Provide push-button start/stop control of foam refill</li> <li>• Solid green light advises operator concentrate cell is full</li> <li>• Flashing green indicates system is running</li> <li>• Green light off, system off</li> <li>• Allow override of "full tank" condition</li> <li>• Provide a means to flush the pump and intake piping</li> </ul> <p>System shall include a 12 or 24-volt electric motor driven, positive displacement concentrate pump. Pump shall deliver minimum flow of 10 GPM (37.8 L/min) @ 20 psi with all concentrates currently utilized in fire apparatus. Pump body to be of all bronze construction and other wetted components and piping to be constructed of non-corrosive materials. The system shall draw a maximum of 38 amps @ 12 VDC or 19 amps @ 24 VDC. A pump/motor solenoid (mounted to the base of the pump) shall receive signals from the computer control display and power the 1/2 hp (0.4 Kw) electric motor directly coupled to the concentrate pump. The system shall receive readings when the concentrate tank is full and stop operation to prevent overflow.</p> <p>Components of the complete refill system shall include:</p> <ul style="list-style-type: none"> <li>• Operator control and display with Weather-Pac connectors</li> <li>• Refill/flush quick-connect cam-lock fittings and cap</li> <li>• Check valves</li> <li>• Pump/motor assembly and solenoid</li> <li>• Strainer</li> <li>• Tank level switch</li> <li>• Three-way fill/flush valve</li> <li>• Stainless steel pick-up wand and 6 feet of reinforced suction hose, 1 in diameter to allow maximum flow</li> <li>• Panel placards</li> </ul>		



	Bidder Complies	
	Yes	No
<p><b><u>AKRON, ON TRUCK FOAM ACCESS PICK-UP KIT</u></b></p> <p>One (1) Akron Model 3128 foam access attachment shall be provided on the rear pump panel below the 2-1/2" discharge. A storz connection be provided on the rear pump panel for the fire department to attach a customer supplied Akron foam eductor with quick connect fitting. There shall be a quarter turn valve adjacent to the attachment on the panel to supply foam from the onboard foam cell to the eductor.</p> <p>The foam eductor shall be provided by the fire department.</p> <p><b><u>FOAM CONCENTRATE</u></b></p> <p>The foam system shall be capable of injecting the following foam concentrates:</p> <ul style="list-style-type: none"> <li>• No Class A foam selected.</li> <li>• No Class B foam selected or Class B foam system present.</li> </ul> <p><b>**** PUMP PANEL &amp; ACCESSORIES ****</b></p> <p><b><u>PUMP PANEL - SIDE MOUNT</u></b></p> <p>The pump operator's control panel shall be located on the driver side of the apparatus. The pump enclosure side panels shall be completely removable and designed for easy access and servicing.</p> <p><b><u>SIDE PUMP PANEL MATERIAL</u></b></p> <p>The left and right side pump panel shall be fabricated from 14-gauge 304L stainless steel with a #4, (150/180 grit), standard polished finish.</p> <p><b><u>HINGED GAUGE PANEL</u></b></p> <p>A full width, vertically hinged gauge access panel shall be provided at the operator's position. Chrome plated positive locks shall be provided along with chain holders to prevent the front of the gauge panel from coming in contact with other panels when open.</p> <p><b><u>PANEL FASTENERS</u></b></p> <p>Stainless steel machine screws and lock washers shall be used to hold these panels in position. The panels shall be easily removable to provide complete access to the pump for major service.</p> <p><b><u>CAPS AND ADAPTERS SAFETY TETHER</u></b></p> <p>All applicable discharge and suction caps, plugs and adapters shall be equipped with chrome plated ball chain and secured to the vehicle.</p> <p><b><u>PUMP PANEL TRIM PLATES</u></b></p> <p>A high polished trim plate shall be provided around each discharge port and suction inlet opening to allow accessibility to the respective valve for service and repairs.</p>		

	Bidder Complies	
	Yes	No
<p><b><u>DISCHARGE GAUGE TRIM BEZELS</u></b></p> <p>Each individual discharge gauge shall be installed into a decorative chrome-plated mounting bezel that incorporates valve-identifying verbiage and color labels.</p> <p><b><u>COLOR CODED IDENTIFICATION TAGS</u></b></p> <p>Color coded identification tags shall be provided for all gauges, controls, connections, switches, inlets and outlets.</p> <p><b><u>PUMP OPERATOR'S PANEL LIGHT SHIELD</u></b></p> <p>The pump operator's panel shall be equipped with a light shield that shall be full width of the control panel, and shall be positioned to cover the lights and prevent glare.</p> <p>The light shield shall be equipped with the following lights:</p> <ul style="list-style-type: none"> <li>• Two (2) 20" Amdor Luma Bar H2O super bright led strip lights.</li> </ul> <p>One (1) light under the operator's panel light shield shall be actuated when fire pump is engaged in addition to the pump engaged light.</p> <p><b><u>PUMP OPERATOR'S PANEL</u></b></p> <p>Particular attention is to be given to functional arrangement of all controls. The pump operator's panel shall accommodate the following:</p> <ul style="list-style-type: none"> <li>• Hinged gauge panel</li> <li>• Water tank fill valve</li> <li>• Auxiliary suction valve control</li> <li>• All discharge valve controls</li> <li>• Auxiliary engine cooler controls</li> <li>• Water tank suction control valve</li> <li>• Pump primer valve</li> <li>• Engine throttle control</li> <li>• Master compound vacuum gauge</li> <li>• Master pressure gauge</li> <li>• Individual discharge gauges</li> <li>• Pump shift engaged indicator light</li> <li>• Water tank water level indicator</li> <li>• Engine tachometer</li> <li>• Engine oil pressure gauge with audible alarm</li> <li>• Engine water temperature gauge with audible alarm</li> <li>• Low voltage light and audible alarm</li> <li>• Pump panel light switch</li> <li>• Speed counter (Underwriters)</li> <li>• Pump performance plate (Underwriters)</li> <li>• Pump serial No. plate</li> <li>• Master pump drain valve</li> <li>• Individual drains</li> <li>• Voltmeter</li> <li>• Air inlet/outlet at lower driver side panel</li> </ul>		

	Bidder Complies	
	Yes	No
<ul style="list-style-type: none"> <li>Relief valve with indicator light</li> <li>Relief valve drains</li> <li>Fire research "ThrottleXcel" throttle control.</li> <li>Waterous pressure relief valve control.</li> </ul> <p><b><u>PUMP TEST PORTS</u></b></p> <p>The pump panel shall be equipped with Vacuum &amp; Pressure test plugs to allow for test equipment to monitor pump pressure and vacuum levels. Chrome plugs and labels shall be provided for the test ports.</p> <p><b><u>MASTER GAUGES</u></b></p> <p>One (1) 4-1/2" diameter pressure gauge (labeled: "PRESSURE") and one (1) 4-1/2" diameter compound vacuum gauge (labeled: "INTAKE") shall be provided. The master gauges shall be Class One and shall be illuminated internally using light emitting diodes, which shall be wired through the pump panel light circuit. The gauge face shall be white with black numerals.</p> <p>The color of the Master Pressure &amp; Compound gauges shall be the following:</p> <p>Both gauges shall be Green.</p> <p><b><u>PRESSURE &amp; COMPOUND GAUGE RANGES</u></b></p> <p>All applicable pressure gauges shall have a range of 0 - 400 P.S.I., and the compound gauge shall have a range of -30" - 0 - 400 P.S.I.</p> <p><b><u>FIRE RESEARCH "THROTTLEXCEL"</u></b></p> <p><b><u>THROTTLE CONTROL AND MONITORING DISPLAY</u></b></p> <p>The apparatus shall be equipped with a Fire Research ThrottleXcel model ELA201- D00 engine throttle and monitoring display shall be installed. The control module case shall be waterproof and have dimensions not to exceed 6 3/4" high by 4 5/8" wide by 1 1/2" deep. The control knob shall be 2" in diameter with no mechanical stops, have a serrated grip, and a red idle push button in the center. It shall not extend more than 1 3/4" from the front of the control module. Inputs for monitored information shall be from a J1939 databus or independent sensors. Outputs for engine control shall be on the J1939 databus or engine specific wiring.</p> <p>The engine RPM shall be set to idle when the pump engaged interlock signal is recognized regardless of the throttle control knob position. Optical technology shall be used to detect the direction and speed that the control knob rotated for RPM control.</p> <p>The following continuous displays shall be provided:</p> <ul style="list-style-type: none"> <li>Engine RPM; shown with four daylight bright LED digits more than 1/2" high</li> <li>Check engine and stop engine warning LEDs</li> <li>Oil pressure; shown on a dual color (green/red) LED bar graph display</li> <li>Engine coolant temperature; shown on a dual color (green/red) LED bar graph display</li> <li>Transmission Temperature: shown on a dual color (green/red) LED bar graph display</li> <li>Battery voltage; shown on a dual color (green/red) LED bar graph display</li> <li>Interlock; OK TO PUMP LED is green to indicate throttle ready.</li> </ul>		



