

OFFICE OF THE SULLIVAN COUNTY PURCHASING AGENT

3411 HIGHWAY 126 – SUITE 201

BLOUNTVILLE, TN 37617-0569

**KRISTINIA DAVIS
PURCHASING AGENT**

PHONE 423/323-6400
FAX 423/323-7249
E-MAIL: kris.davis@sullivancountytn.gov

REQUEST FOR PROPOSAL

RFP Name / Number	Custom Pumper / # WPVFD2015(AM)
Department	Warrior's Path Volunteer Fire Department
Due Date / Time	Tuesday, December 29, 2015 / 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	Alan Mahaffey (423) 323-6404; alan.mahaffey@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 **WARRIOR'S PATH 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 29, 2015 @ 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 # WPVFD2015(AM) on the outside.** Telephone, fax or e-mail responses are not acceptable!

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

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

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

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

During the evaluation period, bidders may be asked to further clarify their proposals or answer questions that may arise

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

The Sullivan County Purchasing Agent has the right to accept or reject any/all proposals and to waive any informalities or irregularities and/or to reject a bid from any responding vendor who, in the judgment of the purchasing agent, is not in a position to perform the contract, and/or to reject a bid based on unacceptable provisions of a responding vendor's contract. Sullivan County, on behalf of the Warrior's Path 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 Warrior's Path Volunteer Fire Department for evaluations prior to final selection and award.

CONTACT FOR QUESTIONS REGARDING THE BID PROCESS:

ALAN MAHAFFEY @ 423-323-6404

alan.mahaffey@sullivancountyttn.gov

CONTACT FOR QUESTIONS REGARDING TRUCK SPECIFICAITONS

BEN WEXLER @ 423-384-5296

benwexler@charter.net

COLOR CODED

TABLE OF CONTENTS

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 # WPVFD2015(AM)

FIRE FIGHTING APPARATUS

(CUSTOM PUMPER)

WARRIOR'S PATH VOLUNTEER FIRE DEPARTMENT

NEW 2016 FIRE FIGHTING APPARATUS TO MEET OR EXCEED SPECIFICATIONS AS REQUESTED

PURCHASE PRICE = \$ _____

DELIVERY DATE (in calendar days): _____

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

PAYMENT TERMS

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

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

COMPANY NAME _____

AUTHORIZED REPRESENTATIVE NAME (PRINTED) _____

REPRESENTATIVE'S SIGNATURE _____ DATE _____

PHONE _____ FAX _____ EMAIL _____

GENERAL INSTRUCTIONS

These specifications reflect the only acceptable type of fire apparatus to be considered; major exceptions to specifications will not be accepted. These specifications cover only the general (minimum) requirements in regards to apparatus construction and test conformance; including responding vendor's conformity to provide all equipment and appliances details. Exceptions will not be accepted or permitted since all raw materials of the specified type are available to all manufacturers. Since all manufacturers have the ability to shear, break, and weld as these specifications require, all basic design requirements shall be complied with. The apparatus shall be constructed with due consideration to the nature and distribution of the load to be sustained and to the general character of service to which the apparatus is to be subjected when placed in service. All parts of the apparatus shall be of adequate strength to withstand the general service under full load. The apparatus shall be so designed that the various parts are readily accessible for lubrication, inspection, adjustment, and service. No prototype apparatus will be considered and all design, operational and material features must fully comply with the state and federal motor vehicle safety standards. Minor details of design, construction and materials, which are not otherwise specified, are the sole responsibility of the manufacturer. Apparatus proposed by any responding vendor shall meet the applicable requirements of the National Fire Protection Association Pamphlet 1901 (2009 Edition), Standard for Automotive Fire Apparatus, for Pumper Fire Apparatus Equipped with a Fire Pump. In addition the apparatus shall also be in compliance with all federal, state, ICC and DOT regulations, standards and laws.

EXCEPTIONS

Any deviations, variations or exceptions (no matter how slight), shall be clearly explained on a separate page immediately following the cover page "EXCEPTIONS TO RFP". Same shall be submitted in exact RFP format with reference to each particular section. Exceptions will only be considered if they are equal to or better than those specified. Total exception to the specifications shall result in immediate disqualification. Any exceptions not listed are assumed to be included in the RFP, regardless of future cost to the vendor. During the evaluation process, if deviations are found that were not specifically defined in the RFP, the RFP will be disqualified from the award process.

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. All equipment shall be inspected for material, workmanship, and compliance with the specifications prior to acceptance. All equipment found to be in noncompliance shall be identified and the purchaser reserves the right to accept or reject the specific items. The noncompliant rejected equipment shall be replaced or reworked to meet the requirements of this documents at no additional cost to the purchaser. The contractor shall have thirty (30) days after delivery to fulfill that part(s) of the specifications which does not comply with the original outlined specifications. Contractor shall incur all expenses of pickup and redelivery of the apparatus.

--ENCLOSE AS EXHIBIT A – EXCEPTIONS

MANUFACTURER HISTORY

The proposed fire apparatus and equipment must be the product of an established reputable fire apparatus manufacturer of ten (10) years or more. Each responding vendor shall furnish satisfactory evidence of the manufacturer's ability to construct, perform services, provide technical assistance and provide replacements/repair parts for the apparatus specified herein. Each responding vendor must also indicate the location of the factory and the location of a full service facility dedicated for prompt services.

--ENCLOSE AS EXHIBIT B – MANUFACTURER HISTORY

REFERENCES

A minimum of five (5) trade references with which you have done business during the past three (3) years must be included. Names, phone numbers and other reference information must be correspondingly indicated.

--ENCLOSE AS EXHIBIT C - REFERENCES

LETTER OF AUTHORIZATION

If the RFP is submitted by a dealer/agent in the name of a particular manufacturer, the responding vendor shall include in the RFP response, a copy of the appropriate letter of authorization, authorizing the dealer/agent to sign on behalf of the manufacturer.

[- ENCLOSE AS EXHIBIT D – DEALER AUTHORIZATION]

BUSINESS LICENSES

Any responding vendor must have all current licenses to do business with Sullivan County and the State of Tennessee. If the responding vendor is a manufacturer bidding direct (not through a dealer/agent or distributor), the RFP response shall include copies of both the automotive manufacturer and automotive dealer licenses. If the responding vendor is a dealer/agent or distributor, the RFP response shall include a copy of the appropriate dealer license.

[- ENCLOSE AS EXHIBIT E – BUSINESS LICENSES]

PATENT LIABILITY

The successful vendor shall defend any and all suits and assume all liability for the use of any patented process including any device or article forming a part of the apparatus or any appliance furnished under the contract award.

WARRANTIES

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

[- ENCLOSE AS EXHIBIT F - WARRANTIES]

CHASSIS WARRANTY

Chassis shall be warranted by the chassis manufacturer as per the chassis manufacturer's issued warranty.

ENGINE WARRANTY

The engine shall come with a five (5) year warranty provided by the engine manufacturer.

TRANSMISSION WARRANTY

The transmission shall have a five (5) year /unlimited mileage warranty covering 100% parts and labor. The warranty is to be provided by the transmission manufacturer.

WATER TANK WARRANTY

The tank shall have a lifetime warranty to the original purchaser.

BODY WARRANTY

Fire apparatus manufacturer's warranty shall state that the body shall be free of structural failures caused by defective design or workmanship for a period of twenty (20) years from the date the new vehicle is first delivered that defective parts, under the warranty, shall be repaired or replaced without charge to the original purchaser.

The term "body" shall be inclusive of: hose bed side walls, compartments and compartment supports, compartment doors (except rollup doors when specified) and complete sub frame including pump house framing.

PUMP WARRANTY

The pump manufacturer shall warrant that the pump provided shall be of first class workmanship and shall show no defects due to faulty design, workmanship, or materials for a period of five (5) years.

The galvanized or stainless steel plumbing components as specified and ancillary brass fittings used in the construction of the water/foam plumbing system shall be warranted for a period of ten (10) years or 100,000 miles. This covers structural failures caused by defective design or workmanship, or perforation caused by corrosion, provided the apparatus is used in a normal and reasonable manner. This warranty is extended only to the original purchaser for a period of ten years from the date of delivery.

PAINT, CORROSION AND LAMINATION WARRANTY

The cab and body exterior paint finish shall be warranted against blistering, peeling, corrosion, lack of adhesion or any other manufacturing or material defect for a period of ten (10) years.

The cab and body shall also be warranted against corrosion perforation for a period of ten (10) years.

The manufacturer shall provide a three (3) year warranty against defects in material and workmanship with the graphics process.

APPROVAL DRAWINGS

One (1) size "D" engineering drawings shall be submitted with the apparatus bid. The drawing must be of the actual fire department apparatus, similar apparatus drawings will not be accepted.

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:

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 G – 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 H – EXCESS LIABILITY INSURANCE

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 I – BANKRUPTCY

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 J – 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.

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.

Warrior's Path Volunteer Fire Department

SINGLE SOURCE MANUFACTURER

To provide the customer with a single point of contact for service, warranty, and parts, proposals shall only be accepted from manufacturers who assemble the complete apparatus in their own facility.

Bidder Complies YES_____ NO_____

VIRTUAL MANUFACTURING

The manufacturer shall have a web site available for the customers to 'watch' their unit being produced. The "Trucks in Production" shall be updated a minimum of three-(3) times per week.

The web site shall also include documentation of cab and body crash tests, take a virtual tour of the production facility, videos of both current and new innovative products, updates on trade shows, photos of new deliveries and the opportunity to include customer 'Action Photo's'.

Customer shall be able to access the web site without the requirement of a password.

Bidder Complies YES_____ NO_____

PRINCIPAL DIMENSIONS

The apparatus shall be no larger than the following dimensions:

Overall Length: 32' 3"

Overall Height: 9' 5.25"

Wheelbase: 188"

Cab to Axle: 126"

Bidder Complies YES_____ NO_____

CERTIFIED WELDERS

The manufacturer shall employ individuals that are certified aluminum and stainless steel welders. The welders shall be certified by an outside testing laboratory. The certifications shall be available for viewing through the Human Resources office upon request.

Bidder Complies YES_____ NO_____

DRAWING, BID REFERENCE

One (1) Size "D" drawing shall be submitted with the apparatus bid. The drawing must be of the actual fire department apparatus, similar apparatus drawings will not be accepted.

Bidder Complies YES_____ NO_____

Warrior's Path Volunteer Fire Department

DRAWING, APPROVAL

Prior to construction, the successful bidder shall provide three-(3) "Size D" approval drawings of the apparatus for the fire department's review. The drawings shall show such items as the chassis being utilized, lights, horns, sirens, pump panels, and all compartment locations and dimensions. The blueprint shall be a visual interpretation of the unit as it is to be constructed. The buying authority shall sign all drawings. One-(1) print shall be retained by the Fire Department, the dealer/sales representative shall retain one-(1) print, and one-(1) print shall be returned to the manufacturer.

Bidder Complies YES_____ NO_____

PRE-CONSTRUCTION CONFERENCE

A pre-construction conference will be held at the factory prior to the actual construction of the vehicle(s). The conference will be held in the manufactures facility with Two (2) representatives of the Fire Department and appropriate representatives of the manufacturer.

Transportation, lodging and meals will be the responsibility of the manufacturer.

Bidder Complies YES_____ NO_____

FINAL INSPECTION TRIP

There will be a final inspection for Two (2) representatives of the buying authority at the facility where the apparatus is being constructed. The inspection trip will be completed when the apparatus is complete.

Factory and Sales representatives will be available at the time of inspection.

The final inspection will include as a minimum:

- Full access to the build file and factory personnel to provide answers for any issues found.
- Unit will be placed on a lift that will allow full inspection of the undercarriage.
- Road test shall be accommodated.
- Unit will be taken to pump test area where the pump and plumbing can be inspected while flowing water.
- General apparatus orientation and operation shall be provided at the pump test pit.

Transportation, lodging and meals will be the responsibility of the manufacturer.

Bidder Complies YES_____ NO_____

TRANSPORTATION OF APPARATUS

To insure proper break-in of all components while still under warranty, the apparatus shall be delivered to the fire department by the manufacturer over the road under its own power (Rail and/or truck freight shall not be acceptable).

Bidder Complies YES_____ NO_____

Warrior's Path Volunteer Fire Department

DELIVERY

The manufacturer will deliver the completed apparatus in 90 to 120 calendar days from the pre-construction meeting. The pre-construction meeting shall take place within 30 days from receipt of an order.

The manufacturer shall not be held liable for changes arising from its failure to make or delay in making delivery because of fire, flood, strike, riot, chassis shortage, accidents, acts of God, or any circumstances beyond our control.

Bidder Complies YES_____ NO_____

SERVICE VEHICLES

The manufacturer shall have a minimum of 10 full time, company owned, service vehicles. The vehicles shall be available 24 hours a day, seven days a week to respond to customer needs. The Service Vehicles shall be operated by full time EVT Certified Technicians.

Bidder Complies YES_____ NO_____

REPLACEMENT PARTS

Replacement parts shall be available directly from the manufacturer, as well as the dealer and or service centers.

Bidder Complies YES_____ NO_____

SERVICE CENTER

Company Name:

Address:

City & State:

Contact:

Phone:

Bidder Complies YES_____ NO_____

CUSTOM CHASSIS

It is the intent of the technical specifications contained herein to ensure the custom cab and chassis specified shall be engineered, designed, and manufactured exclusively for heavy-duty continuous use in extreme environments and rigorous adverse conditions.

Each custom cab and chassis shall be manufactured in strict compliance with all applicable requirements as set forth in the current edition of the NFPA (National Fire Protection Association) pamphlet 1901 with maximum safety as the key focus throughout the design and development phase of each fire and rescue chassis.

Warrior's Path Volunteer Fire Department

Bidder Complies YES _____ NO _____

CHASSIS WHEELBASE

The chassis wheelbase shall be 188 inches.

Bidder Complies YES _____ NO _____

CHASSIS FRAME RAILS

The chassis frame rails shall be constructed of 110,000-PSI minimum yield steel that has been formed into a "C" channel shape with dimension of 10.50" x 3.50" x .375 inches.

An inner frame liner of 110,000 Pound minimum yield with dimension of 9.69" x 3.13" x .313" shall be provided for additional strength and to reduce deflection. The frame liner shall run from centerline of front axle to rear of the mainframe rail. This liner shall be mitered at 45 degrees at the front axle.

The resulting frame system shall have a minimum section modulus of 30.38 cubic inches with a resisting bending moment of 3,342,000-inch pounds per rail.

The frame rails shall be powder coated in order to insure superior paint adhesion. Frame cutouts for the engine shall be made with a plasma torch in order to minimize the heat-affected zone caused by the cut.

All frame-mounted components shall be secured with grade eight bolts with hardened washers and distorted thread locknuts. Flanged head bolts with nylon locking nuts, or huck bolts shall not be acceptable.

Bidder Complies YES _____ NO _____

PAINT, FRAME RAIL

The chassis frame rails, cross members, fuel tank and air reservoirs shall be completely encapsulated in a ruggedized, protective coating. The air reservoirs, reservoir hanger straps and fuel tank shall all be treated separately prior to assembly. The frame, cross members, bumper backing reinforcement plate, radiator skid plate, spring hangers, cab lock mounts and required bolts shall all be in place prior to treatment to ensure complete coverage.

F-Shield, a 100% solids, state-of-the art, VOC-free, plural-component, pure polyuria elastomeric membrane. This seamless system exhibits extraordinary performance characteristics. F-Shield is based on amine-terminated polyether resins, amine chain extenders and MDI pre-polymers. This membrane achieves an extremely tough, flexible, chemical and abuse resistant finish. F-Shield shall be used in specified areas for maximum protection.

This corrosion prevention system is designed to repel deicing agents commonly used on winter roadways. Moving parts, such as steering linkages, cab locks, spring suspensions, axles, etc., shall not be coated with this material, but shall be painted with high quality gloss black paint.

The color of the F-Shield shall be black.

Bidder Complies YES _____ NO _____

Warrior's Path Volunteer Fire Department

FRONT TOW EYES

Two-(2) painted tow hooks shall be mounted to the bottom of the front bumper frame extension rails. The tow hooks shall be attached with Grade 8 bolts.

Bidder Complies YES _____ NO _____

FRONT BUMPER EXTENSION

There shall be a twenty-four inch (24") frame extension provided. The extension shall be made from heavy-duty steel in both C-channel and tubular shapes. The frame rail extension material shall measure 7" high x 3-1/2" wide x .375" wall thickness.

Extension shall be bolted to the chassis frame rails through reinforcement plates, backed by the engine mounting cross member. Fasteners utilized shall be Grade 8 bolts.

Bidder Complies YES _____ NO _____

AIR HORN FOOT SWITCHES

Two-(2) foot operated switches shall be installed, one (1) on each side on the driver and officer's side wired to the air horn(s).

Bidder Complies YES _____ NO _____

AIR HORN WIRING

The air horns shall be active in both the "Scene" and "Response Mode".

Bidder Complies YES _____ NO _____

FRONT AXLE

The front axle shall be a Meritor MFS-20 with 20,000-pound capacity equipped with oil seals and transparent cover for oil level inspection.

Bidder Complies YES _____ NO _____

STEERING SYSTEM

The steering system shall be a package certified by TRW for the application. All components from the steering column to the drag link shall be manufactured by TRW.

The steering system shall use a TAS-65 steering gear with an RCS-55 slave gear, which has the capacity to static steer the chassis loaded to 21,500 pounds with 425-size tires. The use of two-(2) equal size gears or a single gear with an assist cylinder shall not be acceptable.

Bidder Complies YES _____ NO _____

Warrior's Path Volunteer Fire Department

CHASSIS ALIGNMENT

The chassis frame rails shall be measured to insure the length is correct and cross checked to make sure they run parallel and are square to each other. The front and rear axles shall be laser aligned. The front tires and wheels shall be aligned and toe-in set on the front tires by the chassis manufacturer. Cramp angle is set to achieve the greatest turning radius possible with the selected components of the vehicle. Each front wheel is set to zero degrees. The wheel is then turned until it reaches the steering stops. This measurement is the cramp angle.

Bidder Complies YES _____ NO _____

FRONT SUSPENSION

The front suspension shall be parabolic (taper leaf) spring type, with three-(3) leaves 20,000 pounds capacity. The leaves shall be a minimum of 4" wide x 54" long (flat), with grease fittings for lubrication installed in the spring pins. Axle stops with energy absorbing jounce bumpers shall be supplied on the spring top pad. Double acting Koni shock absorbers shall be provided on the front suspension.

Bidder Complies YES _____ NO _____

FRONT BRAKES

The front axle shall be equipped with EX-225 air operated disc brakes and ventilated rotors.

Bidder Complies YES _____ NO _____

CRAMP ANGLE

The cramp angle of the front axle shall be 43 degrees.

Bidder Complies YES _____ NO _____

FRONT TIRES

The front tires shall be Goodyear 385/65R22.5 Load Range "J" G-296 MSA all-weather treads with a capacity of 20,000 pounds.

Bidder Complies YES _____ NO _____

FRONT WHEELS

The front axle wheels shall be Alcoa Polished Aluminum for 385 tires with a rating of 20,000-pounds.

Bidder Complies YES _____ NO _____

Warrior's Path Volunteer Fire Department

FRONT WHEEL TRIM

The front axle wheels shall be trimmed with stainless steel hub and lug nut covers. The axle's hub covers shall be equipped with holes for oil level viewing.

Bidder Complies YES _____ NO _____

MUD FLAPS, FRONT

The front axle mud flaps shall be constructed from hard black rubber and installed behind the front axle.

Bidder Complies YES _____ NO _____

REAR AXLE

The rear axle shall be a Meritor RS-25-160 with a 27,000-pound service rating. The axle shall be equipped with oil seals.

REAR SUSPENSION

The rear axle suspension shall leaf spring type rated at 27,000 pounds capacity. The main spring pack shall have fourteen (14) leaves with a four (4) leaf auxiliary pack. The suspension shall be a torque leaf, variable rate, self-leveling slipper type.

Bidder Complies YES _____ NO _____

REAR AXLE DIFFERENTIAL

The Meritor RS series rear axle shall have a standard differential.

Bidder Complies YES _____ NO _____

VEHICLE TOP SPEED

The rear axle shall be geared for a top speed of 65-68 MPH at governed engine speed.

Bidder Complies YES _____ NO _____

REAR BRAKES

The rear axle shall be equipped with 16-1/2" x 7" S-Cam air operated brakes with automatic slack adjusters.

Bidder Complies YES _____ NO _____

Warrior's Path Volunteer Fire Department

REAR TIRES

The rear tires shall be Goodyear 12R22.5 Load Range "H" G622 RSD all season traction treads with a rated capacity of 27,000 pounds.

Bidder Complies YES_____ NO_____

REAR WHEELS

The rear wheels shall be Alcoa Polished aluminum, 8.25" X 22.5"10-bolt, hub-piloted. The outside wheels shall have polished outer surface. The ground rating shall be a minimum of 27,000 pounds.

Bidder Complies YES_____ NO_____

TIRE PRESSURE MONITORING SYSTEM

Each tire installed on the apparatus shall be equipped with a tire pressure monitoring device. The device shall consist of a valve stem cap to with an LED tire alert to indicate tire pressure conditions. The LED shall flash when the tire drops 8 psi below the factory setting.

Bidder Complies YES_____ NO_____

REAR WHEEL TRIM

The rear axle wheels shall be trimmed with stainless steel "Lincoln Hat" hub and lug nut covers.

Bidder Complies YES_____ NO_____

AUTOMATIC TIRE CHAINS

The rear axle shall be equipped with an ON-SPOT automatic tire chain system. The system shall provide instant traction at the touch of a button, without having to stop the vehicle.

The driver's dash shall have an electric control switch, illuminated and clearly labeled for operation of the tire chains. The switch shall be provided with a guard to prevent accidental deployment of the tire chains. The switch when activated shall open a frame mounted solenoid, allowing air from the chassis air system to enter the spring loaded air cylinder and lower the chain wheel. The rubber covered chain wheel shall contact the inside of the tire causing the chain wheel to rotate and deploy the chains. The ON-SPOT automatic chains shall have six (6) lengths of chain, spaced at 60-degree intervals on the chain wheel, ensuring two chains between the tire and road surface for instant traction in slippery conditions whether accelerating, braking, or in a wheel lock up condition. The ON-SPOT chains shall be operable in either forward or reverse.s

When the chains are no longer needed the process is reversed, the dash board switch is turned off and the air is exhausted from the cylinder. The return springs in the air cylinder brings the chain wheels back to their resting position.

Bidder Complies YES_____ NO_____

Warrior's Path Volunteer Fire Department

HOSE AND HARNESS ROUTING

Battery cables, hydraulic hoses and air lines shall be routed through the vertical face of the chassis frame rails using bulkhead connectors. The use of grommets through frame rails, as well as running hoses or cables under, over or ahead of the chassis frame rails to achieve positive connections shall not be acceptable.

For ease of maintenance, the wiring harnesses, hydraulic hoses and air hoses shall be divided down each frame rail. The hydraulic and air hoses shall be run, primarily, down the inside of the right side frame rail, while the electrical harnesses shall be run, primarily, down the left side frame rail. Harnesses and hoses shall be mounted using rubber coated, stainless steel holders and, where necessary, heat resistant zip loom.

AIR BRAKE SYSTEM

The air brake system shall meet the requirements of FMVSS-121. The system shall consist of three-(3) reservoirs with a total capacity of 5100 cubic inches. The system shall be of dual circuit and quick build up design powered by an engine mounted gear driven air compressor. The system shall be protected by a heated air dryer with heated automatic moisture ejector on the wet tank and quarter turn brass drain valves on the other tanks.

The system shall be plumbed using color-coded nylon airlines with brass push-lock fittings.

