

**Specifications for One (1) New
2012 model year, Type I
Class 1 Ambulance**

INVITATION TO BID

The **Freetown Fire Department** is seeking sealed bids for the furnishing of one (1) new, 2012 model year, Type I, Class 1 Ambulance. Invitation to Bid and contract documents, including specifications may be secured from the Board of Selectmen's Office 3 North Main Street Assonet, MA 02702 on July 28, 2011 between the hours of 8:00 a.m. and 4:00 p.m. Monday thru Thursday and Friday 8:00 a.m. and 12:00 p.m. Bids for the specified unit, equipment and accessories shall be submitted to **Town of Freetown, 3 North Main Street, Post Office Box 438, Assonet, MA 02702** Bids will be accepted until 12:00 PM on Tuesday, August 16, 2011. Following the deadline, bids will be publicly opened and read at the Freetown Town Hall, 3 North Main Street Assonet, MA 02702. Bids will then be evaluated and summarized. The winning bid will be awarded at the Board of Selectmen's Meeting on Monday, August 29, 2011 at 6:10 p.m. at the Freetown Elementary School, 43 Bullock Road East Freetown, MA 02717

Bids shall be submitted in sealed envelopes clearly marked on the outside: "Bid for Type I, Class 1 Ambulance" with the name and address of the bidder.

It shall be understood that the Town of Freetown / Fire Chief reserves the right to reject any or all bids, or accept the proposal which the chief deems to be in the best interest of the fire department. In the event of any doubt or difference of opinions as to the items to be furnished herein, the decision of the chief shall be final and binding on both parties. All agreements and changes shall be in writing.

The Town has the right to reject any bid submitted by a dealer or manufacturer who cannot demonstrate a similar completed current model year vehicle equivalent to or exceeding the specifications to that which is being requested in this bid. Each bidder must submit a reference list, with their bid, stating the names, addresses, telephone number, and contact person of at least 15 communities where similar vehicles have been sold.

The Town of Freetown / Fire Chief will accept the finished vehicle after determination has been made that the entire specifications have been satisfied, that the vehicle meets all federal and state requirements and that it is inspected and licensed to operate in the State of Massachusetts by the Office of Emergency Medical Services for certification compliance. Vehicle shall be 100% free from any deficiencies.

INTENT OF SPECIFICATIONS

Purpose:

The purpose/intent of this specification to cover the furnishing and delivery to the Town of Freetown Fire Department of a 2012 or newer Type 1, Class 1 Emergency Medical vehicle of the type specified in the Ambulance design Criteria of the National Highway Traffic Safety Administration, U.S. Department of Transportation, Washington, D.C. This specification is based upon compliance to minimum standards as outlined in the current Federal Ambulance specification KKK-A-1822, and may reference specific paragraphs throughout these specifications. The intent of this specification is to purchase a vehicle that complies with these minimum standards, as well as all pertinent regulations of the State of Massachusetts Department of Public Health, and other Federal referenced standards in effect at time of issuance. Where these

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specifications do not reference any specific section of the KKK-A-1822 document, it is not to be construed that the paragraph is not required for compliance. However, where specific requirements are detailed in this specification, they will supersede those referenced in the KKK-A-1822 document.

The Town plans to award a contract for a five-year lease-purchase agreement and therefore, all bidders are requested to bid upon the price of the vehicle based upon a 5-year lease-purchase and subjected to continual appropriation.

The intent of these specifications is not to eliminate any competition, but rather to set minimum standards by specifying particular products "or equal" will be acceptable, if the product meets or exceeds the standards of the item specified and is approved by the Town of Freetown / Fire Chief.

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

Before awarding the bid, the Town of Freetown / Fire Chief reserves the right to require the bidder to submit such evidence of their qualifications as may be deemed necessary. The following documentation may be required: financial stability, technical expertise, experience, and other qualifications and abilities of the bidder, including past performance with the purchaser, in making the award in the best interest of the Freetown Fire Department and in the interest of public safety.

Contract

These specifications shall become a part of the final contract. There is no intention to disqualify any bidder who meets the minimum requirements of these specifications. It should be noted, however, that this specification is written to address specific needs of the Town of Freetown. As such, price will not be the primary consideration in the final bid award. Purchase will be made from the vendor whose product exhibits and meets all established requirements, at the most competitive price. The bid shall be awarded to the lowest responsive and responsible bidder.

Bids shall be evaluated by the chief and/or his designee. The evaluation will be based on the following minimum criteria:

Completeness of the proposal and the degree to which the bidder responds to the requirements and requests for information by the town.

Commitment for expedient delivery.

