

OFFICE OF THE SULLIVAN COUNTY PURCHASING AGENT

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BLOUNTVILLE, TN 37617-0569

**KRISTINIA DAVIS
PURCHASING AGENT**

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REQUEST FOR PROPOSAL

RFP Name / Number	Custom Pumper-Tanker Conversion / # EASTSULL2014(DB)
Department	Sullivan East Volunteer Fire Department
Due Date / Time	Tuesday, December 9, 2014 / 2:00 p.m.
Bid Location / Mail Address	Sullivan County Purchasing Department, Kristinia Davis, Purchasing Agent 3411 Hwy 126-Suite 201, Blountville, TN 37617
Bid Contact / Telephone	Debbie Burleson (423) 323-6402; debbie.burleson@sullivancountytn.gov

The Sullivan County Purchasing Department is soliciting this Request for Proposal (RFP) regarding the purchase of a **FIRE FIGHTING APPARATUS (CUSTOM PUMPER-TANKER CONVERSION)** to be operated by the **EAST SULLIVAN 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, DECEMBER 9, 2014 @ 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 # EASTSULL(DB) 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 East Sullivan 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 East Sullivan Volunteer Fire Department for evaluations prior to final selection and award.

CONTACT FOR QUESTIONS REGARDING THE BID:

DEBBIE BURLESON @ 423-323-6402

debbie.burleson@sullivancountyttn.gov

COLOR CODED

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

VENDOR'S DUPLICATE COPY MAY BE PRINTED ON WHITE PAPER.

REQUEST FOR PROPOSAL	YELLOW
TERMS AND CONDITIONS (GENERAL PROCUREMENT-SULLIVAN COUNTY)	BLUE
COST ANALYSIS	PINK
SPECIFICATIONS/COMPLIANCE	WHITE
EXHIBITS SECTION	LIME

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 a "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 \$500 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 \$500 - \$4999, 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 \$5000 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 1st through June 30th. 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 # EASTSULL2014(DB)

FIRE FIGHTING APPARATUS

(CUSTOM PUMPER/TANKER CONVERSION)

EAST SULLIVAN VOLUNTEER FIRE DEPARTMENT

PURCHASE PRICE = \$ _____

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

DELIVERY DATE (in calendar days): _____

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** _____

**East Sullivan Volunteer Fire Department
Pumper/Tanker Conversion Bid**

**Bidder
Complies**

Yes No

INTENT OF SPECIFICATIONS

It shall be the intent of these specifications to provide a complete apparatus equipped as hereinafter specified. With a view to obtaining the best results and the most acceptable apparatus for service in the Department, these specifications cover only the general requirements as to the type of construction and tests to which the apparatus must conform, together with certain details as to finish, equipment and appliances with which the successful bidder must conform. 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 for all features. The National Fire Protection association Standard 1901, 2009 edition, unless otherwise specified in these specifications, shall prevail. In addition the apparatus shall also be in compliance with all federal, state, ICC and DOT regulations, standards and laws.

Bids shall only be considered from companies that have an established reputation in the field of fire apparatus construction and have been in continuous business for a minimum of thirty-five (35) years. A written chronological history of the bidder shall be included in the bid response package.

--ENCLOSE AS EXHIBIT A – CHRONOLOGICAL/MFR HISTORY

Each bidder shall furnish satisfactory evidence of their ability to construct the apparatus specified, and shall state the location of the factory where the apparatus is to be built. They shall also show that they are in a position to render prompt service and to furnish replacement parts for said apparatus.

No experimental, prototype or recently introduced products without a verifiable, minimum four (4) year service record on the combination of the chassis and fire equipment proposed will be acceptable. For bid evaluation purposes, this information, including photographs and drawings of units previously constructed, shall be included in the bid response package.

Each bid shall be accompanied by a set of "Contractor's Specifications" consisting of a detailed description of the apparatus being furnished under this contract which conform. Computer runoff sheets are not acceptable as "Contractor's Specifications". Note: Each bidder shall submit their bid in the same sequence as these specifications to allow the department to easily compare bid. There shall be no exception to this requirement.

These specifications shall indicate size, type, model and make of all component parts and equipment.

QUALITY AND WORKMANSHIP:

The design of the Apparatus must embody the latest approved automotive engineering practices.

The workmanship must be of the highest quality in its respective field. Special consideration will be given to the following points: Accessibility of the various units that require periodic maintenance operations, ease of operation (including both pumping and driving) and symmetrical proportions.

Construction shall be rugged and ample safety factors shall be provided to carry loads as specified and to meet both on and off road requirements and to speed conditions as set forth under "Performance tests and requirements".

Welding shall be employed in the assembly of the apparatus in a manner that will not prevent the ready removal of any component part for service or repair.

DELIVERY:

It is desired that delivery of the vehicle, meeting these specifications, shall be provided within three hundred fifty (350) calendar days from date of award of bid.

Apparatus, to insure proper break-in of all components while still under warranty, shall be delivered under its own power. A qualified delivery engineer representing the contractor shall instruct the Fire Department Personnel in the proper operation, care and maintenance of the equipment delivered.

**East Sullivan Volunteer Fire Department
Pumper/Tanker Conversion Bid**

**Bidder
Complies**

Yes No

PERFORMANCE TESTS AND REQUIREMENTS:

A road test shall be conducted with the apparatus fully loaded and a continuous run of ten (10) miles or more will be made, during which time the apparatus shall show no loss of power or overheating. The transmission drive shaft or shafts and rear axles shall run quietly and be free from abnormal vibration or noise throughout the operating range of the apparatus. The apparatus, when loaded, shall not have less than 25% nor more than 55% of the weight on the front axle and not less than 45% nor more than 75% on the rear axle. The successful bidder shall furnish a Weight Certificate showing weights on front axle, rear axles and total weight for the completed apparatus at time of delivery.

A. The apparatus shall be capable of accelerating to 35 MPH from a standing start within 25 seconds on a level concrete highway without exceeding the maximum governed RPM of the engine.

B. From a steady pace of 15 MPH the vehicle shall accelerate to 35 MPH within 30 seconds. This shall be accomplished without moving the gear selector.

C. The service brakes shall be capable of stopping the fully loaded vehicle in 35 feet at 20 MPH on level dry concrete highway.

D. The apparatus, fully loaded, shall be capable of obtaining a minimum speed of 50 miles per hour on a level dry concrete highway with the engine not exceeding its governed RPM (fully loaded).

LIABILITY:

The bidder, if their bid is accepted, shall defend any and all suits and assume all liability for the use of any patented device or article forming part of the apparatus or any appliance furnished under the contract.

GENERAL CONSTRUCTION:

The apparatus shall be designed with due consideration to distribution of load between the front and rear axles, so that all specified equipment, including filled water tank, a full complement of personnel and fire hose will be carried without injury to the apparatus. Weight balance and distribution shall be in accordance with the recommendations of NFPA #1901.

The apparatus shall be designed so that all recommended daily maintenance checks can be performed easily by the operator, without the need for hand tools. Apparatus components that interfere with repair or removal of other major components must be attached with fasteners (cap, screws, nuts, etc.) so that the components can be removed and installed with normal hand tools. These components must not be welded or otherwise permanently secured into place.

The GAWR and GVWR of the chassis shall be adequate to carry the fully equipped apparatus including all tanks filled, the specified hose load, unequipped personnel weight, ground ladders and a miscellaneous equipment allowance of 2000 lbs. It shall be the responsibility of the purchaser to provide the contractor with the weight of equipment to be carried if it is in excess of the allowance of 2,000 lbs.

The unequipped personnel weight shall be calculated at 250 lbs. per person, times the maximum number of persons to ride on the apparatus.

The height of the fully loaded vehicle's center of gravity shall not exceed the chassis manufacturer's maximum limit.

The front to rear weight distribution of the fully loaded vehicle shall be within the limits set by the chassis manufacturer. The front axle loads shall not be less than the minimum axle loads specified by the chassis manufacturer, under full loads and all other loading conditions.

The difference in weight on the end of each axle, from side to side, when the vehicle is fully loaded and equipped shall not exceed 7 percent.

**East Sullivan Volunteer Fire Department
Pumper/Tanker Conversion Bid**

**Bidder
Complies**

Yes No

The apparatus shall be so designed that the various parts are readily accessible for lubrication, inspection, adjustment and repair.

Where special tools manufactured or designed by the contractor and are required to provide routine service on any component of the apparatus built or supplied by the contractor, such tools shall be provided with the apparatus.

EXCEPTIONS OR CLARIFICATIONS TO SPECIFICATIONS

These specifications have been carefully prepared by the Department, taking into consideration, among other items, performance of our previous apparatus. In order to provide a unit that we know will give outstanding performance in our particular operating environment, the following Chassis, Pump and Body specifications shall be strictly adhered to. Exceptions or clarifications shall be allowed if they are judged by the department to be equal to or superior to those items specified, and will be given careful consideration provided they are listed and fully explained on a separate page entitled "Exceptions or Clarifications to Specifications". This list must refer to our specification page number and paragraph. Proposals taking total exception to specifications or total exception to certain parts of the specifications such as Electrical Systems, Body or Pump, **will not** be accepted. Apparatus shall be inspected upon delivery for compliance with specifications. Deviations will not be tolerated and will be cause for rejection of Apparatus unless they were originally listed in bidder's proposal and accepted in writing by the department. The purchaser shall assume that failure to cite an exception indicates full compliance with the specifications. Should the equipment not comply with all requirements of this document, the equipment shall be rejected at the final inspection.

If the bidder takes an exception, on the exception page, the bidder must state an option price to bring their specifications into full compliance with the Department specifications. Failure to provide this information shall be cause to reject the proposal as being non-responsive.

-ENCLOSE AS EXHIBIT B – EXCEPTIONS OR CLARIFICATIONS TO SPECIFICATIONS

CHASSIS STORAGE

The chassis on which this apparatus will be constructed, shall not be stored where it will be exposed to the sun, rain, snow, hail or other elements. The chassis shall be stored in an enclosed, protected environment until construction is begun. For evaluation purposes, photographs and a detailed description of the chassis storage provisions shall be included in the bid response package. There shall be no exception to these protected chassis storage provisions.

APPROVAL DRAWINGS

After award of the bid, the contractor shall provide detailed, "D" size engineering drawings for use at the pre-construction conference. These drawings shall include, but not limited to, the overall dimensions, wheelbase, and overall length of the proposed apparatus shall be required with the bid. The drawing shall include right, left, top and rear views of the apparatus. These drawings shall be updated and sent back to the department if any changes are made at the pre-construction conference.

The successful contractor shall also provide a detailed pump panel layout drawing for department evaluation and approval before construction of the apparatus is begun. It is required that the pump and plumbing be designed and engineered in the builder's engineering department before construction. Plumbing assembled "on the floor" without engineering drawings, shall not be acceptable.

For evaluation purposes, samples of the as-built electrical system schematics, engineered plumbing drawings and pump panel layout approval drawings, shall be included in the bid proposal package.

COMMERCIAL GENERAL LIABILITY INSURANCE

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

**East Sullivan Volunteer Fire Department
Pumper/Tanker Conversion Bid**

**Bidder
Complies**

Yes No

Products/Completed Operations Aggregate	\$2,000,000
Personal and Advertising Injury	\$1,000,000
Each Occurrence	\$1,000,000

Coverage shall be written on a commercial general liability form. The policy shall be written on an occurrence form and shall include contractual liability coverage. The required limits can be provided by one or more policies provided all other insurance requirements are met. Coverage shall be provided by a carrier(s) rated "Excellent" by A.M. Best.

Note: The successful vendor shall include Sullivan county as an additional insured on above policies. A copy of Vendor's existing commercial general liability policy must be included in vendor's response.

--ENCLOSE AS EXHIBIT C – GENERAL LIABILITY INSURANCE

UMBRELLA/EXCESS LIABILITY INSURANCE

The successful vendor 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 policy shall be written on an occurrence basis and, at a minimum, provide the same coverage as vendor's general liability, automobile liability and employer's liability. The required limits can be provided by one or more policies provided all other insurance requirements are met.

Vendor agrees to furnish Sullivan County with a current certificate of insurance indicating the required limits. The certificate of insurance shall provide that Sullivan County and East Sullivan Volunteer Fire Department be given thirty (30) days advance notice of cancellation, non-renewal, or material change in coverage.

Note: The successful vendor shall include Sullivan County as an additional insured on above policies. A copy of vendor's existing Commercial General Liability policy must be included in vendor's response.

--ENCLOSE AS EXHIBIT D – EXCESS LIABILITY INSURANCE

DELIVERY

The unit shall be delivered by the fire department upon acceptance at the factory. The fire department shall pay in full and provide insurance proof before the unit leaves the factory.

PUMP & APPARATUS TRAINING

The successful bidder shall provide a structured training course for personnel assigned to operate the apparatus, covering nomenclature of components, proper operation of the apparatus, daily operational maintenance checks, and other information necessary for a firefighter/driver/engineer to properly operate and maintain the apparatus.

It is the intended that this training be organized in such a manner that both the mechanics and fire personnel receive full benefit of the aforementioned structured training. The firefighter/operator training shall be conducted within one week after the vehicle is fully accepted and readied for service by the "Purchaser" or at a time mutually agreed upon by the "Purchaser" and "Supplier".

**East Sullivan Volunteer Fire Department
Pumper/Tanker Conversion Bid**

**Bidder
Complies**

Yes No

WARRANTIES

Each responding bidder shall include a copy of the warrant(ies) with the RFP. The following minimum warranties shall be provided:

1. Chassis and chassis components warranties—Minimum one (1) year
2. Bumper to bumper fire apparatus warranty—Minimum one (1) year
3. Pump warranty—Minimum five (5) years
4. Apparatus body corrosion perforation structural warranty, non-pro-rated—Minimum of ten (10) years.
5. Tank warranty—Lifetime or Unlimited Time
6. Paint warranty, non-pro-rated—Minimum of ten (10) years, Manufacturer shall provide a three (3) year warranty against defects in material and workmanship with the graphics process.

--ENCLOSE AS EXHIBIT E - WARRANTIES

GENERAL REQUIREMENTS

Each bid ***must be*** accompanied by bidders accurate written and detailed specifications covering the apparatus and related items which the bidder is proposing to furnish and to which the apparatus furnished under contract must conform. It is the intent of these specifications to cover the furnishing to the purchaser a complete apparatus constructed and equipped exactly as specified in the attached specifications. Any details of construction, materials, or equipment not specified are left to the discretion of the Contractor, whom will be responsible for all construction and manufacturing techniques involved in the assembly of the apparatus.

All aspects of the apparatus shall conform to any applicable rules/regulations imposed to such vehicles by any of the following Governing Agencies:

- National Fire Protection Association (not including recommended equipment).
- Occupational Safety Health Administration.
- Federal Motor Vehicle Safety Standards.
- Department of Transportation.
- Underwriters Laboratories.

RELIABILITY OF CONTRACTOR/BIDDER

The contractor/bidder shall furnish evidence that he has the ability to design, engineer and construct the apparatus specified and shall clearly state the location of the facility used to manufacture and test the equipment when completed. Manufacturer must have a minimum of a twenty year track record in the manufacturing of fire/rescue apparatus.