Bidder Complies YES _____ NO _____

ANTI-LOCK BRAKES W/ATC & ELECTRONIC STABILITY CONTROL

The apparatus shall have a Wabco ABS-based Electronic Stability Control (ESC), which offers another level of vehicle control. This automatic braking management system reduces the possibility of a side rollover and assists in the directional stability of apparatus. Upon reaching critical lateral acceleration thresholds, the system intervenes to regulate the vehicles deceleration and braking functions. Reducing the engine's RPM by overriding the foot throttle input and applying the engine retarder (if equipped) to slow the apparatus giving the driver added control and maneuverability. The ESC shall also apply braking power to selective wheel of the front and rear axles to assist in stabilizing the apparatus to its intended direction. This selective braking application and reduction of speed and torque reduces the possibility of spinouts and side rollovers even in adverse conditions.

The system includes a Wabco 4-channel Anti-Lock Braking System shall be installed which includes four-(4) wheel sensors and four-(4) modulators to control and compensate braking force at each wheel. This system shall monitor all wheel ends regardless of suspension type, and which axle it sees braking forces first.

An ABS warning light shall be installed on the driver's dash that remains illuminated until the vehicle is moving at least four-(4) miles per hour. An ABS test switch shall be installed in the "Diagnostic Information Panel" that when pressed, sends the system into diagnostic mode causing the ABS light to blink (I/O) indicating a flash code. A listing of flash code definitions is listed in the Wabco Owner's Manual.

Warrior's Path Volunteer Fire Department

Automatic Traction Control (ATC) shall be installed to sense wheel slip, apply air pressure to brakes, and reduce engine torque to provide improved traction. An ATC indicator light shall illuminate when the system is active.

A mud and snow switch shall be provided. When the switch is in the "ON" position, it shall allow momentary wheel slip to obtain traction under extreme mud and snow conditions.

The system also includes a Steering Angle Sensor (SAS), which informs the system of the degree in which the steering is turned to one side or the other. Along with the SAS, an ESC module is mounted mid frame at the rear of the chassis cab to detect roll, pitch, and yaw angles and computes which wheel(s) brake(s) shall be acted upon.

Bidder Complies YES _____ NO _____

AIR DRYER

The air system shall include a Bendix AD-9 air dryer with integral 12-volt heated moisture ejector. The air dryer shall have a desiccant cartridge and incorporate an integral turbo cutoff valve. The turbo cutoff allows the air dryer to purge water and contaminants without any loss of turbo boost or engine horsepower.

Bidder Complies YES _____ NO _____

AUTOMATIC AIR TANK DRAINS

All Air Reservoirs shall have automatic drain valves with rubber seats to reduce air valve leaks.

Bidder Complies YES _____ NO _____

ENGINE

The vehicle shall be equipped with a Cummins ISL 450 turbocharged diesel engine. Standard features include an electronic governor, electronically controlled unit injectors, Farr air cleaner, a 12-volt starter Delco 39 MT, and an 18.7 CFM compressor. The oil filter shall be a full flow and bypass design.

This engine conforms to the US 2013 EPA regulations for heavy-duty diesel engines.

ENGINE SPECIFICATIONS

- Model: ISL
- Number of Cylinders: Six (6)
- Bore and Stroke: 4.49" X 5.69"
- Displacement: of 8.9 L
- Rated Horsepower: 450 @ 2100 RPM
- Peak Torque: 1250 @ 1400 RPM
- Governed Speed: 2200 RPM

Bidder Complies YES _____ NO _____

Warrior's Path Volunteer Fire Department

ENGINE COMPRESSION BRAKE

The engine shall come equipped with a Jacobs "C-Brake" compression brake controlled by two-(2) switches located in the cab, an on/off and low/medium/high. The compression brake shall interface with the anti-lock brake controller to prevent engine brake operation during adverse braking conditions.

A pump shift, interlock circuit shall be provided to prevent the engine brake from activating during pumping operation.

Bidder Complies YES _____ NO _____

ENGINE COOLING SYSTEM

The engine cooling system shall have the capacity to cool the engine according to the engine manufacture's requirements.

Bidder Complies YES _____ NO _____

RADIATOR

The engine radiator shall be of a bolted design and have a minimum core area of 1400 square inches. The top and bottom tanks shall be stamped 16-gauge steel. The tanks shall be attached to the header assemblies with a minimum of fifty-(50), 5/16" bolts. The spacing between fasteners shall not exceed 2.00 inches in order to minimize the possibility of leaks.

The header plates shall be made of 16-gauge brass while the tubes shall be .0068-inch thick brass and .076 by .625 inches in size. The tubes shall have a smooth bore with welded seems which allows for cleaning of the radiator.

The radiator shall contain three rows of tubes with a minimum of 87 tubes per row for a total of not less than 261 tubes. The tubes shall be arranged in an inline profile across the core. Louvered serpentine fins constructed of copper with a density not greater than 16 fins per inch shall be used in the construction of the radiator.

The radiator tubes shall be attached to the header plates with a dual bonding process. The coolant side connection shall be welded, while the air side shall be soldered.

The top tank shall include an integral de-aeration tank, which removes air from the engine water. A low coolant warning shall be incorporated to alert the driver.

The bottom tank of the radiator shall incorporate an oil to water plate-type cooler for the transmission. The cooler is designed to cause a turbulent flow of the transmission oil through the core to force heat transfer. The cooler shall be sufficient to cool Allison Transmission without output retarders.

A high efficiency fan shall be direct driven by the engine and surrounded by a fan shroud. The sweep of the fan shall not exceed the width of the radiator core.

Bidder Complies YES _____ NO _____

Warrior's Path Volunteer Fire Department

CHARGE AIR COOLER

The charge air cooler shall be constructed of aluminum with cast, aluminum side tanks. The cooler shall have a frontal core area of not less than 888 square inches.

The exterior fins shall be louvered serpentine design constructed of .006-inch thick aluminum and have a density no greater than seven-(7) fins per inch. The internal fins shall be designed to create air turbulence in order to increase heat transfer efficiency.

The charge air cooler shall be mounted directly ahead of the radiator and to the radiator headers. Rubber isolators shall be used at the mounting points to reduce transmission of vibrations.

The piping between the charge air cooler and engine shall use four-(4) ply silicone woven Nomex hoses with stainless steel bands. The bands are used to maintain the shape of the hose during changing turbo boost pressures. The hoses shall be attached with stainless steel constant tension hose clamps.

Bidder Complies YES_____ NO_____

COOLING SYSTEM FAN

The engine cooling system shall incorporate a thermostatically controlled fan clutch. When the fan clutch is disengaged, the vehicle shall have improved vehicle performance, cab heating in cold climates, and fuel economy, while eliminating the potential dangers associated with a fan going from non-rotating to rotating as found with other style fan clutches.

The fan shall automatically lock-up when the vehicle is placed in pumping mode.

A shroud and recirculation shields system shall be used to ensure that once air has passed through the radiator, the same air is not drawn through again.

Bidder Complies YES_____ NO_____

RADIATOR COOLANT, LONG LIFE

The coolant system shall contain a mixture to keep the coolant from freezing to a temperature of -34 degrees F.

The coolant supplied shall be Long Life Coolant compatible with the engine manufacturer's requirement.

Bidder Complies YES_____ NO_____

COOLANT HOSES

The entire chassis cooling system shall have premium long life rubber hoses.

Bidder Complies YES_____ NO_____

Warrior's Path Volunteer Fire Department

COOLANT HOSE CLAMPS

Gates PowerGrip clamps shall be provided for all coolant and heater hoses. The maintenance-free clamps retain dynamic tension and never need retightening. These clamps stop leaks, even on out-of-round applications. The clamps are made from a heat sensitive thermoplastic with memory to prevent over or under tightening. The clamps shall have a temperature range of -40 degrees F to -302 degrees F.

Bidder Complies YES_____ NO_____

AUXILIARY ENGINE COOLER

The cooling system shall have a tube and bundle engine cooler mounted in the upper radiator water pipe. Water from the fire pump shall be circulated through 1/2" tubing to the cooler. A valve located on the pump panel shall control the cooling circuit.

Bidder Complies YES_____ NO_____

ALTERNATOR

The alternator shall be 320 amps Leece Neville model 178-131-100. The alternator shall be engine driven via a poly-groove power belt and tensioned by a threaded rod. The alternator shall meet all current applicable NFPA 1901 Edition requirements for performance.

Bidder Complies YES_____ NO_____

BATTERY SYSTEM

The battery system shall be a single system consisting of three-(3) Group 31, 12-volt DC, heavy-duty, high cycle automotive batteries. The battery bank shall have a minimum group rating of 1875 cold cranking amperes (CCA) and a reserve of 540 minutes at zero degrees Fahrenheit.

All battery wiring shall be welded battery cable capable of handling 125% of the actual load. It shall be run through a heat resistant flexible nylon "HTZL" loom rated at a minimum of 300 degrees Fahrenheit. All cable connections shall be machine crimped and soldered.

Bidder Complies YES_____ NO_____

BATTERY BOXES

The chassis batteries shall be mounted in welded and bolted stainless steel battery box. The battery hold-downs shall be made of structural, stainless steel angle. The batteries shall be placed on a non-skid pad to reduce vibration. Painted carbon steel battery boxes shall not be acceptable.

Bidder Complies YES_____ NO_____

Warrior's Path Volunteer Fire Department

SWITCH, MASTER BATTERY DISCONNECT

The chassis batteries shall be wired in parallel to a single 12-volt electrical system, controlled through a heavy-duty, Guest brand rotary type, master disconnect switch. The master disconnect switch shall be located within easy access of the driver upon entering or exiting the cab. All electrical circuits shall be disconnected when the switch is in the "OFF" position.

Bidder Complies YES _____ NO _____

TOTAL SYSTEM LOAD MANAGER W/HIGH IDLE

The apparatus shall be equipped with a Class 1 Total System Manager (TSM) for performing electrical load management. The TSM shall have two-(2) modes of operation, a "Calling Right of Way" and a "Blocking Right of Way". The "Blocking Right of Way" mode is activated only when the park brake is set. Load shedding shall "only" occur when the apparatus is in the "Blocking Right of Way" mode or when the battery voltage level reaches your programmed shed level.

Outputs 1-12 shall be independently programmable to sequence on with the ignition or master warning switch. Outputs 1-12 shall also be programmable to be activated during the "Calling Right of Way" mode and or the "Blocking Right of Way" mode. Output 13 is user configurable output and is programmable for activating between 10.5 and 15 volts. Output 14 shall provide a low voltage warning for an isolated battery. Output 15 shall be designated to activate a fast idle system. Output 16 shall provide a low voltage alarm that activates at the NFPA required 11.8 volts.

The Total System Manager shall have an internal digital display to indicate systems voltage is in normal operation mode and indicates the output configuration during programmable mode.

The Total System Manager shall be protected against reverse polarity and shorted outputs, and be enclosed in a metal enclosure to enhance EMR/RFI protection.

Bidder Complies YES _____ NO _____

ON-BOARD ELECTRICAL AIR COMPRESSOR PUMP PLUS CHARGER

A Kussmaul Pump Plus 1200 system shall be installed that automatically charges the chassis air and electrical system.

Bidder Complies YES _____ NO _____

AIR COMPRESSOR

The small on-board air compressor shall be mounted on the vehicle to maintain the air pressure in the air brake system while the vehicle is not in use. A pressure switch shall sense the system pressure and operate the compressor whenever the pressure drops below a predetermined level.

Warrior's Path Volunteer Fire Department

SPECIFICATIONS

Input: 12 volts @ 11 amps maximum
Output: .30 SCFM @ 80 PSI, .35 SCFM @ 60 PSI
Motor Type: Permanent Magnet .10HP
Pressure Switch: Adjustable set-Point (Factory set to 75 PSI cut in, 95 PSI cut out)

BATTERY CHARGER

The on-board automatic battery charger shall be mounted in the vehicle to maintain the chassis electrical system.

The Kussmaul Pump Plus 1200 charger senses battery voltage drop and recharges the batteries to full capacity. The state of charge is indicated on a remotely located bar graph display whenever power is applied to the vehicle. The battery saver contained in the Pump Plus 1200 charger is a three-(3) amp power supply with a relay to remove the accessory loads from the battery and connect them to the power supply when the charger is energized with AC power. This shall permit the charger to recharge the batteries without supplying the accessory load.

A selector switch shall be provided on the charger to operate the compressor either as a DC compressor or as an AC compressor. In either switch position, the compressor shall operate from the vehicle battery. When the DC position is selected, the compressor shall operate whenever the pressure switch senses low system pressure so that the vehicles air system can be charged when the vehicle is away from a 120 volt AC source. When the department wishes to limit compressor operation only when the vehicle is connected to the 120-volt AC source, the switch should be place in the AC position.

SPECIFICATIONS

Input: 120 volts, 60 Hz, 10
amps
Output: 12V DC, @ 15 amps
Battery Charger: 12 volts DC @ 40 amps
Battery Saver: 12 volts DC @ 3 amps
Voltage Sense: Remote Electronic

Indicators:

- Power - Indicates input power applied
- Battery Saver - Indicates Battery Saver load exceed 3 amps
- Bar Graph - Remotely located indicates state of charge of batteries

Bidder Complies YES_____ NO_____

20 AMP SUPER AUTO-EJECT(S)

There shall be provided one (1) Kussmaul super auto-eject type receptacle(s) model 091-55-20. A solenoid wired to the vehicle starter is energized when the engine is started. This instantaneously drives the plug from the receptacle. The receptacle shall be provided with a weatherproof cover. The cover shall be spring loaded to close, preventing water from entering when the shoreline is not connected. The super auto eject receptacle shall be mounted in a location specified by the department and is designed to

Warrior's Path Volunteer Fire Department

accept a 120V AC from a shoreline plug.

The UL maximum allowable amperage draw on receptacles is generally 80% of their listed rating, for example, the 20-amp receptacle should not carry more than 16-amp continuous load. When adding the different amperage draws of the components being installed on the chassis, be sure to figure in whether the components shall draw a continuous load or intermittent load.

Location: Driver's side cab wheel well area

The Auto Eject cover(s) shall be a Kussmaul 091-55YW, yellow in color.

Bidder Complies YES_____ NO_____

SHORE POWER INLET PLATE

A shore-power "Inlet Plate" shall be permanently affixed at or near the power inlet.

The plate shall indicate the following:

Type of Line Voltage

- Current Rating in Amps
- Power Inlet Type (DC or AC)

Bidder Complies YES_____ NO_____

TRANSMISSION

The chassis shall be equipped with an Allison 3000 EVS automatic transmission. It shall have 4th gear operating controls and programmed for Fire Apparatus vocation. An electronic oil level indicator shall be provided as well as a diagnostic reader port connection. The transmission shall be geared to provide one-to-one ratio in fourth gear for fire pump applications. This dedicated "lockup" circuit is provided for pump operation. The transmission fifth gear shall be an overdrive ratio, permitting the vehicle to reach its top speed at the governed engine speed.

The transmission shall be equipped with an automatic neutral feature. Applying the parking brake shall command the transmission to neutral, regardless of drive range requested on the shift selector which shall require re-selecting the drive range to shift out of neutral.

The transmission shall be equipped with dual PTO ports with engine speed capabilities. The transmission shall be cooled by the radiator-mounted heat exchanger. The transmission fluid shall meet Allison specification TES-295.

Bidder Complies YES_____ NO_____

TRANSMISSION SHIFTER, PUSH BUTTON

The transmission shall be controlled by an Allison push button shifter internally illuminated for night operation. The shifter shall be mounted on the dash to the right of the steering column. The transmission

Warrior's Path Volunteer Fire Department

shall be capable of five-(5) speed operation.

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

Bidder Complies YES _____ NO _____

DRIVELINES

The chassis shall be equipped with Neapco 1710 series driveshaft with full round yokes and universal joints. The driveshaft tubing shall be a minimum of 4.00" diameter with .134" wall thickness. The drivelines shall be balanced at a minimum of 3000 RPM.

Bidder Complies YES _____ NO _____

FIRE PUMP MOUNTING

Extra heavy-duty mounting brackets shall be bolted to the chassis frame rails for the installation of the fire pump. The mounting brackets shall be positioned aligning the pump insuring the angular velocity of the driveline joints are the same at each end allowing for full capacity performance with minimal vibration.

Bidder Complies YES _____ NO _____

FUEL TANK

The chassis shall be equipped with a 50-gallon rear mounted fuel tank. The tank shall be constructed of 12-gauge steel with stainless steel mounting straps and rubber isolators secured to the bottom flange of the chassis frame rails. The tank shall be baffled to prevent sloshing, vented, and have a drain plug installed on the bottom. A 240-33 ohm fuel-sending unit shall be provided and broadcast across the SAE J1939 data link.

The tank shall be certified to meet FMCSR 393.65 and 393.67.

Bidder Complies YES _____ NO _____

FUEL LINES

The fuel lines shall be wire braid reinforced fuel grade hose. They shall have reusable fittings and be routed along the inside of the frame rails. Fuel lines shall be protected against chaffing by non-conductive, frame mounted standoff fasteners and, where necessary, with heavy-duty plastic zip loom.

Bidder Complies YES _____ NO _____

FUEL FILTER

The Cummins engine shall be supplied with a fuel water separator with a bottom drain valve.

Warrior's Path Volunteer Fire Department

Bidder Complies YES _____ NO ___One(1)

UREA STORAGE TANK

There shall be a 5-gallon urea tank located under the extended portion on the cab. A urea level gauge shall be provided in the cab on the main instrument panel.

There shall be a DEF fuel fill assembly mounted in the left crew cab extension. The fill assembly shall be equipped with a 14-gauge 304 brushed stainless steel door and fuel fill cap with retention ring. The assembly shall be properly labeled "DIESEL EXHAUST FLUID ONLY".

Bidder Complies YES _____ NO _____

EXHAUST SYSTEM

The apparatus shall contain a particulate filter and SCR (Selective Catalytic Reduction) device downstream of the engine's turbo. This filter and SCR device are required to maintain US 2010 EPA Emissions. This filter and SCR device replaces the conventional style filter. The location has been engineered, tested, and set to allow for proper regeneration. Therefore, this filter cannot be removed, altered, or relocated.

An indicator light panel for this system shall be located in the cab informing the driver of the systems status. At times a forced regeneration may be required, which would be indicated by a combination of illuminating and/or flashing lights depending on the engine model.

A momentary switch labeled "Regen" shall be located within reach of the driver's seated position. The regeneration switch initiates the forced regeneration. A momentary DPF inhibit switch prevents the vehicle from having the ability to regenerate. Once the inhibit feature has been activated the ignition switch must be cycled off/on to return the vehicle to normal regen. All vehicles equipped with pumping applications shall allow for passive regeneration whenever the system requires and the engine is at its proper parameters unless inhibited by the DPF inhibit switch. In no way shall this feature affect the RPM of the engine being controlled by the pump operator.

The engine exhaust system shall be horizontal in design using stainless steel tubing mounted under the frame rail right side extending forward of the rear wheels.

An exhaust temperature mitigation device shall be installed. The temperature mitigation device shall lower the temperature of the exhaust by combining ambient air with the exhaust gasses at the exhaust outlet.

Bidder Complies YES _____ NO _____

CUSTOM CAB

The cab shall be an engine forward extended, medium four-door, (raised roof) full tilt. The cab shall be an "Open Interior" roll cage design requiring no inner walls or vertical interior supports. The cab roof shall be raised 8 inches providing additional headroom above the crew area. The raised portion shall start midway over the driver and officer seats. The cabs seating capacity for emergency personnel shall be six.

All storage areas inside the cab shall fully comply with NFPA 1901 restraint requirements of 9G's.

Warrior's Path Volunteer Fire Department

Bidder Complies YES _____ NO _____

CRASH TEST

The cab shall exceed the strict and detailed requirements of the Economic Commission for Europe Structural Standard, ECE-29R. The test shall consist of an impact load test and a vertical load test to the cab.

The cab shall have a frontal impact tests via pendulum, with an impact load in excess of 127% of the ECE-29R Standard. The estimated speed of the 3736-lb (1698-kg) pendulum shall be a minimum of 18.2 mph. The cab doors shall be closed during the impact test but be able to open after impact. There shall be no passenger intrusions or any structural component failures. The cab shall meet or exceed all criteria of this portion of the test.

In conjunction with the frontal impact test, a vertical load test shall be implemented to the cab. The cab roof shall be loaded with a minimum of 65,979 lbs. (29.53 metric tons). There shall be no failure to the cab structure or mountings, any passenger compartment intrusion or degradation of occupant survival space, or any other structural failure. The cab shall meet or exceed all criteria of this portion of the test.

A complete photographic, video, data, and dimensional record of these tests shall be available and placed on record for customer evaluations.

Bidder Complies YES _____ NO _____

CAB MATERIALS

The cab shall be constructed entirely of aluminum alloy extrusions and 3/16" (.188) thick, 5052-H32 alloy, marine grade aluminum sheets. The corner posts, door slam posts, roof rails and doorframes shall be made of custom extrusions designed specifically for this cab with slots for inserting the skin. The rear wall and roof shall be reinforced with a grid of rectangular extrusions, which are welded to the overall cab extrusion framework. The front corner caps shall consist of castings designed specifically for this cab with relief areas cast in place for attachment of roof skin and intersecting structural extrusions. Overlapping formed corner caps are not acceptable.

Bidder Complies YES _____ NO _____

CAB DIMENSIONS

- Overall width skin to skin: 96 inches
- Overall vehicle width: 116 inches (w/standard mirrors)
- Overall length: 136 inches
- Cab Height Front: 87 inches
- Cab Height Rear: 95 inches
- Center of front axle to back of cab: 62 inches
- Windshield area: 4100 square inches
- Front grill opening: 430 square inches
- Side grill opening: 105 square inches
- Cab full tilt angle: 45 degrees

Warrior's Path Volunteer Fire Department

- Cab full tilt height: 187 inches
- Floor to ceiling in front: 60 inches

- Floor to ceiling in rear: 66 inches
- Engine cover height: not to exceed 27-1/2" front-to-back and side-to-side
- The Driver shall have no less than 24-1/4" of hip room
- The Officer shall have no less than 23-1/4" of hip room

Bidder Complies YES_____ NO_____

DOUBLE WALL CAB FACE

The cab front shall be of double wall construction resulting in a sealed firewall. The inner and outer shall both be formed from 3/16" thick, 5052 H32 alloy aluminum with structural aluminum reinforcements. This design provides for increased structural integrity, crew safety, and reduced road noise in the passenger area. The outer wall is used for mounting forward lighting, grill and windshield wipers. The inner portion shall be treated with a heavy black undercoating material for corrosion prevention.

Bidder Complies YES_____ NO_____

SEALED ENGINE TUNNEL

The engine tunnel shall be a structural part of the passenger cab, constructed from welded 3/16" aluminum plate and reinforced with aluminum extrusions. The rear of the engine tunnel shall be no less than 57" inches from the rear wall of the cab, allowing maximum legroom for forward facing passenger. After welding, the seams shall be completely sealed with silicone caulking.

Engine enclosures that are not an integral part of the cab structure are not acceptable.

The interior of the engine tunnel shall be insulated with 1" thick foil backed insulating foam, attached with stud and button method. A cross-section analysis of the insulation shall reveal a 1/8" thick barrier material for additional noise and heat insulation.

Bidder Complies YES_____ NO_____

CAB FLOORS

Cab floors shall be constructed from an aluminum extruded frame and 3/16" thick aluminum plate. Floor mats and insulation are detailed later in this specification.

The forward cab floor shall be as large as possible for both the driver and officer. Floorboards shall extend in width from the side of the engine tunnel, all the way to the cab door inner panel. They shall extend forward from the seat riser to the inner portion of the double wall cab face. The officer shall have approximately 28" of foot room.

The entire rear floor of the cab, to reduce trip and fall hazards, shall be a single plane. In applications requiring the use of a top-mounted PTO, a raised area in the floor may be required.

For maximum crew comfort and eliminate leg fatigue during emergency responses, the floor beneath the rear facing jump seats shall be large enough for a seated firefighter to rest both feet side-by-side. Cab floor designs that are wide enough for only one foot shall not be accepted.