The Bidder must have a full service facility within 50 miles of the Town of Freetown, MA and staffed by full-time technicians. Technicians MUST be factory trained in the operation and repair of all the equipment supplied with full authorization from the manufacturer.

No bid may be withdrawn within sixty (60) days subsequent to the opening thereof without permission of the chief.

The chief reserves the right to reject any or all bids, waive any informality in the bidding, or accept the bid which is deemed to be in the best interest of the department.

SCOPE AND GENERAL REQUIREMENTS

This specification describes a commercial type emergency medical vehicle constructed to withstand the rugged and intense use of providing emergency medical care in the New England region. The vehicle being proposed must meet all federal regulations as specified in KKK-A-1822 and the current National Truck Equipment Association/Ambulance Manufacturers Division Standards as well as Ford Motor Company Light Truck Incomplete Vehicle Manual, Body Builders Layout Book and Qualified Vehicle Modifier (Q.V.M.) Program Truck Guidelines.

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Comparison:

Each vendor must comply with the following:

A. In order that an equal uniform comparison may be made, all bids must be submitted in the exact sequential format herein outlined. Bidders standard proposal will not be considered in lieu of bid proposal format herein required. The Town of Freetown / Fire Chief will not attempt to decipher various manufacturer's proprietary specification documents, etc. in an effort to determine compliance with all items required herein, and to make a determination if all bidders are bidding equal components and quality.

B. If the bidder is not going to furnish the item exactly as described in these specifications, he must indicate a deviation even though he may feel he is exceeding what is described. For each deviation taken, the bidder must include sufficient data of the intended substitution for a proper evaluation to be made. Terms such as "to the intent of" will not be acceptable and may deem the bid unacceptable for evaluation.

All exceptions taken must be referenced and explained thoroughly. Final inspection of the vehicle will be accomplished using these specifications to determine compliance. Therefore, paragraphs marked as complying will be inspected as such.

Proposals that are found to have deviations without listing them will be rejected.

Descriptive Materials:

Descriptive material such as plans, drawings, photographs, diagrams, illustrations, written descriptions, and manufacturer's literature which will enable the Town of Freetown / Fire Chief to determine the exact quality, design, and appearance of the ambulance proposed, shall accompany the bid. All equipment listed, or shown, in the manufacturer's literature, drawings, or photographs, and approved by the Town of Freetown / Fire Chief, shall be furnished.

Complete Ambulance:

This bid is for a complete ambulance, as outlined herein. No omissions shall be permitted, and the ambulance shall be complete, serviced, and ready to use upon delivery. Failure of the completed vehicle to meet Massachusetts Department of Public Health emergency vehicle rules and regulations, licensing requirements as the vehicle and installed equipment for a Type 1, Class 1 Ambulance, will cause the contract to be NULL and VOID and release the Town of Freetown from payment obligation.

Vendor Liabilities:

Successful bidder assumes all liability for patent infringements, trademarks, etc., if any, in construction of the ambulance outlined herein and shall deliver the ambulance free of all liens. Both the chassis and body manufacturer's original statement of origins, properly assigned to the Town of Freetown Fire Department, shall be furnished upon completion of contract, acceptance, and payment. Bidders are cautioned that a certificate of origin from the body builder only is not acceptable.

Bidding Practices:

A. Bids must be held firm for a period of not less than 60 days to permit examination and comparison, unless otherwise specified.

B. No bid may be withdrawn, modified or otherwise changed once the bids have been opened. It will be assumed that each bidder has thoroughly and completely familiarized themselves with these specifications at time of bid. Modification to a bid, once submitted, will not be permitted. Simply stated, if any item, feature, option, etc. is not stated in writing in bidder's proposal, it will not be considered. Bidders are cautioned that verbal or written modifications to already opened

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bids are neither valid, or considered ethical, and the comparison and selection of bid award will proceed only from what is stated in bidder's written proposal.

C. These specifications have been prepared after due consideration by the town and alternate bids are not permitted.

D. The Town of Freetown / Fire Chief reserves the right to reject any or all bids, and to determine the proposal deemed in the best interest of the town from among those properly submitted, in accordance with these specifications and the laws of this State. Lowest bid, while a major consideration, will not govern the purchase wholly. Bid award will be made from considerations such as quality, conformance with these specifications, and completeness of proposal.

E. By signing this bid, the bidder has agreed to all terms and conditions of this specification, except as noted separately.