--ENCLOSE WITH CHRONOLOGICAL/MFR HISTORY EXHIBIT

The contractor/bidder shall be capable of performing all of the following items at their manufacturing facility. Under no circumstance shall any of these items be sub-contracted to other manufacturers or fabricators:

1. All pump mounting and related plumbing.
2. Complete fabrication of the apparatus body and components.
3. All 12 volt and 110 volt electrical wiring.
4. All painting and finish work.

Any contractor/bidder that does not perform all of the above items shall be rendered un-responsive and their bid proposal shall be eliminated from the bid evaluation procedure causing rejection of bid.

At the request of the Purchaser, the contractor/bidder shall allow a trip to the manufacturing facility for at least four officials of the Purchaser prior to award of contract. During this facility inspection trip, the Purchaser must be given full access to all production areas in the facility. Areas that will be inspected shall include, but not limited to, pump mounting, sheet metal fabrication, body assembly, electrical, painting, final assembly and engineering.

**East Sullivan Volunteer Fire Department
Pumper/Tanker Conversion Bid**

**Bidder
Complies**

Yes No

This trip is necessary to insure that the contractor/bidder has adequate facilities to manufacture the apparatus to the specifications attached. It should be clearly understood by the contractor/bidder that this inspection trip does not constitute acceptance of bid.

Along with the inspection trip, the contractor/bidder shall provide a list of a minimum of five (5) similar apparatus constructed within the last two years. The name and contact person, along with telephone number, shall be provided with this. Also a list of a minimum of five (5) apparatus that have been constructed over ten years ago shall also be provided. The name and contact person, along with telephone number shall be provided.

--ENCLOSE AS EXHIBIT F - REFERENCES

EXCEPTIONS TO SPECIFICATIONS

It is the intent of the Purchaser to purchase a fire/rescue apparatus that has a proven record of dependability and reliability in the fire/rescue service. Experimental manufacturing techniques or materials are not acceptable and will be immediately rejected. Exceptions to the attached specifications will be considered provided they are of equal or superior quality and/or value of what has been specified. All bidders shall provide supporting documentation with proposal that may prove the 'equal to' or 'superior' quality or value. The Purchaser shall be solely responsible for determining 'equal to' or 'superior' status. The Purchaser's decision regarding these items will be final and conclusive.

Any area(s) of the attached specification that contain statements such as 'no exceptions' or similar statements with the same general meaning shall be strictly adhered to. The Purchaser has deemed these items to be extremely important to achieve the final delivered product that the Purchaser wishes to purchase. Any exceptions to these areas will result in immediate rejection of that bidder's proposal regardless of bid price.

All exceptions, no matter how minor, or seemingly un-important, must be detailed fully with supporting documentation submitted with proposal. Failure to submit exceptions and supporting documentation will cause immediate rejection of bidder's proposal.

All bidders shall be aware that the attached specifications shall be made part of the Purchase Contract between the Purchaser and the contractor/bidder. The successful bidder will be required to meet all construction, fabrication, and material requirements as called for in these specifications. Any deviations from these specifications must be specifically listed, explained, and submitted with the bid proposal. Failure to submit the detailed exceptions will indicate to the Purchaser that an exception is not taken and the bidder will provide the construction, fabrication, and material requirements as desired by the Purchaser and detailed in the attached specifications. Submission of list of exceptions does not indicate acceptance/approval of exceptions by the Purchaser.

In the unlikely event that the contractor/bidder fails to construct the apparatus as requested in the attached specifications, the Purchaser retains the right to reject the entire apparatus and invoice the contractor/bidder for any costs or losses that the Purchaser may have incurred due to the contractor/bidder failing to meet specifications described in the purchase contract.

."BRAND NAME" CLAUSE

It is the intent of the Purchaser to purchase components that have a proven record of Fire Department use and satisfaction. All bidders should be aware that where brand names are listed in these specifications, comparable products from different manufacturers may be acceptable. The bidder shall simply provide the Department with a listing of brands that they intend to provide in lieu of the originally requested brand.

The Fire Department will evaluate the proposed brand name to determine if the brand is equal to or superior to the originally requested brand.

**East Sullivan Volunteer Fire Department
Pumper/Tanker Conversion Bid**

**Bidder
Complies**

Yes No

CONTRACTOR'S SPECIFICATIONS

All contractor's or bidder's shall submit a detailed specification as to how the apparatus being proposed will be constructed. The attached specifications, copies, or re-typed versions of these specifications shall not be submitted as contractors specifications, (this will not pertain to the contractor whose specifications these are based on). Any manufacturer doing so will be rejected immediately on the following grounds:

"Contractor/bidder did not provide sufficient supporting data describing the contractors/bidders manufacturing and fabrication processes implemented in the construction of the proposed apparatus versus what was requested in the Purchaser's original specifications."

The contractors/bidders specification shall describe, in detail, all manufacturing and fabrication processes as well as material used in the construction of the apparatus. Other items that must be clearly listed in the contractors/bidders specifications shall include all compartment and door dimensions, cubic feet of usable storage space per compartment, and all other items specifically called for in the attached specifications.

CORPORATE OWNERSHIP OF MANUFACTURER

The manufacturer of the apparatus must be fully owned and managed by a Parent Company, Corporation, or Individual(s) that is 100% held by United States of America based Company, Corporation, or United States citizen(s).

Proposals from any manufacturer that is fully or partially owned and/or operated by a foreign company, Corporation or Individual(s) under any type of ownership, partnership, or any similar type of agreement will be immediately rejected.

CORPORATE CONTACT INFORMATION

The purchaser shall be provided with the following information to allow them to contact the President/CEO of the manufacturing company (not dealer) when deemed necessary:

1. Name of Company President
2. Office address
3. Office telephone number
4. Email address
5. Home address
6. Home telephone number
7. Cellular telephone number (business and personal, if applicable)

If the manufacturing company is a subsidiary of, division of, or owned by a different Company, the above information shall also be provided on the 'Parent' Company.

There will be no exception to this requirement.

FIRST CLASS FIRE APPARATUS

If the manufacturer or bidder for the apparatus manufacturer represents two or more different lines of apparatus and/or operates two or more manufacturing plants, it should be clearly stated in the bid proposal.

In addition to this requirement, the bidder shall give a detailed explanation of why the particular line, brand, model or manufacturing facility will be used.

Manufacturer's or bidder's with multiple lines (two or more) or multiple manufacturing facilities (two or more) shall be required to submit bid proposals on only the first class brand/model or from the first class manufacturing facility.

It is the intention of the purchaser to purchase a top of the line fire apparatus. Any bidder that submits a bid on a "lower end" line, brand, model or from a "lower end" manufacturing facility will be immediately rejected.

**East Sullivan Volunteer Fire Department
Pumper/Tanker Conversion Bid**

**Bidder
Complies**

Yes No

BANKRUPTCY STATEMENT

If the manufacturer of the apparatus, or if any owner, shareholder, or immediate relative of an owner or shareholder that has previously been involved in or held ownership in any company that has filed bankruptcy or any other type of reorganization plan, it must be clearly stated in the bid proposal. The statement must include details and dates of all occurrences.

--ENCLOSE AS EXHIBIT G – BANKRUPTCY

FIRE STATION PRE-CONSTRUCTION CONFERENCE

The factory authorized distributor shall perform a pre-construction conference at the fire station to finalize all construction details.

FINAL INSPECTION

The contractor shall provide a final inspection at the factory in which the apparatus will be constructed. All travel expenses incurred by the purchaser for up to four officials shall be paid by the contractor. Air fare and overnight expenses shall be included if the factory is more than 250 miles from the purchasers location. The bidder shall indicate in their proposal that this inspection will be provided.

WEB BASED CUSTOMER INTERACTION

The manufacturer shall provide web based access to construction photographs while the apparatus is being built. This access shall be provided through a secured area on the manufacturer's website and shall be accessible only by individuals authorized by the Department.

The following photos, at minimum, shall be available:

1. Chassis (front, left, right and rear).
2. Body prior to pre-paint (front, left, right and rear).
3. Body painted (front, left, right and rear).
5. Pump module, if applicable, (front, left, right and rear).
6. Final assembly (front, right, left and rear).

This web based interaction will enhance the communication process during the construction of the apparatus and will provide the Department remote access to the apparatus during construction process.

Due to the complexity of apparatus, this interaction will provide the department a method of checking specification compliance. Because this interaction is considered critical to the construction process, no exception will be allowed to this requirement.

BLUEPRINT DRAWINGS

All bidders must submit with their proposal blueprint drawings of the exact apparatus being proposed. Drawings of similar units **will not** be acceptable. Blueprints must be submitted on minimum "D" size, 24" x 36" paper to allow for an accurate, easy to read, visual interpretation of the apparatus proposed by the manufacturer.

The drawings shall show the complete left side view of the apparatus, including the chassis as well as right side and rear body views showing all compartment dimensions, door opening sizes, compartment depths, and total square foot of usable compartment space per compartment.

Any proposal received without these required drawings will be immediately rejected.

**East Sullivan Volunteer Fire Department
Pumper/Tanker Conversion Bid**

**Bidder
Complies**

Yes No

SURETY BID BOND

In compliance with Tennessee Code Annotated §12-4-201, all responding bidders shall provide a Surety (Bid) Bond in the amount of 5% of the purchase price of the specified apparatus. The bid bond (accompanied by a Certified Power of Attorney) shall be issued by an authorized representative of the surety company and shall be presented with the responding vendor's RFP response.

--ENCLOSE AS EXHIBIT H – SURETY (BID) BOND

The successful vendor will be required to submit Performance & Payment 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.

***** HEIGHT REQUIREMENT *****

The maximum loaded height of this apparatus shall not exceed 10 feet.

CERTIFICATION OF NFPA 1901 COMPLIANCE

As per NFPA 1901, the Purchaser shall assume the responsibility of determining, prior to the purchase of the apparatus, who will be responsible for ensuring that all aspects of NFPA 1901-2009 are met. The manufacturer shall be responsible for providing or performing only the items requested by the purchaser in the documents provided to the manufacturer by the purchaser.

Written certification shall be provided by the manufacturer stating that the delivered apparatus complies with the NFPA 1901-2009 Standard. If the purchaser has elected to provide, perform, outsource and/or contract with a third party, any item required by NFPA 1901-2009 (per the previous paragraph), and the manufacturer shall provide, upon delivery, a "Statement of Exceptions" per Chapter 4 of NFPA 1901-2009.

This "Statement of Exceptions" shall include:

1. A separate specification of the section of the NFPA Standard for which the apparatus is lacking compliance.
2. A description of the particular aspect of the apparatus that is not compliant.
3. A description of the further changes or modifications to the delivered apparatus which must be completed to achieve full compliance.
4. An identification of the entity who will be responsible for making the necessary post-delivery changes or modifications to the apparatus to achieve full compliance with the applicable standard.

Prior to, or at the time of, delivery of the apparatus, the Statement of Exceptions shall be signed by an authorized agent of the entity responsible for the final assembly of the apparatus and by an authorized agent of the purchasing entity, indicating a mutual understanding and agreement between the parties regarding the substance thereof.

The purchaser shall not place the apparatus into active emergency service until fully compliant with NFPA 1901-2009.

NFPA REQUIRED EQUIPMENT

The end user of this apparatus shall provide all other equipment and accessories that are required by NFPA 1901 but not specifically listed in these specifications.

**East Sullivan Volunteer Fire Department
Pumper/Tanker Conversion Bid**

**Bidder
Complies**

Yes No

MAXIMUM TOP SPEED

The maximum top speed of this apparatus shall be determined using the following NFPA 1901 Chapter 4 criteria:

- Apparatus with 1250 gallon combined water tank capacity shall not exceed 60 MPH.
- Apparatus with GVWR of over 50,000 lbs. shall not exceed 60 MPH.
- Apparatus weighing over 26,000 lbs. shall not exceed 68 MPH.

Mack Granite 2 door 6x4 chassis (Customer Supplied)

WATEROUS MODEL CS 1.250 GPM SINGLE STAGE PUMP

The fire pump shall be a Waterous Fire Pump Company model CS that complies with all applicable requirements of the latest edition of the "Standard for Automotive Fire Apparatus" published by the National Fire Protection Association and printed in Pamphlet 1901.

WATEROUS FIVE-YEAR LIMITED WARRANTY - PARTS ONLY

The following "PARTS ONLY" warranty shall be provided on the Waterous Fire Pump:

Waterous warrants, to the original Buyer only, that products manufactured by Waterous will 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.

When required in writing by Waterous, defective products must be promptly returned by Buyer to Waterous at Waterous' plant at South St. Paul, Minnesota, or at such other place as may be specified by Waterous, with transportation and other charges prepaid. A Returned Material Authorization (RMA) is required for all products and parts and may be requested by phone, fax, email, or mail.

The aforesaid warranty excludes any responsibility or liability of Waterous for:

- (a) damages or defects due to accident, abuse, misuse, abnormal operating conditions, negligence, accidental causes, use in non-firefighting applications, or improper maintenance, or attributable to written specifications or instructions furnished by Buyer;
- (b) defects in products manufactured by others and furnished by Waterous hereunder, it being understood and agreed by the parties that the only warranty provided for such products shall be the warranty provided by the manufacturer thereof which, if assignable, Waterous will assign to Buyer, if requested by Buyer;
- (c) any product or part, altered, modified, serviced or repaired other than by Waterous, without its prior written consent;
- (d) the cost of dismantling, removing, transporting, storing, or insuring the defective product or part and the cost of reinstallation; and
- (e) normal wear items (packing, strainers, filters, light bulbs, anodes, intake screens, mechanical seals, etc.).

**East Sullivan Volunteer Fire Department
Pumper/Tanker Conversion Bid**

**Bidder
Complies**

Yes No

ALL OTHER WARRANTIES ARE EXCLUDED, WHETHER EXPRESS OR IMPLIED BY OPERATION OF LAW OR OTHERWISE, INCLUDING ALL IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. IN NO EVENT, WHETHER AS A RESULT OF BREACH OF CONTRACT, WARRANTY, TORT (INCLUDING NEGLIGENCE), STRICT LIABILITY, OR ANY OTHER CAUSE OF ACTION, SHALL WATEROUS BE LIABLE FOR ANY PUNITIVE, SPECIAL, INCIDENTAL OR CONSEQUENTIAL DAMAGES, OR FOR PERSONAL INJURY OR PROPERTY DAMAGES.

The exclusive remedy of Buyer and the sole liability of Waterous, whether based on contract, warranty, tort or any other basis of recovery whatsoever, is expressly limited at the election of Waterous to:

- (a) the replacement at the agreed point of delivery of any product or part, which upon inspection by Waterous or its duly authorized representative, is found not to conform to the limited warranty set forth above, or
- (b) the repair of such product or part, or
- (c) the refund or crediting to Buyer of the net sales price of the defective product or part.

UNDERWRITERS LABORATORY CERTIFICATION

The completed apparatus shall be tested and approved by the independent testing company Underwriters Laboratories, Inc. The manufacturer of the apparatus shall be responsible for all costs involved in this test. The certification of inspection and approval shall be presented to the Fire Chief of the Department upon delivery of the completed apparatus.

PUMP PERFORMANCE - 1,250 U.S. GPM.

The pump shall be a single stage centrifugal with a class "A" rated capacity of 1,250 United States gallons per minute. The pump shall deliver the percentage of rated discharge pressures as indicated below:

- 100 percent of rated capacity at 150 pounds net pressure.
- 70 percent of rated capacity at 200 pounds net pressure.
- 50 percent of rated capacity at 250 pounds net pressure.
- 100 percent of rated capacity at 165 pounds net pressure.