Warrior's Path Volunteer Fire Department

Bidder Complies YES _____ NO _____

CAB CORROSION PROTECTION

A corrosion preventative material shall be applied during cab construction. A ten-(10) year warranty against corrosion perforation shall be provided for the cab.

Bidder Complies YES _____ NO _____

WHEEL WELL LINERS

Full wheel well liners shall be installed beneath the cab to protect the bottom of the cab from road splash. The liners shall be constructed of aluminum and be full width.

The wheel well liners shall be attached with threaded fasteners and be easily removable for service.

Bidder Complies YES _____ NO _____

FENDERETTES

Bright polished stainless steel fenderettes shall be installed at the wheel well openings. A rubber gasket shall be installed between the fenderette and cab to eliminate contact of dissimilar metals.

Bidder Complies YES _____ NO _____

WINDSHIELD

The windshield shall have approximately 4100 square inches of unobstructed viewing area. It shall be a two-(2) piece design with tinted automotive safety glass, with a wraparound design. A .030-inch thick vinyl layer shall separate the laminated glass.

All other cab glass shall be tinted and tempered.

Bidder Complies YES _____ NO _____

INTERMITTENT WINDSHIELD WIPERS

Two electric "Pantograph" style windshield wipers shall be installed on the front face of the cab. The motors shall operate through a 72-degree sweep and include 24-inch blades to give superior wiper coverage. A washer reservoir of not less than 70 ounces shall be mounted a latched door recessed in the officer's step.

A switch located on the turn signal control arm shall operate the intermittent wipers.

Bidder Complies YES _____ NO _____

EXTERIOR GRAB HANDLES

Stainless steel handrails with a knurled, slip-resistant finish shall be positioned behind each cab door. Grab rails shall be minimum 24" in length. Molded rubber gasket shall be mounted between the grab handles and the cab in order to prevent corrosion due to dissimilar metals being in contact.

Warrior's Path Volunteer Fire Department

Bidder Complies YES _____ NO _____

EXTREME DUTY CAB INTERIOR

Cab floors shall be covered with a pebble grain rubber matting with barrier type insulation. Edges of the insulation shall be trimmed with extruded aluminum angle for a pleasing appearance.

An insulated covering shall be fitted over the engine tunnel. Made from the same material as the cab floor insulation, this covering shall insulate the cab from engine heat and noise. A Cast Products aluminum door on top of the engine tunnel shall provide access for fluid checks.

The back side of the engine cover, as well as a 2" to 3" return on the top side, shall be covered with a sprayed aluminum panel and be of sufficient strength to allow for 9G resistant mounting of any optional hand lights, entry tools, or other fire rescue equipment specified by the customer.

The cab shall have a custom built, smooth aluminum plate dashboard, overhead console, glove box, instrumentation panel and switch panel. The front overhead shall include room for the three sun visors and the door open indicator light.

The front door posts shall be trimmed with styled aluminum covers that conceal any wiring, as well as including a mounting area for rubberized grab handles. The center windshield post shall be covered F-Shield paint finish.

Prior to installing the headliner and rear wall panel, minimum R-7 insulation, shall be installed between the interlocking extrusions.

These covers serve to finish the interior, cover wiring harnesses and insulate the interior from sound and heat.

Bidder Complies YES _____ NO _____

SUN VISORS

The cab shall be equipped with a minimum of three (3) sun visors. The visors shall be installed on the overhead panel and provide approximately 90 per cent coverage across the width of the cab. The visors shall be approximately 26 inches wide and six (6) inches tall.

Bidder Complies YES _____ NO _____

GLOVE BOX

The glove box shall be an integral part of the welded aluminum dashboard assembly and located on the officer side of the cab. The storage area of the glove box shall bolt in place for easy service access. The door shall be drop down style and constructed from brushed stainless steel with a recessed latch. The area above the glove box shall be flat for a work surface or optional MDT mounting.

Bidder Complies YES _____ NO _____

Warrior's Path Volunteer Fire Department

CAB STEPS

All cab steps shall be of a stationary, fixed design that use no moving parts and requires no periodic maintenance other than cleaning.

There shall be an open-grip, bright finish step at each cab door opening. The area under the step shall be enclosed to prevent road dirt from entering the cab. There shall be provisions made at the front of the step for easily flushing out any dirt accumulation.

At each door, opening there shall also be an intermediate cab step. Intermediate steps shall be full width of the doorstep area and constructed from embossed aluminum tread plate.

Bidder Complies YES _____ NO _____

CAB STEP HEIGHTS

The distance from level ground to the first cab step shall be 19-21 inches (24" with Independent Front Suspension), without using swing-down style or under-cab "stirrup" auxiliary steps.

The distance from first cab step to intermediate step shall be approximately 12.5 inches front and rear.

The distance from intermediate step to cab floor shall be approximately 9.5 inches in the front and 12 inches in the rear.

Bidder Complies YES _____ NO _____

CAB DOORS

All cab doors shall be full length, designed to cover the step well area. Each cab door shall be flush type with a minimum opening of 85 degrees.

The front doors shall be approximately 40" inches wide by 78.5" inches tall. The doors shall have a two-piece window, one operational and one fixed. The combined viewing area shall be no less than 796 square inches. For added safety, the front door windows shall slant down for maximum visibility.

The rear doors shall be approximately 34" inches wide by 86.5" inches tall. The doors shall have a two-piece window, one operational and one fixed. The combined viewing area shall be no less than 867 square inches. The crew area windows shall have a dark tint applied.

The doors shall include a bulb style rubber seal around the perimeter of each door frame ensuring a weather tight fit.

The cab doors shall use internal and external paddle latches with a rubber gasket isolating the latch from the painted outside surface. The external latch shall have a chrome plated finish and the interior stainless steel. Both latches shall be oversized for easy access with a gloved hand.

Dovetail catch assemblies shall be installed in the doorjamb. The dovetail catch shall be V-shaped providing a positive catch and release system.

Bidder Complies YES _____ NO _____

Warrior's Path Volunteer Fire Department

DOOR HINGES

Each cab door shall be attached to the cab with two concealed automotive style hinges with restraining strap.

Bidder Complies YES _____ NO _____

CAB DOOR LOCKS

There shall be individual manual twist type door locks at each door handle. In accordance with FMVSS 206, all exterior door locks shall be keyed alike.

Bidder Complies YES _____ NO _____

WINDOW REGULATORS

All cab door windows shall be electrically operated. The driver's door shall contain four-(4) switches to control the operation at each door. All remaining doors shall contain one-(1) heavy-duty switch to control the window operation at that door.

Bidder Complies YES _____ NO _____

FIXED CAB WINDOW, LEFT SIDE

A window of not less than 16-1/2" wide by 33-1/2" high shall be installed in the left sidewall of the cab between the front and rear door. The glass shall be tinted, tempered and retained with one-piece triple locking rubber lacing dark tint.

Bidder Complies YES _____ NO _____

FIXED CAB WINDOW, RIGHT SIDE

A window of not less than 16-1/2" wide by 33-1/2" high shall be installed in the right sidewall of the cab between the front and rear door. The glass shall be tinted, tempered and retained with one-piece triple locking rubber lacing dark tint.

Bidder Complies YES _____ NO _____

CAB TILT LOCK

The cab shall be supported at four points. At the front, there shall be two center bonded bronze bushings. At the rear, there shall be two hydraulic locking latches.

The cab shall tilt 45 degrees by means of a pair of hydraulic cylinders driven by the electric pump. The tilt system geometry shall be designed in such a way that the maximum hydraulic pressure in the system does not exceed one-half the pressure rating of the cylinders or pump when the cab is empty. This allows

Warrior's Path Volunteer Fire Department

the Fire Department to leave some equipment in the cab when maintenance is required (although this equipment must be secured).

Once the cab is fully tilted, a safety latch shall automatically engage and act as a positive lock. The lock is released by a pull cable. The hydraulic cylinders shall be equipped with velocity fuses to prevent the cab from falling, should the hydraulic system fail.

The front of the cab pivots and rides on the center bonded bushings by means of lubricated pivot pins that retain the cab yoke in the bushings. The bushings allow limited movement of the cab, and isolate the cab from noise and vibration.

The rear mounts consist of a pair of hydraulic cab latches mounted on rubber cushioned mounting brackets. Latches release when the pressure in the tilt system exceeds 500 PSI.

An ignition interlock system shall be installed for cab tilt operation. Cab tilt operation requires the master battery switch to be in the on position with the parking brake applied.

Bidder Complies YES _____ NO _____

CAB TILT PUMP

An electric over hydraulic cab lifting pump shall be provided to tilt the cab for engine and transmission service. The pump shall be operated by a remotely wired control box with coiled cord, weather resistant plug, and receptacle. An interlock shall be provided preventing the cab from inadvertently rising until the transmission is placed in the neutral position and the parking brake is set.

Bidder Complies YES _____ NO _____

CAB PAINT FINISH, TWO TONE

The custom cab shall have a two-tone paint finish. The paint colors shall be furnished by the customer. The break in the color shall be at the bottom of the chassis window, unless otherwise specified by the department.

All cab exterior components including doors and glass, shall be removed. The complete cab exterior shall be thoroughly sanded, solvent cleaned and finished with high luster polyurethane paint before mounting of body to assure full coverage of paint to all surfaces.

Bidder Complies YES _____ NO _____

UPPER CAB PAINT FINISH

The upper cab exterior shall have no mounted components prior to painting to assure full coverage of metal treatments.

These steps are followed as recommended by the paint manufacturer to provide a lasting and high quality gloss finish. All paint products shall be provided by DuPont.

Bidder Complies YES _____ NO _____

Warrior's Path Volunteer Fire Department

UPPER CAB PAINT COLOR/CODE

The upper cab paint code shall be White. (Paint Code to be provided by department)

Bidder Complies YES_____ NO_____

PRIMARY/LOWER CAB PAINT FINISH

The primary/lower cab exterior shall have no mounted components prior to painting to assure full coverage of metal treatments.

These steps are followed as recommended by the paint manufacturer to provide a lasting and high quality gloss finish. All paint products shall be provided by DuPont.

Bidder Complies YES_____ NO_____

PRIMARY/LOWER CAB PAINT COLOR/CODE

The primary/lower cab paint code shall be Red. (Paint Code to be provided by department)

Bidder Complies YES_____ NO_____

CAB PAINT BREAK LINE STRIPE

A 1/4" wide black paint pin stripe shall be added to the cab, two tone paint scheme. This stripe shall be applied at the break line.

Bidder Complies YES_____ NO_____

FRONT GRILLE

The front grille shall be a mirror polished stainless steel box style assembly with 448 square inches of open area. The grille shall measure 48" wide x 23.13" high x 1.56" deep.

Bidder Complies YES_____ NO_____

SIDE INTAKE GRILLES W/EMBER SEPARATOR

Bright stainless steel grilles shall be installed approximately 70" above ground level one-(1) each side cab between the front and rear cab doors. The grilles shall have a minimum open area of not less than 119 square inches serving as an air intake and warm air dispersant system.

An Ember Separator shall be installed between the stainless steel grill and the air filter system allowing fresh air to pass through to the engine while preventing particles of .039 inches (1.0 mm) or larger from entering the system in accordance with the latest version of NFPA easily accessible through the exterior stainless steel grille.

The right side grille shall be notched to allow easy access without removing the cab handrail.

Bidder Complies YES_____ NO_____

Warrior's Path Volunteer Fire Department

HEATED/REMOTE CAB MIRRORS

Two side-mounted Velvac model 713760 rear view mirrors shall be installed with an 8" X 16" mirror head and a separate 6" x 6-1/2" parabolic mirror. The mirror head shall be heated and remotely adjustable by the driver. The mirrors shall be aerodynamically designed to reduce wind buffeting and resultant vibration. The housings shall be polished stainless steel.

The mirrors support tubes shall be stainless steel, with breakaway mounting brackets.

Bidder Complies YES _____ NO _____

EXTERIOR TRIM, REAR CAB STEP WELL

The rear cab door stepping surfaces shall be trimmed with aluminum tread plate. There shall be tread plate covers that provide access to the chassis battery system.

Bidder Complies YES _____ NO _____

TREAD PLATE BACK OF CAB

The entire back wall of the cab shall be covered with 1/8" (.125") thick aluminum tread plate. The tread plate shall be coated with a rust inhibitor and fastened to the cab with stainless steel fasteners. A bead of caulking shall be applied to the perimeter of the tread plate.

Bidder Complies YES _____ NO _____

INTERIOR CAB FINISH

The interior of the cab shall be painted with a dark gray "F-Shield". The cab metal finish shall be covered with a coat of adhesion promoting primer.

"F-Shield" is a 100% solids, state-of-the art, VOC-free, plural-component, pure polyuria elastomeric membrane. This seamless system exhibits extraordinary performance characteristics. F-Shield is based on amine-terminated polyether resins, amine chain extenders and MDI pre-polymers. This membrane achieves an extremely tough, flexible, chemical and abuse resistant finish. F-Shield shall be used in specified areas for maximum protection.

The headliner (front and rear) and rear wall (if applicable) shall be covered with heavy-duty gray vinyl.

Bidder Complies YES _____ NO _____

FLOOR MATS/ENGINE TUNNEL COVERING

The floor mats and engine tunnel shall be covered with gray pebble grain vinyl with 1/4" (.250") foam backing. The edges of the floor mats shall be trimmed with bright aluminum angle.

Bidder Complies YES _____ NO _____

Warrior's Path Volunteer Fire Department

INTERIOR TRIM, REAR WALL ALUMINUM PANAL

The entire interior rear wall of the cab shall be covered with 3/16" (.1875") smooth aluminum plate coated with "F-Shield".

"F-Shield" is a 100% solids, state-of-the art, VOC-free, plural-component, pure polyuria elastomeric membrane. This seamless system exhibits extraordinary performance characteristics. F-Shield is based on amine-terminated polyether resins, amine chain extenders and MDI pre-polymers. This membrane achieves an extremely tough, flexible, chemical and abuse resistant finish. F-Shield shall be used in specified areas for maximum protection.

The color of the rear wall panel shall match the interior of the cab unless otherwise specified.

Bidder Complies YES_____ NO_____

CAB GRAB HANDLES, INTERIOR

Two-(2) interior grab handles installed in the cab on the "A" posts, one-(1) each side. The grab handles shall be constructed of rubberized steel.

Four-(4) interior grab handles installed in the cab, one-(1) each side on top of the front door panels adjacent to fixed window and one-(1) each side on the rear door panels. The grab handles shall be constructed of 1-1/4" knurled stainless steel. The gab rails shall be mounted with chrome plated end stanchions.

There shall be one-(1) interior grab handle installed on the inside of each rear cab door. The handles shall extend horizontally with width of the window just above the window sill. The grab handles shall be constructed of bright stainless steel.

Bidder Complies YES_____ NO_____

UPPER DOOR PANELS

There shall be four-(4) interior upper front and rear door panels installed covered with "F-Shield" extending from the window down to the lower kick plate. The color of the panels shall match the interior of the cab unless otherwise specified.

"F-Shield" is a 100% solids, state-of-the art, VOC-free, plural-component, pure polyuria elastomeric membrane. This seamless system exhibits extraordinary performance characteristics. F-Shield is based on amine-terminated polyether resins, amine chain extenders and MDI pre-polymers. This membrane achieves an extremely tough, flexible, chemical and abuse resistant finish. F-Shield shall be used in specified areas for maximum protection.

Bidder Complies YES_____ NO_____

Warrior's Path Volunteer Fire Department

LOWER DOOR PANELS

There shall be four-(4) interior lower front and rear door panels installed covered with "F-Shield" extending from the window down to the lower kick plate. The color of the panels shall match the interior of the cab unless otherwise specified.

"F-Shield" is a 100% solids, state-of-the art, VOC-free, plural-component, pure polyuria elastomeric membrane. This seamless system exhibits extraordinary performance characteristics. F-Shield is based on amine-terminated polyether resins, amine chain extenders and MDI pre-polymers. This membrane achieves an extremely tough, flexible, chemical and abuse resistant finish. F-Shield shall be used in specified areas for maximum protection.

Bidder Complies YES _____ NO _____

REFLECTIVE STOP SIGNS

There shall be four-(4) "STOP" signs installed in the cab, one-(1) on the lower door panel of each cab door.

Bidder Complies YES _____ NO _____

INSTRUMENTATION

For easy viewing, gauges shall be white faced with black lettering and adjustable intensity, LED backlighting. In order to reduce replacement and maintenance costs, the gauges provided shall be separate from one another and not in a cluster or arrangement. The gauges shall meet SAE J-1939 protocol to eliminate redundant sending units. Gauges must be fully sealed to 6 psi. Gauges shall have an operating temperature range of -40F to 185F. The gauge crystal shall be polycarbonate, anti-fog, and anti-scratch coated. The panels shall be divided into groups of instruments that make identification sensible and easy to view.

The following panels shall be included:

- One driver side hinged gauge panel
- One driver side message center and indicator light panel
- Driver side pump shift panel (if required)
- Driver side park brake panel
- Driver side diagnostic connector
- Driver side ignition/climate control panel
- Center mounted rocker switch and siren panel, with a maximum capacity of 20 switches • Officer side information panel

The following instruments shall be included:

- Dial Type speedometer with digital odometer and trip odometer that is active when pumping
- Dial Type tachometer with digital hour meter and trip hour meter along with a digital, four-line diagnostic display
- Dial Type engine oil pressure gauge with warning light and alarm
- Dial Type water temperature with warning light and alarm

Warrior's Path Volunteer Fire Department

- Dial Type transmission temperature with warning light and alarm
- Dial Type front air pressure gauges with warning light and alarm
- Dial Type rear air pressure gauge with warning light
- Dial Type voltmeter
- Dial Type fuel level gauge with low fuel indicator level
- Dial Type Diesel Exhaust Fluid gauge with low level indicator
- Air cleaner restriction light
- High beam indicator
- Parking brake indicator
- Turn signal indicators
- Diagnostic indicators for airbag, engine, transmission, and ABS

An anti-lock braking system (ABS) test switch and parking brake control valve shall be located to the right of the steering column.

SERVICE ACCESS

The driver's instrumentation area shall be made of textured black non-glare panels affixed to the aluminum dash. There shall be a single gauge panel, secured with a bottom hinge and four (4) quarter-turn fasteners. Access to the gauge clusters shall be accomplished simply by releasing the latches and pulling the panel outward. Other gauge access designs are not acceptable.

The chassis electrical panel shall be located in the center of the aluminum dash, between the switch panel and the windshield. There shall be a lift up cover, with two (2) recessed lift-and-turn latches for quick access to the panel. The underside of the panel shall have a pre-printed diagram that clearly depicts the function of each circuit breaker and relay. The vehicle load manager shall be located in this panel. The opening to the electrical shall measure approximately 19" wide near the switch panel and 37" wide toward the windshield.

Electronic diagnostic connections for the engine, transmission, and ABS brakes shall be located in the lower-left panel on the cab dash.

Bidder Complies YES _____ NO _____

DRIVER'S INFORMATION DISPLAY

There shall be a 10.8" x 2.44" display panel on the driver's gauge cluster that will illuminate various caution and warning indicator lamps. This display also contains a 340 x 90 monochrome LCD for display of specific and user selectable data. The display unit reads data from the J1939-11 powertrain communications network. Display will be capable of but not limited to the following features:

- Auto Self-Test
- Viewing the state of each digital or analog input to the unit
- Viewing the state of each output
- Allows users ability to set service reminders by distance or hours of operation
- Allows users ability to set data screens in various formats i.e. bar graph / text
- Viewable active and stored powertrain ECU fault data.
- Diagnostics screen allows user to select and view a specific source such as engine / transmission
- Display is selectable between English and metric readings.
- Messages and Icons will pop up in display when a condition exists such as:

Warrior's Path Volunteer Fire Department

Transmission oil life, filter or other service needed as reported by the Allison Transmission ECU Engine conditions: Low oil pressure, high coolant temperature, low coolant level, water in fuel, check / stop engine, regeneration needed, high exhaust temp

Indicator lights may also accompany pop up messages:

- Door ajar indicator will also pop up a "Do Not Move Vehicle, Check all doors and Items that Raise or extend beyond apparatus cab or body" message

Bidder Complies YES_____ NO_____

CHASSIS ELECTRICAL SYSTEM

The chassis shall include a single starting electrical system which shall include a 12 volt direct current system, suppressed per SAE J551. The wiring shall be appropriate gauge cross link with 311 degree Fahrenheit insulation. All SAE wires in the chassis shall be color coded and shall include the circuit number and function where possible. The wiring shall be protected by 257 degree Fahrenheit minimum high temperature flame retardant loom.

CHASSIS COLOR CODED WIRING

All chassis wiring shall be type "GXL" in accordance with S.A.E. J1128 and NFPA-1901. ALL wiring shall be **COLOR CODED** and continuously marked with the circuit number and function.

A battery "loop back" ground circuit shall be supplied for the EDS system to reduce the possible effects of Electromagnetic and Radio Frequency Interference.

The chassis cab, engine and transmission shall be electrically bonded to the chassis frame rails with braided ground straps.

Bidder Complies YES_____ NO_____

MAIN CENTER DASH

The main center dash area shall include three (3) removable panel's located one (1) to the right of the driver position, one (1) in the center of the dash and one (1) to the left of the officer position. The center panel shall be within comfortable reach of both the driver and officer. The panel shall be constructed of 5052-H32 Marine Grade, 1/8 inch thick aluminum plate.

The left dash panel shall include ten (10) switches. There shall be eight (8) switches across the top of the panel and two (2) staggered on the lower portion of the panel. The transmission shifter and instrument lamp dimmer control shall be provided on the right side of the panel.

The center dash panel shall include lighted rocker switches with a legend. The non-specified switches shall be two-position, black switches with an indicator light. All switch legends shall have backlighting provided. The center portion shall be used for electronic siren mounting.

The right dash panel shall be blank.

Bidder Complies YES_____ NO_____

Warrior's Path Volunteer Fire Department

VEHICLE DATA RECORDER

Apparatus shall be equipped with a Class1 "Vehicle Data Recorder and Seat Belt Warning System" (VDR/SBW) that is connected to the power train CAN (Controller Area Network) bus consisting of transmission (TCM), engine control (ECM) and antilock brake (ABS) modules mounted on the apparatus. The VDR/SBW will function per NFPA 1901-2009 sections 4.11 (Vehicle Data Recorder) utilizing the power train's J1939 data and 14.1.3.10 (Seat Belt Warning) using the Class1 "Seat Belt Input Module" for seat occupied and belt status information.

The VDR data shall be downloadable by USB cable to a computer using either Microsoft™ or Apple™ Operating Systems using Class 1/ O.E.M. supplied reporting software.

There shall be a seat belt indicator system supplied in the cab. The indicator system shall indicate seat belt use for each individual seating position when the seat is occupied, the seat belt remains unfastened and the parking brake is released.

A display panel shall be supplied in the dash area. The panel shall have an audible indicators and a red light display to indicate that a seat belt has not been fastened.

Bidder Complies YES _____ NO _____

SEAT BELT WARNING SYSTEM

Mounted in the overhead console in the driver's area the indicator system shall indicate seat belt use for each individual seating position when the seat is occupied, the seat belt remains unfastened and the parking brake is released.

Bidder Complies YES _____ NO _____

STEERING COLUMN

The steering column shall be a Douglas Autotec tilt and telescope. A lever mounted on the side of the column shall control the tilt and telescope features. A Signal-Stat (self-canceling) turn signal switch shall be mounted to the column. The steering shaft from the column to the meter box shall have a rubber boot to cover the shaft slip and a second rubber boot to seal the passage hole in the floor.

The steering wheel shall be 18 inches in diameter.

The Signal-Stat turn signal switch shall include the following functions:

- Left and right turn signals
- High beam dimmer control
- Hazard warning switch
- Two speed with intermittent windshield wiper control
- Windshield washer control

Bidder Complies YES _____ NO _____

Warrior's Path Volunteer Fire Department

HEATING/AIR CONDITIONING SYSTEM

The climate control system shall use three-(3) heater-air conditioner units.