	Bidder Complies	
	Yes	No
<p>A dot-matrix message display shall show diagnostic and warning messages as they occur. It shall show monitored apparatus information, stored data, and program options when selected by the operator. Operator selections and inputs shall be via push buttons on the front panel.</p> <p>The program shall store the accumulated operating hours for the pump and engine, previous incident hours, and current incident hours in a non-volatile memory. Stored elapsed hours shall be displayed at the push of a button. The program shall have calibration and self-diagnostic capabilities. It shall monitor inputs and support audible and visual warning alarms for the following conditions:</p> <ul style="list-style-type: none"> <li>• Low Oil Pressure</li> <li>• High Engine Coolant Temperature</li> <li>• High Transmission Temperature</li> <li>• Low Battery Voltage (Engine Off)</li> <li>• Low Battery Voltage (Engine Running)</li> <li>• High Battery Voltage</li> <li>• High Engine RPM.</li> </ul> <p>The program features shall be accessed via push buttons located on the front of the control module. There shall be a USB port located at the rear of the control module to upload future firmware enhancements.</p> <p><b><u>ENGINE COOLER</u></b></p> <p>An auxiliary cooler or heat exchanger shall be installed in the engine compartment between the engine and the chassis radiator. The cooler shall permit the use of water from the pump for cooling the engine. The cooling shall be done without mixing engine and pump water.</p> <p><b><u>TANK LEVEL GAUGE</u></b></p> <p>A Fire Research, model #WLA300-A00, "TANKVISION" gauge that shows the actual volume of water in the tank shall be provided on the pump operator's panel. The "TANKVISION" gauge is designed for both ease of operation and installation. The "TANKVISION" gauge utilizes ultra bright multi-color LEDs for sunlight readability and also uses 2 specially designed wide-viewing lens for 180° of clear viewing. The "TANKVISION" gauge utilizes a pressure sender to measure the liquid volume. The gauge shall be equipped with a self-calibration feature that allows the LEDs TANKVISION gauge to be used on tanks of different shapes and sizes.</p> <p><b>Features:</b></p> <ul style="list-style-type: none"> <li>• Flashes warning when the volume is less than 25%. Rapid down scrolling LEDs alert the operator when the tank is almost empty. Remote audio warning available.</li> <li>• One size fits all'. The self-calibration feature allows for easy calibration of any shape or size tank.</li> <li>• Multiple displays are possible with a single sender through the FRC data bus.</li> <li>• Rugged waterproof cast aluminum housing.</li> <li>• No fitting needed for poly tank.</li> <li>• Special fittings available for other tank materials.</li> <li>• Connector disconnects at back of display.</li> </ul> <p>The gauge shall use a pressure transducer installed near the bottom of the water tank to determine the correct volume in the tank.</p>		

	Bidder Complies	
	Yes	No
<p><b><u>FOAM TANK LEVEL GAUGE - FOAM TANK "B"</u></b></p> <p>A Fire Research, model #WLA370-A00, "TANKVISION" gauge that shows the actual volume of foam in the tank shall be provided on the pump operator's panel. The "TANKVISION" gauge is designed for both ease of operation and installation. The "TANKVISION" gauge utilizes ultra bright multi-color LEDs for sunlight readability and also uses 2 specially designed wide-viewing lens for 180° of clear viewing. The "TANKVISION" gauge utilizes a pressure sender to measure the liquid volume. The gauge shall be equipped self-calibration feature allows the TANKVISION gauge to be used on tanks of different shapes and sizes.</p> <p>The gauge shall use a pressure transducer installed near the bottom of the foam tank to determine the correct volume in the tank.</p> <p><b><u>WATER TANK</u></b></p> <p>The water tank shall have a capacity of 750 gallons, constructed from Poly material.</p> <p><b><u>FOAM TANK "B"</u></b></p> <p>Included in the total capacity of the water tank, a 30 gallon integral foam storage area shall be built into the water tank. The foam tank shall have a latched fill tower, properly labeled as the foam fill point. A valved drain shall be provided.</p> <p><b><u>WATER TANK CONSTRUCTION</u></b></p> <p>The Poly water tank shall be constructed of PT3 polypropylene material. This material shall be a non-corrosive stress relieved thermoplastic and UV stabilized for maximum protection. Tank shell thickness may vary depending on the application and may range from 1/2 to 1" as required. Internal baffles are generally 3/8" in thickness.</p> <p>The tank shall be of a specific configuration and is so designed to be completely independent of the body and compartments. Joints and seams shall be fused using nitrogen gas as required and tested for maximum strength and integrity. The tank construction shall include PolyProSeal technology wherein a sealant shall be installed between the plastic components prior to being fusion welded. This sealing method will provide a liquid barrier offering leak protection in the event of a weld compromise. The top of the booster tank is fitted with removable lifting assembly designed to facilitate tank removal. The transverse and longitudinal swash partitions shall be manufactured of a minimum of 3/8" PT3 polypropylene. All partitions shall be equipped with vent and air holes to permit movement of air and water between compartments. The partitions shall be designed to provide maximum water flow. All swash partitions interlock with one another and are completely fused to each other as well as to the walls of the tank. All partitions and spacing shall comply with NFPA 1901. The walls shall be welded to the floor of the tank providing maximum strength as part of the tank's unique Full Floor Design. Tolerances in design allow for a maximum variation of 1/8" on all dimensions.</p> <p><b><u>WATER TANK CAPACITY CERTIFICATION</u></b></p> <p>All tanks shall be tested and certified as to capacity on a calibrated and certified tilting scale. Each tank shall be weighed empty and full to provide precise fluid capacity. Each Poly-Tank's III is delivered with a Certificate of Capacity delineating the weight empty and full and the resultant capacity based on weight.</p> <p><b><u>WATER TANK TANKNOLOGY TAG</u></b></p> <p>A tag shall be installed on the apparatus in a convenient location and contain pertinent information including a QR code readable by commercially available smart phones. The information</p>		

	Bidder Complies	
	Yes	No
<p>contained on the tag shall include the capacity of the water and foam (s), the maximum fill and pressure rates, the serial number of the tank, the date of manufacture, the tank manufacturer, and contact information. The QR code will allow the user to connect with the tank manufacturer for additional information and assistance.</p> <p><b><u>WATER TANK ISO CERTIFICATION</u></b></p> <p>The tank must be designed and fabricated by a tank manufacturer that is ISO 9001:2000 certified in each of its locations. The ISO certification must be to the current standard in effect at the time of the design and fabrication of the tank.</p> <p><b><u>WATER TANK LID</u></b></p> <p>The tank cover shall be constructed of 1/2" thick PT3 polypropylene and UV stabilized, to incorporate a multi-piece locking design, which allows for individual removal and inspection if necessary. The tank cover(s) shall be flush or recessed 3/8" from the top of the tank and shall be fused to the tank walls and longitudinal partitions for maximum integrity. Each one of the covers shall have hold downs consisting of 2" minimum polypropylene dowels spaced a maximum of 40" apart. These dowels shall extend through the covers and will assist in keeping the covers rigid under fast filling conditions. A minimum of two lifting dowers shall accommodate the necessary lifting hardware.</p> <p><b><u>WATER TANK FILL TOWER</u></b></p> <p>The tank shall have a combination vent and manual fill tower. The fill tower shall be constructed of 1/2" PT3 polypropylene and shall be a minimum dimension of 8" x 8" outer perimeter. The fill tower shall be blue in color indicating that it is a water-only fill tower. The tower shall be located in the left front corner of the tank unless otherwise specified by the tank manufacturer to the purchaser. The tower shall have a 1/4" thick removable polypropylene screen and a PT3 polypropylene hinged cover. The capacity of the tank shall be engraved on the top of the fill tower lid. Inside the fill tower there shall be a combination vent/overflow pipe. The vent overflow shall be a minimum of schedule 40 polypropylene pipe with a minimum I.D. of that is designed to run through the tank, and shall be piped to discharge water behind the rear wheels as required in NFPA 1901 so as to not interfere with rear tire traction.</p> <p><b><u>WATER TANK OVERFLOW AND VENT PIPE</u></b></p> <p>The fill tower shall be fitted with an integral 4" I.D. schedule 40 PVC combination overflow/vent pipe running from the fill tower through the tank to a 4" coupling flush mounted into the bottom of the tank to allow water to overflow behind the chassis rear axle.</p> <p><b><u>WATER TANK SUMP AND CONNECTIONS</u></b></p> <p>There shall be one (1) sump standard per tank. The sump is a minimum of 10" wide, 10" long and 3" deep with a 3/4" bottom and is located in the left front quarter of the tank, unless specified otherwise in special provisions. On all tanks with a bulkhead suction inlet there shall be a 4" schedule 80 PVC pipe sweep from the front of the tank to sump location. The sump shall have a minimum of 3" threaded plug located at the bottom for a tank drain. An anti-swirl plate shall be mounted inside the sump approximately 1" off the floor of the sump.</p> <p><b><u>WATER TANK FLANGES/OUTLETS</u></b></p> <p>There shall be two (2) standard tank outlets; one for tank-to-pump suction line which shall be a minimum of 4" coupling and one for a tank fill line which shall be a minimum of a 2" NPT coupling. All tank fill couplings shall be backed with flow deflectors to break up the stream of water entering the tank.</p>		