PUMP CONSTRUCTION

The fire pump shall be midship mounted. The pump shall be mounted across the chassis frame rails and shall be mounted at the fire pump manufacturer's recommended angular position with the drive shafts.

The pump shall be free from objectionable pulsation and vibration under all normal operating conditions. The engine shall provide sufficient horsepower and revolutions per minute to allow the pump to meet or exceed its rated performance.

The entire pump, both suction and discharge passages, shall be hydrostatically tested to a pressure of 600 PSI. The pump shall be fully tested at the pump manufacturer's factory to the NFPA 1901 performance requirements.

The pump body shall be close-grained gray iron and shall be horizontally split in two sections for easy removal of the entire impeller shaft assembly and designed for complete servicing from the bottom of the truck without disturbing the setting of the pump in the chassis or apparatus piping which is connected to the pump. The pump body halves shall be bolted together on a single horizontal face to minimize leakage and facilitate re-assembly.

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**Bidder
Complies**

Yes No

The impeller shaft shall be stainless steel, accurately ground to size and supported at each end by oil or grease lubricated anti-friction ball bearings for rigid and precise support. The bearings shall be protected from water and sediment by suitable stuffing boxes, flinger rings, and oil seals. The impeller shaft shall be of a two piece construction separable between the pump and pump transmission to allow true separation of the transmission from the pump without disassembly of either component. No sleeve type bearings shall be used.

The pump transmission shall be rigidly attached to the pump body assembly and be of the latest design incorporating a high strength, involute, tooth-form Hy-Vo chain drive and driven sprockets capable of operating at high speeds to provide smooth, quiet transfer of power.

The pump gear ratio shall be selected by the apparatus manufacturer to give the maximum performance with the engine and transmission selected.

IMPELLER - FLAME PLATE

The impeller shall be bronze with double suction inlets, accurately balanced (mechanically and hydraulically), of the mixed flow design with reverse-flow, labyrinth-type, wear rings that resist water bypass and loss of efficiency due to wear. The impeller shall have a **Flame Plated Hub** to assure maximum pump life and efficiency despite the presence of abrasive particles, such as fine sand, in the water being pumped.

Wear rings shall be bronze and shall be easily replaceable to restore pump efficiency and eliminate the need to replace the entire pump casing due to wear.

MECHANICAL SEAL

The pump shaft shall have self-adjusting corrosion and wear resistant mechanical seals.

SACRIFICIAL PUMP ANODES

To aid in protecting the pump from internal corrosion, three sacrificial anodes shall be provided and located one in the lower section of each side inlet and one on the discharge side of the pump.

FRP PUMP BOSS PRESSURE GOVERNOR SYSTEM

Fire Research Pump Boss pressure governor and monitoring display kit shall be installed. The kit shall include a control module, pressure sensor, and cables.

The following continuous displays shall be provided: CHECK

- ENGINE and STOP ENGINE warning LEDs
- Engine RPM; shown with four daylight bright LED digits more than 1/2" high
- Engine OIL PRESSURE; shown on an LED bar graph display in 10 psi increments
- Engine TEMPERATURE; shown on an LED bar graph display in 10 degree increments
- BATTERY VOLTAGE; shown on an LED bar graph display in 0.5 volt increments
- PSI / RPM setting; shown on a dot matrix message display
- PSI and RPM mode LEDs
- THROTTLE READY LED.

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.

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**Bidder
Complies**

Yes No

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. It shall monitor inputs and support audible and visual warning alarms for the following conditions:

- High Engine RPM
- Pump Overheat
- High Transmission Temperature
- Low Battery Voltage (Engine Off)
- Low Battery Voltage (Engine Running)
- High Battery Voltage
- Low Engine Oil Pressure
- High Engine Coolant Temperature

The governor shall operate in two control modes, pressure and RPM. No discharge pressure or engine RPM variation shall occur when switching between modes. A control knob that uses optical technology shall adjust pressure or RPM settings. It shall be 2" in diameter with no mechanical stops, a serrated grip, and have a red idle push button in the center.

A throttle ready LED shall light when the interlock signal is recognized. The governor shall start in pressure mode and set the engine RPM to idle. In pressure mode the governor shall automatically regulate the discharge pressure at the level set by the operator. In RPM mode the governor shall maintain the engine RPM at the level set by the operator except in the event of a discharge pressure increase. The governor shall limit a discharge pressure increase in RPM mode to a maximum of 30 psi. Other safety features shall include recognition of no water conditions with an automatic programmed response and a push button to return the engine to idle.

The pressure governor and monitoring display shall be programmed to interface with a specific engine.

HALE/CLASS 1 INTAKE RELIEF VALVE

A Hale/Class 1 intake relief/dump valve shall be provided on the intake side of the pump to relieve excess incoming pressure. The system shall be designed to self-restore to a non-relieving position when excessive pressure is no longer present. The pressure adjustment range shall be from 75 psi to 250 psi. The relief system shall be adjustable with a common type box end wrench.

The surplus water shall discharge to the atmosphere at a location away from the pump operator's position.

125 PSI INTAKE RELIEF VALVE PRE-SET PRESSURE

The intake relief valve shall be pre-set to 125 psi.

PUMP SHIFT MECHANISM -AIR/ELECTRIC

The pump shall be shifted from road to pump by means of a cab mounted air over electric pump shift switch. The switch shall have a built in positive locking mechanism to prevent accidental movement of the switch. The locking mechanism shall require the operator to manually lift up on the switch lever to disengage the lock.

The switch shall have three positions:

- Position 1 = road position
- Position 2 = neutral position
- Position 3 = pump position

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**Bidder
Complies**

Yes No

A green indicator light shall be provided in the driving compartment and shall be energized when the pump shift has been completed. This light shall be labeled "PUMP ENGAGED".

When the apparatus is equipped with an automatic transmission, a green indicator light shall be provided in the driver's compartment. It shall be energized when both the pump shift has been completed and the chassis transmission is in pump gear. This light shall be labeled "OK TO PUMP".

MANUAL PUMP SHIFT OVERRIDE- REMOTE CABLE ACTUATION

A manual pump shift override shall be provided on the apparatus. The shift shall be remote cable actuated. The remote cable shall have a "T" handle control which shall be positioned just inside the pump compartment on the driver's side. The control shall be easily accessed through the side panel hinged access door. The control shall be clearly labeled "MANUAL PUMP SHIFT".

WATEROUS MODEL VPO OILLESS PRIMING SYSTEM

A Waterous model VPO oil less priming system shall be provided. The priming pump shall be an electrically driven, positive displacement vane type conforming to requirements outlined in NFPA 1901. One priming control shall both open the priming valve and start the priming motor.

The primer shall be capable of taking suction and discharging water with a lift of 10 feet in not more than 30 seconds with the pump dry and using 20 feet of appropriately sized hard suction hose with strainer. The system shall develop a vacuum of 22 inches at an altitude of up to 2,000 feet above sea level. The vacuum test shall be performed with a capped 20 foot length of hard suction hose, developing a vacuum of at least 20 inches with a drop not exceeding 10 inches in 5 minutes.

PRIMER FUSE

The primer shall be protected with a 250 amp fused link that is designed to protect the apparatus 12 volt electrical system if the primer motor malfunctions.

SUPPLEMENTARY HEAT EXCHANGER

A supplementary heat exchanger cooling system shall be provided on the pump drive engine. Proper valving shall be installed to permit water from the discharge side of the fire pump to temper the engine coolant circulating through the heat exchanger system without intermixing. The heat exchanger shall be adequate in size to maintain the temperature of the coolant in the pump drive engine not in excess of the engine manufacturer's temperature rating under all pumping conditions.

Appropriate drains shall be provided to allow draining the heat exchanger to prevent damage from freezing. A valve control shall be provided on the pump operators panel. The valve control handle shall be of the rotary type and shall have an arrow indicator that identifies the opened/closed position of the valve.

MANIFOLD DRAIN VALVE

The pump shall have a manifold type drain valve assembly consisting of a stainless steel plunger in a bronze body with multiple ports. The control for the valve shall be on the left side along the bottom of the panel and above the side running board. The valve shall be a rotary type with a large easy to grip handle. The valve shall be labeled "PUMP DRAIN".

ICI "LEVER LIFT" BLEEDER/DRAIN VALVES

ICI 3/4" quarter turn ball type bleeder/drain valve shall be provided for each discharge and auxiliary intake. A hose shall be connected to the valve that will direct water below the apparatus and away from the immediate pump operator's location.

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**Bidder
Complies**

Yes No

The control handle shall be "lever lift" style for easy actuation. The handle for the control shall have a recessed area for the color coded identification label.

6" LEFT (DRIVER) SIDE MASTER INTAKE

A 6" master intake shall be provided on the left (driver) side of the apparatus. The intake shall have a 6" male NST connection. The intake shall have a removable screen to prevent the entry of large objects into the pump. The screen shall be constructed of a material that will provide cathodic protection to the pump. A label shall be provided above the intake that states "DRIVER SIDE MASTER INTAKE". The label shall be color coded burgundy.

LEFT SIDE MASTER INTAKE CAP

A 6" female NST long handle chrome cap shall be provided on the left side master intake.

6" RIGHT (PASSENGER) SIDE MASTER INTAKE

A 6" master intake shall be provided on the right (passenger) side of the apparatus. The intake shall have a 6" male NST connection. The intake shall have a removable screen to prevent the entry of large objects into the pump. The screen shall be constructed of a material that will provide cathodic protection to the pump. A label shall be provided above the intake that states "PASSENGER SIDE MASTER INTAKE". The label shall be color coded burgundy.

RIGHT SIDE MASTER INTAKE CAP

A 6" female NST long handle chrome cap shall be provided on the right side master intake.

3/8" PUMP COOLING/BYPASS LINE

A 3/8" pump cooling/bypass line shall be provided from the pump discharge manifold directly into the tank.

This discharge shall implement a Class 1 model 38BV all brass ball type 1/4 turn valve with chrome plated handle control located on the pump panel.

The valve control handle shall indicate the open/closed position of the valve. The handle shall have a recessed area for mounting of the identification label which shall clearly state "PUMP COOLER".

2 1/2" TANK REFILL/RECIRCULATION DISCHARGE

A 2 1/2" tank refill and pump recirculation line shall be provided from the discharge side of the pump into the tank. The control for the discharge shall be on the pump operator's panel. The discharge shall be attached to the tank using flexible hose.

TANK REFILL VALVE - AKRON MANUAL CONTROL

An Akron 8800 series self-locking discharge valve shall be utilized on tank the refill line. The valve shall be manually controlled from the pump operator's position.

STAINLESS STEEL PIPING

All piping for discharges shall be stainless steel using stainless steel fittings. Victaulic couplings shall be used in all front, rear and side discharges, deck pipes and cross lays for quick, simple removal of any pipe section or valve for maintenance.

High pressure flexible helix wire reinforced piping with a minimum burst pressure of 1200 psi may be used in some areas to minimize friction losses. All flexible piping couplings shall be high tensile strength stainless steel.

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**Bidder
Complies**

Yes No

All piping shall be properly supported and braced to prevent movement of piping other than what is allowed by the Victaulic couplings to compensate for apparatus flexing.

Any discharge manifolds provided on the apparatus must be fabricated of a minimum of schedule 10 304 marine grade piping. Use of any welded light gauge (less than Schedule 10) manifolding or plumbing will not be acceptable.

STAINLESS STEEL PIPING WARRANTY

The stainless steel piping shall be warranted to be free from corrosion perforation for a period of 10 years following the delivery of the apparatus.

VENTED LUG CAPS AND PLUGS

All intake and discharge plugs and caps and plugs shall be vented lug type designed to relieve trapped pressure and help reduce possible operator injuries.

2 1/2" LEFT SIDE AUXILIARY INTAKE(S)

One (1) 2 1/2" auxiliary intake(s) shall be provided on the left side of the pump compartment.

Akron 8825 self-locking suction valve(s) shall be utilized on the left side 2 1/2" intake(s) and shall be located **within the pump compartment.**

A 2 1/2" chrome plated female National Standard Thread swivel connection with screen shall be provided on the left side 2 1/2" intake(s) with a chrome plated male National Standard Thread intake plug with chrome plated chain.

LEFT SIDE AUXILIARY INTAKE CONTROL - PUMP PANEL

The left side auxiliary intake shall be controlled from the pump operator's location.

A 3/4" bleeder/drain valve shall be provided on the left side auxiliary intake.

RIGHT 2 1/2" DISCHARGE(S)

One (1) 2 1/2" discharge(s) shall be provided on the right side of the apparatus.

An Akron 8825 self-locking discharge valve shall be utilized on each right side 2 1/2" discharge and shall be manually controlled from the pump operator's position.

Each right side 2 1/2" discharge shall be equipped with a chrome discharge elbow that is cast as an integral part of the valve.

A 2 1/2" chrome plated National Standard Thread discharge cap shall be provided on the right side 2 1/2" discharge(s) with a chrome plated chain.

RIGHT 4" DISCHARGE

One (1) 4" discharge shall be provided on the right side of the apparatus.

An Akron 8640 discharge valve shall be utilized on the right side 4" discharge and shall be manually controlled from the pump operator's position with a gear actuated hand wheel control with Gear Position Indicator Kit. The GPI kit shall consist of a visual indicator adjacent to the hand wheel indicating the position of the valve.

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**Bidder
Complies**

Yes No

The right side 4" discharge(s) shall extend straight out of the apparatus with no type of elbow.

A Kochek model SKE5T4R 4" FNST x 5" locking swivel Storz elbow adapter shall be provided on the right side 3" discharge(s).

A model ZS36S525 5" locking Storz x 2 1/2" MNST reducer cap with a model ZCP2552 cap and chain shall be provided.

LEFT 2 1/2" DISCHARGE(S)

Two (2) 2 1/2" discharge(s) shall be provided on the left side of the apparatus.

Akron 8825 self-locking discharge valve(s) shall be utilized on the left side 2 1/2" discharge(s). The valve shall be manually controlled from the pump operator's position.

Each left side 2 1/2" discharge(s) shall have a chrome discharge elbow that is cast as an integral part of the valve.

A 2 1/2" chrome plated National Standard Thread discharge cap shall be provided on the left side 2 1/2" discharge(s) with a chrome plated chain.

1 3/4" CROSSLAY PRECONNECTS

Two 1 3/4" pre-connected cross lays shall be provided and located above the side mount pump panel.

The cross lay compartment shall be constructed of 5052 smooth aluminum sheet material with a random brushed finish applied after fabrication. Each cross lay shall be piped using 2" piping or high pressure hose incorporating a 2" ball valve with the control on the side mount pump operator's panel.

2 1/2" CROSSLAY PRECONNECT

One 2 1/2" pre-connected cross lays shall be provided and located above the side mount pump panel.

The cross lay compartment shall be constructed of 5052 smooth aluminum sheet material with a random brushed finish applied after fabrication. Each cross lay shall be piped using 2 1/2" piping or high pressure hose incorporating a 2 1/2" ball valve with the control on the side mount pump operator's panel.

The # 1 - 1 3/4" cross lay shall have the capacity to hold 200 feet of 1 3/4" fire hose and nozzle.