F. Pre-Construction Conference - Successful bidder may be required, prior to issuance of a final contract, to have a Pre-Construction Conference which can also be classified as a Post-Bid Conference. Bidder must be present in person to finalize all details and answer any final questions the purchasing and specification committee have regarding the bid proposal submitted. No contract or authorization to begin construction will be authorized until such time as this conference is scheduled, or determined not be necessary. All necessary materials and final drawings required in this will be required to be presented at this meeting, if not required prior to the bid opening.

Delivery Inspection Procedure:

Upon arrival, vehicle purchased will be inspected, using this specification document, and each item and paragraph of the attached specification will be checked, line by line, for compliance. No deviations from this specification will be permitted unless vendor has submitted such proposed deviation in writing with this bid proposal and such exceptions are granted.

GENERAL REQUIREMENTS:

Service Requirements

It is the intent of the Town of Freetown / Fire Chief to assure that parts and service are readily available for the emergency vehicle specified. SERVICE CAPABILITIES WILL BE A MAJOR CRITERIA FOR AWARD OF THIS BID. To insure proper service, no bid will be accepted unless the bidder owns or offers facilities within 50 miles where complete parts and service are available. The facility must be staffed by full time personnel who are factory trained in the operation and repair of the emergency vehicle with full authorization of the manufacturer. In addition, in order to ensure prompt service, the facility must be solely dedicated to the service/repair of emergency vehicles. Facilities that cater to construction and fleet trucks (i.e., highway dept., DPW, oil, concrete, etc.) will not be considered. The facility shall maintain a complete inventory including body components, electrical items, vehicle hardware, etc., and shall offer on-site services including body fabrication, collision repair, and a paint shop complete with a cross flow booth with air makeup and bake options to insure the highest quality paint finish available. Bids from manufacturers who use third party service people or facilities, or who do not offer a service center will be immediately rejected. Furthermore, due to a concern over having vehicles "out-of-service" for extended periods of time as a result of having to be sent back to the original manufacturers' location for repairs, any bidder who cannot guarantee that all future repairs will be handled at a local level will not be acceptable.

OTHER REQUIREMENTS:

The Manufacturer of this vehicle;

- shall be a current member in good standing of the Ford Motor Company Qualified Vehicle Modifier Program and shall submit a copy of membership as part of the bid package.
- shall be a participating member of the National Truck Equipment Association's Ambulance Manufacturers Division

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and shall submit a copy of membership as part of the bid package.

- shall submit a copy of current certificate of compliance with Federal Specification KKK-A-1822 for the vehicle herein proposed, as prepared by an independent testing company.
- shall carry not less than \$25,000,000.00 in product liability insurance (copy of insurance certificate to be supplied with bid package).
- shall not offer "Lifetime Warranties". Lifetime warranties are unclear in nature and cause confusion for the end user due to the broadness of the language and the tendency of the bidder to alter definitions of what is, and is not covered by the terms of warranty. Warranty work must be performed at the bidder's established place of business and in no case be performed "off premises" at a third party facility such as a body shop, general automotive repair facility, or the like. The following minimum warranties are required:

Body structure	fifteen (15) years
Ambulance conversion	two (2) years/24,000 miles
Electrical system	six (6) years/72,000 miles
Paint	four (4) years/48,000 miles

- General reference arrangement drawings of the vehicle shall be provided within the bid. The drawings shall consist of left, right, front, and rear exterior views. Also, street side exterior, curbside exterior, front exterior, rear exterior, street side interior, curbside interior, front interior, rear interior, overhead ceiling, and overhead floor. The drawings shall indicate all proposed compartment layout and dimensions, interior cabinet layout and dimensions, and any additional items that may be specified by the Town of Freetown / Fire Chief. Locations of all specified warning lights and other accessories shall be depicted. Before the actual vehicle begins production there must be a complete package of drawings submitted to the Town of Freetown / Fire Chief for approval.
- shall furnish 3rd party written certification, that the modular ambulance body has ***been dynamically tested for both frontal and curb side impact at an applied force of 30 G's acceleration to evaluate the body to chassis mounting system, the cabinet, seat belt, gurney, door, and oxygen system supply tank retention, and the occupant interaction with the active and passive restraint systems.*** Due to the utmost concern for firefighter/EMT and passenger safety, proof of this testing shall be a requirement of the successful bidder. No Exceptions!