	Bidder Complies	
	Yes	No
<p><b><u>WATER TANK MOUNTING</u></b></p> <p>The tank shall rest on the body cross members spaced a maximum of 22" apart, and shall be insulated from these cross members with a minimum of 3/8" nylon webbing or 1/2" rubber, 2-1/2" wide. The tank shall sit cradle-mounted using four (4) corner angles of 6 x 6 x 4 x .250 welded directly to the body cross members. The angles shall keep the tank from shifting left to right or front to rear. The tank is designed on the free-floating suspension principle and shall not require the use of hold downs. The tank shall be completely removable without disturbing or dismantling the apparatus body structure. The hose bed cross braces shall act as water tank retainers.</p> <p><b><u>WATER TANK SLEEVE</u></b></p> <p>A 4" inside diameter, water tank sleeve shall be provided to accommodate rear discharge or suction plumbing to the rear of the unit. The tank sleeve shall be provided as part of the tank assembly by the tank manufacturer to allow installation of piping.</p> <p><b><u>REAR MOUNT PUMPER BODY DESIGN CONSTRUCTION</u></b></p> <p>The body side and compartment assemblies shall be designed and assembled to provide maximum strength and durability under all operating conditions.</p> <p>Special attention shall be taken to minimize rust on all fabricated parts and structural members of the body. All bolt-on components shall be provided with a dissimilar metals isolation barrier to prevent electric corrosion. The body design shall also incorporate removable panels to access spring hangers, rear body mounts and fuel tank sending units.</p> <p>The body and integral rear pump enclosure assembly shall be an all-welded configuration. The body shall be completely isolated from the cab.</p> <p><b><u>BODY AND COMPARTMENT FABRICATION - STAINLESS STEEL</u></b></p> <p>All compartment panels and body side sheets shall be entirely 12 gauge stainless steel (Type 3CR12). Each side compartment assembly shall be both spot welded and stitch welded to ensure proper weld penetration on all panels while avoiding the possible warping caused by a full seam weld. The side compartments shall be welded on a fixture to ensure true body dimensions of all door openings. The side compartments and body side panels are then set into a body squaring fixture where the super structure is installed and the entire body is aligned to be completely symmetrical. The super structure is then welded to the compartment side panels and reinforcement plates are inserted which allows the compartment panels to become an integral component of the body support structure. A full seam weld shall not be used due to the applied heat which could distort sheet metal and remove the protective coating from the perimeter of the welded area. All seams shall be caulked prior to finish paint to ensure proper compartment seal.</p> <p><b><u>100" WIDE FIRE BODY</u></b></p> <p>The fire body shall be 100" wide to provide the maximum amount of usable hose bed space, approximately 76" wide, and to extend the body fenderettes outward for better tire tread coverage.</p> <p><b><u>SUPER STRUCTURE - STAINLESS STEEL</u></b></p> <p>The body super structure shall be an all welded configuration utilizing a combination of 3" x 1-1/2" Type 304 structural grade tubing and Type 304 structural channel.</p> <p>The super structure shall be designed to totally support the full length and width of the body. The structure shall be welded to the body side compartments to incorporate the compartments into an</p>		

	Bidder Complies	
	Yes	No
<p>integral part of the body weldment.</p> <p>The super structure shall be bolted to the sides of the chassis frame at four (4) points.</p> <p><b><u>STEPPING, STANDING, &amp; WALKING SURFACES</u></b></p> <p>All stepping, standing, and walking surfaces on the body shall meet NFPA #1901 anti-slip standards. Aluminum tread plate utilized for stepping, standing, and walking surfaces shall be ALCOA No Slip type. Upon request by the Purchaser, the manufacturer shall supply proof of compliance with this requirement.</p> <p><b><u>BODY FENDER</u></b></p> <p>The body fender shall be 64" long, this shall allow for the suspension and related components to be contained within the fender, preventing any intrusion into the body compartment storage area. Bodies with notches in the front and/or rear compartment for suspension components are not acceptable.</p> <p><b><u>DRIVER SIDE - FRONT SECTION OF FENDER</u></b></p> <p>A storage compartment shall be inserted into the fender to provide a storage area for three (3) customer supplied SCBA cylinders (or fire extinguishers of similar size). The storage area shall be sized as tall and wide as possible in the fender (minimum of 14" wide x 15" tall with an angled floor by fender radius), and shall be 26" deep. The compartment shall have a non-abrasive lined cradle storage area for each of the three (3) devices.</p> <p>This storage compartment shall provide a minimum of 2.3 cubic feet of storage space.</p> <p><b><u>DRIVER SIDE - REAR SECTION OF FENDER</u></b></p> <p>A storage compartment shall be inserted into the fender to provide a storage area for three (3) customer supplied SCBA cylinders (or fire extinguishers of similar size). The storage area shall be sized as tall and wide as possible in the fender (minimum of 14" wide x 15" tall with an angled floor by fender radius), and shall be 26" deep. The compartment shall have a non-abrasive lined cradle storage area for each of the three (3) devices.</p> <p>This storage compartment shall provide a minimum of 2.3 cubic feet of storage space.</p> <p><b><u>OFFICER SIDE - FRONT SECTION OF FENDER</u></b></p> <p>A storage compartment shall be inserted into the fender to provide a storage area for three (3) customer supplied SCBA cylinders (or fire extinguishers of similar size). The storage area shall be sized as tall and wide as possible in the fender (minimum of 14" wide x 15" tall with an angled floor by fender radius), and shall be 26" deep. The compartment shall have a non-abrasive lined cradle storage area for each of the three (3) devices.</p> <p>This storage compartment shall provide a minimum of 2.3 cubic feet of storage space.</p> <p><b><u>OFFICER SIDE - REAR SECTION OF FENDER</u></b></p> <p>A storage compartment shall be inserted into the fender to provide a storage area for three (3) customer supplied SCBA cylinders (or fire extinguishers of similar size). The storage area shall be sized as tall and wide as possible in the fender (minimum of 14" wide x 15" tall with an angled floor by fender radius), and shall be 26" deep. The compartment shall have a non-abrasive lined cradle storage area for each of the three (3) devices.</p>		

	Bidder Complies	
	Yes	No
<p>This storage compartment shall provide a minimum of 2.3 cubic feet of storage space.</p> <p><b><u>FENDER STORAGE DOORS</u></b></p> <p>The fender storage area(s) shall be enclosed by a hinged door fabricated from the same material as the primary body construction, and painted the primary body color. The back side of the door shall have a section of Nylatron installed to protect the door surface from the items stored in the compartment. Each door shall be tied into the compartment door ajar/do not move apparatus warning system.</p> <p><b><u>DRIVER'S SIDE COMPARTMENTATION</u></b></p> <p>One (1) full height compartment, with a painted roll up door, at the front of the body. Compartment dimensions 66" high x 19" wide x transverse over the frame, with a door opening of 62" high x 16" wide. If speed lay discharges are provided, they shall be located in the upper portion of this compartment.</p> <p>One (1) full height compartment, with a vertically hinged double door, directly forward of the rear wheels. Compartment dimensions 66" high x 59" wide x 26" deep, with a door opening of 62" high x 56" wide.</p> <p>Two (2) high side compartments, with a vertically hinged single door on each compartment above the rear wheels. The forward compartment dimension shall be 35.5" high x 23" wide by 26" deep, with a door opening of 31.5" high x 17" wide. This compartment will have two addition vents to alleviate heat. The rearward compartment dimension shall be 35.5" high X 27" wide by 26" deep, with a door opening of 31.5" high X 21" wide.</p> <p>One (1) full height compartment, with a painted roll up door, behind the rear wheels. Compartment dimensions 66" high x 58" wide x 26" deep, with a door opening of 62" high x 58" wide.</p> <p><b><u>OFFICER'S SIDE COMPARTMENTATION</u></b></p> <p>One (1) full height compartment, with a painted roll up door, at the front of the body. Compartment dimensions 66" high x 19" wide x transverse over the frame, with a door opening of 62" high x 16" wide. If speed lay discharges are provided, they shall be located in the upper portion of this compartment.</p> <p>One (1) full height compartment, with a vertically hinged double door, directly forward of the rear wheels. Compartment dimensions 66" high x 59" wide x 26" deep, with a door opening of 62" high x 56" wide.</p> <p>One (1) high side compartment, with a vertically hinged double door, above the rear wheels. Compartment dimensions 35.5" high x 64" wide by 26" deep, with a door opening of 31.5" high by 58" wide.</p> <p>One (1) full height compartment, with a vertically hinged double door, behind the rear wheels. Compartment dimensions 66" high x 58" wide x 26" deep, with a door opening of 62" high x 58" wide.</p> <p><b><u>COMPARTMENT DOORS</u></b></p> <p>The compartment doors shall be flush type fabricated from Stainless Steel. The door skin shall have a formed flange on one (1) side used as a hinge mounting flange. The door skin shall have reinforcing channels welded internally which accommodate the inner door pan mounting.</p> <p>The 2" thick compartment doors shall reduce the overall specified compartment depth by 2".</p>		