The # 2 - 1 3/4" cross lay shall have the capacity to hold 200 feet of 1 3/4" fire hose and nozzle.

The # 1 - 2 1/2" cross lay shall have the capacity to hold 100 feet of 3" fire hose and nozzle.

Two (2) Akron 8820 self-locking discharge valves shall be utilized to control the 1 3/4" cross lay hose beds and shall be manually controlled from the pump operator's position. The valves and piping shall be 2".

One (1) Akron 8825 self-locking discharge valve(s) shall be utilized on the 2 1/2" cross lay discharge(s). The valve shall be manually controlled from the pump operator's position.

There shall be two (2) 2" swivel elbows with 1 1/2" Male NST hose thread connections provided on the 1 3/4" cross lay hose beds. The swivels shall be mounted in a position to prevent hose "pinching" at the hose thread connection.

There shall be one (1) 2 1/2" swivel elbow with a 2-1/2" Male NST hose thread connection provided on the 2-1/2" cross lay hose bed. The swivel shall be mounted in a position to prevent hose "pinching" at the hose thread connection.

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**Bidder
Complies**

Yes No

1 3/4" CROSSLAY DRAIN VALVES - AUTOMATIC

3/4" automatic drain valves shall be provided for all 1 3/4" cross lays. The valves shall have an all brass body with heavy duty neoprene seal. The valves shall be normally open and shall close at 6 psi using an all brass check assembly with stainless steel spring.

2 1/2" CROSSLAY DRAIN VALVES - MANUAL

3/4" manual drain valves shall be provided for all 2 1/2" cross lays. The valves shall have an all brass body with heavy duty neoprene seal.

CROSSLAY COMPARTMENT ENDS - BLACK WEBBING

The cross lay compartment shall be enclosed on each end using a heavy duty webbing to prevent hose from accidently unloading. The webbing shall be black.

A yellow nozzle strap shall be provided for each cross lay. The strap shall be designed to loop through the nozzle handle and secured to the apparatus to keep nozzle from coming out of the cross lay compartment without manually disconnecting the nozzle strap.

HINGED ALUMINUM TREADBRITE CROSSLAY COVER

An aluminum treadbrite hinged cover shall be provided to cover the cross lay compartment. The cover shall have a full length polished stainless steel hinge. A chrome plated lift handle shall be provided on each end of the cover. Rubber protection blocks shall be provided in any area where the cover may come into contact with a painted surface.

3" MONITOR DISCHARGE-CENTER

A 3" monitor discharge shall be provided above the pump compartment in the center. The discharge piping shall extend above the pump compartment a sufficient distance to allow use of the deck gun.

Akron 8830 self-locking discharge valve(s) shall be utilized on the monitor discharge(s). The valve shall be manually controlled from the pump operator's position. An Akron Slo-Clozing mechanism shall be implemented in the control mechanism.

CAPPED MONITOR DISCHARGE

The monitor discharge shall be capped with a female National Pipe Thread cap for future installation of monitor assembly.

EXTENDA-GUN XG-18 EXTENSION

A Task Force Tips model XG18 Extenda-Gun extension shall be provided on the monitor discharge to allow the Monitor assembly to be manually extended 18" above its nested position. The Extenda-Gun shall be wired to the open compartment warning light in the cab to notify occupants that the device is not properly stowed for travel.

A discharge adapter shall be furnished for attaching the specified monitor.

SIDE-MOUNTED SELF CONTAINED MODULAR PUMP COMPARTMENT

A self-contained modular pump compartment, designed for the integral mounting of a midship pump with side mounted pump operator's panel, shall be provided.

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**Bidder
Complies**

Yes No

The modular design of the pump compartment shall allow the compartment to be fully independent of the apparatus body or cab. A minimum .75-inch gap shall be provided between the pump compartment and the apparatus body creating a flexible joint between the pump compartment assembly and the apparatus body. The modular design of the pump compartment shall allow the entire pump system, including the pump itself, to be removed from the apparatus in a one-piece, modular section, while leaving the body intact and without having to cut any sheet metal or welds.

STAINLESS STEEL PUMP COMPARTMENT CONSTRUCTION

The entire pump compartment shall be constructed using only 304 marine grade stainless steel fabricated sheeting with a #4 annealed and polished finish on all exterior surfaces. The pump compartment shall not require any finish painting. Due to the extreme twisting and flexing that all fire apparatus are subjected to, aluminum shall not be used in any portion of the pump compartment structural support. The use of any type of enclosed tubing that requires the use of self-tapping or any other type of machine screw shall not be acceptable.

PUMP COMPARTMENT RUNNINGBOARDS

The pump compartment side running boards shall be constructed of NFPA compliant slip resistant aluminum treadbrite.

PUMP COMPARTMENT RIGHT SIDE ACCESS DOOR - SIDE MOUNT

A brushed stainless steel hinged access door shall be provided on the right side of the pump compartment. The doors shall have pneumatic hold open devices and push button type flush latches. The door shall be a minimum of 35" wide x 20" high.

SIDE MOUNT BRUSHED STAINLESS STEEL PUMP PANEL

All controls and instruments shall be located on the left side of the apparatus. All discharge and intake valve controls shall be located on the left side pump panel.

BRUSHED STAINLESS STEEL PUMP PANELS

The left and right side pump panels shall be constructed of 304 2B marine grade brushed stainless steel with a #4 brushed and polished finish. The panels shall be held into place with two latches on the top to allow for easy removal of the panels.

The upper section of the left side pump panel shall be constructed of the same 304 2B marine grade stainless steel. The upper section shall be vertically hinged and have a chrome plated latch to secure the panel when closed.

SIDE MOUNT PUMP PANEL LIGHTS - L.E.D.

The side mount pump panel shall be illuminated using an I.L.I. track type L.E.D. light assembly. The light shall be constructed of an unbreakable type clear poly flexible material housed in an aluminum extrusion mounted behind a brushed stainless steel light shield provided across the top of the gauge panel.

RIGHT SIDE DISCHARGE/INTAKE PANEL LIGHTS - L.E.D.

The right side discharge and intake panels shall be illuminated using an I.L.I. track type L.E.D. light assembly.

The light shall be constructed of an unbreakable type clear poly type flexible material housed in an aluminum extrusion mounted behind a brushed stainless steel light shield provided across the top of the hinged access door.

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**Bidder
Complies**

Yes No

INNOVATIVE CONTROLS PUSH/PULL VALVE CONTROL HANDLES

For valve actuation, the apparatus pump panel shall be equipped with Innovative Controls side mount valve controls.

The ergonomically designed ¼ turn push-pull T-handle shall be chrome plated zinc with recessed labels for color coding and verbiage. The geared control rod, double laminated locking clips and rod housing shall be stainless steel and provide a true positive lock that will eliminate valve drift. Bronze and Teflon impregnated stainless steel bushings in both ends of rod housing shall minimize rod deflection, never need lubrication, and ensure consistent long term operation.

The control assembly shall include a decorative chrome plated zinc panel mounting bezel and 4 mounting bolts.

DISCHARGE VALVE CONTROL HANDLE LAYOUT

All discharge valve control handles shall be located in one or two horizontal lines across the mid section of the pump panel. All discharge valve control handles shall be located immediately below their corresponding pressure gauge for ease of pump operation.

STAINLESS STEEL VALVE CONTROL LINKAGES

All manual valve controls shall have control rod linkages constructed of 1/2" stainless steel rod or pipe and shall implement heavy ball swivel joints and clevises for smooth valve operation.

Plain, painted or coated control rods are not acceptable. (No Exception).

NO SHOK MASTER PUMP DISCHARGE PRESSURE GAUGE

A No Shok 4" diameter master pressure gauge shall be provided to indicate the main pump discharge pressure. The gauge shall read from 30" hg vacuum to 400 psi and shall be accurate within +/- 1%. The gauge shall be glycerin filled (-40F to +150F), read up to 400 psi, be accurate within +/- 1% and have a high impact resistant clear acrylic lens.

NO SHOK MASTER PUMP INTAKE PRESSURE GAUGE

A No Shok 4" diameter master pressure gauge shall be provided to indicate the pump intake pressure. The gauge shall read from 30" hg vacuum to 400 psi and shall be accurate within +/- 1%. The gauge shall be glycerin filled (-40F to +150F), read up to 400 psi, be accurate within +/- 1% and have a high impact resistant clear acrylic lens.

The master intake and discharge gauges shall have bright finish stainless steel bezels.

The discharge pressure gauge dials shall be white with black markings. The needle shall match the color of the markings.

The master intake gauge shall be clearly labeled "PUMP INTAKE" and shall be located to the left of the master discharge pressure gauge. (Burgundy label).

The master discharge gauge shall be clearly labeled "PUMP DISCHARGE" and shall be located to the right of the intake pressure gauge. (Black with silver lettering).

The master intake/discharge pressure gauges shall have a lifetime non-yellowing and freeze warranty. The gauges shall also be warranted for 4 years for defects in materials and workmanship, including fluid leakage. The warranty will not cover labor costs and/or transportation costs.

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**Bidder
Complies**

Yes No

PRESSURE/VACUUM TEST PLUGS

Underwriter's test plug adapters shall be provided for connection of pump test gauges.

INNOVATIVE CONTROLS SL PLUS TANK GAUGE - PUMP PANEL

An Innovative Controls model SL Plus tank gauge shall be provided on the pump panel. The gauge shall feature a 180 degree highly visible wide view ultra-bright LED display showing the level of the booster tank.

INNOVATIVE CONTROLS SL MINI TANK GAUGE - CAB

An Innovative Controls model SL MINI tank gauge shall be provided on or near the cab control panel in clear view from the driver's and officer's position.

The gauge shall have ultra-bright LED lights displaying the level of the booster tank.

INNOVATIVE CONTROLS SL PLUS MONSTER GAUGE - REAR

An Innovative Controls model SL Monster tank gauge shall be provided on the rear of the apparatus. The gauge shall feature a 180 degree highly visible wide view ultra-bright LED display showing the level of the booster tank.

INNOVATIVE CONTROLS SL PLUS MONSTER GAUGE - RIGHT SIDE

An Innovative Controls model SL Monster tank gauge shall be provided on the right side of the body or pump compartment. The gauge shall feature a 180 degree highly visible wide view ultra-brite LED display showing the level of the booster tank.

INNOVATIVE CONTROLS SL PLUS MONSTER GAUGE - LEFT SIDE

An Innovative Controls model SL Monster tank gauge shall be provided on the left side of the body or pump compartment. The gauge shall feature a 180 degree highly visible wide view ultra-bright LED display showing the level of the booster tank.

NO SHOK DISCHARGE PRESSURE GAUGES

Unless otherwise specified, each 1 1/2" or larger discharge shall have a No-Shok pressure gauge. The gauge shall be glycerin filled (-40F to +150F), read from 0 - 400 psi, be accurate within +/- 1% and have a high impact resistant clear acrylic lens.

The individual discharge pressure gauges shall have a 2 3/4" diameter.

The discharge pressure gauges shall have chrome finish color coded trim bezels. The bezels shall have recessed surfaces to allow for the color code and identification labels.

The discharge pressure gauge dials shall be white with black markings. The needle shall match the color of the markings.

The pressure gauge shall be directly in line with the discharge control handle for the discharge that they provide pressure readout for. **For ease of operation, this requirement must be strictly adhered to. There shall be no exception to this requirement.**

The gauges shall be clearly labeled with permanent color coded labels.

The discharge pressure gauges shall have a lifetime non-yellowing and freeze warranty. The gauge shall also be warranted for 4 years for defects in materials and workmanship including fluid leakage. Warranty will not cover labor costs and/or transportation costs.

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**Bidder
Complies**

Yes No

IDENTIFICATION LABELS FOR PUMP PANEL

Innovative Controls verbiage label bezels shall be installed. The bezel assemblies will be used to identify apparatus components. These labels shall be designed and manufactured to withstand the specified apparatus service environment.

Where required, the verbiage label bezel assemblies shall include a chrome plated panel mount bezel with durable easy to read UV resistant polycarbonate inserts featuring the specified verbiage and color coding. The UV resistant polycarbonate verbiage and color inserts shall be sub-surface screen printed to eliminate the possibility of wear and protect the inks from fading. Both the insert labels and bezel shall be backed with 3M permanent adhesive (200MP), which meets UL969 and NFPA standards.

RADIO COMPARTMENT

A Cast Products model FT41500 radio compartment shall be provided and recessed into the vertical area above the side mount pump panel. The compartment shall be cast aluminum with brushed cast aluminum door. The inside dimensions of the compartment shall be 13 1/2" high x 7 1/2" wide x 6" depth.

INTERMEDIATE PUMP PANEL STEPS

An aluminum treadbrite intermediate step shall be provided on the passenger side of the pump compartment. The step shall be the full width of the pump compartment provided that the step will not interfere with any other equipment, hose lay or controls on the apparatus.

BOOSTER TANK- UNITED PLASTIC FABRICATING, INC.

The tank shall have a LIFETIME warranty provided by United Plastic Fabricating, Inc.

The tank exterior shell shall be constructed of minimum 1/2" thick PT3 polypropylene sheet stock. This material shall be non-corrosive stress relieved thermoplastic which is U.V. stabilized for maximum protection. The booster tank shall be of a specific configuration and is designed to be completely independent of the body and compartments. All joints and seams shall be nitrogen welded and tested for maximum strength and integrity. The tank construction shall include Poly Pro Seal technology. 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 transverse swash partitions shall be manufactured of 3/8" PT3 polypropylene material. The longitudinal swash partitions shall be constructed of 3/8" PT3 polypropylene and extend through the cover to allow for positive welding and maximum integrity. 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 shall interlock with one another and are welded to each other as well as to the walls of the tank. All partition spacing shall be compliant with NFPA 1091 recommendations.

The top of the booster tank shall be fitted with removable lifting eyes.

The tank cradle assembly shall be designed to provide support to the tank. The assembly shall be approved by the manufacturer of the tank.

BOOSTER TANK CAPACITY 3,000 GALLONS

The poly booster tank shall have a capacity of 3,000 U.S. Gallons.

**East Sullivan Volunteer Fire Department
Pumper/Tanker Conversion Bid**

**Bidder
Complies**

Yes No

BOOSTER TANK FILL TOWER - LEFT SIDE FRONT

The tank shall have a combination vent and manual fill tower. The fill tower shall be constructed of 1/2" polypropylene and shall be a minimum of **12" x 24"** outer dimension. The tower shall be located in the left front corner of the hose bed. The tower shall have a 1/4" thick removable polypropylene screen and polypropylene hinged type cover.

NOTE: Fill tower shall be "anti-surge" type. NO EXCEPTIONS.

6" TANK OVERFLOW

A 6" diameter tank vent/overflow shall be provided and integrated into the tank. The piping shall be a minimum of schedule 40 polypropylene designed to run through the tank and discharge behind the rear wheels.

1" TANK SUMP DRAIN

A 1" drain shall be provided in the bottom of the tank sump to fully drain the tank. The drain shall use 1" stainless steel piping with a 1" valve. The control for the valve shall be remote to the driver's side of the apparatus just under and behind the side rub rail. The drain control handle shall be labeled "TANK DRAIN".

REAR NEWTON 10" STAINLESS STEEL DUMP VALVE

A Newton model 1050 10" stainless steel dump valve shall be provided on the rear of the apparatus. The valve shall be electrically operated from the dump valve location.