The front circuits shall use two-(2) heater-air conditioning units, mounted under the dash on the driver's side and under the officer's side. These units are each rated at 14,700 BTU heating and 19,200 BTU cooling. The units shall blow up toward the windshield through adjustable vents in the dash.

Additionally, there shall be two-(2) adjustable vents each side to direct air at the lower portion of the driver and officer seating areas. Two switches, including low/med/high and heat/off/ ac, shall control the front system.

A blend air switch shall be installed to operate both the front heating and cooling systems. This provides hot and dry air for defogging purposes.

The two front systems shall combine to put out a total of 688 CFM air flow.

The rear circuit shall use one large heater-air conditioner unit with a rating of 34,150 BTU cooling and 36,000 BTU heating. It shall be mounted under the forward facing rear seats. Ducting shall run up the rear wall to adjustable vents (minimum of six) running along the center of the ceiling toward the front of the cab. Two-(2) switches including high/med/low and heat/off/AC shall control the unit. In addition to the rear control switches, there shall be an ON/OFF switch located near the driver to disable the rear unit if needed.

The rear system shall put out a total of 640 CFM air flow.

The total system shall have a capacity of 72,550 Btu cooling, 65,400 Btu heating and a total in-cab air flow of 1,328 CFM.

The entire roof and back wall shall be heavily insulated with 1" foam to enhance the cooling system.

Both heaters shall be plumbed with a shut off valve at the engine.

The air conditioning system shall be powered through two (2) engine driven 9.5 cubic inch compressors.

Two (2) roof top condensers, each rated at 38,700 Btu, shall be provided.

Bidder Complies YES_____ NO_____

The two-(2) roof top condenser housings shall be white in color.

Bidder Complies YES_____ NO_____

Warrior's Path Volunteer Fire Department

SEAT MATERIAL

The seats shall be covered with Durawear material.

Bidder Complies YES _____ NO _____

SEAT COLOR

The cab seats shall be gray in color.

Bidder Complies YES _____ NO _____

DRIVER'S SEAT

The driver's seat shall be a Bostrom Model Sierra high-back with air ride suspension. The seat shall have 4-way adjustability by the driver in accordance with SAE J1517. The seat shall be equipped with an integrated 3-point seat belt with an automatic retractor. The belt shall be red in color to meet current NFPA requirements.

Bidder Complies YES _____ NO _____

OFFICER'S SEAT

The officer's seat shall be a Bostrom Tanker 450 SCBA non-suspension. Seat back shall include a spring-loaded flip-up headrest. The seat shall be equipped with an integrated 3-point shoulder harness with lap belt and an automatic retractor built into the seat assembly. The belt shall be red in color to meet current NFPA requirements.

There shall be one-(1) Zico model ULLH air bottle bracket with a "CRS" (Collision Restraint Strap) provided with the seat. The bracket shall be a "Load & Lock" Walkaway style in compliance with the latest edition of NFPA. The bracket shall consist of a back plate, short footplate, two non-mar double-coated seats, and adjustable strap assembly. The back plate and footplate are black thermoplastic coated for years of trouble-free service. One-Size fits all U.S. made 30 to 60 minute rated self-contained breathing apparatus.

There shall one-(1) SCBA seat cavity removable panel provided for a smooth back when the breathing air apparatus is not in use.

Bidder Complies YES _____ NO _____

CREW SEAT, DRIVER'S SIDE REAR FACING

One-(1) outboard, rear facing, seat shall be installed behind the driver. The seat shall be Bostrom Tanker 450 SCBA non-suspension seat. The seat back shall include spring-loaded flip-up headrest. The seat shall be equipped with 3-point seat belt with automatic retractor. The belt shall be red in color to meet current NFPA requirements.

Warrior's Path Volunteer Fire Department

There shall be one-(1) Zico model ULLH air bottle bracket with a "CRS" (Collision Restraint Strap) provided with the seat. The bracket shall be a "Load & Lock" Walkaway style in compliance with the latest edition of NFPA. The bracket shall consist of a back plate, short footplate, two non-mar double-coated seats, and adjustable strap assembly. The back plate and footplate are black thermoplastic coated for years of trouble-free service. One-Size fits all U.S. made 30 to 60 minute rated self-contained breathing apparatus.

CREW SEAT, OFFICER'S SIDE REAR FACING

One-(1) outboard, rear facing, seat shall be installed behind the officer. The seat shall be Bostrom Tanker 450 SCBA non-suspension seat. The seat shall include a spring-loaded flip-up headrest. The seat shall be equipped with a 3-point seat belt. The belt shall be red in color to meet current NFPA requirements.

There shall be one-(1) Zico model ULLH air bottle bracket with a "CRS" (Collision Restraint Strap) provided with the seat. The bracket shall be a "Load & Lock" Walkaway style in compliance with the latest edition of NFPA. The bracket shall consist of a back plate, short footplate, two non-mar double-coated seats, and adjustable strap assembly. The back plate and footplate are black thermoplastic coated for years of trouble-free service. One-Size fits all U.S. made 30 to 60 minute rated self-contained breathing apparatus.

CREW SEATS, INBOARD FORWARD FACING

Two-(2) inboard, forward facing seats shall be installed in the crew area. The seats shall be Bostrom Tanker 450 SCBA non-suspension seats. Seat backs shall include spring-loaded flip-up headrest. The seat shall be equipped with a 3-point seat belt. The belts shall be red in color to meet current NFPA requirements. One (1)

There shall be one-(1) Zico model ULLH air bottle bracket with a "CRS" (Collision Restraint Straps) provided with each seat. The brackets shall be a "Load & Lock" Walkaway style in compliance with the latest edition of NFPA. Each bracket shall consist of a back plate, short footplate, two non-mar double-coated seats, and adjustable strap assembly. The back plates and footplate's are black thermoplastic coated for years of trouble-free service. One-Size fits all U.S. made 30 to 60 minute rated self-contained breathing apparatus.

CHARGING PORT(S), 12-VOLT DUAL USB

There shall be one (1) Kusmaul model 019-219, 12-volt USB dual charging port(s) provided in the cab. The charging port(s) shall be equipped with one-(1) 1.0 amp connection and one-(1) 2.1 amp connection with built in LED indicator that indicates when the device(s) are powered.

The charging port(s) shall be wired to direct battery power with the appropriate wire size and fuse.

The charging port(s) shall be located in the emergency switch panel.

Bidder Complies YES_____ NO_____

Warrior's Path Volunteer Fire Department

POWER AND GROUND STUDS

The electrical distribution panel shall include two (2) power studs. The studs shall be size #10 and each of the power studs shall be circuit protected with a fuse of the specified amperage. One (1) power stud shall be capable of carrying up to a 40 amp battery direct load and one (1) power stud shall be capable of carrying up to a 20 amp ignition switched load. The two (2) power studs shall share one (1) #10 ground stud.

Bidder Complies YES _____ NO _____

12-VOLT POWER OUTLET(S)

There shall be two (2) 12-volt power outlets provided in the cab.

The power outlet(s) shall be wired to direct battery power with the appropriate wire size and fuse.

Bidder Complies YES _____ NO _____

ELECTRONIC SIREN

There shall be one-(1) Whelen model WS-295HFS2 hands free siren control head mounted in the center switch panel. The siren button shall be activated when the siren is in hands free mode. The siren shall incorporate a rotary selector. There shall be an on/off power switch, a push button switch for manual siren or air horn tones, and a noise-canceling microphone with volume control.

Bidder Complies YES _____ NO _____ One

(1)

HORN, ELECTRIC

A single electric horn activated by the steering wheel horn button shall be provided.

Bidder Complies YES _____ NO _____

BACK-UP ALARM

There shall be one-(1) Whelen model WBUA107, 107 dB, electronic back-up alarm installed at the rear of the apparatus. The alarm shall be wired to the transmissions output signal and is automatically activated when the transmission is shifted into reverse.

Bidder Complies YES _____ NO _____

Warrior's Path Volunteer Fire Department

LIGHTS, CAB DOME

Four-(4) combination clear/red LED dome lights with one-(1) piece bezels shall be installed in the cabs headliner. The push on / push off switches for the clear and red dome lights are integrally mounted in the dome lights lens.

The white LED lights shall be activated when any cab door is in the open position automatically switching off all red lights currently on and reactivated when the door is closed.

Bidder Complies YES _____ NO _____

LIGHT, DOOR AJAR

A red door ajar flashing light, Whelen OS Series LED shall be mounted on the driver's side face of the overhead panel. A chrome flange is to be supplied with the light.

This light is wired with a flasher to the power panel for completion to circuit on the body.

The light circuit shall be wired so that the light circuit is deactivated when the parking brakes of the apparatus are applied.

A label shall be applied adjacent to the light 'DOOR OPEN'.

Bidder Complies YES _____ NO _____

LIGHTS, STEP WELL

Four-(4) Whelen OS Series LED model 0SC0EDCR shall be provided, one-(1) in each cab step well. All step well lights shall be illuminated when any door is opened. The steady burn illumination light shall incorporate three clear LED and a clear non-optic hard coated polycarbonate lens. The hard coated lens shall provide extended life/luster protection against UV and chemical stresses. The encapsulated assembly shall provide protection against environmental elements. The solid state illumination light shall be vibration resistant. An installation kit including mounting hardware, neoprene gasket and 45 degree angle chrome housing shall be provided for surface mounting. The 0AC0EDCR will contain a 12" non-terminated pigtail. The illumination light meets SAE J592 requirements and is covered by a five year factory warranty.

Bidder Complies YES _____ NO _____

LIGHTS, ENGINE MAINTENANCE

Two-(2) white 4" LED round lights shall be mounted under the cab. The lights shall automatically activate when the cab is tilted.

Bidder Complies YES _____ NO _____

Warrior's Path Volunteer Fire Department

STANDARD FRONT LIGHTING

The headlamps, turn signals, front warning, and intersection lights shall be located within chrome warning light modules.

Bidder Complies YES _____ NO _____

HEADLIGHTS

Four-(4) halogen rectangular headlights shall be installed in the warning light modules, two-(2) each side. The headlights shall be mounted in the lower positions of the module.

Bidder Complies YES _____ NO _____

TURN SIGNALS

Whelen model 600 amber LED turn signal lamps shall be installed directly above the low beam headlights in the warning light modules.

Bidder Complies YES _____ NO _____

TURN SIGNAL/MARKER LIGHTS

Whelen model 400 amber LED lamps shall be mounted outboard of the turn signal at a 45-degree angle off the front of the cab. The lamps are part of the warning light module, and are visible from both the front and side of the vehicle.

Bidder Complies YES _____ NO _____

LED CORNERING LIGHTS

Whelen model 400 flashing LED-cornering lamps shall be mounted below the marker light in the warning light module. The lamps are mounted at a 45-degree angle off the front of the cab and are visible from the side and front of the vehicle.

Bidder Complies YES _____ NO _____

DOT LIGHTS

There shall be five-(5) LED marker lights installed on the cabs roof located as high as practical and spaced per DOT guidelines.

Bidder Complies YES _____ NO _____

Warrior's Path Volunteer Fire Department

LIGHTS, INBOARD LOWER FRONT WARNING

Two-(2) Whelen 600 Series Super-LED model 60R02FRR shall be installed, one-(1) each side inboard of the turn signal in the warning light modules. The warning light shall incorporate red Linear Super-LEDs, a red optic hard coated polycarbonate lens, and utilize a metalized reflector with integrated TIR hybrid optics for maximum output. The hard coated lens shall provide extended life/luster protection against UV and chemical stresses. The encapsulated lens/reflector assembly and conformal coated PC board shall provide additional protection against environmental elements. The solid state warning lights shall be vibration resistant. The self-contained flashing light shall have 14 Scan-Lock flash patterns including synchronize feature and steady burn. The warning light is covered by a five year factory warranty.

Bidder Complies YES_____ NO_____

CAB GROUND LIGHTS

There shall be one-(1) Whelen 4" LED light mounted under each cab door illuminating the area below providing a safe entrance and exit for cab occupants. All cab ground lights shall automatically activate when any cab door is opened and by a switch located on the dash.

Bidder Complies YES_____ NO_____

BUMPER COMPARTMENT, CENTER

There shall be a compartment provided in the front bumper gravelshield, centered between the frame rails fabricated of 1/8" (.125) smooth aluminum plate with drain holes to promote airflow.

Bidder Complies YES_____ NO_____

FLOOR TILE, CENTER FRONT BUMPER COMPARTMENT

The center front bumper compartment floor shall be covered with Turtle Tile. The tile shall be black in color. The floor tile shall be completely removable for cleaning.

Bidder Complies YES_____ NO_____

COVER, CENTER FRONT BUMPER COMPARTMENT

The center bumper compartment shall have a hinged aluminum tread plate cover to secure the contents. The cover shall be secured in the closed position with a stainless steel latch. The cover shall be cut-out for access.

Bidder Complies YES_____ NO_____

Warrior's Path Volunteer Fire Department

MECHANICAL SIREN

One (1) Federal Signal Q2B siren model #Q2B-012PSD electro-mechanical siren shall be mounted on the extended front bumper, driver's side outboard. The Q2B siren shall be a streamlined, chrome plated siren designed to provide reliable and long-life operation. The electro-mechanical siren shall produce the distinctive Q2B sound that is a registered trademark of Federal Signal, and shall be provided with a heavy duty clutch and an electric brake.

The Q2B siren shall measure 10.5" high x 14" long x 10" deep and shall produce 123 decibels at ten feet. The siren shall operate off the vehicles 12V system. The Q2B siren shall be pedestal mounted in the front of emergency vehicles.

The siren brake switch shall be located within reach of the driver.

Bidder Complies YES_____ NO_____

SIREN WIRING

The siren activation switch shall be wired thru the chassis park brake and operate in the "Response Mode" only.

Bidder Complies YES_____ NO_____

SIREN FOOT SWITCH

A foot operated switch shall be installed on the driver's side wired to the mechanical siren.

Bidder Complies YES_____ NO_____

SIREN DASH SWITCH, OFFICER'S SIDE

A dash mounted switch shall be installed on the officer's side wired to the mechanical siren.

Bidder Complies YES_____ NO_____

SPEAKER, PASSENGER'S SIDE

There shall be one-(1) speaker shall be installed thru the front face of the bumper, passenger side, outboard.

The speaker shall be a Cast Products, 100-watts wired to the electronic siren.

Bidder Complies YES_____ NO_____

SPEAKER, DRIVER'S SIDE

There shall be one-(1) speaker shall be installed thru the front face of the bumper, driver's side, outboard.

The speaker shall be a Cast Products, 100-watts wired to the electronic siren.

Bidder Complies YES_____ NO_____

Warrior's Path Volunteer Fire Department

ENGINE TUNNEL EQUIPMENT MOUNTING PLATE

There shall be one-(1) equipment mounting plate installed on the engine tunnel constructed of 3/16" smooth aluminum plate covered with "F-Shield".

"F-Shield" is a 100% solids, state-of-the art, VOC-free, plural-component, pure polyuria elastomeric membrane. This seamless system exhibits extraordinary performance characteristics. F-Shield is based on amine-terminated polyether resins, amine chain extenders and MDI pre-polymers. This membrane achieves an extremely tough, flexible, chemical and abuse resistant finish. F-Shield shall be used in specified areas for maximum protection.

Bidder Complies YES_____ NO_____

PAC-TRAC TOOL BOARD(S)

Two (2) Pac-Trac tool board(s) shall be installed in the cab for the mounting of additional equipment. The tool board slats shall be provided with Trac Lock inserts and fasteners.

Bidder Complies YES_____ NO_____

Locations: One-(1) each side on the rear cab wall, outboard of the forward facing crew seats

MAP BOOK HOLDER

A map book holder shall be installed in the cab as directed by the Fire Department. The map book holder shall be constructed of smooth aluminum with a Velcro retaining strap. The map book holder shall be painted to match the interior color of the cab.

Bidder Complies YES_____ NO_____

CUSTOM CONSOLE

A custom console shall be fabricated and installed on the engine tunnel. The console shall have a map book storage area with a hinged lid. The front of the console shall be equipped with a center storage slot for medical gloves and a cup holder on each side. The console shall be constructed of smooth aluminum painted with F-Shield to match the interior of the cab. (Console Drawing must be provided to and approved by the fire department)

Bidder Complies YES_____ NO_____

RADIO

A Jensen radio with weather band, AM/FM stereo receiver, compact disc (CD) player, and rear iPod input pigtail connector, satellite radio capability, a front panel mini stereo input jack, and four (4) speakers shall be installed in the cab. The CD player shall be compatible with CD-R, CD-RW and MP3 format discs. The radio shall be installed in the left hand overhead position. The speakers shall be installed inside the cab with two (2) speakers recessed within the headliner of the front of the cab just behind the windshield and two (2) speakers on the upper rear wall of the cab.

Warrior's Path Volunteer Fire Department

A small antenna shall be located on the left hand side of the cab roof for AM/FM and weather ban reception.

Bidder Complies YES _____ NO _____

BACK UP CAMERA SYSTEM

One-(1) Federal Signal model CAMSET-70 color camera system shall be installed on the vehicle. The system shall be wired to the vehicles 12 volt electrical system. The 7" LCD color monitor shall be installed in cab in easy reach of the driver while in the seated position. The color camera shall be installed facing rearward giving a clear and unobstructed view behind the vehicle. The system shall activate when the transmission is shifted in the reverse position. A switch located on the monitor shall activate the system regardless of the transmissions shifted position.

This system shall consist of the following components:

- One 7" CAMLCD color monitor installed in the cab
- One color camera model CAMCCD-REARNTSC with night vision and audio installed high at the rear of the vehicle
- 65.5 feet of camera-to-monitor extension cable (CAMCABLE-20)
- Multiple camera control box (CAMBOX-4NTSC/CAMBOX-PAL)
- Mounting bracket and hardware (CAMLCD-BRACKET)

Bidder Complies YES _____ NO _____

ADDITIONAL CAMERA, OFFICER'S SIDE

One-(1) Federal Signal model CAMCCD-SIDETSC side view camera shall be installed on the officer's side of the vehicle wired to the monitor. The camera shall be equipped with night vision and audio.

Bidder Complies YES _____ NO _____

CARRYING CAPACITY PLATE

A permanently attached carrying capacity plate in accordance with NFPA 1901 Standards shall be installed in plain view of the driver.

The tag shall include the following:

- Overall height
- Overall length
- GVWR
- Seating capacity

Bidder Complies YES _____ NO _____

Warrior's Path Volunteer Fire Department

SEATING CAPACITY PLATE

A permanently attached Seating Capacity Plate shall be mounted in the cab in plain view that reads "Seating Capacity – 6 People".

Each seating position that is not, intended to be used during transit shall be individually labeled as follows:

"WARNING THIS SEAT IS NOT TO BE OCCUPIED WHILE VEHICLE IS IN MOTION"

Bidder Complies YES _____ NO _____

OCCUPANCY/SEAT BELT PLATE

Occupancy / Seat Belt plates shall be provided and installed visible from each seated position, which reads:

"OCCUPANTS MUST BE SEATED AND BELTED WHEN THE APPARATUS IN MOTION"

Bidder Complies YES _____ NO _____

"NO SMOKING" PLATE

A plate shall be installed visible from each seating position that states:

"NO SMOKING IN APPARATUS"

Bidder Complies YES _____ NO _____

"DO NOT WEAR HELMET" PLATE

A plate shall be installed visible from each seating position that states:

"DO NOT WEAR HELMET WHILE SEATED"

Bidder Complies YES _____ NO _____

OVERALL HEIGHT/LENGTH/WEIGHT PLATE

An Overall Height/Length/Weight information plate shall be installed that can be clearly identified and visible to the driver while in the seated position showing the apparatus completed overall height, length, (in feet and inches) and gross vehicle weight (in tons) current to the apparatus manufactured date.

If changes to the vehicle occur while in service, the department must revise the overall height-length-weight plate.

Bidder Complies YES _____ NO _____

Warrior's Path Volunteer Fire Department

FLUID CAPACITY PLATE

A permanently affixed fluid data plate shall be installed in the driving compartment to indicate the type and quantities of the following fluid used in the vehicle.

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

The following information shall also be supplied on the Fluid Data Plate:

- Chassis Manufacturer
- Production Number
- Paint Number
- Year Built
- Date Shipped
- Vehicle Identification Number

Bidder Complies YES_____ NO_____

MOVEMENT WARNING PLATE

A permanently affixed Movement Warning plate shall be installed near the door ajar light that reads:

"DO NOT MOVE APPARATUS WHEN LIGHT IS ON".

Bidder Complies YES_____ NO_____

"DO NOT RIDE" PLATE

A permanently affixed "DO NOT RIDE" warning plate shall be installed located on the stepping areas of the vehicle warning personnel that riding on or in these areas while the vehicle in motion is prohibited.

Bidder Complies YES_____ NO_____

Warrior's Path Volunteer Fire Department

PUMP ENCLOSURE, SIDE CONTROL

The pump enclosure superstructure shall be constructed of aluminum tubing, channel, angle, and break-formed components. The framework shall be formed by beveled aluminum alloy extrusions and electrically seam welded both internally and externally at each joint using 5356 aluminum alloy welding wire. The main, frame work shall be constructed of 3.00 x 3.50, 6063-T6 aluminum extrusions. The break-formed components shall be constructed from 3/16" (1.875) aluminum.

The crossmembers support the substructure and the exterior panels independently from the cab and body. The crossmembers shall be isolated from the frame rails using torsion mounts. The pump enclosure shall be supported at the top of the frame rails, in a minimum of four-(4) places. The module shall be secured with angle brackets bolted to both the pump enclosure support cross rails and the side of the chassis frame rails. This design is required to eliminate shifting and stress on the pump enclosure, pump panels, and running boards.

The front of the pump module shall be covered with aluminum tread plate to keep road debris from the front of the pump.

The pump enclosure provides an area above the pump for the installation of crosslays or dunnage area.

Any pump enclosure constructed using any material other than aluminum or utilizing any other mounting method is not acceptable.

Bidder Complies YES_____ NO_____

SEPARATE PUMP MODULE

The pump module will be a self-supported structure mounted independently from the body and chassis cab. The pump module will be constructed entirely of extrusions and aluminum plate and shall be bolted to the chassis frame rails. The framework will be formed from beveled aluminum alloy extrusions and electrically seam welded both internally and externally at each joint using 5356 aluminum alloy welding wire. The main framework shall be 3.00 x 3.50, 6063-T6 aluminum extrusion. Aluminum angle will be welded such that a recessed pump panel can be mounted inside the extrusion perimeter. The module shall be mounted to the chassis frame rails utilizing a "U" bolt spring mounting system. The pump module design must allow normal frame deflection without imposing stress on the pump module structure or side running boards.

Bidder Complies YES_____ NO_____

PUMP PANELS

The operator's controls and gauges shall be mounted on pump panels constructed of 1/8" (.125) black anodized, non-glare aluminum. No vinyl coverings shall be acceptable as these surfaces are subjected to rough service and vinyl is susceptible to tearing.

The operator's master gauge panel shall be vertically hinged with push style latch for access to gauges and auxiliary controls.

Warrior's Path Volunteer Fire Department

The operator's control panel shall be located below the master gauge panel and constructed of 1/8" (.125) black anodized, non-glare aluminum.

All gauges and controls shall be properly identified with color-coded metal tags. The tags shall be affixed with 3M brand industrial adhesive. The gauges shall be functionally grouped above each control.

The right side upper panel shall be vertically hinged with double doors and push style latches for pump compartment access. The doors shall be constructed of .125" aluminum tread plate.

The right side lower panel shall be removable for serviceability. The panel shall be constructed of 1/8" (.125) black anodized, non-glare aluminum.

All instruments and controls shall be provided and installed as a group at the pump panel. The central midpoint or centerline of any valve control shall be no more than 72" vertically above the ground or platform that is designed to serve as the operator's standing position. The instruments shall be placed to keep the pump operator as far as practical from all discharge and intake connections and in a location where they are readily visible and operationally functional while the operator remains stationary.