	Bidder Complies	
	Yes	No
<p>All horizontally hinged doors shall be 1" thick to provide additional compartment storage area. The 1" thick horizontally hinged doors shall reduce the overall specified compartment depth by 1-1/4".</p> <p><b><u>ROBINSON ROLL-UP DOORS</u></b></p> <p>The roll-up doors shall be Robinson (ROM) brand roll-up doors. The doors shall be painted to match the required color of the fire department.</p> <p>A total of three (3) painted doors shall be provided.</p> <p><b><u>ROBINSON - PAINTED TOP GUTTER AND SIDE FRAMES</u></b></p> <p>The top gutter and side frames shall be painted to match the required color of the fire department.</p> <p><b><u>PROTECTION PANEL(S)</u></b></p> <p>Two (2) protection panel(s) shall be provided at the top of all body exterior compartments fitted with roll-up doors. The panel(s) shall be installed below the roll-up area to prevent possible damage to the roll-up door by misplaced equipment. Each protection panel shall be bolted in place and have a brushed plain aluminum finish.</p> <p>Each inner pan shall be constructed from 1/8" aluminum material, which shall be provided with a brushed finish. The brushed finish shall allow the fire department to remove scratches from the inner door pan with sand paper or scuff pad. Each inner door pan shall be fastened to the door frame channels to provide a smooth, snag-free inner door surface. The inner door pan on the running board compartments shall enclose the latch and reinforcements completely. The pan shall be easily removable to access the enclosed latch mechanism.</p> <p><b><u>COMPARTMENT DOOR HINGES</u></b></p> <p>Hinges shall be full length polished stainless steel piano type. The hinges shall be mounted with stainless steel hardware.</p> <p><b><u>COMPARTMENT DOOR SEALS</u></b></p> <p>Enclosed body compartment doors shall be equipped with a closed cell gasket. The gasket material shall be EPDM to provide a gasket resistant to weather, temperature extremes, and aging.</p> <p><b><u>COMPARTMENT DOOR LATCHES – ROTARY WITH EASY GRAB MALTESE</u></b></p> <p>Externally latched body doors shall be equipped with Easy Grab Maltese door handles.</p> <p>Rotary door latches shall be provided for all full height body doors, which shall incorporate rotary latches at the top and bottom of all externally latched single or double doors. Linkages shall be provided between the actuation handle and the latch mechanisms.</p> <p>The blank door of a double door configuration shall have rotary latches at the top and bottom of each door with the latch release lever accessible thru the door frame, which eliminates the need to reach inside the compartment to release the door. Linkages shall be provided between the actuation handle and the latch mechanisms.</p> <p>Horizontally hinged doors shall be equipped with a single rotary door latch.</p>		

	Bidder Complies	
	Yes	No
<p><b><u>COMPARTMENT DOOR STAY ARMS</u></b></p> <p>Eberhard gas shock type door hold open devices shall be provided for each vertically and horizontally hinged door.</p> <p>All high side air pack equipment compartment doors, 28" in height or greater, shall be vertically hinged, bevel type with full box pan liners.</p> <p><b><u>SWEEP-OUT COMPARTMENT FLOORS</u></b></p> <p>Compartment floors shall be welded to the compartment walls and have a sweep out design for easy cleaning.</p> <p>Compartments with hinged doors shall have the door opening flanges bend down to produce the sweep-out design.</p> <p>Compartments with roll-up style doors shall have the external floor flange stepped down, 1/2" high x 2" deep, to produce a sealing surface for the roll-up doors below the compartment floor. The sweep out design shall also permit easy cleaning.</p> <p><b><u>BEAVERTAILS</u></b></p> <p>The rear body beavertail area shall be furnished with a squared off appearance to maximize the available compartment area, while providing added support to the rear step support structure. The beavertail panels shall be assembled in conjunction with the rear body corner panels. This assembly shall provide a vertical mounting surface for tail lights at the rear most portion of the body and additional storage space.</p> <p><b><u>COMPARTMENT DRIP MOLDING</u></b></p> <p>Compartment tops over all side compartments shall have a 45 degree flange formed out to provide protection against water runoff. A secondary extruded drip molding shall be provided between low compartments and auxiliary high side compartments, when auxiliary compartments are provided.</p> <p><b><u>COATED FASTENERS</u></b></p> <p>All exterior fasteners shall be coated stainless steel screws. Screw threads shall be coated with reusable, self-locking, sealing material to provide vibration resistance. Screw heads shall be coated with a sealing element to prevent galvanic corrosion between dissimilar metals. Non-coated screws shall only be provided as part of vendor supplied component installations.</p> <p><b><u>COMPARTMENT LOUVERS</u></b></p> <p>Ventilation between compartments to atmosphere shall be provided and located to avoid water entry into compartments.</p> <p><b><u>ACCESS PANELS</u></b></p> <p>Removable access panels shall be provided in all lower compartments (if applicable) to access spring pins, fuel tank sender, electrical junction compartment and rear body mounts.</p> <p>Protective panels shall be located in the rear compartments providing access to the lights and associated wiring. The covers shall also serve as protective covers to prevent inadvertent damage to lights or wiring from tools or equipment located in the compartment.</p>		

	Bidder Complies	
	Yes	No
<p><b><u>REAR BODY PANEL</u></b></p> <p>The rear body panel shall extend the full width between the beavertails. This panel shall be full height from the rear step to the hose bed floor. The panel shall be bolted on and removable, with no part of the rear panel attached to the booster tank. The rear body panel material shall be aluminum tread plate as standard. If Chevron striping is specified for the rear of the body then smooth aluminum shall be utilized.</p> <p><b><u>BODY RUB RAILS</u></b></p> <p>Sacrificial C-Channel style rub rails shall be mounted at the base of the body, extend outward from the body. The rub rails shall extend the full length of the main body. Rub rails shall be designed to bolt to the body from the bottom side of the compartment area, so as not to damage the body side panels on initial impact and to provide for ease of replacement.</p> <p><b><u>REAR STEP</u></b></p> <p>The rear step shall be fabricated from 3/16" polished aluminum tread plate, and shall be rigidly reinforced. The rear step shall extend 12" past the rear edge of the body, and shall be 100" wide.</p> <p>The rear edge of the step shall be designed to accommodate the rear clearance lights, recessed for protection in the step reinforcement channel. The step tread plate overlay shall be bolted to the step frame for ease of replacement.</p> <p><b><u>INTERMEDIATE REAR STEP</u></b></p> <p>An eight (8) inch deep, bolt on intermediate rear step, fabricated from 3/16" aluminum tread plate, shall be installed. The step shall be approximately 8" deep x 48" wide.</p> <p><b><u>GRAB RAILS</u></b></p> <p>All hand rails shall be 1-1/4" outer diameter, knurled bright anodized aluminum extrusion, designed to meet NFPA 1901 requirements.</p> <p>Molded gaskets shall be installed between the handrail stanchion castings and body surfaces to prevent electrolytic reaction between dissimilar metals and to protect paint.</p> <p><b><u>GRAB RAIL LOCATIONS:</u></b></p> <p>Grab rails shall be provided at the following specified locations. Additional grab rails shall be provided adjacent to any additional steps specified to comply with NFPA 1901.</p> <p>Two (2) vertical rails shall be mounted on the rear edge of the body, one (1) each side.</p> <p>One (1) horizontal, full width handrail shall be installed on the rear, below the level of the hose bed.</p> <p><b><u>FOLDING STEP(S)- BODY REAR DRIVER SIDE</u></b></p> <p>Innovative Controls large lighted folding step(s), with a textured chrome plate finish, shall be provided on driver side body rear to provide NFPA compliant access (maximum 18" height between steps) to an upper horizontal walking surface (compartment cap, dunnage area, fabricated step, or upper body compartments). Lights shall be blue in color.</p>		



	Bidder Complies	
	Yes	No
<p><b><u>FOLDING STEP(S)- BODY REAR OFFICER SIDE</u></b></p> <p>Innovative Controls large lighted folding step(s), with a textured chrome plate finish, shall be provided on officer side body rear to provide NFPA compliant access (maximum 18" height between steps) to an upper horizontal walking surface (compartment cap, dunnage area, fabricated step, or upper body compartments). Lights shall be blue in color.</p> <p><b><u>SAFETY SIGN(S) AT REAR STEP AND CROSS WALKWAY(S)</u></b></p> <p>Safety sign(s) shall be located on the vehicle at the rear step, and at any cross walkway(s), to warn personnel that riding in or on these areas while the vehicle is in motion is prohibited.</p> <p><b><u>REAR WHEEL WELL LINERS</u></b></p> <p>Fully removable, bolt-in, 1/8" aluminum fender liners shall be provided. The wheel well liners shall extend from the outer wheel well body panel, into the truck frame. Removable vertical splash shields, inward of the wheels, shall be provided to give access to the hydraulic components. The completely washable fender liners shall be designed to protect the front and rear compartments and main body supports from road salts, dirt accumulation and corrosion.</p> <p><b><u>REAR FENDERETTES</u></b></p> <p>The single rear fenders shall be equipped with easily replaceable, polished stainless steel fenderettes. The fenderettes shall be equipped with a rubber gasket molding between the body panel and the fender. Integral welded crown type liners shall not be acceptable.</p> <p><b><u>REAR MUD FLAPS</u></b></p> <p>Heavy duty mud flaps shall be provided behind the rear wheels.</p> <p><b><u>REAR TOW EYES</u></b></p> <p>Two (2) chrome plated tow eyes shall be furnished on the rear of the vehicle, extending through the rear body panel. The tow eyes shall be made from plate steel and shall be bolted directly to the chassis frame rails with grade 8 bolts. The tow eyes shall be smooth and free from sharp edges, and have a minimum eyelet hole of 2-1/2".</p> <p><b><u>HOSE BED (94" WIDE)</u></b></p> <p>The hose bed shall be located directly above the booster tank and shall be free from all sharp objects such as bolts, nuts, etc., to avoid damage to fire hose.</p> <p>For added strength, the hose bed side walls shall be approximately 3" thick, this shall provide a mounting surface for devices like warning lights and scene lights. The inner hosebed side walls shall be brushed aluminum panels, which shall prevent damage to painted surfaces when deploying hose. The front wall shall be flanged inward 2" with a 1" downward return to provide additional rigidity to the front wall.</p> <p>The hose bed shall be designed with 70 cubic feet of hose storage. This design shall accommodate the following hose load:</p> <ul style="list-style-type: none"> <li>• 1,500 ft. of 5" Hose</li> <li>• 600 ft. of 3" Hose</li> <li>• 300 ft. of 2.5" Hose</li> </ul>		