NOTE: The switch shall be guarded to prevent accidental activation. The valve shall be located in the rear compartment with a hinged dup door.

REAR DUMP VALVE EXTENSION CHUTE - ELECTRIC

A Newton 18" stainless steel electrically operated telescoping extension chute shall be provided and attached to the dump valve with an stainless steel fasteners. The chute shall be controlled from the dump valve location.

REAR DUMP VALVE "IN-CAB" CONTROL

In addition to the dump valve controls located at the dump valve, the rear dump valve shall have a control in the cab.

DRIVER SIDE DUMP VALVE – CENTER OF TANDEM

The left side dump valve shall be located between the tandem rear axles.

DRIVER SIDE DUMP VALVE COVER DOOR

The body opening for the driver's side dump valve shall be covered with a polished stainless steel door.

DRIVER SIDE NEWTON 10" STAINLESS STEEL DUMP VALVE

A Newton model 1050 10" stainless steel dump valve shall be provided on the driver's side of the apparatus. The valve shall be electrically operated from the dump valve location.

NOTE: The switch shall be guarded to prevent accidental activation.

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**Bidder
Complies**

Yes No

DRIVER SIDE DUMP VALVE EXTENSION CHUTE - ELECTRIC

A Newton 18" stainless steel electrically operated telescoping extension chute shall be provided and attached to the driver's side dump valve with an stainless steel fasteners. The chute shall be controlled from the dump valve location.

DRIVER SIDE DUMP VALVE "IN-CAB" CONTROL

In addition to the dump valve controls located at the dump valve, the driver side dump valve shall have a control in the cab.

PASSENGER SIDE DUMP VALVE – CENTER OF TANDEM

The right side dump valve shall be located between the tandem rear axles.

PASSENGER SIDE DUMP VALVE COVER DOOR

The body opening for the passenger's side dump valve shall be covered with a polished stainless steel door.

PASSENGER SIDE NEWTON 10" STAINLESS STEEL DUMP VALVE

A Newton model 1050 10" stainless steel dump valve shall be provided on the passenger's side of the apparatus. The valve shall be electrically operated from the dump valve location.

NOTE: The switch shall be guarded to prevent accidental activation.

PASSENGER SIDE DUMP VALVE EXTENSION CHUTE - ELECTRIC

A Newton 18" stainless steel electrically operated telescoping extension chute shall be provided and attached to the passenger's side dump valve with an stainless steel fasteners. The chute shall be controlled from the dump valve location.

PASSENGER SIDE DUMP VALVE "IN-CAB" CONTROL

In addition to the dump valve controls located at the dump valve, the passenger's side dump valve shall have a control in the cab.

2 1/2" REAR TANK FILL(S) - "FIREMAN'S FRIEND"

Two (2) 2 1/2" rear fill(s) shall be provided on the apparatus (one each side). The fill(s) shall incorporate 2 1/2" FFE fill device. An internally mounted check type valve capable of flowing at a rate in excess of 500 gallons per minute. The fill(s) shall be self-deflecting and shall have a stainless steel spring actuated piston type sealing mechanism to minimize seal wear and provide positive sealing of valve after shutting off at water feed source. The valve(s) shall be self-cleaning utilizing EPDM rubber. A mounting plate with TTMA standards 8 bolt attachment pattern.

CHROME CAP

A 2 1/2" chrome cap shall be provided on the rear tank fill.

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**Bidder
Complies**

Yes No

3" TANK TO PUMP

A 3" tank to pump line shall be provided between the tank and the pump. The tank valve shall be an Akron tank to pump valve with control mounted on the pump operator's panel.

The piping and valve arrangement shall be capable of flowing a minimum of 500 U.S. gallons per minute to the pump. This flow must be maintained for 80% of the certified tank capacity with the apparatus positioned on level ground.

An integral built in check assembly shall be provided. The check valve shall prevent unintentional back filling of the tank through the tank to pump line. Connection from the valve to the tank shall be made by using a non-collapsible flexible rubber hose.

TANK CRADLE SUB-STRUCTURE - HOT DIPPED GALVANIZED

The tank cradle substructure shall be constructed of high strength structural steel. The tank cradle substructure shall be designed to provide support to the booster tank. The design of the cradle shall be approved by the tank manufacturer.

The entire tank cradle substructure shall be framed and jig welded together to insure a truly square assembly. The substructure shall be fastened to the chassis rails so that it may be easily removed from the chassis for repair, replacement or mounting to a new chassis.

After complete assembly of the tank cradle substructure, the entire assembly shall be hot dipped galvanized for superior corrosion protection.

Due to the extreme duty that this apparatus will experience during its intended service life and to prevent rusting and corrosion from shortening the service life of this apparatus, sub-frames fabricated of painted/undercoated steel or aluminum tubing shall not be acceptable.

REAR SUPPORT STRUCTURE - HOT DIPPED GALVANIZED

The apparatus body substructure shall be constructed of high strength structural steel.

The substructure shall be designed to provide integral support of the apparatus body, rear step, and the tank mounting cradle system. The entire sub-frame shall be framed and jig welded together to insure a truly square assembly. The substructure shall be fastened to the chassis rails so that the apparatus body may be easily removed from the chassis for repair, replacement or mounting to a new chassis.

No holes shall be drilled into the top or bottom flange of the chassis frame rails. The substructure shall be designed to allow for a 22"- 24" side running board/rear step height when the apparatus is on level ground. All fasteners used to secure the substructure to the chassis frame rails shall be hardened steel with locking type nuts.

After complete assembly of the tank cradle substructure, the entire assembly shall be hot dipped galvanized for superior corrosion protection.

Due to the extreme duty that this apparatus will experience during its intended service life and to prevent rusting and corrosion from shortening the service life of this apparatus, sub frames fabricated of painted/undercoated steel or aluminum tubing shall not be acceptable.

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**Bidder
Complies**

Yes No

20 YEAR TANK CRADLE STRUCTURAL WARRANTY

The tank cradle shall have a 20 year structural warranty. **NO EXCEPTION.**

20 YEAR TANK CRADLE CORROSION WARRANTY

The tank cradle shall have a warranty covering structural failure due to corrosion perforation. This warranty shall be in effect for 20 years after delivery of the apparatus to the customer. **NO EXCEPTION.**

20 YEAR REAR STRUCTURAL SUPPORT WARRANTY

The tank cradle shall have a warranty covering structural failure due to corrosion perforation. This warranty shall be in effect for 20 years after delivery of the apparatus to the customer. **NO EXCEPTION.**

20 YEAR REAR STRUCTURAL SUPPORT CORROSION WARRANTY

The rear structural support shall have a warranty covering structural failure due to corrosion perforation. This warranty shall be in effect for 20 years after delivery of the apparatus to the customer. **NO EXCEPTION.**

HYPER-FLEX BODY MOUNTING

The body module assembly shall be mounted to the chassis frame rails with "Hyper-Flex" vibration and shock isolators using a forward mounting system. Flexible neoprene pads, or U-springs especially developed for the expected weight and torsional flexing of the apparatus body, shall be incorporated into the system to eliminate chassis frame rail flex from transmitting harmful loads and twisting onto the body.

STAINLESS STEEL APPARATUS BODY CONSTRUCTION

The entire apparatus body shall be formed by shearing and bending fire apparatus quality stainless steel sheet metal. Metal tubular structures or extrusions shall not be used in the construction of the apparatus body. All edges of the sheared metal shall be sanded to remove any sharp shear edges prior to bending the metal. After shearing and bending, the body shall be assembled on a jig table that is designed to hold all apparatus body parts securely in place to insure an accurately built apparatus body. After the fabricated body parts are secured on the jig, the body shall be welded together using a wire welder to insure proper weld penetration.

The entire apparatus body shall be welded together using only unexposed welding methods. No welds shall be visible on the exterior of the apparatus body. All welds on the exterior of the body shall be ground flush and filled with automotive body filler. Metal or rubber trims shall not be used to hide welds or seams.

COMPARTMENT FLOORS

All compartment floors shall be constructed of fire apparatus quality stainless sheet steel. The floors shall have a minimum 1" upward flange on the rear wall of the compartment to prevent any possible moisture accumulation in this area. A drain port shall be provided in each rear corner of the compartment to allow any water that may collect on the floor to drain out. The sides of the floor must be welded the full depth of the compartment to eliminate moisture accumulation. These welds must be placed on the bottom exterior of the compartment so that they are not visible on the interior of the compartment. The front edge of the compartment shall consist of a minimum of four bends to provide additional strength in the compartment floor and shall form the lower door jamb.

All compartment floors shall be sweep out design. This shall include the lower side compartments, any upper compartments, and the rear face compartment. Any exception to this requirement will cause immediate rejection of bid.

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**Bidder
Complies**

Yes No

COMPARTMENT REAR WALLS/BODY SIDES

The compartment rear walls and the apparatus body sides shall be constructed of fire apparatus quality stainless sheet steel. The corners shall be one piece construction from top to bottom and from the inner body panel to the outer face of the compartment to provide maximum strength. Corners using structural support channels or extrusions that require two or more pieces to be welded together shall not be implemented.

SIDE/REAR COMPARTMENT TOPS AND CEILINGS

The side and rear compartment tops and ceilings shall be constructed of fire apparatus quality stainless sheet steel. The ceiling of the lower side compartments in the extended depth section shall also be constructed of this material.

FENDERWELLS

The left and right side rear fender wells shall be constructed of fire apparatus quality stainless steel sheet steel. A 1" gap shall be provided on the bottom of each side of the circular liner to allow drainage of water and for easy cleanout. Sufficient clearance shall be provided for tire chains. The fender wells shall be thoroughly cleaned and sealed.

PAINTED FENDERWELLS

The fender wells shall be finish painted the primary exterior color of the apparatus.

Two prevent potential corrosion points, aluminum treadbrite or bolted on overlapping panels shall not be implemented in the construction of the apparatus body.

REMOVABLE INNER FENDER LINER

The fender wells shall be radius cut and shall have a circular inner liner to prevent rust pockets and for ease of cleaning. The inner liner shall be constructed of high impact polyethylene material and shall be fully removable for chassis suspension access.

REMOVABLE INNER FENDER LINER - NO EXCEPTION

To prevent the buildup of potential corrosive materials in the fender well area, there shall be no exception to inner fender liner.

STAINLESS STEEL FENDERETTE

The fender wells shall be trimmed with a polished stainless steel fenderette. The stainless steel fenderette shall be secured into place with stainless steel fasteners and shall be easily removable for replacement. A black rubber fender welting shall be provided between the fenderette and the inner liner surface. The fenderettes shall protrude from the apparatus body a maximum of 1".

The fenderette must be bolted into place and removable for replacement.

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**Bidder
Complies**

Yes No

REPLACEABLE FENDERETTE

The stainless steel fenderette shall be secured to the apparatus body with stainless steel fasteners and shall be easily removable for replacement.

Fenderettes that are welded to the apparatus body are not acceptable.

100" BODY WIDTH

The apparatus body shall be 100" wide from side to side measuring from the rub rail mounting surface.

COMPARTMENT VENTILATION

Each compartment shall have a removable metal ventilation plate to allow for air movement in the compartment. A cleanable filter material shall be provided behind the plate.

Plastic cover plates will not be acceptable.

COMPARTMENT TOP OVERLAY

The compartment tops shall be overlaid with fire apparatus quality aluminum treadbrite. The aluminum treadbrite shall be an overlay only and shall not form any structural part of the apparatus. It shall be fitted on the apparatus body with all holes drilled prior to painting. **Aluminum treadbrite that is welded or bolted to the top of the compartments and masked off during the paint process is not acceptable.** The back side of the aluminum treadbrite shall be fully covered with a high temperature polyurethane based sealer to prevent dissimilar metal oxidation.

ROM ROLL UP COMPARTMENT DOORS

For all compartments requiring roll up doors, Robinson (ROM) roll up doors shall be installed.

The doors shall be constructed of aluminum extrusion slats and shall be fitted with a flexible, watertight seal between the slats at pivoting joints. Each slat shall be individually removable for replacement if damaged. The end caps and rollers shall be manufactured of type-6 nylon. The doors shall have a pre-tension operator in a sealed alloy drum that shall be positioned in the upper portion of the compartment providing maximum clearance and head room in the upper portion of the compartment.

Each door shall have a full door width lift bar latching handle which shall be spring loaded with two (2) surface mounted latch points, mounted one (1) on each end. The door shall be reinforced and the latch point with a "ledge" surface above the lift bar designed to provide a "push" surface when closing.

A drip rail shall be provided above all doors. No roll up door exterior trim paint. **STAINLESS STEEL COATED FASTENERS.**

All fasteners used in the finish construction of the apparatus body shall be marine grade stainless steel. Fasteners that pass through a dissimilar metal panel shall be Magna-Gard, or equal, coated to help prevent metal reaction and corrosion.

As the Magna-Gard, or equal, coating is a "baked on" type coating providing for excellent adhesion to the fastener, spray on type coatings may be used in conjunction with the Magna-Gard, or equal, but not in place of it.

Because dissimilar metal corrosion is a common occurrence on all apparatus and the Magna-Gard (or similar "baked on" coatings) fasteners are commercially available to all manufacturers and is not a proprietary product, there shall be no exception to this requirement.

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**Bidder
Complies**

Yes No

DRIVER'S SIDE COMPARTMENT IN FRONT OF THE REAR WHEELS

A compartment shall be provided in front of the rear wheels. The compartment interior dimensions shall be 67" high x 59.75" wide with the lower 28" of the compartment being 26" usable depth and the remaining upper section being 14" usable depth.

The compartment shall have a roll up door which shall be painted to match the primary exterior color of the apparatus.

DRIVER'S SIDE ABOVE WHEEL COMPARTMENTS (2)

Two compartments shall be provided above the rear wheels. Both compartments shall have interior dimensions 37" high x 58.75" wide x 14" usable depth.

Both compartments shall have roll up doors which shall be painted to match the primary exterior color of the apparatus.

DRIVER'S SIDE COMPARTMENT BEHIND REAR WHEELS

A compartment shall be provided behind the rear wheels. The compartment interior dimensions shall be 67" high x 44" wide x 26" useable depth in in a portion of the lower section and the remaining upper section being 14" usable depth.

The compartment shall have a roll up door which shall be painted to match the primary exterior color of the apparatus.

PASSENGER'S SIDE COMPARTMENT IN FRONT OF THE REAR WHEELS

A compartment shall be provided in front of the rear wheels. The compartment interior dimensions shall be 36.5" high x 59.75" wide with the lower 28" of the compartment being 26" usable depth and the remaining upper section being 14" usable depth.

The compartment shall have a roll up door which shall be painted to match the primary exterior color of the apparatus.

PASSENGER'S SIDE LOW COMPARTMENT BEHIND THE REAR WHEELS

A low compartment shall be provided behind the rear wheels. The compartment interior dimensions shall be 36.5" high x 44" wide x 26" useable depth in a portion of the lower section and the remaining upper section being 14" usable depth.

The compartment shall have a roll up door which shall be painted to match the primary exterior color of the apparatus.

REAR FACE COMPARTMENT

A rear compartment shall be provided on the apparatus just ahead of the rear step. The compartment shall be a minimum of 30" useable depth. The compartment shall have maximum height with selected apparatus options.