Bidder Complies YES_____ NO_____

FULLY HINGED PUMP PANEL, RIGHT SIDE

One-(1) vertically hinged pump panel with push style latch shall be installed and constructed of the same material as stated in the pump module specifications. The hinged panel replaces the current right hand lower removable panel for ease of access to the pump compartment during routine maintenance.

Bidder Complies YES_____ NO_____

PUMP COMPARTMENT ACCESS PANEL, FRONT

A removable maintenance panel shall be installed at the front of the pump compartment manufactured from 3/16" aluminum tread plate.

Bidder Complies YES_____ NO_____

PUMP PANEL LIGHT, LEFT SIDE

One-(1) individual OnScene Access LED pump panel light with on/off switch shall be mounted under the light shield left side. For optimum visibility during nighttime operations, the light shall be mounted as high as possible.

Bidder Complies YES_____ NO_____

Warrior's Path Volunteer Fire Department

PUMP PANEL LIGHT, RIGHT SIDE

One-(1) individual OnScene Access LED pump panel light with on/off switch shall be mounted under the light shield right side. For optimum visibility during nighttime operations, the light shall be mounted as high as possible.

Bidder Complies YES _____ NO _____

LIGHTS, PUMP COMPARTMENT

One-(1) compartment light shall be installed in the pump compartment for inspection or routine maintenance wired to the pump panel light switch.

Bidder Complies YES _____ NO _____

RUNNING BOARD W/HOSE TRAY, LEFT SIDE

A running board shall be provided on the left side of pump module constructed of "Embossed" 3/16" (.1875) aluminum tread plate flanged down and in 2.50" x 1.00" for maximum rigidity then bolted to the modules substructure to facilitate removal.

A hose tray shall be installed in the running board constructed from 1/8" smooth aluminum plate approximately 9" wide x 32" long x 10" deep with drain holes provided in each corner to promote drainage. A restraining strap shall be provided securing the contents of the hose well.

The running board stepping surface shall comply with the latest version of NFPA 1901.

The hose tray shall be drop in (floating) style.

Bidder Complies YES _____ NO _____

RUNNING BOARD W/HOSE TRAY, RIGHT SIDE

A running board shall be provided on the right side of pump module constructed of "Embossed" 3/16" (.1875) aluminum tread plate flanged down and in 2.50" x 1.00" for maximum rigidity then bolted to the modules substructure to facilitate removal.

A hose tray shall be installed in the running board constructed from 1/8" smooth aluminum plate approximately 9" wide x 32" long x 10" deep with drain holes provided in each corner to promote drainage. A restraining straps shall be provided securing the contents of the hose well.

The running board stepping surface shall comply with the latest version of NFPA 1901.

The hose tray shall be drop in (floating) style.

Bidder Complies YES _____ NO _____

Warrior's Path Volunteer Fire Department

HANDRAILS, ABOVE THE PUMP PANEL

One-(1) pair of 12" handrails shall be installed above the pump panels, one-(1) each side. The handrails shall be constructed from 1-1/4" knurled aluminum. The handrails shall be mounted with chrome plated end stanchions.

The handrails shall meet or exceed NFPA 1901 requirements.

Bidder Complies YES _____ NO _____

AIR OUTLET, PUMP PANEL

There shall be an air outlet with a valve installed on the pump panel. There shall be a 25' of .375" utility type air hose with "quick release" type fittings compatible with those on the apparatus provided. This shall be plumbed into the chassis air system.

Bidder Complies YES _____ NO _____

AIR HORN SWITCH, PUMP PANEL

A push button momentary switch mounted on the pump panel shall activate the chassis air horn(s).

Bidder Complies YES _____ NO _____

MASTER GAUGES, 4-1/2"

Two compound 4-1/2" master gauges shall be provided and installed on the pump operator's panel. The intake and discharge gauges are liquid filled with a solution to assure visual readings and reduce inner lens condensation. The body of the gauges shall be constructed of Zytel nylon with chrome-plated bezels. The face of the gauges shall be Spun Metal with black background and white markings accurate within 1%.

The pressure gauges shall maintain performance of all features and be free from defects in material and workmanship which includes fluid fill leakage and discoloration for seven years.

Bidder Complies YES _____ NO _____

PRESSURE GOVERNOR and ENGINE MONITORING DISPLAY

Fire Research PumpBoss series PBA400-A00 pressure governor and monitoring display kit shall be installed. The kit shall include a control module, intake pressure sensor, discharge pressure sensor, and cables. The control module case shall be waterproof and have dimensions not to exceed 6 3/4" high by 4 5/8". The control knob shall be 2" in diameter with no mechanical stops, have a serrated grip, and a red idle push button in the center. It shall not extend more than 1 3/4" from the front of the control module. Inputs for monitored engine information shall be from a J1939 databus or independent sensors. Outputs for engine control shall be on the J1939 databus or engine specific wiring. Inputs from the pump discharge and intake pressure sensors shall be electrical.

Warrior's Path Volunteer Fire Department

The following continuous displays shall be provided:

Engine RPM; shown with four daylight bright LED digits more than 1/2" high

Check engine and stop engine warning LEDs

Engine oil pressure; shown on a dual color (green/red) LED bar graph display

Engine coolant temperature; shown on a dual color (green/red) LED bar graph display

Transmission Temperature: shown on a dual color (green/red) LED bar graph display

Battery voltage; shown on a dual color (green/red) LED bar graph display

Pressure and RPM operating mode LEDs

Pressure / RPM setting; shown on a dot matrix message display

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. All LED intensity shall be automatically adjusted for day and night time operation.

The program shall store the accumulated operating hours for the pump and engine to be displayed with the push of a button. It shall monitor inputs and support audible and visual warning alarms for the following conditions:

High Battery Voltage

Low Battery Voltage (Engine Off)

Low Battery Voltage (Engine Running)

High Transmission Temperature

Low Engine Oil Pressure

High Engine Coolant Temperature

Out of Water (visual alarm only)

No Engine Response (visual alarm only).

The program features shall be accessed via push buttons located on the front of the control module. There shall be a USB port located at the rear of the control module to upload future firmware enhancements.

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 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

Warrior's Path Volunteer Fire Department

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 pressure display shall be programmed at installation for a specific engine.

Bidder Complies YES _____ NO _____

PRESSURE GAUGES, 2-1/2"

The discharges shall be provided with 2-1/2" pressure gauges. The discharge gauges shall be liquid filled with a solution to assure visual readings and reduce inner lens condensation. The body of the gauges shall be constructed of Zytel nylon with chrome-plated bezels. The face of the gauges shall be Spun Metal with black background and white markings reading from zero to 400 PSI.

The gauges shall be installed at each discharge control on the pump operator's panel. On side mount pump applications with push pull handles each gauge shall incorporate a Thuemling Instrument Group 1-piece module assembly consisting of the gauge, push-pull and trim bezel.

The pressure gauges shall maintain performance of all features and be free from defects in material and workmanship which includes fluid fill leakage and discoloration for seven years.

Bidder Complies YES _____ NO _____

GAUGE BEZELS, COLOR CODED

The pump panel master and pressure gauge bezels shall be color coded. (*Colors will be determined by the fire department*)

Bidder Complies YES _____ NO _____

PUMP PANEL TAGS

All discharges, gauges, and controls will be properly identified by color-coded metal tags. The metal tags will be affixed with 3M industrial adhesive. (*Colors will be determined by the fire department*)

Bidder Complies YES _____ NO _____ One (1)

PUMP SYSTEM, HALE QMAX SINGLE STAGE

PUMP ASSEMBLY

The entire pump shall be cast, manufactured, and tested at the pump manufacturer's factory.

Warrior's Path Volunteer Fire Department

The pump shall be driven by a driveline from the truck transmission. The engine shall provide sufficient horsepower and RPM to enable pump to meet and 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 performance specs as outlined by the latest NFPA Pamphlet No. 1901. The pump shall be free from objectionable pulsation and vibration.

The pump body and related parts shall be of fine grain, cast iron alloy, with a minimum tensile strength of 30,000 PSI. All moving parts in contact with water shall be of high quality bronze or stainless steel. Pump utilizing castings made of lower tensile strength cast iron not acceptable.

Pump body shall be horizontally split, on a single plane, in two sections, for easy removal of entire impeller assembly including wear rings and bearings from beneath the pump without disturbing piping or the mounting of the pump in chassis.

The pump shall have one double suction impeller. The pump body shall have two opposed discharge volute cutwaters to eliminate radial unbalance.

Pump shaft to be rigidly supported by three bearings for minimum deflection. One high lead bronze sleeve bearing shall be located immediately adjacent to the impeller (on side opposite the drive unit). The sleeve bearing is to be lubricated by a force-fed, automatic oil lubricated design, pressure balanced to exclude foreign material. The remaining bearings shall be heavy-duty, deep groove ball bearings in the gearbox and they shall be splash lubricated.

The pump impeller shall be hard, fine grain bronze of the mixed flow design; accurately machined, hand-ground and individually balanced. The vanes of the impeller intake eyes shall be hand ground and polished to a sharp edge, and be of sufficient size and design to provide ample reserve capacity utilizing minimum horsepower.

The impeller clearance rings shall be bronze, easily renewable without replacing impeller or pump volute body, and of wraparound double labyrinth design for maximum efficiency.

The pump shaft shall be heat-treated, electric furnace, corrosion resistant, stainless steel, to be super-finished under packing with galvanic corrosion (zinc separators in packing) protection for longer shaft life. Pump shaft must be sealed with double lip oil seal to keep road dirt and water out of drive unit.

DRIVE UNIT

The drive unit shall be cast and completely manufactured and tested at the pump manufacturer's factory.

Pump drive unit shall be of sufficient size to withstand up to 16,000 ft. Lbs. Torque of the engine in both road and pump operating conditions. The drive unit is designed with ample capacity for lubrication reserve to maintain proper operating temperature.

The gearbox drive shafts shall be of heat-treated chrome nickel steel and at least 2-3/4" in diameter, on

Warrior's Path Volunteer Fire Department

both the input and output drive shafts. They shall withstand the full torque of the engine in both road and pump operating conditions.

All gears drive and pump, shall be of highest quality electric furnace, chrome nickel steel. Bores shall be ground to size and teeth integrated, crown-shaved and hardened, to give an extremely accurate gear for long life, smooth, quiet running, and higher load carrying capability. An accurately cut spur design shall be provided to eliminate all possible end thrusts.

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

If drive unit is equipped with a power shift, the shifting mechanism shall be a heat-treated, hard-anodized aluminum power cylinder, with stainless steel shaft. An in-cab control for rapid shift shall be provided that locks in road or pump.

Three warning lights with plates shall be provided to alert the operator when the drive unit has fully shifted from road to pump position. Two lights shall be located on the cabs instrument panel and the other on the pump panel adjacent to the throttle.

A 3" clapper check valve shall be installed between the suction side of the pump and the tank-to-pump valve. This 3" clapper valve shall remove the possibility of a water surge expanding the booster tank.

Pump system shall have an integral discharge manifold system that allows a direct flow of water to all discharge valves.

Bidder Complies YES _____ NO _____

PACKING GLANDS

The pump shaft shall have only one packing gland located on the inlet side of the pump. It shall be of split design for ease of repacking. The packing gland must be a full circle threaded design to exert uniform pressure on packing and to prevent "cocking" and uneven packing load when it is tightened. It shall be easily adjusted by hand with rod or screwdriver, with no special tools or wrenches required. The packing rings shall be of a unique, permanently lubricated, long life graphite composition and have sacrificial zinc foil separators to protect the pump shaft from galvanic corrosion.

Bidder Complies YES _____ NO _____

PUMP SHIFT

An air operated pump shift shall be installed in the chassis cab to engage the fire pump. Provisions shall be made for placing the pump drive system in operation using controls and switches that are clearly identified and within convenient reach of the operator while in the cab.

A green indicator light shall be installed on the cab dash and labeled "Pump Engaged".

Where an automatic chassis transmission is provided, a green indicator light in the driving compartment and a green indicator light located at the pump operator's position shall be provided and shall be

Warrior's Path Volunteer Fire Department

energized when both the pump shift has been completed and the chassis transmission is engaged in pump gear.

The light in the driving compartment shall be labeled "OK TO PUMP". The light on the pump operator shall be positioned adjacent to and preferably above the throttle control and shall be labeled "Warning: DO NOT OPEN THROTTLE UNLESS LIGHT IS ON". The green light on the pump operator's panel shall be energized when the pump is engaged, the transmission is in drive, and the parking brake is set.

Bidder Complies YES_____ NO_____

PRIMING SYSTEM, PUMP

A Trident Model 31.011.21 automatic multi-location air operated priming system shall be installed. The unit shall be of all brass and stainless steel construction and designed for fire pumps of 1,250 GPM (4,690 LPM) or more. Due to corrosion exposure no aluminum or vanes shall be used in the primer design. The primer shall be three-barrel design with ¾" NPT connection to the fire pump.

The primer shall be mounted above the pump impeller so that the priming line will automatically drain back to the pump. The primer shall also automatically drain when the panel control actuator is not in operation. The inlet side of the primer shall include a brass 'wye' type strainer with removable stainless steel fine mesh strainer to prevent entry of debris into the primer body.

Performance, Safety, and NFPA Compliance

The priming system shall be capable to a vertical lift to 22 inches of mercury and shall be fully compliant to applicable NFPA standards for vertical lift. The system shall create vacuum by using air from the chassis air brake system through a two-barrel multi-stage internal "venturi nozzles" within the primer body. The noise level during operation of the primer shall not exceed 75 Db.

Warrior's Path Volunteer Fire Department

Air Flow Requirements

The primer shall require a minimum of 15.6 cubic foot per minute air compressor and shall be capable of meeting drafting requirements at high idle engine speed. The air supply shall be from a chassis supplied 'protected' air storage tank with a pressure protection valve. The air supply line shall have a pressure protection valve set between 70 to 80 PSIG.

Automatic Primer Control

The 12 volt primer control shall be an "automatic" type, with a pump panel three-way switch to operate an air solenoid valve. The air valve shall direct air pressure from the air brake system to the primer. To prevent freezing, no water shall enter the primer valve control.

A vacuum gauge 2" in diameter, with graduations from zero to 30 feet, shall be installed in the primer control panel. The gauge shall be physically connected to the vacuum side of the primer and read only when the primer is running so it will never see or be subject to damage from high pump intake pressures.

The automatic priming switch shall have three positions as follows:

"Prime" – the lower position shall be a momentary "push to prime". The "Prime" position also allows the operator to "ramp" test the primer without the fire pump being engaged.

"Off" -- center position

"Auto-Prime" – in the upper position, a "green" LED pilot light shall be illuminated when the switch is the auto-prime position. The "Auto-Prime" operates automatically when the pump pressure drops below 20 PSIG. The primer shuts "off" automatically when the pump pressure is re-established and exceeds 20 PSIG. The "Auto" mode only operates when the fire pump is engaged.

One-(1) additional "push to prime" remote primer control shall be installed on the panel for the specified additional intake. The additional control shall operate the air primer to pre-prime and may be used to remove air from the auxiliary intake piping and hose, while the fire pump is operating. To prevent freezing, no water shall enter the primer valve control.

Power Requirements

To reduce the electrical power requirements on the fire apparatus the priming system shall be air powered. The system shall not require annual tear-down and maintenance, an electric motor, lubrication, belt drive, or clutch assembly. The maximum current draw shall not exceed 0.5 amps during operation.

Warranty

The primer shall be covered by a five-(5) year parts warranty.

Bidder Complies YES _____ NO _____

VALVE, MASTER DRAIN

There shall be a master drain valve recessed mounted below the pump module under the side running board, connecting all drain lines, with the capacity to discharge water simultaneously from all locations to below the chassis frame rails.

Bidder Complies YES _____ NO _____

Warrior's Path Volunteer Fire Department

U.L. TEST POINTS

An Underwriters Laboratories approved engine speed counter shall be located on the pump panel to provide a means to certify the tachometer. In addition, two (2) U.L. test plugs shall be pump panel mounted for testing of vacuum and pressures.

Bidder Complies YES _____ NO _____

U.L. CERTIFICATION, 1750 GPM

The vehicle shall be third party tested and certified by Underwriters Laboratories, Inc. UL testing is recognized as a leading, third party, product safety certification organization for over 100 years. UL has served on the NFPA (National Fire Protection Association) technical committee for over thirty-(30) years.

The testing organization must meet the following minimum requirements:

Must be nationally recognized testing laboratory recognized by OSHA

- Must comply with the ASTM (American Society for Testing Materials) standard E543 "Determining the qualifications for nondestructive testing agencies"
- Must have more than forty (40) years of Automotive Fire Apparatus safety testing experience and more than fifteen (15) years of factory aerial device testing and Certification experience
- Must not represent, be associated with, or in the manufacture or repair of automotive fire apparatus
- Must provide proof of ten-(10) million dollars in excess liability insurance for bodily injury and property damage combined

The pump shall meet and perform the following test to receive a U.L. Certification.

- 100% of rated capacity at 150 PSI net pump pressure
- 100% of rated capacity at 165 PSI net pump pressure
- 70% of rated capacity at 200 PSI net pump pressure
- 50% of rated capacity at 250 PSI net pump pressure

Bidder Complies YES _____ NO _____ One (1)

PUMP TEST CERTIFICATION PLATE

A permanently affixed plate shall be installed at the pump operator's panel. It shall provide the rated discharge and pressures together with the speed of the engine as determined by the certification test for each unit. It shall also provide the position of the parallel/series pump used and the no load governed speed of the engine as stated by the engine manufacturer on a certified brake horsepower curve.

Warrior's Path Volunteer Fire Department

A label shall be provided on the pump operator's panel that states the following:

"Warning: Death or serious injury might occur if proper operating procedures are not followed". The pump operator as well as individuals connecting supply or discharge hoses to the apparatus must be familiar with water hydraulics hazards and component limitations.

Bidder Complies YES _____ NO _____

SUCTION HEADERS

A 6" NST non-gated suction header with removable screen, and long handled cap shall be provided on the left side of the pump. One (1)

A 6" NST non-gated suction header with removable screen, and long handled cap shall be provided on the right side of the pump.

Bidder Complies YES _____ NO _____

INTAKE RELIEF VALVE

There shall be an Akron model 59 suction side relief valve provided in the pump system. The relief valve is adjustable from 50-175 psi and set at the factory at 125 psi.

Bidder Complies YES _____ NO _____

TANK TO PUMP

One (1) 3" ball valve shall be installed between the pump and the water tank. The tank to pump valve shall be a quarter turn fixed pivot design constructed from bronze. The valve shall be controlled by a chrome push/pull locking "T" handle installed at the left pump panel.

Bidder Complies YES _____ NO _____

TANK FILL

There shall be a 2" pump to tank fill line installed, with a 2" inline bronze valve and high-pressure flexible hose tested to 1200 PSI. The valve shall be (locking "T" handle) push-pull controlled at the pump operator's panel.

Bidder Complies YES _____ NO _____

DIRECT TANK FILL, 3" LEFT REAR

There shall be one-(1) 3" inlet run to the left rear of the tank. The inlet shall be equipped with a 3" Fireman's Friend fast fill check valve. The inlet shall terminate with 3" male NST threads.

Bidder Complies YES _____ NO _____

Warrior's Path Volunteer Fire Department

ENGINE COOLER

The engine cooler shall be installed in-line from the discharge side of the pump, and installed in the engine cooling system. There shall be a 1/2", quarter turn valve installed thru the pump panel and shall be clearly labeled.

Bidder Complies YES _____ NO _____

PUMP COOLER

The pump shall have a 3/8" line installed from the pump discharge, to the water tank to cool the pump during long periods of pumping when water is not being discharged. The pump cooler shall be controlled from the pump operators panel by a 3/8" valve consisting of a cast bronze body with 1/4 turn chrome plated bronze ball, reinforced Teflon seals, and blow-out-proof stem rated to 600 PSI.

The valve shall be installed thru the pump panel and clearly labeled.

Bidder Complies YES _____ NO _____

PLUMBING SYSTEM

All suction and discharge lines of 2" or larger shall be constructed of a minimum of Schedule 40 galvanized steel pipe, where vibration or chassis flexing may damage or loosen threaded pipes, Victaulic or Roustabout couplings shall be used. All suction and discharge outlets shall have National Standard Threads (NST) and designed for 500 PSIG including, valves, drain cocks, lines, intake, and outlet closures, excluding the tank fill and tank to pump lines (tank side of the valves).

Bidder Complies YES _____ NO _____

PUMP/PLUMBING PAINTING

The pump shall be painted black. This includes all intakes, discharges, manifolds, and associated valves.

Bidder Complies YES _____ NO _____

AKRON PUSH-PULL CONTROL VALVE PACKAGE

All discharge valves shall be Akron Heavy-Duty Swing-Out push/pull controlled from the pump operator's panel unless otherwise specified.

The Akron Swing-Out Heavy-Duty valves are designed for operating pressures to 250 psi (17 bars)

- 10-year warranty against manufacturer's defects
- Available in 1" to 4" sizes
- 90° handle travel 316 stainless steel ball with Hydromax technology
- Improved sealing & increased gating ability
- Flow optimization reduces turbulence while in the gated position and requires lower operating forces
- No lubrication or regular maintenance required

Warrior's Path Volunteer Fire Department

- Simple two seated design (no O-Rings to cut or lose during assembly or maintenance)
- Wide range of available adapters
- Designed and tested to exceed NFPA requirements
- Cast, machined and assembled at our facilities in Wooster, Ohio

All valve packages shall meet current NFPA 1901 Standards for valve operating speeds when controlled by gear, electric actuator, or slow close device.

Bidder Complies YES _____ NO _____

SUCTION, 2-1/2" LEFT FRONT PANEL

One-(1) 2-1/2" swing operated ball valve shall be installed at the pump panel, left front plumbed to the suction side of the pump with 2-1/2" piping, 2-1/2" FNST chrome inlet swivel, brass inlet strainer, chrome plug with chain, and 3/4" drain valve.

A warning plate permanently affixed in close proximity of the suction inlet shall be installed stating:

"WARNING - SERIOUS INJURY OR DEATH COULD OCCUR IF INLET IS SUPPLIED BY A PRESSURIZED SOURCE WHEN THE VALVE IS CLOSED".

Bidder Complies YES _____ NO _____

SUCTION, 2-1/2" RIGHT FRONT PANEL

One-(1) 2-1/2" swing operated ball valve shall be installed at the pump panel, right front plumbed to the suction side of the pump with 2-1/2" piping, 2-1/2" FNST chrome inlet swivel, brass inlet strainer, chrome plug with chain, and 3/4" drain valve.

A warning plate permanently affixed in close proximity of the suction inlet shall be installed stating:

"WARNING - SERIOUS INJURY OR DEATH COULD OCCUR IF INLET IS SUPPLIED BY A PRESSURIZED SOURCE WHEN THE VALVE IS CLOSED".

Bidder Complies YES _____ NO _____

DISCHARGE ELBOWS

All 2-1/2" side discharge outlets shall terminate with chrome-plated 30-Degree elbows with 2-1/2" MNST threads, chrome vented cap and chain.

Bidder Complies YES _____ NO _____

Warrior's Path Volunteer Fire Department

FRONT BUMPER DISCHARGE

There shall be one-(1) front discharge installed thru the gravel shield passenger's side outboard of the framerail.

The front bumper discharge shall terminate 2" NPT x 1-1/2" NST with a 90-degree swivel. One-(1) 2" brass valve with 3/4" drain shall be installed on the discharge side of the pump plumbed to the front swivel with flexible high-pressure hose and victaulic stainless steel couplings tested to 1200 PSI, the front discharge shall be push/pull controlled at the pump operator's panel.

Bidder Complies YES _____ NO _____

A tread plate stop shall be provided preventing the front bumper discharge swivel from incidental contact with the cab.