	Bidder Complies	
	Yes	No
<p><b><u>HOSE BED FLOORING</u></b></p> <p>Hose bed flooring to be constructed from extruded aluminum and be properly spaced for ventilation. The flooring shall be smooth and free from sharp edges to avoid hose damage. The hose bed floor shall be removable to provide access to inner body framework.</p> <p><b><u>HOSE BED PARTITIONS</u></b></p> <p>Two (2) fully adjustable 3/16", brushed finish, aluminum hose bed partitions shall be provided. Partitions shall be easily adjustable by means of Unistrut channels located at the front and rear of the hose bed. Partitions shall be removable for access to the booster tank.</p> <p><b><u>CUSTOMER REQUIRED HOSE STORAGE CAPACITY</u></b></p> <p>The apparatus hose bed shall be capable of storing the following customer specified hose loads. In addition, the vehicle weight analysis shall be based off of this hose load provided the specified hose load exceeds NFPA minimum standards.</p> <p>600' of 3" supply hose  1500' of 5" supply hose  300' of 2-1/2" attack hose connected to the driver's side rear discharge</p> <p><b><u>HOSE BED COVER, VINYL WITH VELCRO</u></b></p> <p>A hose bed cover shall be provided and installed. The cover shall be made from 22 ounce; heavy-duty vinyl coated polyester fabric (TXN 226). The cover shall be sewn with ultraviolet resistant thread and shall have 2" wide nylon webbing sewn around the perimeter to provide additional strength.</p> <p>The cover shall be secured to the top front body flange with Velcro and quarter turn fasteners and shall be secured to the top side body flanges with Velcro. A weighted flap shall be furnished on the rear of the cover with two (2) bungee cords.</p> <p>The Hypalon material shall be black in color.</p> <p>**** <b>COMPARTMENT ACCESSORIES</b> ****</p> <p><b><u>ADJUSTABLE SHELVING</u></b></p> <p>Compartment shelving shall be constructed of 3/16" brush finish aluminum with a 2" upward bend at front and rear, and side supports. Shelving shall be vertically adjustable with spring nuts in aluminum strut channel.</p> <p>Adjustable shelves shall be located as follows:</p> <p>Two (2) in the driver side front compartment</p> <p>Two (2) in the officer side front compartment</p> <p>One (1) in the driver side rear compartment</p> <p>Two (2) in the officer side rear compartment, rearward of the fixed vertical divider</p>		

	Bidder Complies	
	Yes	No
<p><b><u>SLIDE OUT FLOOR MOUNT SHELVING</u></b></p> <p>Slide out floor mount compartment shelving shall be constructed of 3/16" brush finish aluminum with a 2" upward bend at front and rear, and side supports attached to #250 rated slides. Slide out floor mount shelving shall have gas shocks to hold the tray in and out.</p> <p>Slide out floor mount shelving shall be provided as follows:</p> <p>One (1) in the driver side front compartment</p> <p>One (1) in the officer side front compartment</p> <p><b><u>ROLL-OUT/ DROP DOWN TRAYS</u></b></p> <p>The roll out/tilt tray shall consist of a 3/16" brushed aluminum finished aluminum tray with a minimum 2" lip on all four sides. Heavy duty aluminum Unistrut "C" channel tracking material shall be utilized to securely fasten the slide tracks to the compartment walls, while allowing height adjustment.</p> <p>The slide mechanism shall consist of a low-weight high-strength plastic to create a robust front bracket to support the aluminum tray. The rear of the tip down tray shall be mounted on a slider with an integral pivot plate. This slider and pivot plate shall be mounted inside an aluminum rail for maximum strength. The tray shall be released from the stowed position with the use of a push button and shall be capable of auto latching to the stowed position. The front handle/latch shall be designed with a double hand hold to control the tray when deployed or stowed. The roll out/tilt tray shall be rated for 330# capacity.</p> <p>Roll out/Tilt trays will be located as follows:</p> <p>One (1) in the officer side over the wheel high side compartment</p> <p><b><u>VERTICAL DIVIDERS</u></b></p> <p>Full height, fixed mounted, vertical compartment dividers shall be fabricated from 3/16" brushed aluminum material. The dividers shall extend the full depth of the specified compartment from the floor to the compartment ceiling.</p> <p>Full height, vertical dividers shall be located as follows:</p> <p>One (1) full height fixed divider shall be located in the officer's side rear compartment.</p> <p><b><u>VERTICAL PULL OUT TOOL BOARDS</u></b></p> <p>Vertical pull out tool boards shall be provided. Each tool board shall be constructed of 3/16" pegboard aluminum allowing mounting of equipment on both sides of the tool boards. Each tool board shall be attached to #250 rated slides, one at the top and one at the bottom of the tool board. 3/16" aluminum angles shall attach the slides to tracking to allow horizontal adjustments. A gas shock shall be used to secure the tool board in the stored and deployed position.</p> <p>Vertical pull out tool boards shall be located as follows:</p> <p>Two (2) in the officer side rear compartment, forward of the vertical fixed divider.</p>		



	Bidder Complies	
	Yes	No
<p><b>****120/240 VOLT A.C. ELECTRICAL AND GENERATOR SECTION****</b></p> <p><b><u>120/240 VOLT ELECTRICAL SYSTEM TESTING</u></b></p> <p>All line voltage wiring and permanently connected devices and equipment shall be subjected to a dielectric voltage withstand test of 900 volts for one minute. The test shall be conducted between live parts and the neutral conductor and between live parts and the vehicle frame with any switches in the circuits closed. The test shall be conducted after all bodywork has been completed. The dielectric tester shall have a minimum 500 VA transformer with a sinusoidal output voltage that can be verified.</p> <p>Electrical polarity verification shall be made of all permanently wired equipment and receptacles to determine that connections have been properly made.</p> <p><b><u>OPERATIONAL TESTING</u></b></p> <p>The apparatus manufacturer shall perform the following operation test and shall certify that the power source and any devices that are attached to the line voltage electrical system are properly connected and in working order.</p> <p>The generator shall be started from a cold start condition and the line voltage electrical system shall be loaded to 100 percent of the nameplate voltage rating.</p> <p>The following items shall be monitored and documented every 15 minutes:</p> <ul style="list-style-type: none"> <li>• The cranking time until the generator starts and runs.</li> <li>• The voltage, frequency, and amperes at continuous full rated load.</li> <li>• The generator oil pressure, water temperature, transmission temperature, hydraulic temperature, and the battery rate charge, as applicable.</li> <li>• The ambient temperature and altitude.</li> </ul> <p>The generator shall operate at 100 percent of its nameplate wattage for a minimum of two (2) hours.</p> <p><b><u>HYDRAULIC GENERATOR</u></b></p> <p>Smart Power 10 kW Heavy Rescue Series Hydraulic Generator</p> <p>A Smart Power, model HR-10, 10000 watt hydraulic generator shall be provided.</p> <p>The generator system shall come with a standard 5 year/1,000 hour fully transferable warranty from the manufacturer.</p> <p>The unit shall come equipped with: generator tray assembly (which includes the generator, hydraulic motor, cooler, fan, electronics package, 10 micron spin-on fluid filter and reservoir), axial piston hydraulic pump with pressure compensated control, and Command and Control Center (CCC) display with all required wiring harnesses. The CCC shall be an interactive operator control center, equipped with smart touch solid state buttons, with displays for voltage, frequency, amperage, hour meter, service reminders, operator warnings, system faults and diagnostics. Standard electronics package shall include smart start engagement to reduce mechanical stress, precise voltage and frequency control, cold start system, automatic load and temperature compensation, integrated diagnostics system, and other automated control features to protect system, vehicle and operator.</p> <p>The generator tray assembly shall be delivered with the cooler/fan assembly mounted such that the hot air is exhausted straight up, through an NFPA approved walking grate.</p>		