REAR COMPARTMENT DOOR - HINGED

The rear compartment shall have a single vertically hinged door constructed of aluminum treadbrite.

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**Bidder
Complies**

Yes No

DRIVER'S SIDE REAR COMPARTMENT - TRANSVERSE

The driver's side compartment behind the rear wheels shall be open into the rear facing compartment (transverse).

PASSENGER'S SIDE REAR COMPARTMENT - TRANSVERSE

The passenger's side compartment behind the rear wheels shall open into the rear facing compartment (transverse).

14" REAR TAILBOARD STEP

A 14" depth rear tailboard step shall be provided on the apparatus. The step shall be spaced from the rear face of the apparatus body a minimum of 3/4" for easy wash out.

REAR STEP MATERIAL - NFPA ALUMINUM TREADBRITE

The rear step shall be constructed of NFPA complaint bright finish aluminum treadbrite.

RUBRAILS - BRIGHT ANODIZED ALUMINUM

Extruded aluminum rub rails shall be provided on the apparatus body sides. The rub rails shall have a bright finish with anodized coating to protect the finish. The rub rails shall provide an integrated mounting location for the L.E.D. side marker lights as well as the reflectors. The rub rails shall be spaced from the apparatus body a minimum of 1/4" with poly spacers.

The rub rails must be bolted on to the apparatus body to allow easy replacement if damaged. Rub rails that are permanently fastened to the apparatus body by welding or any other permanent method will not be acceptable. **NO EXCEPTION WILL BE ALLOWED TO THIS REQUIREMENT.**

RUB RAIL ENDS

The rub rail ends shall be 'capped' with a high impact resistant black EPDM contoured block.

HOSE BED FLOORING

The floor of the hose bed shall be constructed of fiber reinforced Dura-Dek, or equal, material.

The top portion of each "T" cross section shall measure 1 5/8" wide x 3/16" thick with beaded ends. The vertical portion shall be 3/16" thick tapering out at the bottom to a thickness of 1/2" and have an overall height of 1". The "T" sections shall be spaced 3/4" apart to allow for drainage and ventilation.

The flooring shall then be protected with a polyurethane coating to screen out ultraviolet rays. The gray colored coating shall be baked on and include a slip resistant material.

68" WIDE HOSE BED

The hose bed shall be 68" wide from side to side.

HOSE BED CAPACITY

The hose bed shall have the capacity to carry the following hose load: 1,200 feet of 3" DJ hose.

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**Bidder
Complies**

Yes No

HOSE BED DIVIDER(S)

There shall be one (1) hose bed divider(s) to partition off hose. The divider(s) shall be constructed of 3/16" thick aluminum plate material. The lower edge of the divider(s) shall have a two inch 90 degree bend toward one side and a 2" x 2" x 3/16" aluminum angle welded to the other side.

The divider(s) shall be adjustable by sliding in tracks which are recessed flush into the hose bed flooring, one on front and one on rear. The divider shall be held in place by two bolts on each end.

The upper rear corner of the divider(s) shall have a minimum of a 3" radius cut.

HOSE BED COVER WITH VELCRO/TWIST LOCK FASTENERS

A heavy duty vinyl coated nylon hose bed cover shall be provided to protect the hose load from the weather. The cover shall extend from the front of the hose bed to the rear and then extend downward to cover the exposed rear of the bed.

The cover shall have a double reinforced area where the cover comes into contact with the upper rear corners of the hose bed dividers. The cover shall be secured to the apparatus using velcro and twist locks. The rear of the cover shall be secured to the apparatus using positive mechanical latches.

HOSE BED BULKHEAD

A bulkhead divider shall be provided in the front area of the hose bed separating the hose bed from the tank fill tower(s). The balance of this area that is not occupied by fill tower or other mounted equipment shall be used as a dunnage compartment.

HOSE BED COVER - RED

The hose bed cover shall be red.

LOW MOUNT ENCLOSED LADDER COMPARTMENT

A ladder storage compartment shall be provided on the right side of the apparatus with an access door on the rear. The compartment shall be located below the hose bed level and shall not be located above or through the booster tank. The compartment shall be located between the booster tank and the right side compartments.

For ease of removal and replacement with limited staffing, the compartment shall be designed to carry all portable ladders vertically on their beams. Ladder racks that carry the ladders horizontally shall not be acceptable.

The compartment shall be constructed of 5052 1/8" aluminum with a brushed finish. Individual slides fabricated of 5052 H32 alloy aluminum shall be provided in the compartment on both sides to allow individual storage for all ladders. The slides shall be provided with permanently attached Rodex poly slip blocks with tapered front and rear edges allow easier loading/unloading of the ladders.

An aluminum tread plate vertically hinged door with a slam-type latch shall be provided on the compartment. The latch shall be activated by a large "D" ring control. The use of lift-and-turn or small snap type latches on this door shall not be acceptable.

All ladders shall be capable of being removed individually without disturbing the remaining ladders.

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**Bidder
Complies**

Yes No

PIKE POLE STORAGE

Storage for two straight handle pike poles shall be provided in the ladder storage compartment.

LADDER COMPARTMENT LIGHT

An LED light shall be provided in the ladder storage compartment. The light shall be mounted just inside the ladder compartment access door and activated with an automatic door switch.

The light switch shall be incorporated into the door ajar warning system in the cab. Alco-Lite

35,14,10 ladder pkg.

ALCO LITE 35' 3 SECTION ALUMINUM LADDER

One (1) Alco Lite model PEL3-35, 35' NFPA compliant 3 section aluminum extension ladder shall be provided and mounted.

ALCO LITE 14' ALUMINUM ROOF LADDER

One (1) Alco Lite PRL-14, 14' NFPA compliant aluminum roof ladder with folding hooks shall be provided and mounted.

ALCO LITE 10' ALUMINUM FOLDING ATTIC LADDER

One (1) Alco Lite model FL-10, 10' NFPA compliant aluminum folding attic ladder shall be provided and mounted.

ZICO PTS-HA HYDRAULIC PORTABLE TANK RACK - RIGHT SIDE

A Zico hydraulically actuated portable tank rack shall be installed on the left side of the apparatus body.

ZICO PORTABLE TANK RACK ENCLOSURE

The area between the Zico cast aluminum end housings shall be enclosed on the top, bottom and outer side with a smooth aluminum panel painted the primary apparatus body color.

HARD SUCTION MOUNTINGS

Hard suction hose troughs shall be provided and mounted above the high side compartments on the left side.

HARD SUCTION SECURING CLAMPS

The hard suction troughs shall have stainless steel or chrome plated handles with spring-loaded latches on each end to hold the hard suction hoses in place.

6" x 10' HARD SUCTION HOSES (2)

Two sections of 6" diameter x 10' length clear lightweight PVC hard suction hose shall be provided.

HARD SUCTION HOSE COUPLINGS - NST

The hard suction shall be coupled long handle female NST x rocker lug male NST.

HARD SUCTION - KOCHKEK

The hard suction shall be Kochkek brand.

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**Bidder
Complies**

Yes No

6" BARREL STRAINER

A Kochek model BS60 6" barrel strainer shall be provided with a 6" female NST rigid connection.

PORTABLE TANK - CUSTOMER PROVIDED

The customer shall provide the portable tank. The tank must be of a size that will fit the design of the apparatus.

COMPARTMENT SHELF TRACKS - ALUMINUM

Two (2) sets consisting of two heavy duty aluminum Uni Strut tracks shall be provided in specified compartments, one for each end of shelf.

The tracks shall not be welded to the apparatus body.

SHALLOW DEPTH COMPARTMENT SHELVING

There shall be two (2) shallow depth shelves provided. The shelves shall be constructed of 1/8" smooth aluminum with a 2" upward bend on the front and rear edges.

ADJUSTABLE TRACK FOR SCBA BRACKETS

Two (2) sets consisting of two (2) heavy-duty horizontally mounted Uni-Strut tracks shall be provided in specified compartments. The tracks shall not be welded to the apparatus body. The Uni-strut tracks shall allow the SCBA brackets to be positioned at any location in the compartment by simply loosening a bolt on the top and bottom of the bracket, pushing inward on the bolt, and sliding the bracket to the desired location.

DRIVER'S SIDE FRONT OF WHEELWELL SPARE CYLINDER COMPARTMENT

A compartment shall be provided in the wheel cowl area in front of the rear axle on the driver's side to hold a total of two (2) spare SCBA cylinders.

The compartment shall be one piece injection molded high strength polyethylene designed specifically for the SCBA cylinder storage. The compartment shall be slanted towards the rear and have a drain port at the low point of the compartment.

DRIVER'S SIDE REAR OF WHEELWELL SPARE CYLINDER COMPARTMENT

A compartment shall be provided in the wheel cowl area behind the rear axle on the driver's side to hold a total of two (2) spare SCBA cylinders.

The compartment shall be one piece injection molded high strength polyethylene designed specifically for the SCBA cylinder storage. The compartment shall be slanted towards the rear and have a drain port at the low point of the compartment.

PASSENGER'S SIDE FRONT OF WHEELWELL SPARE CYLINDER COMPARTMENT

A compartment shall be provided in the wheel cowl area in front of the rear axle on the passenger's side to hold a total of two (2) spare SCBA cylinders.

The compartment shall be one piece injection molded high strength polyethylene designed specifically for the SCBA cylinder storage. The compartment shall be slanted towards the rear and have a drain port at the low point of the compartment.

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**Bidder
Complies**

Yes No

PASSENGER'S SIDE REAR OF WHEELWELL SPARE CYLINDER COMPARTMENT

A compartment shall be provided in the wheel cowl area behind the rear axle on the passenger's side to hold a total of two (2) spare SCBA cylinders.

The compartment shall be one piece injection molded high strength polyethylene designed specifically for the SCBA cylinder storage. The compartment shall be slanted towards the rear and have a drain port at the low point of the compartment.

WHEELWELL STORAGE COMPARTMENT DOORS – BRUSHED FINISH STAINLESS

Brushed finish stainless steel access doors shall be provided on each wheel well storage compartment in the wheel well.

WHEELWELL SCBA CYLINDER COMPARTMENT RETENTION STRAPS

One 1" wide loop of high visibility yellow webbing shall be installed in each wheel well spare cylinder compartment for each cylinder to be stored in the compartment. The loop(s) shall be designed to loop around the cylinder valve and help prevent the cylinder from sliding out of the compartment if the door is not latched or fails.

ROLL OUT TRAY

There shall be three (3) roll out tray(s) provided. The tray shall be constructed of 3/16" aluminum. The tray shall have a 2" upward bent lip on all four sides of the tray.

Grant, or equal, 250 lb. total capacity heavy duty ball bearing type telescoping slides shall be provided. A positive latching mechanism shall be provided to hold the tray in either the fully open or fully closed position.

FOLDING ACCESS STEPS

Cast Products model SP4401-1CH-BL-A folding access steps shall be provided in areas listed in these specifications. All access steps provided on the apparatus shall support a minimum static load of 500 lbs. and be mounted in accordance to recommended mounting procedures as outlined by NFPA 1901. The steps shall be attached to the apparatus using stainless steel bolts with locking type nuts.

The steps shall each have an LED light above and below the step area. The lights shall be activated by the park brake.

RIGHT FRONT COMPARTMENT ACCESS STEPS

Two NFPA compliant folding steps shall be provided on the right side front compartment face.

LEFT FRONT COMPARTMENT ACCESS STEPS

Four NFPA compliant folding steps shall be provided on the left side front compartment face.

ALCO-LITE SURE-STEP II ACCESS LADDER

An Alco Lite Sure-Step II access ladder shall be provided on the rear of the apparatus to access the upper area of the apparatus.

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**Bidder
Complies**

Yes No

ACCESS LADDER LEFT SIDE MOUNTING

The rear access ladder shall be mounted on the left (driver) side of the rear of the apparatus.

8" DEPTH REAR INTERMEDIATE STEP

An 8" depth aluminum treadbrite step shall be provided on the rear face of the apparatus. The step assembly shall be bolted into place using stainless steel fasteners.

NFPA KNURLED FINSH HANDRAILS

All handrails shall be 1 1/4" diameter extruded aluminum "knurled finish" with chrome plated stanchions. Rubber gaskets shall be provided between the stanchions and any painted surfaces. The rails shall comply with NFPA 1901.

RIGHT FRONT GRAB RAIL

A 12" NFPA compliant horizontal handrail shall be provided on the right front of the apparatus towards the front of the hose bed.

LEFT FRONT GRAB RAIL

A 12" NFPA compliant horizontal handrail shall be provided on the left front of the apparatus towards the front of the hose bed.

48" INTERMEDIATE REAR HORIZONTAL HAND RAIL

A 48" intermediate horizontal handrail shall be provided on the rear of the apparatus.

NFPA 1901 CERTIFIED 12 VOLT ELECTRICAL SYSTEM

The 12-volt apparatus body electrical system shall be provided and shall be in compliance with NFPA 1901 testing and certification procedures as follows:

NFPA MINIMUM ELECTRICAL LOAD DEFINITION

The NFPA 1901 defined minimum electrical load shall consist of the total amperage required to simultaneously operate the following in a stationary mode:

1. Propulsion engine and transmission.
2. The clearance and marker lights.
3. Communication equipment. 5 amp default.
4. Illumination of all walking surfaces, the ground at all egress points, control and instrumentation panels and 50% of total compartment lighting.
5. Minimum warning lights required for "blocking right of way" mode.
6. The current to simultaneously operate and fire pump and all specified electrical devices.
7. Anything defined by the purchaser, in the advertised specifications, to be critical to the mission of the apparatus.

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Pumper/Tanker Conversion Bid**

**Bidder
Complies**

Yes No

RESERVE CAPACITY TEST

The first electrical test to be performed will be the **Reserve Capacity Test**. All items listed in NFPA Minimum Load Definition shall be activated with the engine shut off. After 10 minutes of operation, the items 1-7 shall be deactivated. After deactivation, the battery system shall have ample reserve to start the engine.

ALTERNATOR PERFORMANCE TEST AT IDLE

The second electrical test to be performed shall be **Alternator Performance Test at Full Load**. All electrical loads shall be activated with the engine running up to the governed rpm for two hours. During the test, the system voltage shall not drop below 11.7 volts or have excessive battery discharge for more than 120 seconds. Any loads not defined in the NFPA Minimum Electrical Load may be load managed to pass test.

TEST CONDITIONS

All electrical testing shall be performed with the engine compartment at approximately 200 degrees.

12-VOLT WIRING SYSTEM

All 12-volt electrical wiring shall be SXL cross link rated to carry 125% of the maximum current for which the circuit is protected. The wire shall be of sufficient size so that voltage drops in any electrical device shall not exceed 10%. All wiring shall be color, number, and function coded with the number and function being printed every three inches along the entire length of all apparatus body wires (as required by NFPA 1901). All wiring shall be routed through heavy-duty PVC split loom, securely attached and protected against heat, oil, and physical damage. All locations where the wire passes through a body panel shall be protected with electrical grommets

All connections shall be made using mechanical connectors and be screwed to terminal or junction box with machine screws. Wire nut, insulation displacement, or piercing connections shall not be used.

All circuits shall be provided with properly rated low voltage over current protective devices of the automatic reset type.

A removable bulkhead shall that extends from the floor to the ceiling of both side rear compartments shall be provided to protect rear wiring.