Bidder Complies YES _____ NO _____

NO. 1 CROSSLAY, 1-3/4" DOUBLE LAY

One-(1) pre-connected crosslay compartment shall be provided above the side mount operator's panel accommodating 200' of 1-3/4" double jacket hose. Stainless steel nylon guided rollers shall be installed at each end with stainless steel scuff plates around the perimeter to protect the painted surface.

One-(1) 2" ball valve with mechanical swivel shall be installed. The valve shall be plumbed to the crosslay with 2" high-pressure flexible hose and stainless steel couplings. The high pressure hose shall be tested to 1200 PSI. The crosslay valve shall be push-pull controlled at the pump operator's panel.

Each discharge is equipped with a 3/4 quarter-turn drain valve.

Bidder Complies YES _____ NO _____ One (1)

NO. 2 CROSSLAY, 1-3/4" DOUBLE LAY

One-(1) pre-connected crosslay compartment shall be provided above the side mount operator's panel accommodating 200' of 1-3/4" double jacket hose. Stainless steel nylon guided rollers shall be installed at each end with stainless steel scuff plates around the perimeter to protect the painted surface.

One-(1) 2" ball valve with mechanical swivel shall be installed. The valve shall be plumbed to the crosslay with 2" high-pressure flexible hose and stainless steel couplings. The high pressure hose shall be tested to 1200 PSI. The crosslay valve shall be push-pull controlled at the pump operator's panel.

Each discharge is equipped with a 3/4 quarter-turn drain valve.

Bidder Complies YES _____ NO _____

Warrior's Path Volunteer Fire Department

NO. 3 CROSSLAY, 2-1/2" DOUBLE LAY

One-(1) pre-connected crosslay compartment shall be provided above the side mount operator's panel accommodating 200' of 2-1/2" double jacket hose. Stainless steel nylon guided rollers shall be installed at each end with stainless steel scuff plates around the perimeter to protect the painted surface.

One-(1) 2-1/2" ball valve with mechanical swivel shall be installed. The valve shall be plumbed to the crosslay with 2-1/2" high-pressure flexible hose and stainless steel couplings. The high pressure hose shall be tested to 1200 PSI. The crosslay valve shall be push-pull controlled at the pump operator's panel.

Each discharge is equipped with a 3/4 quarter-turn drain valve.

Bidder Complies YES _____ NO _____

CROSSLAY DIVIDERS

Two-(2) crosslay hosebed dividers shall be provided manufactured from 1/4" (.250") smooth aluminum plates, extruded aluminum bases mounted in an extruded track for horizontal adjustment, with radius corners, and DA sanded to prevent damage to the hose.

Bidder Complies YES _____ NO _____

ALUMINUM/HYPALON TRIPLE CROSSLAY COVER

There shall be one-(1) triple crosslay cover provided, constructed of 1/8" (.125") aluminum tread plate, with stainless steel piano hinge, chrome lifts handles, and two-(2) hook latches.

The Hypalon end flaps shall be secured at the bottom using pushpins. The cover prevents hose from inadvertently deploying during normal operations meeting the current NFPA requirements.

The covers shall be red in color.

Bidder Complies YES _____ NO _____

DISCHARGE, 2-1/2" LEFT FRONT PANEL

One-(1) Akron 2-1/2" Heavy-Duty ball valve with 3/4" drain shall be installed at the pump panel left front plumbed to the discharge side of the pump push/pull controlled from the pump operator's panel.

Bidder Complies YES _____ NO _____

Warrior's Path Volunteer Fire Department

DISCHARGE, 2-1/2" LEFT REAR PANEL

One-(1) Akron 2-1/2" Heavy-Duty ball valve with 3/4" drain shall be installed at the pump panel, left rear, plumbed to the discharge side of the pump push/pull controlled from the pump operator's panel.

Bidder Complies YES _____ NO _____

DISCHARGE, 3" RIGHT FRONT PANEL

One-(1) Akron 3" Heavy-Duty (Slo-Close) ball valve with 3/4" drain shall be installed at the pump panel, right front, plumbed to the discharge side of the pump equipped with 3" NST threads chrome cap and chain push-pull controlled at the pump operator's panel.

Bidder Complies YES _____ NO _____

DISCHARGE, 3" RIGHT REAR PANEL

One-(1) Akron 3" Heavy-Duty (Slo-Close) ball valve with 3/4" drain shall be installed at the pump panel, right rear, plumbed to the discharge side of the pump equipped with 3" NST threads chrome cap and chain handwheel controlled at the pump operator's panel.

Bidder Complies YES _____ NO _____

DECK GUN PLUMBING, 3"

One-(1) Akron 3" Heavy-Duty (Slo-Close) inline valve with 3/4" drain shall be plumbed to the Deck Gun discharge outlet with 3" pipe terminating 3" FNPT x four-(4) bolt flange handwheel controlled at the pump operator's panel.

Bidder Complies YES _____ NO _____

PRECONNECT, 2-1/2" LEFT FRONT HOSEBED

One-(1) 2-1/2" preconnect shall be installed in the hosebed, left front, plumbed with an Akron 2-1/2" Heavy-Duty ball valve with 3/4" drain terminating 2-1/2" FNPT x 2-1/2" MNST chrome cap and chain push-pull controlled at the pump operator's panel.

Bidder Complies YES _____ NO _____

DISCHARGE, 2-1/2" LEFT REAR

One-(1) Akron 2-1/2" Heavy-Duty ball valve with 3/4" drain shall be plumbed to the left rear of the apparatus terminating 2-1/2" FNPT x 2-1/2" MNST with chrome cap and chain push-pull controlled at the pump operator's panel.

Bidder Complies YES _____ NO _____

Warrior's Path Volunteer Fire Department

FILL SUBSURFACE/RETURN LINE

There shall be one-(1) subsurface/return line installed in the booster tank. The subsurface/return line shall prevent aeration of the water in the booster tank under low water conditions. The subsurface/return line piping shall be of the same size as the "Tank Fill".

Bidder Complies YES _____ NO _____

WATER TANK

The tank shall have a capacity of 1000 U.S. gallons and shall be constructed of PT3™ polypropylene material. This material shall be a non-corrosive stress relieved thermoplastic and UV stabilized for maximum protection. Tank shell thickness may vary depending on the application and may range from ½ to 1" as required. Internal baffles are generally 3/8" in thickness.

ISO CERTIFICATION

The tank must be 1/2 "T" shape in design and fabricated by a tank manufacturer that is ISO 9001:2008 certified in each of its locations. The ISO certification must be to the current standard in effect at the time of the design and fabrication of the tank.

DESIGN

Each tank is designed to the customer's specification and/or drawing submittal. An approval drawing is sent to the customer prior to commencing manufacturing. Upon receipt of the signed approval drawing, the tank is scheduled for production.

CONSTRUCTION

The booster and/or foam tank shall be of a specific configuration and is so designed to be completely independent of the body and compartments. Joints and seams shall be fused using nitrogen gas as required and tested for maximum strength and integrity. The tank construction shall include

PolyProSeal™ technology wherein a sealant shall be installed between the plastic components prior to being fusion welded. This sealing method shall provide a liquid barrier offering leak protection in the event of a weld compromise. The top of the booster tank is fitted with removable lifting assembly designed to facilitate tank removal. The transverse and longitudinal swash partitions shall be manufactured of a minimum of 3/8" PT3™ polypropylene. All partitions shall be equipped with vent and air holes to permit movement of air and water between compartments. The partitions shall be designed to provide maximum water flow.

All swash partitions interlock with one another and are completely fused to each other as well as to the walls of the tank. All partitions and spacing shall comply with NFPA 1901. The walls shall be welded to the floor of the tank providing maximum strength as part of the tank's unique Full Floor Design™. Tolerances in design allow for a maximum variation of 1/8" on all dimensions.

Warrior's Path Volunteer Fire Department

WATER FILL TOWER AND COVER

The tank shall have a combination vent and manual fill tower. The fill tower shall be constructed of 1/2" PT3™

polypropylene and shall be a minimum dimension of 8" x 8" outer perimeter. The fill tower shall be blue in color indicating that it is a water-only fill tower. The tower shall be located in the left front corner of the tank unless otherwise specified by the tank manufacturer to the purchaser. The tower shall have a 1/4" thick removable polypropylene screen and a PT3™ polypropylene hinged cover. The capacity of the tank shall be engraved on the top of the fill tower lid. Inside the fill tower there shall be a combination vent/overflow pipe. The vent overflow shall be a minimum of schedule 40 polypropylene pipe with a minimum I.D. of 4" that is designed to run through the tank, and shall be piped to discharge water behind the rear wheels as required in NFPA 1901 so as to not interfere with rear tire traction. The tank cover shall be constructed of 1/2" thick PT3™ polypropylene and UV stabilized, to incorporate a multi-piece locking design, which allows for individual removal and inspection if necessary. The tank cover(s) shall be flush or recessed 3/8" from the top of the tank and shall be fused to the tank walls and longitudinal partitions for maximum integrity. Each one of the covers shall have hold downs consisting of 2" minimum polypropylene dowels spaced a maximum of 40" apart. These dowels shall extend through the covers and shall assist in keeping the covers rigid under fast filling conditions. A minimum of two lifting dowels shall accommodate the necessary lifting hardware.

SUMP

There shall be one (1) sump standard per tank. The sump shall be constructed of a minimum of 1/2" PT3™ polypropylene and be located in the left front quarter of the tank, unless specified otherwise. On all tanks that require a front suction, a 3" schedule 40 polypropylene pipe shall be installed that shall incorporate a dip tube from the front of the tank to the sump location. The sump shall have a minimum 3" NPT threaded outlet on the bottom for a drain plug per NFPA. This shall be used as a combination clean-out and drain. All tanks shall have an anti-swirl plate located approximately 3" above the inside floor.

OUTLETS

There shall be two (2) standard tank outlets: one for the tank-to-pump suction line, which shall be sized to provide adequate water flow to the pump; and, one for tank fill line, which shall be sized according to the NFPA minimum size chart for booster tanks. All tank fill couplings shall be backed with flow deflectors to break up the stream of water entering the tank, and be capable of withstanding sustained fill rates of up to 1000 GPM. The addition of rear suction fittings, nurse valve fittings, dump valve fittings, and through-the-tank sleeves to accommodate rear discharge piping must be specified. All auxiliary outlets and inlets must meet all NFPA guidelines in effect at the time of manufacture.

MOUNTING

The UPF Poly-Tank® III shall rest on the body cross members in conjunction with such additional cross members, spaced at a distance that would not allow for more than 530 square inches of unsupported area under the tank floor. In cases where overall height of the tank exceeds 40 inches, cross member spacing must be decreased to allow for not more than 400 square inches of unsupported area. The tank must be isolated from the cross members through the use of hard rubber strips with a minimum thickness and width dimension of 1/4" x 1" and a Shore A Hardness of approximately 60 durometer. The rubber must be installed so it shall not become dislodged during normal operation of the vehicle. Additionally, the tank must be supported around the entire bottom outside perimeter and captured both in the front and rear as well as side to side to prevent tank from shifting during vehicle operation. A picture frame type cradle mount with a minimum of 2" x 2" x 1/4" mild steel, stainless steel, or aluminum angle shall be provided or the use of corner angles

Warrior's Path Volunteer Fire Department

having a minimum dimension of 4" x 4" x 1/4" by 6" high are permitted for the purpose of capturing the tank. Although the tank is designed on a free floating suspension principle, it is required that the tank have adequate vertical hold down restraints to minimize movement during vehicle operation. If proper retention has not been incorporated into the apparatus hose floor structure, an optional mounting restraint system shall be located on top of the tank, half way between the front and the rear on each side of the tank. These stops can be constructed of steel, stainless steel or aluminum angle having minimum dimensions of 3" x 3" x 1/4" and shall be approximately 6" to 12" long. These brackets must incorporate rubber isolating pads with a minimum thickness of 1/4" inch and a hardness of 60 durometer affixed on the underside of the angle. The angle should then be bolted to the body side walls of the vehicle while extending down to rest on the top outside edge of the upper side wall of the tank. Hose beds floors must be so designed that the floor slat supports extend full width from side wall to side wall and are not permitted to drop off the edge of the tank or in any way come in contact with the individual covers where a puncture could occur. Tank top must be capable of supporting loads up to 200 lbs. per sq. foot when evenly distributed. Other equipment such as generators, portable pumps, etc. must not be mounted directly to the tank top unless provisions have been designed into the Poly-Tank® III for that purpose. The tank shall be completely removable without disturbing or dismantling the apparatus structure.

CAPACITY CERTIFICATION

All water and foam tanks shall be tested and certified as to capacity on a calibrated and certified tilting scale. Each tank shall be weighed empty and full to provide precise fluid capacity. Each Poly-Tank® III is delivered with a Certificate of Capacity delineating the weight empty and full and the resultant capacity based on weight. Engineering estimates for capacity calculations shall not be permitted for capacity certification.

TANKNOLOGY™ TAG

A tag shall be installed on the apparatus in a convenient location and contain pertinent information including a QR code readable by commercially available smart phones. The information contained on the tag shall include the capacity of the water and foam (s), the maximum fill and pressure rates, the serial number of the tank, the date of manufacture, the tank manufacturer, and contact information. The QR code shall allow the user to connect with the tank manufacturer for additional information and assistance.

Bidder Complies YES _____ NO _____

TANK MODIFICATION, REAR DUMP PROVISION

The water tank shall have provisions for future installation of a rear Newton dump valve.

Bidder Complies YES _____ NO _____

WATER TANK SIZE CERTIFICATION

The manufacturer shall certify the capacity of the water tank prior to the delivery of the apparatus. This capacity shall be recorded on the manufacturer's record of construction and the certification shall be provided when the apparatus is delivered.

Bidder Complies YES _____ NO _____

Warrior's Path Volunteer Fire Department

TANK VENT, 6"

A 6" tank vent shall be installed on the water tank to assist the venting of the tank during quick fill and dumping operations.

Bidder Complies YES _____ NO _____

GAUGE, WATER LEVEL

A Fire Research TankVision model WLA200-A00 tank indicator kit shall be installed. The kit shall include an electronic indicator module, a pressure sensor, and a 10' sensor cable. The indicator shall show the volume of water in the tank on nine (9) super bright LED's. A wide view lens over the LED's shall provide for a viewing angle of 180 degrees. The indicator case shall be waterproof, manufactured of aluminum, and have a distinctive blue label.

The program features shall be accessed from the front of the indicator module. The program shall support self-diagnostics capabilities, self-calibration, and a data link to connect remote indicators. Low water warnings shall include flashing LED's at 1/4 tank, down chasing LED's when the tank is almost empty, and an output for an audio alarm.

The indicator shall receive an input signal from an electronic pressure sensor. The sensor shall be mounted from the outside of the water tank near the bottom. No probe shall place on the interior of the tank. Wiring shall be weather resistant and have automotive type plug-in connectors.

Bidder Complies YES _____ NO _____

REMOTE GAUGE(S), WATER LEVEL

One (1) Fire Research TankVision model WLA200-B00 tank remote indicator(s) shall be installed. The indicator shall show the volume of water in the tank on nine (9) super bright LED's. A wide view lens over the LED's shall provide for a viewing angle of 180 degrees. The indicator case shall be waterproof, manufactured of aluminum, and have a distinctive blue label.

The remote indicator(s) shall receive input information over a data link from the primary tank indicator TankVision model WLA200-A00. It shall mirror the primary indicator. A 10' cable shall be provided to connect the data link. The remote indicator shall have the same program as the primary so that the two indicators are interchangeable.

Bidder Complies YES _____ NO _____

Location: Left Rear of the apparatus

GAUGE, AUXILIARY WATER LEVEL

There shall be a pair of Whelen "PS Tank" water level status lights, with 96 steady burn green, blue, amber, and red LED's. The light shall provide bright, easy indication of water status. The unit is surface mounted, has low current consumption, fully encapsulated, and carries a five-(5) year warranty from Whelen. The lights shall be mounted per customer requirements, typically one each side on or near the cab. The units shall activate with the application of the park brake.

Bidder Complies YES _____ NO _____

Location: One-(1) each side of apparatus cab centered in panel behind rear crew doors

Warrior's Path Volunteer Fire Department

SQUARE DUMP, 10" REAR

There shall be one-(1) Newton manually operated dump valve installed at the rear of the apparatus. The dump valve shall be a 10" square flip-up style constructed of stainless steel with a 24" lever style handle.

Bidder Complies YES _____ NO _____

NEWTON DUMP CHUTE

There shall be a Newton model 4036-34 stainless steel 36" telescoping (manually operated) dump chute supplied with the apparatus.

Bidder Complies YES _____ NO _____

APPARATUS BODY, 96" WIDE

The 96" wide apparatus body and subframe shall be constructed entirely of marine grade aluminum plate and extrusions.

Bidder Complies YES _____ NO _____

BODY SUBFRAME

The main body support cross member extrusions shall be 3" x 4" 6061T6 aluminum alloy, double "I" beam with a wall thickness of 7/16" (.438"). These cross members shall extend the full width of the body to support the compartment framing. The cross members shall be welded to a 3/4" (.750") x 3" solid aluminum, 6061T6 aluminum (alloy frame rail) extrusion. The frame rail extrusion shall be shaped in contour with the chassis frame rails. The frame rail extrusion shall be mounted over a 1/2" (.5") thickness, reinforced rubber cushion to isolate the aluminum subframe from the chassis steel frame rails. The apparatus body structure shall be securely fastened to the chassis frame rails with a minimum of six-(6) 5/8" (.625") cross member OD, steel U-bolts. The main body support cross member shall have a gusset above and below each cross member. The gussets shall be constructed of 2.0" x 4.0" 6063T6 aluminum alloy extrusion with a .190" wall thickness. The gussets shall be continuously welded with 5356 aluminum alloy welding wire to add support to the body sidewalls. The main body supports and the longitudinal double "I" beam supports shall have a "C" shaped rubber tank cushion installed on the top of each member. This rubber extrusion shall conform to the shape of the double "I" beam extrusion to keep the tank cushion in place. This method is used to prevent damage to the tank.

Absolutely no pop-rivets, screws or any other hardware shall be used to hold the rubber tank cushion in place.

Bidder Complies YES _____ NO _____

BODY CONSTRUCTION

The complete apparatus body structure shall be an all welded construction and be free from nuts, bolts and other fasteners. Upon completion of the weldments, the body shall be completely sanded and deburred for removal of all sharp edges.

Warrior's Path Volunteer Fire Department

The body framework shall be formed from beveled aluminum alloy extrusions and electrically seam welded at each joint using 5356 aluminum alloy welding wire. Body sides shall be formed from 5052 H-32 (marine grade) smooth aluminum plates. The horizontal surfaces above the compartment tops shall be constructed from aluminum tread plate.

The horizontal and vertical frame member extrusions shall be 2.0" x 4.0" with a .190" wall thickness. The extrusion shall be made from 6063T6 aluminum alloy. This extrusion shall have .190" outside radius corners. The longitudinal frame member, below the lower compartments shall be a 2.0" x 4.0" 6063T6 aluminum alloy extrusion with .190" radius corners. Each body corner shall be a 3.5" x 9-3/4" 6063T6 extruded aluminum section with .210" wall thickness, and shall be welded as an integral part of the body. This extrusion shall have a 1" corner radius.

COMPARTMENT CONSTRUCTION

The compartment sidewalls shall be of one-piece construction. The walls shall be formed from 3/16"

(.1875") 5052 H-32 (marine grade) smooth aluminum plate. All compartment floors shall be formed from 3/16" (.1875") aluminum tread plate. The floors shall be welded in place with a continuous weld all around the perimeter to insure maximum strength.

The external compartment tops shall be constructed of 1/8" (.125") aluminum tread plate. The tops shall have a formed edge, which serves as a drip rail for the compartments below. The compartment tops shall be secured with stainless steel screws to allow for ease of removal for access to the bodies wiring harnesses.

The compartment seams shall be sealed with permanent pliable silicone caulking.

Each compartment shall be vented through a 3" wide x 15" high louver that is machined stamped in a panel located in each body corner extrusion. The panel shall be removable to provide access to service wiring and other mounted components.

Bidder Complies YES _____ NO _____

COMPARTMENTS, LEFT SIDE

L1

There shall be one-(1) left front compartment installed ahead of the rear axle. This compartment shall have one-(1) roll up door. The compartment shall be approximately 36" wide x 73" high x 28" deep in the lower section and 15" deep in the upper section. The compartment shall have a useable door opening of approximately 33" wide x 60" high.

L2

There shall be one-(1) compartment installed above the wheel well. This compartment shall have one-(1) roll up door. The compartment shall be approximately 58" wide x 41" high x 15" deep. The compartment shall have a useable door opening of approximately 55" wide x 28" high.

L3

There shall be one-(1) left rear compartment installed behind the rear axle. This compartment shall have one-(1) roll up door. The compartment shall be approximately 44" wide x 73" high x transverse in the lower section and 15" deep in the upper section. The compartment shall have a useable door opening of approximately 41" wide x 60" high.

Bidder Complies YES _____ NO _____

Warrior's Path Volunteer Fire Department

COMPARTMENT DOORS, LEFT SIDE ROLL UP

ROM roll-up doors shall be installed on the left side compartments of the apparatus as specified.

Slats are to double-wall (box frame) aluminum extrusion. Exterior surfaces are to be flat. Interior surfaces are to be concave to prevent loose equipment from jamming doors. The slats must be anodized to eliminate oxidation. The slats are to have inner-locking end shoes on every slat secured by a Punch-Dimple process. The slats are to have interlocking joints with a folding locking flange. Between each slat shall be a PVC/vinyl inner seal to prevent any metal-to-metal contact.

The track shall be one-piece aluminum, which has an attaching flange and finishing flange incorporated into its design, which provides a finish look to installation without additional trim or caulking. The track is to have a replaceable side seal. The side seal shall prevent water and dust intrusion into the compartment.

There shall be an aluminum drip rail above each compartment door with a built in replaceable wiper seal.

Each roll up door shall have a counter balance to assist in lifting and eliminate the risk of accidental closing.

A full width lift bar, operable by one hand, shall be used as a positive latch device for securing each individual compartment door in the closed position.

The side compartment roll-up door slats and doorframe extrusions shall be finish painted to match the body.

Bidder Complies YES _____ NO _____

COMPARTMENTS, RIGHT SIDE

R1

There shall be one-(1) right front compartment installed ahead of the rear axle. This compartment shall have one-(1) roll up door. The compartment shall be approximately 36" wide x 73" high x 28" deep in the lower section and 15" deep in the upper section. The compartment shall have a useable door opening of approximately 33" wide x 60" high.

R2

There shall be one-(1) compartment installed above the wheel well. This compartment shall have one-(1) roll up door. The compartment shall be approximately 58" wide x 41" high x 15" deep. The compartment shall have a useable door opening of approximately 55" wide x 28" high.

R3

There shall be one-(1) right rear compartment installed behind the rear axle. This compartment shall have one-(1) roll up door. The compartment shall be approximately 44" wide x 73" high x transverse in the lower section and 15" deep in the upper section. The compartment shall have a useable door opening of approximately 41" wide x 60" high.

Bidder Complies YES _____ NO _____

Warrior's Path Volunteer Fire Department

COMPARTMENT DOORS, RIGHT SIDE ROLL UP

ROM roll-up doors shall be installed on the right side compartments of the apparatus as specified.

Slats are to double-wall (box frame) aluminum extrusion. Exterior surfaces are to be flat. Interior surfaces are to be concave to prevent loose equipment from jamming doors. The slats must be anodized to eliminate oxidation. The slats are to have inner-locking end shoes on every slat secured by a Punch-Dimple process. The slats are to have interlocking joints with a folding locking flange. Between each slat shall be a PVC/vinyl inner seal to prevent any metal-to-metal contact.

The track shall be one-piece aluminum, which has an attaching flange and finishing flange incorporated into its design, which provides a finish look to installation without additional trim or caulking. The track is to have a replaceable side seal. The side seal shall prevent water and dust intrusion into the compartment.

There shall be an aluminum drip rail above each compartment door with a built in replaceable wiper seal.