	Bidder Complies	
	Yes	No
<p>The body of the generator tray assembly (including reservoir) shall be 32" long x 13.5" wide x 17" high, weighing approximately 220 pounds. The hydraulic pump shall be driven by a chassis transmission mounted power take off (PTO).</p> <p>The wiring from the generator to the breaker box shall be type SO with suffix WA flexible cable.</p> <p><b><u>Ratings and Capacity*</u></b></p> <ul style="list-style-type: none"> <li>• Rating: 12000 watts peak - 10000 watts continuous</li> <li>• Volts: 120/240 volts</li> <li>• Phase: Single, 4 wire</li> <li>• Frequency: 60 Hz</li> <li>• Amperage: 83 amps @ 120 volts or 42 amps @ 240 volts</li> <li>• Engine speed at engagement: Standard soft start feature allows for any speed engagement</li> <li>• Operation range: 850 to 3240 RPM</li> </ul> <p><b><u>Testing</u></b> The generator shall be tested in accordance with all current NFPA 1901 standards.</p> <p><b><u>Notes</u></b> *All ratings and capacities shall be derived utilizing current NFPA 1901 test parameters.</p> <p><b><u>GENERATOR PTO</u></b></p> <p>A hot shift PTO shall be provided on the transmission for the Smart Power generator. The PTO shall be controlled from the cab. The control shall include a PTO engagement switch and a PTO engaged indicator light.</p> <p><b><u>GENERATOR WARRANTY</u></b></p> <p>The specified generator shall have a five (5) year or one thousand (1000) hour warranty as provided by the generator manufacturer. A copy of the generator warranty shall be provided at time of delivery.</p> <p><b><u>GENERATOR CONTROLS</u></b></p> <p>In addition to cab controls, the generator shall have PTO control at the pump operator's panel. The controls shall also include a green light to indicate the generator is running.</p> <p><b><u>GENERATOR RUNNING LIGHT</u></b></p> <p>A 120 volt generator running light shall be installed on the cab dash.</p> <p><b><u>GENERATOR RUNNING LIGHT</u></b></p> <p>A 120 volt generator running light shall be installed on the pump panel.</p> <p><b><u>LINE VOLTAGE ELECTRICAL SYSTEM CERTIFICATION</u></b></p> <p>When the unit successfully meets all the requirements outlined in NFPA 1901, 2016 Edition, UL shall issue a Certificate of Automotive Fire Apparatus Examination and Test stating the unit's compliance with the required line voltage section of NFPA.</p>		

	Bidder Complies	
	Yes	No
<p><b><u>GENERATOR LOCATION</u></b></p> <p>The generator shall be permanently mounted in the dunnage area.</p> <p>Locating the generator greater than 144" from the main breaker panel may require the installation of an additional power disconnecting means.</p> <p><b><u>120/240 VOLT LOAD CENTER</u></b></p> <p>The generator output line conductors shall be wired from the generator output connections to a Square D, model #QO112L125G breaker panel. The breaker panel shall be equipped with a properly sized main breaker using two (2) of the twelve (12) spaces which leaves a total of ten (10) available spaces.</p> <p>The generator output conductors shall be sized to 115% of the main breaker rating and shall be installed as indicated in the wiring section.</p> <p>Four (4) appropriately sized, 120 volt, circuit breakers shall be provided.</p> <p>Three (3) appropriately sized, 240 volt, circuit breakers shall be installed in place of six (6) standard 110 volt circuit breakers.</p> <p>The breaker panel shall be located on the rear wall of the driver side rear compartment.</p> <p><b><u>120 VOLT TRANSFER SWITCH</u></b></p> <p>An automatic power relay shall be installed to allow interior 120 volt accessories to be powered by the 120 volt shoreline or the generator. The transfer switch will be located in a separate box located next to the main power distribution panel. The interior accessories to be powered by the shoreline shall be wired through a separate sub-panel breaker box with individual circuit breakers as required. This shall allow for a continuous power supply to the interior accessories while the apparatus is parked in the station. The maximum load for the transfer / relay shall be 20 amps at 120 volts.</p> <p><b><u>120/240 VOLT WIRING METHODS</u></b></p> <p>Wiring/conduit shall not be attached to any chassis suspension components, water or fuel lines, air or air brake lines, fire pump piping, hydraulic lines, exhaust system components or low voltage wiring.</p> <p>All wiring shall be installed at a minimum of 12 inches away from any exhaust piping and a minimum of 6 inches from any fuel lines.</p> <p>All wiring shall be securely clamped within 6 inches of any junction box and at a minimum of every 24 inches of run. All supports shall be of nonmetallic material or corrosion protected metal. All supports shall not cut or abrade conduit or cable and shall be mechanically fastened to the vehicle.</p> <p>All power supply assembly conductors, including neutral and grounding conductors, shall have an equivalent amperage rating and shall be sized to carry not less than 115% of the main breaker rating.</p> <p>All Type SO or Type SEO cable not installed in a compartment shall be installed in wire loom. Where Type SO or Type SEO cable penetrates a metal surface, a rubber or plastic grommet or bushing shall be provided.</p> <p>The installation of all 120/240 wiring shall meet the current NFPA-1901 Standards .</p>		



	Bidder Complies	
	Yes	No
<p><b><u>120/240 VOLT WIRING IDENTIFICATION</u></b></p> <p>All line voltage conductors located inside the main breaker panel box shall be individually and permanently identified. When pre-wiring for future power wiring installations, the non-terminated ends shall be labeled showing function and wire size.</p> <p><b><u>120/240 VOLT GROUNDING</u></b></p> <p>The neutral conductor of the power source shall be bonded to the vehicle frame only at the power source.</p> <p>The grounded current carrying conductor (neutral) shall be insulated from the equipment grounding conductors and from the equipment enclosures and other grounded parts. The neutral conductor shall be colored white or gray.</p> <p>In addition to the bonding required for the lower voltage return current, each body and driving/crew compartment enclosure shall be bonded to the vehicle frame by a copper conductor. The conductor shall have a minimum amperage rating of 115 percent of the name plate current rating of the power source specification label.</p> <p><b><u>120/240 VOLT CIRCUIT BREAKER / RECEPTACLE INSTALLATION</u></b></p> <p>The system shall be installed by highly qualified electrical technicians to assure the required level of safety and protection to the fire apparatus operators. When multiple circuit are required, the circuits shall be wired to the breaker panel in a staggered configuration to minimize electrical loads on each breaker or generator (leg) circuit. The wiring, electrical fixtures and components shall be to the highest industry quality standards available on the domestic market. The equipment shall be the type as designed for mobile type installations subject to vibration, moisture and severe continuous usage.</p> <p><b><u>120/240 VOLT RECEPTACLE INSTALLATIONS</u></b></p> <p>Any receptacle installed in a wet location must be a minimum of 24 inches above the ground and provided with an approved wet location cover. Wet receptacles may not be mounted at more than 45 degrees from vertical, nor can they be mounted in a face-up position.</p> <p>One (1) 120 volt, NEMA L5-20, 20 amp, Single twist-lock receptacle with a grey thermoplastic, corrosion resistant, weatherproof cover shall be installed at the officer's side rear wheel well panel.</p> <p>The receptacle shall require one (1) 20 amp, 120 volt circuit breaker to be installed in the load center.</p> <p>One (1) 240 volt, NEMA L6-30, 30 amp, single twist-lock receptacle with a grey thermoplastic, corrosion resistant, weatherproof cover shall be installed in the driver's side rear fender area.</p> <p>The receptacle shall require one (1) 30 amp, 240 volt circuit breaker to be installed in the load center.</p> <p><b><u>ELECTRIC CABLE REELS</u></b></p> <p>Two (2) Hannay Model #ECR-1618-17-18, 120 volt, electric rewind cord reels shall be provided and wired to the breaker panel. The reels shall be securely mounted and equipped with a rewind control adjacent to the reel.</p> <p>The cord reels shall be mounted in the dunnage area with one (1) on the driver side and one</p>		

	Bidder Complies	
	Yes	No
<p>(1) on the officer side.</p> <p>The circuit breaker used to protect any device attached to the cord reel shall be sized to the smallest electrical connection used.</p> <p>One (1) reel rewind switch(s) shall be provided on the compartment wall</p> <p>One (1) Hannay 4-way stainless steel roller assembly shall be provided. The roller assembly opening shall be the full width of the reel drum, and shall terminate at the body side sheet.</p> <p>One (1) cable ball stop(s) shall be installed on the cable to keep the end from passing through the roller assembly.</p> <p><b><u>ELECTRIC CABLE</u></b></p> <p>Two hundred (200) feet of Type SO yellow 10/3 heavy duty electric cable shall be provided on each of the reels.</p> <p>One (1) NEMA L5-20R, 20 amp, three prong twist-lock receptacle shall be provided on the end of the cable.</p> <p><b><u>JUNCTION BOXES</u></b></p> <p>Two (2) Akron Model EJB, four (4) outlet junction box with two (2) duplex household receptacles and two (2) NEMA L5-20R twist-lock receptacles.</p> <p><b><u>TELESCOPING LIGHTS - FRONT OF BODY</u></b></p> <p>Two (2) Akron SceneStar, model ELSS-XLAC 220 watt LED telescoping lights shall be provided. Each light shall have an output of 20,000 lumens and shall be mounted to an Extenda-Lite, side mounted, push up pole, deployable in a full 360 degree rotation. The tightening mechanism shall be of a twist lock design, the use of a knob or latch to release the pole in order to raise and lower the telescoping portion of the pole shall not be accepted.</p> <p>The lights shall be mounted on the front face of the body, one (1) each side. Wiring used for the lighting shall be a minimum of 16 gauge three (3) wire cable that is properly supported and protected from damage.</p> <p>Two (2) model ELSS-XLAC 220 watt light heads shall require one (1) 240 V, 15 amp circuit breaker.</p> <p>The front of body lights shall be controlled from the following location(s):</p> <ul style="list-style-type: none"> <li>• Pump panel, with 12 volt switch</li> </ul> <p>RM PUMPER, OVERHEAD LADDER STORAGE (DRIVER SIDE)</p> <p><b><u>LADDER STORAGE RACK - ZIAMATIC SINGLE ARM (DRIVER SIDE)</u></b></p> <p>A hydraulically actuated, single arm, swing down ladder rack, for use with ladders that have a combined weight of approximately 500lbs., shall be provided. The ladders shall be stored horizontally, directly above the driver side hose bed area. The ladders shall be lowered and raised by means of a hydraulic actuator.</p>		