MULTI-PLEXED ELECTRICAL SYSTEM

The apparatus body electrical system shall incorporate a Multiplexed Electrical System. The multiplex system shall consist of all solid-state components contained inside aluminum extrusions referred to as nodes. Each node shall consist of (24) output channels and (24) input channels. All inputs and outputs will be configured into a scalable electrical harness utilizing Duetsche connectors. The nodes must be waterproof and not require special mounting requirements.

The system, at a minimum, shall be capable of performing the following functions: load management sequencing, switch loads, receive digital and analog signals, perform and report diagnostics, continuously report vehicle status and the system is expandable.

Placement of nodes throughout the apparatus enables a reduction in wire harness bundles, elimination of redundant harnesses and separate circuit boards, relay and circuit breakers, electrical hardware, separate electrical or interlock subsystems and associated electronics for controlling various electrical loads and inputs. The multiplex system shall be field-re-programmable and re-configurable by any authorized dealer or service center. This complete system shall eliminate the need for the following separate components or devices: load manager, load sequencer, warning lamp flasher, door open notification system, interlock modules, separate volt meter and ammeter.

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**Bidder
Complies**

Yes No

The Base System Shall Include:

- Total Load Management Load
- Shedding Capabilities Load
- Sequencing Capabilities
- “On-Board” Diagnostics Readout Very
- Reliable, Solid-State Hardware Error Reporting
- Continuous system monitoring and reporting
- Emergency warning lamp flasher
- Door Ajar System Field
- Configurable Expandability
- Capabilities Advanced PC
- Diagnostics

As-built wiring harness drawings and a master circuit list of electrical circuits that the apparatus builder installs shall be furnished in the delivery manuals. These schematics must show the electrical system broken down into separate functions, or small groups of related functions. Schematics shall depict circuit numbers, electrical components, harnesses, and connectors from beginning to end. **A single drawing for all electrical circuits installed by the apparatus builder shall not be accepted.**

V-MUX VFD DISPLAY PANEL

An interface display shall be provided on the cab control console to report and display “Real Time” data.

DIGITAL 'DOOR OPEN' INDICATOR

The VFD display shall indicate which individual door or doors are open using alpha-numeric symbols (letters and numbers). For example, if the driver front compartment door is open, the display shall read "DRIVER FRONT COMPARTMENT DOOR".

Any system that does not indicate individual open doors and/or provides 'door open' indication using a single visual or audible alarm to represent all apparatus doors will not be acceptable.

AUTOMATIC HIGH IDLE FUNCTION

An automatic high idle system shall be installed and will automatically activate whenever the system voltage drops below determined voltage. The high idle will remain on until adequate voltage is achieved.

MASTER BATTERY DISCONNECT

A Cole Hersee model 2484-16 master battery disconnect switch shall be provided, mounted within easy reach of the driver when seated. The switch shall be wired between the starter solenoid and the remainder of the electrical loads on the apparatus. The batteries shall be connected directly to the starter solenoid. The alternator shall be wired directly to the batteries through the ammeter shunt if one is provided, and not through the master load disconnect switch.

A green 'battery on' indicator light shall be provided in clear view of the driver. The light shall be mounted in a manner that will not impair the drivers vision or reflect onto the windshield.

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Complies**

Yes No

LICENSE PLATE LIGHT/BRACKET

A chrome plated LED license plate light shall be provided on the rear of the apparatus. The light shall function with the head light switch.

A license plate mounting bracket shall be provided that spaces the license plate away from the apparatus body.

CLEARANCE LIGHTS/REFLECTORS

All apparatus body clearance lights shall be LED style. All lower clearance lights and reflectors shall be mounted in a manner that provides protection from damage, and shall comply with FMVSS-108 regulations.

MID-MOUNTED SIDE TURN SIGNAL - L.E.D.

A mid-mounted amber LED side turn signal shall be provided in the midsection area of the apparatus on both sides. The low profile signal shall be recessed into the side rub rail for protection.

PUMP COMPARTMENT LIGHTS (2)

Two Weldon 2025 compartment lights shall be provided to illuminate the interior of the pump compartment. The lights shall function with the pump operators gauge panel lights.

ENGINE COMPARTMENT LIGHT

A Weldon model 2025 light shall be provided and mounted over the engine on the engine compartment wall. An on/off switch shall be provided on the light to activate it.

DUAL ILI - LED COMPARTMENT LIGHTING

Each apparatus body compartment shall have two ILI track type L.E.D. lights vertically mounted in the compartment. The lights shall be constructed of an unbreakable type clear poly type flexible material housed in an aluminum extrusion.

A compartment that is considered a 'full height' compartment shall each have two 48" long light sections and a 'low height' or above wheel compartment shall each have two 18" long sections.

The lights shall function automatically and independently of other compartments when the compartment door is opened. **Compartment lighting systems that are controlled by a single, dash mounted switch are not acceptable.**

COMPARTMENT LIGHT SWITCHES

Each hinged apparatus body door compartment shall have a magnetic style reed indicator switch. Each switch shall be hermetically sealed rated to 10,000,000 cycles. The reed shall be potted in the contact housing with polyurethane and the housings shall be molded fire retardant ABS plastic. The contact and magnetic housing shall snap-lock in the body material, one on the body and one in the door.

Each roll up door shall have an integral door open indicator magnet in the lift bar. If the bar is not properly closed, it shall activate the "Door Open" light in the cab.

The compartment lights shall function automatically when the door is opened. A master compartment light switch shall not be acceptable.

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Complies**

Yes No

DOOR AJAR INDICATOR - L.E.D.

A 1" X 2" red LED flashing light shall be provided in the cab in clear view of the driver to warn of an open compartment or personnel door.

A label shall be provided adjacent to the light that states "Do Not Move Apparatus When Light Is On".

PERIMETER GROUND LIGHTING five (5)

There shall be five (5) Truck-Lite model 40 underbody perimeter lights furnished and installed. The lights shall be have an unbreakable polycarbonate lens and housing. The lights shall be sealed to help prevent moisture entry.

The ground lights shall be activated with the parking brake.

LED APPARATUS BODY STEP LIGHTING

All apparatus body and pump steps and running boards shall be illuminated using chrome plated or stainless steel LED lights. The lights shall function automatically with the park brake.

GROUND/STEP LIGHTING CUTOFF SWITCH

A ground/step light cut off switch shall be provided in the cab to allow the driver to disable the ground lights and other lights that activate when the parking brake is set. The switch shall automatically re-set itself when the parking brake is released.

KUSSMAUL 20/20 BATTERY CHARGER

A Kussmaul Auto-Charge 20/20 fully automatic battery charger with 20 amp output shall be installed on the apparatus. Remote voltage sensing shall be provided to compensate the charger output for the voltage drop in the charging wires. A 0-25 ampere meter shall be provided on the charging unit to indicate charge rate.

EXTERNAL BATTERY STATUS DISPLAY

A 10 element waterproof bar graph display shall be provided and mounted on the exterior of the apparatus. The display shall indicate the battery charge level.

KUSSMAUL AUTO-PUMP AIR COMPRESSOR

A Kussmaul Auto-Pump 120 volt air compressor shall be provided on the apparatus. The compressor shall have a .76 cfm open flow with a maximum pressure of 100 psi. The pressure switch shall be pre- set at 70 psi cut in and 90 psi cut out.

AUTO-EJECT SHORELINE CONNECTION

A Kussmaul 20 amp 120 volt Super Auto-Eject shall be provided. The unit shall automatically eject the connecting plug when the engine is cranked.

AUTO-EJECT COVER - YELLOW

The Auto-Eject shall have a spring loaded cover yellow in color.

AUTO-EJECT MATING PLUG

A NEMA 5-15P mating female cord end shall be shipped loose with the apparatus to allow the Fire Department to connect the cord end to a Fire Department provided charging cord.

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Complies**

Yes No

120 VOLT SHORELINE CONNECTION LOCATION

The 120 volt shoreline connection shall be located under the driver's door.

WHELEN TRI-CLUSTER TAILLIGHTS - L.E.D. - INCANDESCENT

Whelen 60R00BRR 4" x 6" LED taillights and 60A00TAR 4" x 6" LED turn signals shall be provided. The backup lights shall be 4" x 6" clear incandescent. A polished trim housing shall be provided, one each side for mounting the tail lights, turn signal lights, and backup lights.

CENTER CONSOLE MOUNTED SWITCH PANEL

A center control console shall be provided between the driver's and officer's seats for all warning light switching, scene lighting switches, step light switches, pump shift, and battery switch. A single master optical warning device switch shall be provided that will activate all minimum optical warning lighting through a **single** switch. Individual switches shall not be provided for any minimum optical warning lighting to insure total compliance to the warning lighting requirements defined in NFPA 1901. All lighting controlled by this switch shall not be subject to load management.

Any warning lights that are installed on the apparatus that are not required to meet the minimum optical warning lighting requirements shall be subjected to load management and shall have individual switches to activate/de-activate the warning light.

All switches shall be clearly labeled as to their function.

ZONE A UPPER WARNING LIGHTING

A Whelen FN60QLED light bar shall be mounted on the top of the cab roof. The light bar shall be 60" in length and mounted with low profile stainless steel brackets.

The light bar shall have two front corner Linear-LED's, four front Linear-LED's (2 red, 2 white) and two red Linear-LED's.

The lenses on the Officer's side shall be red and the lenses on the Driver's side shall be red.

ZONE C UPPER WARNING LIGHTING

Two Whelen model B6TMRA1P red beacons shall be provided one on each side on the rear. The lower LED's that are integrated into the rotators shall be red.

FRONT GRILLE WARNING LIGHTS

Two Whelen model M6R red LED lights shall be provided in the grille area on the apparatus. A chrome bezel shall be provided around the lights.

INTERSECTION WARNING LIGHT - SIDES

One Whelen 600 Series red LED light shall be provided on each side as low and far forward as possible on the apparatus. A chrome bezel shall be provided around the lights.

MID-SECTION WARNING LIGHTS - SIDES

One Whelen LINZ6 red LED light shall be provided on each side in the mid-section of the apparatus. A chrome bezel shall be provided around the lights.

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**Bidder
Complies**

Yes No

MID-SECTION WARNING LIGHTS - SIDES

One Whelen 600 Series red LED light shall be provided shall be provided on each side of the apparatus as low and as far rearward as possible on the apparatus. A chrome bezel shall be provided around the lights.

REAR FACING LOWER WARNING LIGHTS

Two Whelen 600 Series red LED lights shall be provided on the lower rear of the apparatus. A chrome bezel shall be provided around the lights.

CODE 3 MODULATED HEADLIGHT SYSTEM

A Code 3 model 620 solid state headlight modulator shall be provided. A separate switch shall be provided on the switch panel to activate or de-activate the headlight modulator.

The modulating headlight system shall be subjected to load management shedding and shall be wired to automatically disable the system when the vehicle is in a stationary position to comply with NFPA 1901.

WHELEN 295SLSA1 SIREN

A Whelen 295SLSA1 siren shall be provided and mounted in the cab.

FEDERAL SIGNAL Q2B MECHANICAL SIREN - RECESSED MOUNTED

A Federal Signal model Q2B recess mounted chrome plated mechanical siren shall be provided and mounted recessed in the front bumper extension. The siren shall have a maximum sound output of 123 db at 10'.

MECHANICAL SIREN ACTIVATION SWITCHES

Two floor mounted pad switches shall be provided to operate the mechanical siren, one on the right side and one on the left side.

MECHANICAL SIREN BRAKE

A siren brake push button switch shall be provided on the dash or console.

100 WATT SPEAKER

A 100 watt speaker shall be provided and recessed into the front bumper. The model of speaker installed shall be designed to fit bumper type.

GROVER 24" STUTTERTONE AIR HORNS

Two Grover model 1510 24" chrome plated emergency air horns shall be provided and mounted under the front bumper.

AIR HORN CONTROL

The air horn system shall be controlled by a lanyard control on the cab ceiling. The lanyard shall be mounted in the center of the cab accessible from both the driver and the officer.

AIRHORN PRESSURE PROTECTION VALVE

The air horn system shall be equipped with a pressure protection valve that will prevent the use of the

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Complies**

Yes No

air horns when the pressure in the air system drops below 80 psi.

WHELEN 90COELZR "GRADIENT" ' SCENELIGHTS

Six Whelen 90COELZR "Gradient Opti-Scene scene lights shall be provided and mounted two on each side and two on the rear. The lights shall have a chrome plate trim bezel.

12 VOLT SCENELIGHT ACTIVATION SWITCH (1)

A single switch shall be located on the cab control console to activate the 12 volt scene light(s).

DUAL FUNCTION REAR SCENELIGHT(S)

The rear facing scene light(s) shall activate automatically when the apparatus transmission is placed into reverse.

UNITY AG-6 DECK/HOSEBED LIGHTS

Two (2) Unity model AG-6 chrome plated lights shall be provided and mounted on the rear of the apparatus, one (1) each side. The lights shall be controlled by light head mounted switches and shall be capable of 360-degree rotation and 90 degrees above and below horizontal tilt.

The lights shall be subjected to load management shedding to comply with NFPA 1901.

PULSAR 750 HANDHELD SPOTLIGHT

A Collins Pulsar model 750 handheld spotlight shall be provided and mounted in the cab. The light shall be constructed of hi-impact weather-proof polycarbonate plastic.

The light shall have a momentary rocker switch. The light shall draw 7.8 amps in spot mode and 4.3 amps in flood mode.

FRC SPECTRA-MAX LED TELESCOPING LIGHT - 12 VOLT

Two (2) Fire Research model SPA510-Q28-top raising through body telescoping light(s) shall be mounted on the apparatus.

The light head shall be 12 volt LED and shall draw a maximum of 20.8 amps creating a total of 28,000 lumens.

A switch shall be provided that has an off, spot, flood or spot/flood position.

The telescoping pole shall be constructed of heavy wall anodized tube. The pole shall be secured in any raised position with a non-directional advanced twist lock locking device. The twist lock mechanism shall have a knurled positive grip.

The light(s) shall include a three wire coiled cord extended from the pole bottom.

The light(s) shall be electrically tested so that they are safe for their intended use. The light(s) shall be certified by Underwriters Laboratories (UL) and shall meet/exceed NFPA 1901.

12 VOLT SCENELIGHTS DUAL ON/OFF SWITCH(ES)

Four (4) 12 volt scene lights shall be switched from both the cab console and the pump panel.

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**Bidder
Complies**

Yes No

OBSERVATION SYSTEM DISPLAY

An ASA Voyager observation system shall be provided on the apparatus. The system shall include a model AOM711 7" flat panel color display. The display shall have 300 nits brightness with a contrast ratio of 150:1. Viewing angles shall be 55 degrees left to right and 25 to 40 degrees top to bottom. The display shall have a water resistant housing, built-in audio speaker with volume control, 12 volt audio enable and power on (standby) trigger inputs. on-screen display picture controls, day/night mode, backlit controls and detachable sunshield. A 72704 mounting bracket shall also be included. The display shall be 7 3/4" wide x 5 1/4" high x 1 3/16" depth.

OBSERVATION SYSTEM CAMERAS

An ASA Voyager model VCCS130 color camera shall be provided and properly connected to the flat panel display. The camera shall feature a built-in microphone, enhanced low-light performance (LED assisted), image orientation selector switch and a locking waterproof cable connector with CEC50 camera extension cable.