Each roll up door shall have a counter balance to assist in lifting and eliminate the risk of accidental closing.

A full width lift bar, operable by one hand, shall be used as a positive latch device for securing each individual compartment door in the closed position.

The side compartment roll-up door slats and doorframe extrusions shall be finish painted to match the body.

Bidder Complies YES _____ NO _____

COMPARTMENT, CENTER REAR

B1

There shall be one-(1) compartment installed at the center rear of the apparatus. This compartment shall have one-(1) roll up door. The compartment shall have a useable door opening of approximately as wide as possible x full height.

Bidder Complies YES _____ NO _____

COMPARTMENT DOOR, REAR ROLL UP

A ROM roll-up door shall be installed on the rear compartment of the apparatus.

Slats are to double-wall (box frame) aluminum extrusion. Exterior surfaces are to be flat. Interior surfaces are to be concave to prevent loose equipment from jamming doors. The slats must be anodized to eliminate oxidation. The slats are to have inner-locking end shoes on every slat secured by a Punch-Dimple process. The slats are to have interlocking joints with a folding locking flange. Between each slat shall be a PVC/vinyl inner seal to prevent any metal-to-metal contact.

Warrior's Path Volunteer Fire Department

The track shall be one-piece aluminum, which has an attaching flange and finishing flange incorporated into its design, which provides a finish look to installation without additional trim or caulking. The track is to have a replaceable side seal. The side seal shall prevent water and dust intrusion into the compartment.

There shall be an aluminum drip rail above each compartment door with a built in replaceable wiper seal.

Each roll up door shall have a counter balance to assist in lifting and eliminate the risk of accidental closing.

A full width lift bar, operable by one hand, shall be used as a positive latch device for securing each individual compartment door in the closed position.

The outside door shall have a natural finish.

There shall be an anodized aluminum sill plate installed over the compartment door.

Bidder Complies YES _____ NO _____

REAR BODY CONSTRUCTION, BEAVERTAILS

The rear of the apparatus shall be equipped with beavertails. The beavertails shall be constructed of 2" x 2" x .190" thickness, 6063T6 aluminum alloy extrusions with .190" radius corners. There shall be a removable panel on either side of the extrusion that is constructed of 1/8" (.125") aluminum tread plate.

Bidder Complies YES _____ NO _____

COMPARTMENTS, ROOF TOP STORAGE

Four-(4) roof top compartments shall be installed, two-(2) each side of the upper body. The compartments shall be constructed from same material as the body and shall be integral with the body. Each compartment shall have a door constructed from aluminum tread plate. The doors shall have a stainless steel piano type hinge and chest style latch. The interior compartment dimensions shall be determined by customer requirements for equipment storage and engineering. Compartments shall have a 1/2" flange around the opening to prevent water from entering the compartment when the door is closed. The doors shall be held open with gas shocks.

Each compartment shall have a grommet mount LED installed to the compartment inner door pan that activates when the door is open.

Bidder Complies YES _____ NO _____

Each compartment shall be 76.5" long x 10.25" wide x 14" deep.

Each compartment shall have a grommet mount LED installed to the compartment inner door pan that activates when the door is open.

Warrior's Path Volunteer Fire Department

VERTICAL LOAD TEST, APPARATUS BODY

The fire body shall exceed a vertical load testing. The vertical load test to the fire body shall follow the same strict and detailed requirements of the Economic Commission for Europe Structural Standard, ECE-29R as applied to the cab.

The fire body shall be placed under a vertical load test to show structural integrity. There shall be 65,979 lbs. (29.53 metric tons) applied to the fire body. There shall be no structure failures to the body and body compartments.

A complete photographic, video, data, and dimensional record of these tests shall be available and placed on record for customer evaluations.

Bidder Complies YES _____ NO _____

BODY MODIFICATION, COMPARTMENT WIDTH INCREASE

The side compartment widths shall be increase twelve (12) inches to meet the Fire Department requirements.

Bidder Complies YES _____ NO _____

Location: L3/R3 44" increased to 56"

COMPARTMENT, LADDER/SUCTION HOSE STORAGE

There shall be one-(1) equipment storage compartment installed beside the tank on the right side constructed of 1/8" (.125) smooth aluminum plate for the storing of NFPA required equipment. Individual internal compartments shall house one-(1) 24' extension ladder, one-(1) 14' roof ladder, one-(1) 10' folding ladder, two-(2) section of hard suction hose and two-(2) pike poles with silencing pads made from Polypropylene installed on each compartment floor to assist in the loading and unloading of the required equipment.

The compartment shall have vertically hinged door constructed from 1/8" (.125) smooth aluminum plate with stainless steel piano hinge and paddle latch door open mechanism. The door shall be installed utilizing stainless steel nuts and bolts, other fastening device such as self-tapping screws or pop rivets shall not be acceptable.

Bidder Complies YES _____ NO _____ One (1)

STORAGE TUBES, PIKE POLE

Two-(2) aluminum tubes shall be installed on the apparatus for pike pole storage. One-(1) end shall be notched to allow the poles to be locked in place.

Bidder Complies YES _____ NO _____

Warrior's Path Volunteer Fire Department

STORAGE SLOT, BACKBOARD

There shall be one-(1) compartment with the capacity to hold one-(1) long style backboard. The location of this compartment shall be determined by the Fire Department. The department must supply make and model of backboard.

Bidder Complies YES _____ NO _____

Location: Below the Crosslay cover

Each side of slot shall utilize a strap to secure the backboard in place.

WHEEL WELL AIR BOTTLE COMPARTMENT, LEFT FRONT

There shall be an air bottle compartment located in the rear wheel well left front to house two-(2) spare SCBA cylinders. The bottom of the compartment shall also be supported to eliminate breakage. The compartment shall be vented to facilitate moisture drainage. The compartment door shall be stainless steel with a positive mechanical latch.

Bidder Complies YES _____ NO _____

WHEEL WELL AIR BOTTLE COMPARTMENT, LEFT REAR

There shall be an air bottle compartment located in the rear wheel well left rear to house two-(2) spare SCBA cylinders. The bottom of the compartment shall also be supported to eliminate breakage. The compartment shall be vented to facilitate moisture drainage. The compartment door shall be stainless steel with a positive mechanical latch.

Bidder Complies YES _____ NO _____

WHEEL WELL AIR BOTTLE COMPARTMENT, RIGHT FRONT

There shall be an air bottle compartment located in the rear wheel well right front to house two-(2) spare SCBA cylinders. The bottom of the compartment shall also be supported to eliminate breakage. The compartment shall be vented to facilitate moisture drainage. The compartment door shall be stainless steel with a positive mechanical latch.

Bidder Complies YES _____ NO _____

WHEEL WELL AIR BOTTLE COMPARTMENT, RIGHT REAR

There shall be an air bottle compartment located in the rear wheel well right rear to house two-(2) spare SCBA cylinders. The bottom of the compartment shall also be supported to eliminate breakage. The compartment shall be vented to facilitate moisture drainage. The compartment door shall be stainless steel with a positive mechanical latch.

Bidder Complies YES _____ NO _____

Warrior's Path Volunteer Fire Department

BODY TRIM

The standard body trim shall include the following:

There shall be drip rail installed over the compartment door openings.

A drip rail shall be located over each compartment door. This drip rail shall form a lip over the exterior door pans to prevent water from running into a compartment.

The vertical rear face of the body shall be covered with smooth aluminum plate.

Two-(2) handrails shall be located on the rear of the apparatus, one-(1) handrail per side. Each handrail shall be constructed of 1-1/4" knurled aluminum. The handrails shall be mounted with chrome plated end stanchions. Each handrail shall be sufficient in length to meet all standard requirements.

No rear stanchions shall be provided on this unit.

Bidder Complies YES _____ NO _____

BODY CORNER STONE GUARDS, FRONT

There shall be a pair of stone guards installed, one-(1) each side on the outer face of the front forward compartments. Stone guards shall be 1/8" (.125") aluminum tread plate and fastened securely to apparatus body to protect surface from loose gravel.

Bidder Complies YES _____ NO _____

FUEL FILL, RECESSED WITH DOOR

There shall be a recessed fuel fill assembly with a non-locking door mounted on the left side of the apparatus body. The fuel fill assembly shall be equipped with a fuel fill cap, retention ring and hinged door. The assembly shall be properly labeled "DIESEL FUEL ONLY".

Bidder Complies YES _____ NO _____

MUD FLAPS, REAR

The rear axle mud flaps shall be constructed from hard black rubber and installed at the rear of the body fenders.

Bidder Complies YES _____ NO _____

Warrior's Path Volunteer Fire Department

RUBRAIL

There shall be an aluminum rubrail installed on both sides of the lower body compartments. The rubrail shall be constructed from "C" channel extrusion. The aluminum rubrail shall be bolted in place with stainless steel bolts, and spaced from the fire body to provide body protection. The solid rubrail shall serve as protection to the side doors when encountering close objects. Tread plate rubrails or welded on shall not be acceptable.

Bidder Complies YES _____ NO _____

REAR STEP

The 20" rear step shall be constructed of 3/16" (.1875") aluminum tread plate. The rear step shall be flanged down 2.50" and in 1.00" to maximize strength and rigidity. The rear step shall be bolted on for removal or replacement.

All running board and step surfaces shall comply with NFPA 1901.

Bidder Complies YES _____ NO _____

CHROME FOLDING STEP(S), FRONT OF BODY

There shall be four (4) large chrome-folding step(s) with a minimum surface area of thirty-five (35) square inches. The step(s) shall be mounted on the front face of the forward compartment as directed by the customer.

There shall be an LED light installed above and below each step.

Bidder Complies YES _____ NO _____

Locations: Two-(2) each side on the front compartment face

STEP, INTERMEDIATE REAR

The intermediate rear step shall be constructed of 3/16" (.1875") aluminum tread plate.

All running board and step surfaces shall comply with NFPA 1901.

Bidder Complies YES _____ NO _____

CHROME FOLDING STEP(S), REAR OF BODY

There shall be four (4) rear chrome folding step(s) installed on the rear of the body. Each step shall have a minimum of thirty-five (35) square inches of surface area.

There shall be an LED light installed above and below each step.

Bidder Complies YES _____ NO _____

Warrior's Path Volunteer Fire Department

STEP(S), REAR FIXED W/LED LIGHT

There shall be one (1) rear lighted step(s) installed on the apparatus. The step(s) shall be fabricated from aluminum tread plate with a non-slip surface and have a minimum of thirty-five (35) square inches of surface area to conform to the NFPA 1901 standards. The step(s) shall include a 12-volt LED light to illuminate the area below.

Bidder Complies YES _____ NO _____

The steps shall be fabricated from aluminum tread plate with a non-slip surface and have a minimum of thirty-five (35) square inches of surface area to conform to the NFPA 1901 standards. The steps shall include a 12-volt LED light to illuminate the area below.

Locations: Two-(2) left rear (one-(1) above and below the intermediate rear step) and one-(1) right rear (below the intermediate rear step)

TOW EYES, REAR

Two-(2) 1" thick painted rear tow eyes constructed of A-36 steel shall be mounted below the frame at the rear of the vehicle. The tow eyes shall be attached to steel weldments that are mounted to the apparatus. The eyes shall have a minimum dimension of three-(3) inches. The tow eyes shall be used for towing, not lifting the vehicle.

Bidder Complies YES _____ NO _____

HANDRAIL, BELOW HOSE BED

There shall be an intermediate handrail installed on the apparatus below the hose bed. The handrail shall be constructed of 1-1/4" knurled aluminum. The handrail shall be mounted with chrome plated end stanchions.

Bidder Complies YES _____ NO _____

HANDRAIL(S), FRONT OF BODY

There shall be two (2) 1-1/4" knurled aluminum handrails installed on the front face of the compartments. They shall be approximately 12" in length. The handrail(s) shall have chrome plated end stanchions.

Bidder Complies YES _____ NO _____

HOSE BED DIVIDER(S)

One (1) hose bed divider(s) shall be manufactured from 1/4" (.250") smooth aluminum plate with an extruded aluminum base welded to the bottom. The divider shall have an extruded track to slide in to allow the hose bed to adjust for different hose capacities. One end of the divider shall have a 3" radius corner. The divider shall be sanded to prevent damage to hose.

Bidder Complies YES _____ NO _____

Warrior's Path Volunteer Fire Department

HOSE BED COVER

A hose bed cover constructed of 16 oz. heavy-duty Hypalon shall be provided. Cover shall be fire retardant and installed over hose bed. The cover shall have chrome twist-locks and Velcro installed around the perimeter of the hose bed. The end of the hose bed cover shall be secured and cover the hose bed opening. The cover shall completely protect the hose in the hosebed and prevent hose from inadvertently deploying during normal operation.

The hypalon end flaps shall be secured at the bottom using snaps and Velcro. The end flaps shall completely protect the hose and prevent the hose from inadvertently deploying during normal operation.

The cover shall meet the TIA 03-1 NFPA requirement.

The covers shall be red in color.

Bidder Complies YES _____ NO _____

HOSE BED CAPACITY

The hose bed shall have the capacity to hold the following:

<u>Quantity: 1200'</u>	<u>Size of Hose: 4"</u>	<u>Brand Name of Hose: Neidner</u>
<u>Quantity: 200'</u>	<u>Size of Hose: 3"</u>	<u>Brand Name of Hose: Key</u>

Customer must specify hose to have the correct hose capacity to meet the current NFPA.

Bidder Complies YES _____ NO _____

LIGHT, HOSE BED

There will be white 12 volt DC LED light strips with stainless steel protective cover, provided to light the hose bed area.

One (1) light strip will be installed the entire length of the driver's side of the hose bed.

One (1) light strip will be installed the entire length of the passenger's side of the hose bed.

There will be one (1) battery switch activated and labeled switches included to activate these lights.

The switch will be located at the back of the apparatus no more than 62.00" from ground height.

Bidder Complies YES _____ NO _____

SHELF, ADJUSTABLE

There shall be two (2) adjustable shelf (shelves) constructed from 3/16" (.1875) smooth aluminum. The shelf shall be approximately 29-36"W x 24-28"D. The adjustable track shall be made from aluminum extrusions. Each shelf shall have a 2" lip on all sides for additional strength.

Bidder Complies YES _____ NO _____

Locations: Compartments L1 and R1 in the upper section

Warrior's Path Volunteer Fire Department

SHELF, ADJUSTABLE

There shall be two (2) adjustable shelf (shelves) constructed from 3/16" (.1875) smooth aluminum. The shelf shall be approximately 49-60"W x 12-15"D. The adjustable track shall be made from aluminum extrusions. Each shelf shall have a 2" lip on all sides for additional strength.

Bidder Complies YES _____ NO _____

Locations: Compartments L3 and R3 in the upper section

ELECTRICAL SYSTEM

BODY ELECTRICAL

The body electrical system shall be designed as an integrated electrical package specifically engineered for fire apparatus application. The integrated electrical system shall be comprised of power distribution panels, which interface to the body and chassis through an engineered harnessing system.

All chassis wiring shall be type "GXL" in accordance with S.A.E. J1128 and NFPA-1901. Wiring shall be color coded and include function codes every three-(3) inches on both sides.

The electrical wiring harness shall be covered by a black split convoluted loom, rated at a minimum of 275° F.

DISTRIBUTION PANELS

The electrical distribution panels and circuits must be housed in each rear corner compartment or extrusion. The distribution panel shall incorporate a power and ground stud for connection to the internal circuits.

All internal wire end terminals, including locking bulkhead connectors, shall be mechanically affixed to the wire ends by machine terminal crimping presses. No hand-crimped terminals shall be acceptable.

All internal splices shall be ultrasonically welded connections - no butt style connections shall be acceptable. All internal wiring shall be of the high temperature GXL type wire and shall be protected by wiring duct wherever possible.

Each side electrical distribution panel shall consist of fifteen-(15) power distribution relays. The power distribution relays shall be replaceable, SPDT automotive style, rated at a minimum of 30 amperes.

The power distribution relays shall incorporate separate inputs, which are able to accept outputs from a load management system. The load management inputs must allow for the addition of a load management system before, during or after the time of delivery without requiring a rewiring of the existing distribution panel circuits.

Connections to the distribution panel shall utilize Deutsch style bulkhead connectors. Screw clamp type connections are not acceptable.

Warrior's Path Volunteer Fire Department

The distribution panel shall also contain circuit's ancillary to the required DOT signals and other body functions.

The complete body electrical system shall be 100% documented and contain independent circuit diagrams with point to point wiring information, as shall as a general component diagram included in the apparatus manual.

The body electrical panel shall be capable of being completely disconnected and fully tested by a computerized circuit analyzer.

All electrical equipment switches shall be mounted on a switch panel mounted in the cab convenient to the driver. Light switches shall be of the marine grade rocker type with integral indicator light to show when lights are energized. All switches shall be appropriately identified.

Bidder Complies YES_____ NO_____

12-VOLT TESTING

The apparatus low voltage system shall be tested and certified. A copy of certification shall be provided to the purchaser with the apparatus.

Reserve Capacity Test

The unit shall be run until all engines, engine compartment temperatures are stabilized and the battery system is fully charged. The engine shall be shut off and the minimum continuous electrical load be activated for ten-(10) minutes. All electrical loads shall be shutoff after ten-(10) minutes and the battery system shall then be capable of restarting the engine.

Alternator Performance Test at Idle

Minimum continuous electrical loads shall be activated while the unit is at idle speed.

Alternator Performance Test at Full Load

The total continuous electrical load shall be activated with the engine running up to the manufacturer's governed speed. The test duration shall be a minimum of two-(2) hours. Activation of the load management system shall be permitted during the test. If however, an alarm is sounded by excessive battery discharge as detected by the system or a system voltage of less than 11.8 volts DC for a 12-volt nominal system for more than 120 seconds, shall be considered a test failure.

Low Voltage Alarm Test

The engine shall be shut off and the total continuous electrical load shall be activated and continue to be applied until the excessive battery discharge alarm activates. The test shall be considered a failure if the alarm has not sounded within 140 seconds after the voltage drops to 11.8 volts.

Bidder Complies YES_____ NO_____

Warrior's Path Volunteer Fire Department

WIRING PROTECTION

All 12-volt wiring shall be run in high temperature, rated at a minimum of 275° F, split loom for easy access to wires when trouble shooting.

Bidder Complies YES _____ NO _____

EMI/RFI PROTECTION

The apparatus shall be manufactured to incorporate the latest designs in the electrical system with components that are state of the art to insure electromagnetic interference (EMI) and radio frequency interference (RFI) emissions are suppressed at the source.

The apparatus shall have the ability to operate in typical fire and rescue situations with no adverse effects from EMI and/or RFI.

The apparatus shall utilize components that are fully protected and wiring that utilizes shielding and loop backgrounds where required to control EMI/RFI susceptibility. The apparatus shall be bonded through ground straps. Relays and solenoids that are suspect to generating spurious electromagnetic radiation are diode and/or resistor protected to prevent transient voltage spikes.

In order to prevent the radio frequency interference completely the purchaser shall be requested to provide a listing of the type, power output, and frequencies of all radio and bio medical equipment that is proposed to be used on the apparatus.

Bidder Complies YES _____ NO _____

LIGHT(S), 26" LED COMPARTMENT

Six (6) On Scene Solutions "Access Series" 26" LED light(s) shall be provided with 15 HB, surface mount LED's per 10" light section and produce a minimum of 200 lumens per 10" length. Each "Access Series" shall be capable of operating at a voltage of 9VDC to 14VDC. Each "Access Series" shall be cuttable in 2" increments and feature a high quality, impact resistant Lexan™ enclosure.

The light stick shall be waterproof and rated at 100,000 hours of service. Each light stick shall be provided with a 5 year free replacement warranty.

Bidder Complies YES _____ NO _____

Locations: Compartment L2, R2, and B1

LIGHT(S), 58" LED COMPARTMENT

Eight (8) On Scene Solutions "Access Series" 58" LED light(s) shall be provided with 15 HB, surface mount LED's per 10" light section and produce a minimum of 200 lumens per 10" length. Each "Access Series" shall be capable of operating at a voltage of 9VDC to 14VDC. Each "Access Series" shall be cuttable in 2" increments and feature a high quality, impact resistant Lexan™ enclosure.

Warrior's Path Volunteer Fire Department

The light stick shall be waterproof and rated at 100,000 hours of service. Each light stick shall be provided with a 5 year free replacement warranty.

Bidder Complies YES _____ NO _____

Locations: Compartment L1, L3, R1, and R3

DOOR AJAR SWITCHES

All apparatus body doors shall be provided with an auto door switch. These switches shall operate the compartment interior lights and activate the door ajar indicator on each side of apparatus body when the door is opened. There shall be a red door ajar light mounted in the cab, in view of the driver to indicate an unsecured door. There shall be a buzzer mounted in the cab that shall alert the driver.

Bidder Complies YES _____ NO _____

L1, L2, L3, R1, R2, R3, B1, Ladder Box, 4-Coffin Compartments

LIGHTBAR, 72" WHELEN FN72QLED 3FLDRR

A Whelen Edge Ultra Freedom Super-LED Series lightbar model FN72QLED 3FLDRR shall be provided. The Edge Ultra Freedom lightbar shall incorporate an anodized extruded aluminum "I" beam chassis with two red Linear-LED corner modules , two red 400 Series Linear-LED endcap lights, eight red 400 Series Linear-LED lights, and two white 400 Series Linear-LED lights with clear optic lenses. The Linear-LED corner modules shall incorporate 12 red Super-LEDs, two clear optic collimators, and utilize a metalized reflector for maximum output. The red 400 Series Linear-LED lights shall incorporate 12 red Super-LEDs, two clear optic collimators, and utilize a metalized reflector for maximum output.

The white 400 Series Linear-LED lights shall incorporate 12 white Super-LEDs, two clear optic collimators, and utilize a metalized reflector for maximum output. All Linear-LED lights conformal coated PC boards shall provide additional protection against environmental elements. The hard coated lenses shall provide extended life/luster protection against UV and chemical stresses. The FN72QLED shall include rubber endcap gaskets, lens divider gaskets, and cord seal to help prevent water and other elements from entering the lightbar

The forward facing area of the lightbar must be FULLY POPULATED with LED modules. No exceptions.

The lightbar shall be controlled in the following manner:

Calling for Right of Way - All Positions

Blocking Right of Way - Clear shall not be Active

The lights shall be activated by a single emergency light switch located on the master light switch panel in the cab.

The lightbar shall meet NFPA 1901 edition as configured.

Bidder Complies YES _____ NO _____

Warrior's Path Volunteer Fire Department

LIGHTS, ZONE B/D UPPER FRONT BODY

Two-(2) Whelen 600 Series Super-LED model 60R03FCR shall be installed, one-(1) each side of the upper front corner of the body. The warning light shall incorporate red Linear Super-LEDs, a red optic hard coated polycarbonate lens, and utilize a metalized reflector with integrated TIR hybrid optics for maximum output. The hard coated lens shall provide extended life/luster protection against UV and chemical stresses. The encapsulated lens/reflector assembly and conformal coated PC board shall provide additional protection against environmental elements. The solid state warning lights shall be vibration resistant. The self-contained flashing light shall have 14 Scan-Lock flash patterns including synchronize feature and steady burn. The warning light is covered by a five year factory warranty. The surface mount module includes a chrome flange and hardware for horizontal mounting.

Bidder Complies YES _____ NO _____

LIGHTS, ZONE B/D UPPER REAR BODY

Two-(2) Whelen 600 Series Super-LED model 60R02FCR shall be installed, one-(1) each side of the upper rear corner of the body. The warning light shall incorporate red Linear Super-LEDs, a red optic hard coated polycarbonate lens, and utilize a metalized reflector with integrated TIR hybrid optics for maximum output. The hard coated lens shall provide extended life/luster protection against UV and chemical stresses. The encapsulated lens/reflector assembly and conformal coated PC board shall provide additional protection against environmental elements. The solid state warning lights shall be vibration resistant. The self-contained flashing light shall have 14 Scan-Lock flash patterns including synchronize feature and steady burn. The warning light is covered by a five year factory warranty. The surface mount module includes a chrome flange and hardware for horizontal mounting.