	Bidder Complies	
	Yes	No
<p>The ladders shall be stored on an 86" long cradle to retain the ladders with two (2) ladder retaining brackets mounted to hold the ladders with the rack down. The cradle shall be equipped with a forward and rear bumper stop, which shall be designed to contact the upper portion of the body to stabilize the ladder rack in the travel position.</p> <p>The arm mechanism shall be constructed from 2" X 3" rectangular steel tubing arms with a square tubing framework to support the ladder storage angles. The pivot points of the arms shall be mounted with pins through a rigid aluminum casting to maintain structural integrity.</p> <p>The actuator switch and power on/off switch for the ladder rack shall be located on the driver side rear body panel in an enclosed housing, to provide the operator full view of the rack during the raising or lowering operation. A warning alarm shall activate when the rack is in motion and shall be installed on the driver side rear body panel. An interlock system shall be provided whereas if any hinged compartment door on the driver side of the body is open, the rack shall not operate.</p> <p>A flashing warning light labeled: "Do Not Move Apparatus When Light Is On", shall be provided on the cab dash to indicate when the rack is not in the raised travel position.</p> <p>The forward and rear ends of the ladder rack shall be equipped with flashing lights to warn when the rack is down. The lights shall be amber on the front and red on the rear and shall automatically activate when the rack is not locked in the travel position.</p> <p>An automatic lock shall be provided for the ladder rack in the nested position that shall automatically engage when the ladder rack is nested.</p> <p><b><u>OVERHEAD LADDER RACK LOCATION</u></b></p> <p>The specified single arm ladder rack shall be located in the center mounting position on the body side. This mounting shall split the specified high side compartment into two separate compartments, and reduce the overall width by 17". The 17" void shall be taken from the center section of the high side compartment.</p> <p>The ladder rack shall be shifted forward 2"</p> <p><b><u>LADDER RACK HYDRAULIC COVER</u></b></p> <p>A tread plate cover shall be installed to cover the hydraulic cylinder actuator arm. The cover shall be actuated automatically with operation of the ladder rack.</p> <p><b><u>LADDERS</u></b></p> <p>The following Duo-Safety ground ladder compliment shall be provided:</p> <ul style="list-style-type: none"> <li>• One (1) Duo-Safety series 1200-A, 28', aluminum, two (2) section extension ladder shall be provided.</li> <li>• One (1) Duo-Safety series 875-A, 16', aluminum, straight roof ladder with folding hooks shall be provided.</li> <li>• One (1) Duo-Safety series 701, 12', extending, aluminum, attic ladder shall be provided.</li> </ul>		



	Bidder Complies	
	Yes	No
<p>**** PIKE POLES AND HOLDERS ****</p> <p><b><u>PIKE POLE STORAGE</u></b></p> <p>Four (4) pike pole tube(s) shall be provided. Each pike pole holder shall be labeled to indicate the pike pole length.</p> <p>(2)The pike pole tube(s) shall be mounted on the rearward side of the body front compartment speed lay trays. The tubes shall be sized for 6 ft. pike poles and shall be set-up for deployment out driver side.</p> <p>(2) The pike pole tube(s) shall be mounted on the ladder rack.</p> <p><b><u>SUCTION HOSE STORAGE</u></b></p> <p>The suction hoses shall be attached to the ladder rack on the driver side of the apparatus.</p> <p><b><u>SUCTION HOSE</u></b></p> <p>One (1) 10 foot sections of six (6) inch PVC lightweight suction hose shall be furnished (Kochek or Firequip Maxi-Flex). Suction hose shall be for suction only and not to be used on pressurized hydrants or for relay pumping. Couplings shall include a long handle, female swivel on one end and a rocker lug male on the other end. All threads shall be six (6) inch N.S.T.</p> <p>NOTE: All PVC suction hoses are strictly drafting hoses and must not be used on hydrants or in pressure applications, as serious personal injury or death may occur.</p> <p><b><u>EQUIPMENT CLARIFICATION</u></b></p> <p>The NFPA-1901 required suction strainer shall "NOT" be provided by the apparatus manufacturer.</p> <p><b><u>EQUIPMENT CLARIFICATION</u></b></p> <p>The NFPA-1901 recommended double female hydrant adapter shall not be provided by the apparatus manufacturer.</p> <p><b><u>ADDITIONAL ITEMS SUPPLIED WITH THE VEHICLE</u></b></p> <ul style="list-style-type: none"> <li>• 1 - Pint of touch up paint for each color</li> <li>• 1 -Bag of assorted stainless steel nuts and bolts</li> </ul> <p><b><u>LOOSE EQUIPMENT</u></b></p> <p>The following items shall be provided and shipped loose with the completed apparatus at the time of delivery:</p> <p><b><u>HAND LIGHT</u></b></p> <p>Four (5) Streamlight model 90503 orange "Survivor" LED rechargeable hand light(s) and 12 volt charger shall be installed as directed by the purchaser. Charger shall be wired to the chassis battery system.</p>		

	Bidder Complies	
	Yes	No
<p><b><u>WHEEL CHOCKS</u></b></p> <p>Two (2) ZICO #SAC-44 folding wheel chocks shall be mounted forward of the rear wheels on the driver side below the side running board compartments.</p> <p>**** PAINT SECTION ****</p> <p><b><u>PAINT, PREPARATION AND FINISH</u></b></p> <p>The apparatus body shall be painted Sikkens [#COL]. The paint process shall meet or exceed current state regulations concerning paint operations. Pollution control shall include measures to protect the atmosphere, water, and soil. Contractor shall, upon demand, provide evidence that the manufacturing facility is in compliance with State EPA rules and regulations.</p> <p>The exterior shall have no mounted components prior to painting to assure full coverage of metal treatments and paint to the exterior surfaces of the body. Any vertically or horizontally hinged smooth-plate compartment doors shall be painted separately to assure proper paint coverage on body, door jambs and door edges.</p> <p>Paint process shall feature Sikkens high solid LV products and be performed in the following steps:</p> <ul style="list-style-type: none"> <li>Corrosion Prevention - all aluminum surfaces shall be pre-treated with the Alodine 5700 conversion coating to provide superior corrosion resistance and excellent adhesion of the base coat.</li> <li>Sikkens Sealer/Primer LV - acrylic urethane sealer/primer shall be applied to guarantee excellent gloss hold-out, chip resistance and a uniform base color.</li> <li>Sikkens High Solid LVBT650 (Base coat) - a lead-free, chromate-free high solid acrylic urethane base coat shall be applied, providing excellent coverage and durability. A minimum of two (2) coats shall be applied.</li> <li>Sikkens High Solid LVBT650 (Clear coat) - high solid LV clear coat shall be applied as the final step in order to ensure full gloss and color retention and durability. A minimum of two (2) coats shall be applied.</li> </ul> <p>Any location where the material is penetrated after painting, for the purpose of mounting steps, hand rails, doors, lights, or other specified components shall be treated at the point of penetration with a corrosion inhibiting pre-treatment (ECK Corrosion Control). The pre-treatment shall be applied to the aluminum sheet metal or aluminum extrusions in all locations where the aluminum has been penetrated. All hardware used in mounting steps, hand rails, doors, lights, or other specified components shall be individually treated with the corrosion inhibiting pre-treatment.</p> <p>After the paint process is complete, the gloss rating of the unit shall be tested with a 20 degree gloss meter. Coating thickness shall be measured with a digital MIL gauge and the orange peel with a digital wave scan device.</p> <p><b><u>BODY PRIMER &amp; PREPARATION</u></b></p> <p>All exposed welds shall be ground smooth for final finishing of areas to be painted. The compartments and doors are totally degreased and phosphatized. After final body work is completed, grinding (36 and 80 grit), and finish sanding shall be used in preparation for priming.</p>		

	Bidder Complies	
	Yes	No
<p><b><u>BODY FINISH PAINT</u></b></p> <p>The body shall be finish sanded and prepared for final paint. Upon completion of final preparation, the body shall be painted utilizing the highest quality, state of the art, low V.O.C., polyurethane base paint. Finish paint shall be applied in multiple coats to ensure proper paint coverage with a high gloss finish.</p> <p>The entire body shall be buffed and detailed.</p> <p><b><u>BODY PAINT</u></b></p> <p>The inside and underside areas of the complete body assembly shall be painted black using a Sikkens paint system, prior to the installation of the body on the chassis or torque box.</p> <p><b><u>COMPARTMENT PAINT</u></b></p> <p>The interior of the body compartments shall be painted with Line-X material.</p> <p>The Line-X coating shall be dark gray in color.</p> <p><b><u>BODY PAINT</u></b></p> <p>The body paint finish shall be a single color, to match cab and chassis paint</p> <p><b><u>PUMP / PIPING PAINT</u></b></p> <p>The pump enclosure and pump/plumbing within the pump enclosure shall be painted black.</p> <p><b><u>CHASSIS CAB PAINT</u></b></p> <p>The commercial cab exterior shall be finish painted in a single color by the chassis manufacturer: L0827ED Red Elite</p> <p><b><u>COMMERCIAL CAB PAINT FINISH GUIDELINES</u></b></p> <p>The chassis shall be painted and detailed as provided from the chassis OEM and shall meet their quality guidelines.</p> <p><b><u>WHEEL PAINT</u></b></p> <p>The chassis wheels shall be painted as provided by the commercial chassis manufacturer.</p> <p><b><u>TOUCH-UP PAINT</u></b></p> <p>One (1) pint of each exterior color paint for touch-up purposes shall be supplied when the apparatus is delivered to the end user.</p> <p><b><u>FINALIZATION &amp; DETAILING</u></b></p> <p>Prior to delivery, the vehicle, the interior and exterior is to be cleaned and detailed. The finalization process detailing shall include installation of NFPA required labels, checking fluid levels, sealing and caulking required areas of the cab and body, rust proofing, paint touch-up, etc.</p>		