FLUID CAPACITY LABEL

A permanent plate shall be mounted in the driver's compartment specifying the quantity and type of the following fluids used in the apparatus (if applicable) for normal maintenance:

- 1. Engine Oil.
- 2. Engine Coolant.
- 3. Transmission Fluid.
- 4. Pump Transmission Fluid.
- 5. Pump Primer Fluid (if applicable).
- 6. Drive Axle Fluid.
- 7. Air Conditioning Refrigerant.
- 8. Air Conditioning Lubrication Oil.
- 9. Power Steering Fluid.
- 10. Cab Tilt Mechanism Fluid (if applicable).
- 11. Transfer Case Fluid.
- 12. Equipment Rack Fluid (if applicable).
- 13. Air Compressor System Lubricant.
- 14. Generator System Lubricant.
- 15. Front tire cold pressure.
- 16. Rear tire cold pressure.
- 17. Maximum tire speed ratings.

OCCUPANCY LABEL

A permanent plate or label stating the maximum number of personnel allowed to ride on the apparatus at any one time shall be provided and installed in clear view of the driver.

SEATED AND BELTED LABEL

Permanent plate or label shall be provided stating "OCCUPANTS MUST BE SEATED AND BELTED WHEN APPARATUS IS IN MOTION". The label shall be visible from each seated position.

DO NOT RIDE LABEL

A permanent plate or label shall be attached to the appropriate areas of the apparatus stating that riding on the rear step or any exterior position on the apparatus is prohibited.

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Complies**

Yes No

DO NOT WEAR HELMET LABEL

Permanent plate or label shall be provided stating "DO NOT WEAR HELMET WHILE SEATED". The label shall be visible from each seated position.

MAXIMUM TIRE SPEED LABEL

A permanent plate or label shall be provided in the cab stating the maximum tire speed rating.

LENGTH, HEIGHT, WEIGHT LABEL

A permanent plate or label shall be provided in the cab stating the overall length, height and the gross vehicle weight rating (GVWR), in tons, of the completed apparatus.

The wording on this label shall indicate that the information on the plate/label was current at the time of manufacture and if the overall height of the apparatus changes while the vehicle is in service, the purchaser shall revise the height dimension on the plate.

UNDERWRITER'S LABORATORIES TESTING

The apparatus shall undergo an Underwriters Laboratories Certification Test to insure that the completed apparatus meets the requirements of NFPA #1901. The certificate shall be provided to the purchaser upon completion. Underwriters Laboratories shall also perform the required testing on the entire installed electrical system. Self-certification by the apparatus manufacturer will not be acceptable.

MANUFACTURER'S RECORD CERTIFICATION

The contractor shall supply, at the time of delivery, at least one copy of the following documents:

1. The manufacturers record of apparatus construction details, including the following information:
 - a. Owners name and address
 - b. Apparatus manufacturer, model, and serial number c. Chassis make, model, and serial number
 - d. GAWR of front and rear axles
 - e. Front tire size and total rated capacity in pounds (kg)
 - f. Rear tire size and total rated capacity in pounds (kg)
 - g. Chassis weight distribution in pounds with water and manufacturer mounted equipment (front and rear)
 - h. Engine make, model, serial number, rated horsepower and related speed, and governed speed
 - i. Type of fuel and fuel tank capacity
 - j. Electrical system voltage and alternator output in amps
 - k. Battery make, model, and capacity in cold cranking amps (CCA)
 - l. Chassis transmission make, model, and serial number; and if so equipped, chassis transmission PTO(s) make, model, and gear ratio
 - m. Ratios of all driving axles
 - n. Maximum governed road speed
 - o. Pump make, model, rated capacity in gallons per minute (liters per minute where applicable), and serial number
 - p. Pump transmission make, model, serial number, and gear ratio
 - q. Auxiliary pump make, model, rated capacity in gallons per minute (liters per minute where applicable), and serial number
 - r. Water tank certified capacity in gallons or liters (if applicable).
 - s. Aerial device type, rated in vertical height in feet, rated horizontal height in feet, and rated capacity in pounds.

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Yes No

- t. Paint manufacturer and paint number(s)
- u. Company name and signature of responsible company representative

2. Certification of slip resistance of all stepping, standing, and walking surfaces
3. If the apparatus has a fire pump, a copy of the pump manufacturers certification of suction capability.
4. If the apparatus has a pump, a copy of the apparatus manufacturers approval for stationary pumping applications.
5. If the apparatus has a pump, a copy of the engine manufacturers certified brake horsepower curve showing the maximum governed speed.
6. If the apparatus has a pump, a copy of the pump manufacturers certification of the hydrostatic test.
7. If the apparatus has a pump, a copy of the certification of inspection and test for the fire pump.
8. If the apparatus has an aerial device, the certification of inspection and test for the aerial device.
9. If the apparatus has an aerial device, all technical information required for inspections to comply with NFPA 1914.
10. If the apparatus has a fixed line voltage power source, the certification of the test for the fixed power source
11. If the apparatus is equipped with an air system, test results of the air quality, the SCBA fill station, and the air system installation
12. Weight documents from a certified scale showing actual loading on the front axle, rear axle(s), and overall fire apparatus (with the water tank full but without personnel, equipment, and hose)
13. Written load analysis and results of the electrical system performance tests
14. When the apparatus is equipped with a water tank, the certification of water tank capacity

TILT TABLE TESTING

The apparatus shall be certified to NFPA 1901 Rollover Stability requirements using the tilt table method. The apparatus shall be tested while loaded with fuel, water, and 250 lbs per seated position. The apparatus shall also be loaded with weight equal to the NFPA recommended equipment load for the type of apparatus. The weights shall be placed on the apparatus where this type of equipment would normally be carried. The apparatus shall be tilted to both sides.

Written certification of this test shall be provided to the purchaser upon delivery. "Type" testing of the apparatus where testing is performed on an apparatus of 'similar' design shall not be permitted. Photographs of the actual apparatus during tilt table testing shall be provided to the purchaser upon delivery. There shall be NO EXCEPTION to the 'actual truck' photographs.

VEHICLE DATA RECORDER (VDR)

The apparatus shall be equipped with an on-board Vehicle Data Recorder (VDR). The recorder shall be capable of recording the following data, in this order, at a minimum of once per second:

- Vehicle speed (MPH).
- Acceleration (from speedometer) (MPH/Sec)
- Deceleration (from speedometer) (MPH/Sec)
- Engine speed (RPM)
- Engine throttle position (% of throttle)
- ABS event (on/off)
- Seat occupied status (occupied yes/no by position)
- Seat belt status (buckled yes/no by position)
- Master optical warning device switch (on/off)
- Time (24 hour)
- Date (year/month/day)

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Complies**

Yes No

The data shall be stored at the sampling rate in a 48 hour loop. The system shall have sufficient memory to record 100 engine hours with of minute by minute summary data showing the data listed above. When the memory capacity is reached, the system shall erase the oldest data first.

All data stored in the VDR shall be password protected, upload able by the user to a computer and importable to into a data management software package. that shall be provided with the apparatus. The software shall be both "Windows" and "Apple" compatible. The software shall produce the following formatted reports from the uploaded data:

- Daily log for the time the engine is running for a given date (minute by minute output of all values).
- Weekly summary (maximum values each hour for each day of the week).
- Monthly summary (maximum values each day for each day of the month)

SEATBELT WARNING SYSTEM

The apparatus shall be equipped with a seatbelt warning system. The system shall consist of an audible warning device that can be heard at all seating positions that are designed to be occupied while the vehicle is in motion as well as a visual display visible to the driver showing each seating position. The warning system shall be activated anytime the parking brake is released or the automatic transmission is not in park

The system shall display seating position lights as follows:

- Green (buckled/senses occupant)
- Red (buckled/no occupant)
- Red (unbuckled/senses occupant)
- Dark (unbuckled/no occupant)

OCCUPIED SEATING POSITIONS -(2)

There shall be two seating positions designated for use while the vehicle is in motion.

FIRE HELMET MOUNTINGS

Fire helmets will be stored in an exterior compartment and will not be carried in the apparatus cab.

PAINT PROCEDURE - PPG DELFLEET BASE COAT/CLEAR COAT

After the apparatus body has been fully assembled and all mounting holes, etc. have been either punched, machined, or drilled, the apparatus shall be fully disassembled for the paint process.

Masking or taping off of any portion of the apparatus during the paint process shall not be acceptable. All compartment doors shall be painted separate from the apparatus body.

All seams or flanges on the apparatus body shall be caulked or properly sealed to prevent moisture accumulation in flanged areas.

APPARATUS BODY PAINTED OFF CHASSIS

The apparatus body shall be painted prior to being mounted on the chassis. Painting of the body off the chassis will prevent primer and paint overspray on the cab, frame rails and other critical components of the apparatus and drive train.

There shall be no exception to this requirement.

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Complies**

Yes No

PPG CERTIFIED 10 YEAR LIMITED PAINT WARRANTY

The apparatus body exterior finish paint shall have a 10 year limited warranty per the terms and conditions of the PPG written warranty. The warranty shall be certified by the manufacturer of the paint. Documentation of this shall be provided. Any warranty that is extended by the apparatus manufacturer and not backed by the paint manufacturer will not be acceptable.

ELECTROLYSIS CORROSION CONTROL

The apparatus shall be assembled using ECK or electrolysis corrosion control, on all high corrosion potential areas, such as door latches, door hinges, trim plates, fenderettes, etc. This coating is a high zinc compound that shall act as a sacrificial barrier to prevent electrolysis and corrosion between dissimilar metals. This shall be in addition to any other barrier material that may be used.

APPARATUS BODY UNDERCOATING

The apparatus body shall be undercoated after assembly is completed. A bituminous based automotive type undercoat shall be used. Care shall be taken to avoid undercoat application to items that would hinder normal maintenance.

APPARATUS BODY COMPARTMENT INTERIOR FINISH

The interior of all apparatus body compartments shall be finished with a gray textured coating.

CAB PAINT

The chassis cab shall be re-painted to provide a "perfect match" between the cab and body. The inner area of the door jamb shall be painted also.

TIRE PRESSURE VISUAL INDICATOR

Real Wheels model RW TG1234 valve stem mounted visual indicators shall be provided on each tire. The LED indicators shall flash when the tire pressure drops 8 psi.

SMART GOLD ENCAPSULATED LETTERING

A maximum of sixty (60) 4" maximum height Smart Gold simulated gold leaf, Mylar encapsulated, self- adhesive lettering with black outline and drop shadow shall be applied to both sides of the chassis cab.

The exact type style, wording and placement of the lettering will be provided to the successful bidder at the pre-construction conference.

6" NFPA REFLECTIVE STRIPE

A 6" reflective stripe shall be applied to the apparatus. The stripe shall be applied to a minimum of 50% of the length of the apparatus on each side, 50% across the rear and 25% across the front of the apparatus. The stripe shall comply with NFPA 1901 requirements.

PRIMARY REFLECTIVE STRIPE COLOR - WHITE

The primary reflective stripe shall be 680-10 white.

REFLECTIVE STRIPE - "REVERSE Z" DESIGN

The reflective stripe shall be applied in a "reverse z" design. The stripe shall angle upward on the forward compartment door on the apparatus body and then continue back to the end of the apparatus.

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Yes No

INNER CAB DOOR REFLECTIVE STRIPING - 2 DOOR

A minimum of 100 square inches of reflective material shall be provided on the inner door liner of each cab door.

RUB RAIL REFLECTIVE STRIPING - RED/WHITE

A 2" width alternating red/white reflective stripe shall be applied to the recessed area of the rub rail.

CAB PAINT BREAK STRIPPING

A single horizontal metallic gold pinstripe with black border on top and bottom shall be provided on the cab two tone paint break line.

REAR CHEVRON STRIPING - DIAMOND GRADE

A minimum of 50 percent of the rear vertical surface of the apparatus shall be covered with 6 inch alternating 983-71 red and 983-23 fluorescent yellow green "Diamond Grade" retro-reflective striping. The striping shall slope downward away from the centerline of the apparatus at a 45 degree angle.

The retro-reflective material shall conform to the requirements of ASTM D 4956 "Standard Specification for Retro-Reflective Sheeting for Traffic Control", Type I or better.

ENGINE EXHAUST

The exhaust pipe from the engine shall not be modified from the design configuration that was provided from the chassis manufacturer.

Shielding shall be provided between the apparatus body and the exhaust pipe if necessary to deflect heat away from the body. The exhaust system shall be designed and installed by the chassis manufacturer to comply with EPA equipment requirements.

CAB ENTRY STEP COVER

The OEM provided cab entry step on the side opposite the fuel tank shall be removed from the chassis provided brackets and replaced with a fabricated aluminum treadbrite "SINGLE STEP" step assembly.

FUEL TANK/STEP COVER

The OEM provided cab entry step on the same side as the fuel tank shall be removed from the chassis provided brackets and replaced with a fabricated aluminum treadbrite "SINGLE STEP" step assembly.

FRONT/REAR MUDFLAPS

Heavy duty black rubber mud flaps shall be provided on the front and rear wheels. The mud flaps shall be attached to the apparatus in the front and the rear wheel well area using heavy duty stainless steel retention straps that are secured into place using stainless steel fasteners.

REAR PULLING EYES

Two rear 3/4" CRS pulling eyes shall be provided under the rear tailboard. The eyes shall have a minimum of a 3" clear opening for passing chains through the eye.

**East Sullivan Volunteer Fire Department
Pumper/Tanker Conversion Bid**

**Bidder
Complies**

Yes No

12 VOLT RADIO POWER FEED(S)

Two (2) 12 volt power feed wire(s) shall be provided in the cab for customer supplied and installed radio equipment.

RADIO ANTENNA

Two (2) radio antenna shall be provided and mounted for Customer installation of radio.

"AS BUILT" APPARATUS BODY OWNERS MANUAL CD (2)

Two "as built" apparatus body owner's manual CD's shall be provided with the apparatus. All apparatus body electrical schematics shall be provided as well as all instructional and maintenance manuals on components provided and permanently mounted on the apparatus. A copy of the final apparatus body build specifications shall also be included on the CD. The CD's shall be "read only" and shall not allow modification.

To eliminate component confusion, generic CD's with equipment that is not provided on the apparatus body shall not be acceptable.

2 LB. BAG OF FASTENERS

A 2 lb. bag of fasteners used in the final assembly of the apparatus shall be provided. The bag shall contain a variety of fasteners and shall not be one single size.

DOT DRIVE AWAY KIT

Three triangular warning reflectors with carrying case and one 5 lb. ABC fire extinguisher with bracket shall be provided.

ZIAMATIC SAC-44 ALUMINUM WHEEL CHOCKS

One set of two Zico model SAC-44 folding wheel chocks shall be provided. Two "underbody" horizontal brackets (SQCH-44-H) shall be provided and installed under the body compartments.

EXHIBIT “A”

CHRONOLOGICAL/MFR. HISTORY

EXHIBIT “B”

EXCEPTIONS/CLARIFICATIONS TO RFP

EXHIBIT “C”

GENERAL LIABILITY INSURANCE

EXHIBIT “D”

EXCESS LIABILITY INSURANCE

EXHIBIT “E”

WARRANTIES

EXHIBIT “F”

REFERENCES

EXHIBIT “G”

BANKRUPTCY

EXHIBIT “H”

SURETY (BID) BOND