Bidder Complies YES _____ NO _____

LIGHTS, ZONE C UPPER OUTBOARD

Two-(2) Whelen 600 Series Super-LED model 60R02FCR shall be installed, one-(1) each side on the upper rear of the apparatus in the outboard position. The warning light shall incorporate red Linear Super-LEDs, a red optic hard coated polycarbonate lens, and utilize a metalized reflector with integrated TIR hybrid optics for maximum output. The hard coated lens shall provide extended life/luster protection against UV and chemical stresses. The encapsulated lens/reflector assembly and conformal coated PC board shall provide additional protection against environmental elements. The solid state warning lights shall be vibration resistant. The self-contained flashing light shall have 14 Scan-Lock flash patterns including synchronize feature and steady burn. The warning light is covered by a five year factory warranty. The surface mount module includes a chrome flange and hardware for horizontal mounting.

LIGHTS, ZONE B/D FRONT LOWER

Two-(2) Whelen 600 Series Super-LED model 60R02FRR lights shall be installed, one-(1) each side forward portion of the apparatus. The warning light shall incorporate red Linear Super-LEDs, a red optic hard coated polycarbonate lens, and utilize a metalized reflector with integrated TIR hybrid optics for maximum output. The hard coated lens shall provide extended life/luster protection against UV and chemical stresses. The encapsulated lens/reflector assembly and conformal coated PC board shall provide additional protection against environmental elements. The solid state warning lights shall be vibration resistant. The self-contained flashing light shall have 14 Scan-Lock flash patterns including synchronize feature and steady burn. The warning light is covered by a five year factory warranty. The surface mount module includes a chrome flange and hardware for horizontal mounting.

Bidder Complies YES _____ NO _____

Warrior's Path Volunteer Fire Department

LIGHTS, ZONE B/D MIDSHIP LOWER

Two-(2) Whelen 600 Series Super-LED model 60R02FRR lights shall be installed, one-(1) each side midship of the apparatus. The warning light shall incorporate red Linear Super-LEDs, a red optic hard coated polycarbonate lens, and utilize a metalized reflector with integrated TIR hybrid optics for maximum output. The hard coated lens shall provide extended life/luster protection against UV and chemical stresses. The encapsulated lens/reflector assembly and conformal coated PC board shall provide additional protection against environmental elements. The solid state warning lights shall be vibration resistant. The self-contained flashing light shall have 14 Scan-Lock flash patterns including synchronize feature and steady burn. The warning light is covered by a five year factory warranty. The surface mount module includes a chrome flange and hardware for horizontal mounting.

Bidder Complies YES _____ NO _____

LIGHTS, ZONE B/D REAR LOWER

Two-(2) Whelen TIR6 Series Super-LED model 50R03ZRR lights shall be installed, one-(1) each side rearward portion of the apparatus. The warning lights shall incorporate red Linear Super-LEDs, a red optic hard coated polycarbonate lens. The surface mount module includes a chrome flange and hardware for horizontal mounting.

Bidder Complies YES _____ NO _____

LIGHTS, ZONE C LOWER

Two-(2) Whelen 600 Series Super-LED model 60R02FRR shall be installed, one-(1) each side on the lower rear of the apparatus. The warning light shall incorporate red Linear Super-LEDs, a red optic hard coated polycarbonate lens, and utilize a metalized reflector with integrated TIR hybrid optics for maximum output. The hard coated lens shall provide extended life/luster protection against UV and chemical stresses. The encapsulated lens/reflector assembly and conformal coated PC board shall provide additional protection against environmental elements. The solid state warning lights shall be vibration resistant. The self-contained flashing light shall have 14 Scan-Lock flash patterns including synchronize feature and steady burn. The warning light is covered by a five year factory warranty.

Bidder Complies YES _____ NO _____

STOP, TURN AND BACK-UP LIGHTS

Stop, turn and backup lights shall be Whelen 600 Series, individual fixtures. The red stop (LED) light shall be model 60R00BRR, the turn light shall be a model 60A00TAR amber (LED) type with directional arrow, and the backup light shall be a white (LED) model 60C00WCR.

HOUSING, REAR TAIL LIGHT ASSEMBLY

The fixtures shall be mounted on each rear face of the body in a model CAST4, four-(4) lighthouse cast aluminum housing.

Bidder Complies YES _____ NO _____

Warrior's Path Volunteer Fire Department

LIGHT, REAR DIRECTIONAL

A Whelen Traffic Advisor model TAL85 shall be provided. The traffic advisor shall incorporate a rectangular extruded black aluminum chassis with eight amber 500 Series LED lights. The 500 Series lights shall be installed with a clear non-optic hard coated polycarbonate lens. The 500 Series lights shall incorporate 40 amber 5mm LEDs. The hard coated lens shall provide extended life/luster protection against UV and chemical stresses. The encapsulated coated PC board and foam in place gasket shall provide additional protection against environmental elements.

The solid state traffic advisor shall be vibration resistant. The TAL85 shall include model TACTLD1 control head that includes remote flash control. The TACTLD1 shall have four programmable directional sequence flash patterns of left, right, split, and flash. The TACTLD1 includes an auxiliary flash option when attached to +12v DC to flash the traffic advisor. The LED display on the control head shall replicate the TAL85 directional sequence. The traffic advisor control head shall have a rear panel dip switch for the ability to set eight additional Scan-Lock flash patterns. The TAL85 will contain a 15' interconnecting cable with quick disconnect feature. The LED modules are covered by a five year factory warranty. The TAL85 shall have for mounting rear PEM nuts/thu-bolt end caps with hardware.

Bidder Complies YES _____ NO _____

The rear directional light shall be recessed mounted in the body.

CLEARANCE LIGHTS AND REFLECTORS

Clearance lights and reflectors shall be LED lights, which include (2) red marker lights, (4) red rectangular reflectors, (2) amber rectangular reflectors and (1) red three light cluster recessed in the rear step.

Bidder Complies YES _____ NO _____

LIGHTS, UNDERBODY

Six-(6) LED underbody "Ground Effect" lights shall be installed at a location to be determined during the pre-construction conference. The underbody lights shall illuminate the ground beneath the apparatus. The lights shall have a clear lens.

Bidder Complies YES _____ NO _____

LIGHT, LICENSE PLATE

A Whelen OS Series LED model OSC0EDCR shall be provided at the rear of the apparatus to illuminate the license plate. The steady burn illumination light shall incorporate three clear LED and a clear non-optic hard coated polycarbonate lens. The hard coated lens shall provide extended life/luster protection against UV and chemical stresses. The encapsulated assembly shall provide protection against environmental elements. The solid state illumination light shall be vibration resistant. An installation kit including mounting hardware, neoprene gasket and 45 degree angle chrome housing shall be provided for surface mounting. The OAC0EDCR will contain a 12" non-terminated pigtail. The illumination light meets SAE J592 requirements and is covered by a five year factory warranty.

Bidder Complies YES _____ NO _____

Warrior's Path Volunteer Fire Department

LIGHTS, 12-VOLT SURFACE MOUNT SCENE

Two (2) pair of Whelen 600 Series Model 6SC0ENZR 12 diode, 8-32 degree scene lights shall be provided and installed on the apparatus. The lights shall have a linear designed Super LED light head with a four screw mounting assembly and chrome plated trim ring flange.

One Pair on the cab one each side and one pair on the rear outboard zone C

Bidder Complies YES _____ NO _____

LIGHT, CENTER BROW

One-(1) brow light shall be installed on the front cab roof, centered. The mounting bracket shall be attached to the bottom of the lamp head and be machined to conform to the roof radius. Wiring shall extend from a weatherproof strain relief at the rear of the lamp head.

One (1) Fire Research Spectra, Model SPA810-Q20 white 12 volt DC LED scene light(s) shall be provided.

The cab mounted brow light(s) shall be controlled by a light switch located in the cab labeled BROW LIGHT.

Bidder Complies YES _____ NO _____

LIGHTS, TELESCOPING BACK OF CAB

There shall be two (2) Fire Research Spectra, Model SPA542-Q20 white 12 volt DC LED scene light(s) provided on side mount, push up pole(s), located rear corners of the cab .

These lights will be connected to the Do Not Move Truck Indicator circuit.

The telescoping lights shall be controlled by a switch located on the pump operator's panel and inside the cab on the driver's side switch panel.

Bidder Complies YES _____ NO _____

BODY PAINT FINISH, SINGLE COLOR

The body exterior shall have no mounted components prior to painting to assure full coverage of metal treatments. Box pan compartment doors shall be painted separately to assure proper paint coverage on body, doorjamb, and door edges.

All painted surfaces shall follow the following procedure to insure a lasting finish:

- Metal surfaces shall be sanded to remove all burrs and imperfections, before etching and treatment.
- A wax & grease solvent shall be used to clean and prep the aluminum surface. The surface shall then be rinsed with fresh water. This step removes wax, grease and other surface contaminants, thus leaving a bright, clean, and conditioned surface.
- A self-etching, metal primer shall be applied next. The self-etching primer shall fill all of the minor imperfections, scratches, etc. in the metal. This step produces a corrosion resisting conversion coating that prevents off oxidation and other surface contaminants leaving a surface that gives excellent paint adhesion.
- A sandable primer shall be sprayed on the metal that seals the surface for the polyurethane paint. A minimum coating thickness of 2 MIL shall be applied. Primer is then sanded smooth leaving the best surface for topcoat.
- The apparatus body shall then be painted with a minimum of three-(3) coats of color.

Warrior's Path Volunteer Fire Department

These steps are followed as recommended by the paint manufacturer to provide a lasting and high quality gloss finish. DuPont shall provide all paint products.

Bidder Complies YES _____ NO _____

BODY PAINT COLOR/CODE

The apparatus body paint code shall be Red, 854008.

Bidder Complies YES _____ NO _____

PAINT, INTERIOR COMPARTMENT

The interior of the body compartments shall be painted with "F-Shield".

"F-Shield" is a 100% solids, state-of-the art, VOC-free, plural-component, pure polyuria elastomeric membrane. This seamless system exhibits extraordinary performance characteristics. F-Shield is based on amine-terminated polyether resins, amine chain extenders and MDI pre-polymers. This membrane achieves an extremely tough, flexible, chemical and abuse resistant finish. F-Shield shall be used in specified areas for maximum protection.

Bidder Complies YES _____ NO _____

SCOTCHLITE STRIPE

There shall be a 6" Scotchlite stripe located on the apparatus cab and body. The stripe shall cover a minimum of fifty percent (50%) of the cab, body sides and of the rear of the apparatus. The stripe shall also cover twenty-five percent (25%) of the front of the apparatus. The stripe shall be installed to meet the current NFPA requirements.

The striping shall be white in color.

The reflective stripe shall run straight from the headlights to the front body compartments with a reverse "Z" design and run to the rear of the body on each side of the apparatus.

Bidder Complies YES _____ NO _____

STRIPE, REAR CHEVERON

A minimum of fifty percent of the rear vertical surface of the unit shall be overlaid with a reflective material, installed in an alternating "Chevron" pattern (sloping down and away from the centerline) at a 45-degree angle. Each stripe shall be 6" wide and the colors of striping shall be in compliance, with the current edition of NFPA 1901.

The Chevron striping shall be 3M red and lime green.

Bidder Complies YES _____ NO _____

LETTERING

There shall be a maximum of eighty (80) 3" tall Spun Gold letters applied to the apparatus. The lettering shall also have a one color shade applied.

Bidder Complies YES _____ NO _____

Warrior's Path Volunteer Fire Department

WARRANTY, BODY PARTS & LABOR

There shall be a two-(2) year extended body mechanical parts and labor warranty provided with the apparatus. The apparatus shall be free of defects in material and workmanship for a warranty period of two-(2) year after the date on which the apparatus is first delivered to the original purchaser.

Bidder Complies YES _____ NO _____

WARRANTY, CAB/CHASSIS PARTS & LABOR

The manufacturer shall provide a limited parts and labor warranty to the purchaser of the cab and chassis for a period of two-(2) year, or the first 24,000 miles, whichever occurs first. The warranty period shall commence on the date the vehicle is delivered to the end user.

Bidder Complies YES _____ NO _____

WARRANTY, CAB STRUCTURAL

The cab structure shall be warranted for a period of ten-(10) years or one hundred thousand (100,000) miles which ever may occur first. The warranty period shall commence on the date the vehicle is delivered to the end user.

Bidder Complies YES _____ NO _____

WARRANTY, BODY STRUCTURAL

There shall be a ten-(10) year body warranty on each new fire body/heavy-duty rescue apparatus. The bodies are to be free of structural failures caused by defective design or workmanship for a warranty period of ten-(10) years after the date on which the vehicle is first delivered to the original purchaser or 100,000 miles, whichever occurs first.

Bidder Complies YES _____ NO _____

WARRANTY, CAB PAINT

The cab and chassis shall be covered by a limited manufacturer paint warranty which shall be in effect for ten-(10) years from the first owner's date of purchase or in service or the first 100,000 actual miles, whichever occurs first. The warranty period shall commence on the date the vehicle is delivered to the end user.

Bidder Complies YES _____ NO _____

WARRANTY, BODY PAINT/CORROSION

There shall be a four-(4) year paint/corrosion warranty provided. This warranty shall cover perforation, blistering, peeling, or any other adhesion defects caused by defective manufacturing methods, or material selections, for a warranty period of four-(4) years or 100,000 miles which occurs first, after the date of which the vehicle is first delivered to the original purchaser.

Bidder Complies YES _____ NO _____

Warrior's Path Volunteer Fire Department

WARRANTY, FRAME CORROSION

Ferrara Fire Apparatus, Inc. (the "Company") warrants to the original user-purchaser only of a Ferrara Fire Apparatus, Inc. chassis which, with the Company's application of Ferrara "F-Shield" and barring customer's removal of "F-Shield" in all or in part, the frame and frame cross members shall be free of corrosion for the lifetime of the vehicle.

Ferrara Fire Apparatus, Inc. obligation under this warranty is strictly limited to replacing or repairing, as the Company may elect, any part or parts of such frame or frame members, which the Company's examination discloses to be defective in material or workmanship. This company reserves the right to require any such repairs to be made either at a Company owned service facility or another approved service facility at the Company's option. Transportation cost to and from the servicing location is the responsibility of the user- purchaser.

This warranty shall be null and void if the frame shows any evidence of grinding or sanding, alterations, cutting, splicing, welding or drilling of rails or flanges without the written authorization of Ferrara Fire Apparatus, Inc. and proper reapplication of "F-Shield". Further, this warranty shall be void if the vehicle shows signs of abuse, neglect, or evidence of being operated in a manner or purpose not recommended by Ferrara Fire Apparatus, Inc.

Nothing contained in this warranty shall make Ferrara Fire Apparatus, Inc. liable beyond the express limitations hereof; for loss, injury or damage of any kind to any person or entity resulting from any defeat or failure of the chassis.

Bidder Complies YES _____ NO _____

WARRANTY, FRAME RAIL

The chassis frame and crossmembers shall be provided with a lifetime material and workmanship limited warranty to the original purchaser. The warranty shall cover the chassis frame and crossmembers as being free from defects in material and workmanship that would arise under normal use and service.

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

Bidder Complies YES _____ NO _____

WARRANTY, MERITOR AXLE

FRONT AXLE

The front axle shall be warranted by Meritor for two-(2) years with unlimited miles under the general service application.

REAR AXLE

The rear axle shall be warranted by Meritor for two-(2) years with unlimited miles under the general service application.

Bidder Complies YES _____ NO _____

Warrior's Path Volunteer Fire Department

WARRANTY, DIESEL ENGINE

The Cummins engine shall be warranted for a period of five-(5) years or 100,000 miles, whichever occurs first.

Bidder Complies YES _____ NO _____

WARRANTY, TRANSMISSION

The Allison EVS series transmission shall be warranted for a period of five-(5) years with unlimited mileage. Parts and labor shall be included in the warranty.

Bidder Complies YES _____ NO _____

WARRANTY, ANTI LOCK BRAKE SYSTEM

The ABS brake system shall be warranted for a period of three-(3) years/300,000 miles.

Bidder Complies YES _____ NO _____

WARRANTY, HALE FIRE PUMP

EXPRESS WARRANTY

Hale Products, Incorporated ("Hale") hereby warrants to the original buyer that products manufactured by Hale are free of defects in material and workmanship for a period of five-(5) years from the date the product is first placed into service or five and one-half (5-1/2) years from date of shipment by Hale, whichever period shall be first to expire. Within this warranty period Hale will cover parts and labor for the first two-(2) years and parts only for years three (3) through five (5).

LIMITATIONS

HALE'S obligation is expressly conditioned on the Product being:

- Subjected to normal use and service
- Properly installed and maintained in accordance with HALE'S Instruction Manual and Industry Standards as to recommended service and procedures
- Not damaged due to abuse, misuse, negligence, or accidental causes
- Not altered, modified, serviced (non-routine), or repaired other than by an Authorized Service facility
- Manufactured per design and specifications submitted by the original buyer
- Used with an appropriate engine as determined by the engine manufacturers published data
- Excluded are normal wear items identified as but not limited to packing, strainers, anodes, filters, light bulbs, intake screens, wear rings, mechanical seals, etc.

Bidder Complies YES _____ NO _____

Warrior's Path Volunteer Fire Department

WARRANTY, PLUMBING SYSTEM

There shall be a ten-(10) year pump plumbing warranty provided. The warranty covers all plumbing components used in construction of the fire apparatus water/foam plumbing system against defects and workmanship, provided the apparatus is used in a normal and reasonable manner. The warranty is extended only to the original user-purchaser for a period of 10 years from the date of delivery.

Bidder Complies YES _____ NO _____

WARRANTY, WATER TANK

The poly tank manufacturer warrants each tank to be free from manufacturing defects in material and workmanship for the service life of the original vehicle (vehicle must be actively used in fire suppression). The warrant is transferable, with written approval of the manufacturer. Each tank is inspected and tested for leaks prior to leaving the manufacturing facility. The tank shall be installed in the vehicle in accordance to the manufacture's guidelines.

There are no warranties, expressed or implied, which extend beyond the description of the face hereof. There is no expressed or implied warranty of merchantability or a warranty of fitness for a particular purpose. Additional, this warranty is in lieu of all other obligations or liabilities on the part of the Manufacturer.

Bidder Complies YES _____ NO _____

MANUAL, CHASSIS OPERATION

There shall be two-(2) digital copies of the chassis operation manual provided with the chassis. The digital data shall include a parts list specific to the chassis model.

Bidder Complies YES _____ NO _____

MANUALS, ENGINE AND TRANSMISSION OPERATION

There shall be two-(2) printed hard copy sets of the engine operation manual and two-(2) printed hard copy sets of the transmission operation manual specific to the model ordered included with the chassis.

Bidder Complies YES _____ NO _____

MANUALS, APPARATUS BODY

The contractor shall supply, at time of delivery, at two-(2) sets of complete operation and service documentation covering the completed apparatus as delivered and accepted.

The documentation shall address at least the inspection, service, and operations of the fire apparatus and all major components thereof.

Bidder Complies YES _____ NO _____

Warrior's Path Volunteer Fire Department

MANUALS, FIRE PUMP

There shall be two-(2) copies of pump manuals provided to the department.

Bidder Complies YES _____ NO _____

WIRING DIAGRAMS, CAB/CHASSIS

There will be a complete digital set of electrical schematics provided at the time of delivery. These schematics will have each circuit properly numbered and in color.

The schematic will show each connector in the circuitry and the position in which each circuit enters, exits, or terminates. The schematic will be drawn in such a manner as to allow individual circuitry to be followed throughout the apparatus.

These schematics will not have the circuitry condensed into a single line or sets of lines. Multiple sheets will be acceptable so long as each of the harnesses is properly identified to the connecting sheet and harness. There will be a border around the paper(s), which contain alpha and numeric characters for indexing coordinate reference. There will be an indexing or part reference document for quick location of items shown on the schematics.

Bidder Complies YES _____ NO _____

WIRING DIAGRAMS, APPARATUS BODY

There will be a complete set of generic electrical schematics provided at the time of delivery. These schematics will have each circuit properly numbered and in color.

The schematic will show each connector in the circuitry and the position in which each circuit enters, exits, or terminates. The schematic will be drawn in such a manner as to allow individual circuitry to be followed throughout the apparatus.

These schematics will not have the circuitry condensed into a single line or sets of lines. Multiple sheets will be acceptable so long as each of the harnesses is properly identified to the connecting sheet and harness. There will be a border around the paper(s), which contain alpha and numeric characters for indexing coordinate reference. There will be an indexing or part reference document for quick location of items shown on the schematics.

This document will refer the user to the appropriate drawing and page number and to sections of the drawing(s) by the means of letter and number coordinates. The schematic will show all harnesses used in the apparatus cab, chassis and body that is supplied by the chassis and body manufacturer.

Modifications to the manufactured standard harnesses are to be documented and properly indexed for quick identification.

A complete wire number, color, and function listing will accompany the schematics.

Bidder Complies YES _____ NO _____

Warrior's Path Volunteer Fire Department

NFPA REQUIRED EQUIPMENT, FD SUPPLIED

The loose equipment as outlined in NFPA 1901, 2009 edition, section 5.7.1 and 5.8.3 shall be provided by the fire department unless it is listed in this proposal. All loose equipment shall be installed on the apparatus before placed in emergency service, unless the fire department waives NFPA section 4.21.

Bidder Complies YES _____ NO _____

LADDER(S), 10' FOLDING

There shall be one (1) Alco-Lite Model FL-10, 10' folding ladder(s) provided with the apparatus. The ladder(s) shall be aluminum, single-section with rubber feet. The ladder(s) shall meet or exceed the latest NFPA standards.

Bidder Complies YES _____ NO _____

LADDER(S), 14' ROOF

There shall be one (1) Alco-Lite model PRL-14, 14' roof ladder(s) supplied with the apparatus. The ladder(s) shall be aluminum, single-section with folding steel roof hooks on one end and steel spikes at the other. The ladder(s) shall meet or exceed the latest NFPA standards.

Bidder Complies YES _____ NO _____

LADDER(S), 24' 2-SECTION EXTENSION

There shall be one (1) Alco-Lite model PEL-24, 24' two-section ladder(s) supplied with the apparatus. The extension ladder(s) shall be aluminum with steel spurs on one end. The ladder(s) shall meet or exceed the latest NFPA standards.

Bidder Complies YES _____ NO _____

SUCTION HOSE, 6"

There shall be two-(2) 10' x 6" sections of Kocheck PVC flexible suction hose supplied with the apparatus. Lightweight aluminum couplings shall be provided on the suction hose. A long handle female swivel shall be provided on one end and a rocker lug male shall be provided for the other end.

Bidder Complies YES _____ NO _____

30 DEGREE ELBOW(S) - 3" FNST X 5" STORZ

There shall be one (1) Kocheck model SKE53R, 3" FNST rocker lug x 5" Storz, adapter supplied with the apparatus. The elbow(s) shall have a 30-degree turn down.

Bidder Complies YES _____ NO _____

Location: 3" right side discharge

Warrior's Path Volunteer Fire Department

CAP(S), 5" STORZ

There shall be one (1) Kochek model CC507, 5" Storz cap(s) with chain provided with the apparatus.

Bidder Complies YES_____ NO_____

Location: 3" right side discharge

EXHIBIT “A”
EXCEPTIONS TO RFP

EXHIBIT “B”

MANUFACTURER HISTORY

EXHIBIT “C”

REFERENCES

EXHIBIT “D”

DEALER AUTHORIZATION

EXHIBIT “E”
BUSINESS LICENSES

EXHIBIT “F”
WARRANTIES

EXHIBIT “G”

GENERAL LIABILITY INSURANCE

EXHIBIT “H”

EXCESS LIABILITY INSURANCE

EXHIBIT “I”

BANKRUPTCY

EXHIBIT “J”

SURETY (BID) BOND