	Bidder Complies	
	Yes	No
<p><b><u>RUST PROOFING</u></b></p> <p>The entire unit shall be thoroughly rust proofed utilizing rustproof and sound deadening materials applied in manufacturer recommended application procedures. Rust proofing shall be applied during the assembly process and upon completion to insure proper coverage in all critical areas.</p> <p>**** LETTERING AND STRIPING ****</p> <p><b><u>LETTERING</u></b></p> <p>Lettering shall not be provided anywhere on the apparatus.</p> <p>**** NFPA REQUIRED SCOTCH-LITE STRIPING ****</p> <p>***** WARRANTIES &amp; REQUIRED INFORMATION *****</p> <p><b><u>WARRANTY - NEW PRODUCT - COMMERCIAL CHASSIS</u></b></p> <p>The bidder hereby warrants to the original purchaser (first end users) that any new products shall be free from defects in material and workmanship under normal use, maintenance and service for a period of one (1) year from date of delivery, subject to the conditions and exceptions stated herein.</p> <p>Under this warranty, the manufacturer's obligation is limited to the repair or replacement at their option, at its factory, by its representative, or by its authorized service facility, of any part found to be defective by the manufacturer. If the manufacturer deems it necessary, all parts for which warranty claim is made, shall be returned to the manufacturer, transportation charges prepaid, for examination by the manufacture, who will be the sole judge as to whether such part was defective in material or workmanship under normal use, maintenance or service. The Commercial Chassis Warranty start date shall begin upon departure of the completed apparatus from the manufacturer (unless chassis is customer provided, at which point the chassis warranty start period will be as agreed upon between the customer and the chassis dealership from whom it was purchased).</p> <p><b><u>WARRANTY - BODY STRUCTURE</u></b></p> <p>The body shall be warranted against structural defects for a period of ten (10) years from the date of acceptance of the unit. Details of warranty coverage, limitations and exclusions are included in the specific warranty document.</p> <p><b><u>WARRANTY - CORROSION</u></b></p> <p>The body shall be warranted against rust-through or perforation, due to corrosion from within, for a period of ten (10) years. Perforation is defined as a condition in which an actual hole occurs in a sheet metal panel due to rust or corrosion from within. Surface rust or corrosion caused by chips or scratches in the paint is not covered by this warranty.</p> <p><b><u>WARRANTY - PAINT</u></b></p> <p>The paint finish shall be warranted for a period of ten (10) years from the date of acceptance of the unit. Details of warranty coverage, limitations and exclusions are included in the specific warranty document.</p>		

	Bidder Complies	
	Yes	No
<p><b><u>WARRANTY - BRIGHTWORK</u></b></p> <p>The manufacturer warrants all bright finish components used in the construction of their apparatus against defects and workmanship provided the apparatus is used in a normal and reasonable manner. This warranty is extended only to the original user-purchaser for a period of one (1) year from the date of delivery / acceptance to the original user-purchaser, whichever occurs first.</p> <p>The expressed warranty excludes corrosion or degradation of bright finished components caused by damage to the component.</p> <p><b><u>WARRANTY - STAINLESS STEEL PLUMBING WARRANTY</u></b></p> <p>The stainless steel plumbing shall be warranted for a period of ten (10) years from the date of acceptance of the unit. Details of warranty coverage, limitations and exclusions are included in the specific warranty document.</p> <p><b><u>WARRANTY - WATER TANK</u></b></p> <p>The water tank shall be warranted by the water tank manufacturer for the "Lifetime" of the unit. A copy of the manufacturer's warranty shall be supplied to define additional details of the warranty provisions.</p> <p><b><u>WARRANTY - FIRE PUMP</u></b></p> <p>Waterous warrants, to the original Buyer only, that products manufactured by Waterous shall be free from defects in material and workmanship under normal use and service for a period of five (5) years from the date the product is first placed in service or five and one-half (5 1/2) years from the date of shipment by Waterous, whichever period shall be the first to expire; provided the buyer notifies Waterous, in writing, of the defect in said product within the warranty period, and said product is found by Waterous to be nonconforming with the aforesaid warranty.</p> <p><b><u>WARRANTY - AKRON PRODUCTS</u></b></p> <p>The limited warranty set forth here against defective materials or workmanship for a period of five (5) years shall be given by Akron Brass Co. with respect to Akron Brass Co. products purchased and used in the United States and Canada respectively. All Akron valves are warranted for 10 years.</p> <p><b><u>WARRANTY - HEAVY DUTY VALVES</u></b></p> <p>Akron Brass warrants Heavy Duty Swing-Out Valves for a period of ten (10) years after purchase against defects in material or workmanship. Akron Brass shall repair or replace any Heavy Duty Swing Out Valve which fails to satisfy this warranty.</p> <p><b><u>WARRANTY - GENERATOR</u></b></p> <p>The specified generator shall have a five (5) year or one thousand (1,000) hour warranty, all parts and labor, as provided by the generator manufacturer. A copy of the generator warranty shall be provided at time of delivery.</p>		

	Bidder Complies	
	Yes	No
<p>****OPTIONS NOT INCLUDED IN TOTAL****</p> <p><u>COMPARTMENT DOORS</u></p> <p>Provide aluminum doors in lieu of stainless subtract \$ _____</p> <p><u>Fire Body</u></p> <p>Construct fire body of aluminum in lieu of stainless subtract \$ _____</p>		





# **EXHIBIT “A”**

## **EXCEPTIONS TO RFP**







# **EXHIBIT “B”**

## **MANUFACTURER HISTORY**



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# **EXHIBIT “C”**

## **REFERENCES**







# **EXHIBIT “D”**

## **DEALER AUTHORIZATION**







# **EXHIBIT “E”**

## **BUSINESS LICENSES**







# **EXHIBIT “F”**

## **WARRANTIES**







# **EXHIBIT “G”**

## **GENERAL LIABILITY INSURANCE**



The first part of the paper discusses the importance of maintaining accurate records of all transactions, including sales, purchases, and expenses. It emphasizes the need for a systematic approach to record-keeping, such as using a ledger or accounting software, to ensure that all financial data is properly documented and organized. This section also highlights the benefits of regular reconciliation and auditing to identify and correct any discrepancies or errors in the records.

The second part of the paper focuses on the importance of budgeting and financial planning. It explains how a well-defined budget can help a business or individual manage their finances effectively, allocate resources wisely, and achieve their financial goals. This section provides practical tips and strategies for creating a realistic budget, monitoring progress, and making adjustments as needed. It also discusses the importance of setting financial priorities and goals, and how these can guide decision-making and resource allocation.

The third part of the paper explores the importance of understanding and managing cash flow. It explains how cash flow is the lifeblood of any business, and how a positive cash flow is essential for maintaining operations, paying bills, and investing in growth. This section provides insights into the factors that can affect cash flow, such as sales volume, payment terms, and expenses, and offers strategies for improving cash flow management. It also discusses the importance of monitoring cash flow regularly and taking proactive measures to address any potential issues or shortages.

The fourth part of the paper discusses the importance of understanding and managing taxes. It explains how taxes are a significant financial obligation for businesses and individuals, and how proper tax management can help minimize tax liability and maximize financial resources. This section provides an overview of the different types of taxes, such as income tax, sales tax, and property tax, and offers practical advice on how to calculate, report, and pay taxes accurately. It also emphasizes the importance of staying up-to-date on tax laws and regulations, and seeking professional advice when needed.

The fifth and final part of the paper discusses the importance of understanding and managing debt. It explains how debt can be a double-edged sword, providing access to capital but also creating financial obligations that must be managed carefully. This section provides insights into the different types of debt, such as loans, credit cards, and bonds, and offers strategies for managing debt effectively. It also discusses the importance of understanding the terms and conditions of any debt, and seeking professional advice to ensure that debt is managed in a way that aligns with financial goals and objectives.



# **EXHIBIT “H”**

## **EXCESS LIABILITY INSURANCE**







# **EXHIBIT “I”**

## **BANKRUPTCY**







# **EXHIBIT “J”**

## **SURETY (BID) BOND**







# **EXHIBIT “K”**

## **IRAN DIVESTMENT ACT AFFIDAVIT**







# IRAN DIVESTMENT ACT AFFIDAVIT

As per Tennessee Code Annotated, Title 12, and effective July 1, 2016:

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 thereto certifies as to its own organization, under penalty of perjury, that to the best of its knowledge and belief that each bidder is not on the list created pursuant to §12-12-106.

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Signature

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Date