The Local Dealer/Distributor of this vehicle;

- shall own and operate a full service/full time parts and service center. Financial stability of the bidder is of the utmost importance, therefore any bidder subletting or renting space to conduct business will not be considered. Service facility must offer full parts, paint, body collision repair, electrical and conversion repair under one roof without use of third party facilities. Any bidder who cannot demonstrate that they meet this requirement will be deemed unresponsive and no further analysis of that bid will take place.
- shall include the primary telephone number to be used when service, parts, or general information is required. The end user reserves the right to call the published telephone number at various times during the administrative workday to verify its' authenticity. Use of answering machines, cellular telephones or pagers in the absence of full time, verifiable employees is unacceptable. For purposes of definition, the established times for administrative workday are 8:00 a.m. to 4:30 p.m. weekdays, (excluding holidays).
- The bidder shall show satisfactory evidence that he/she maintains, as an integral part of his/her organization, a fully equipped service department capable of furnishing adequate inspection, service, and replacement parts. Said service center shall be located within fifty (50) geographical miles of the Town of Freetown Fire Department and be staffed with full-time technicians. Technicians must be factory trained in the operation and repair of all the equipment supplied with full authorization from the manufacturer.

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- shall be a corporation registered to do business in the State of Massachusetts. Bidders must submit a copy of a current "Certificate of Good Standing" from the Secretary of State - Corporations Division. No contract or purchase order shall be awarded to a bidder not meeting this requirement

Delivery:

The ambulance shall be delivered under its own power to assure adequate break-in while under warranty. It shall first be transported to the local service facility, where final inspection and preparation will be performed, including mounting of related equipment. The ambulance will also be inspected by the Office of Emergency Medical Services before delivery to insure KKK compliance. The ambulance will then be delivered to the Town of Freetown.

Construction Time:

Each bidder shall state the number of calendar days required to construct and deliver the completed ambulance. In the interest of public safety, an early delivery will be an extremely important consideration.

Terms of Payment:

The Town plans to award a contract for a five-year lease-purchase agreement and therefore, all bidders are requested to bid upon the price of the vehicle based upon a 5-year lease-purchase. Proposals requiring any payment prior to delivery will not be acceptable. Optional payment programs in exchange for an over-all cost savings will be considered.

Bid Bond:

Each bid shall be accompanied by a Bid Bond in the amount of ten (10) percent of the bid price. Bids submitted without a bond will not be read. The Bid Bond must be issued by an Insurance Company registered with the Insurance Commissioner of this State. Bonds must be signed by an Officer of the Bidder's Company. Bonds issued by non-registered or foreign Insurance Companies will be immediately rejected.

Tag On Orders

The purchaser reserves the right to require tag on purchases to this order for up to one (1) year from contract signing.

ANY EXCEPTIONS TO THESE SPECIFICATIONS MUST BE CLEARLY MARKED AS SUCH. EACH EXCEPTION MUST BE REFERENCED BY PAGE NUMBER AND DESCRIPTIVE TERM.

THE CHIEF SHALL DETERMINE WHICH, IF ANY, EXCEPTIONS TO THESE SPECIFICATIONS WILL BE ACCEPTED. ANY EXCEPTION WHICH IS TERMED "EXCEED" MUST BE ACCOMPANIED BY A CERTIFIED DOCUMENT FROM A PROFESSIONAL ENGINEERING FIRM WHICH STATES WHY YOUR BID EXCEEDS THE INTENT OF THESE SPECIFICATIONS. CERTIFICATION MUST ALSO BE NOTARIZED BY A NOTARY PUBLIC.

COMPLIANCE WITH THESE SPECIFICATIONS MUST INCLUDE ALL OF THE ABOVE LISTED REQUIREMENTS.

BIDDERS ARE ADVISED THAT THIS SECTION OF THE SPECIFICATIONS WILL BE EVALUATED BEFORE THE VEHICLE TECHNICAL SPECIFICATIONS. BIDS THAT DO NOT COMPLY, OR ARE NOT VERIFIABLE, TO THE ABOVE REQUIREMENTS WILL BE IMMEDIATELY DEEMED UNRESPONSIVE AND THE BID WILL BE REJECTED WITHOUT FURTHER REVIEW OF THE TECHNICAL SPECIFICATIONS.

Does your bid comply? Yes _____ No _____

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Certificate of Non-Collusion

The undersigned certifies under penalties of perjury that this bid or proposal has been made and submitted in good faith and without collusion or fraud with any other person. As used in this certification, the word "person" shall mean any natural person, business, partnership, corporation, union, committee, club, or other organization, entity, or group of individuals.

Representative's Signature

Name of Business

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TAX COMPLIANCE STATEMENT

I certify under the penalties of perjury that I, to my best knowledge and belief, have filed all state tax returns and paid all state taxes required under law.

*Signature of Individual of Corporate Name
(Mandatory)

Corporate Officer
(Mandatory, if applicable)

**Social Security Number (Voluntary) or
Federal Identification Number

*Approval of a contract or other agreement will not be granted unless this certification clause is signed by the applicant.

**Your social security number will be furnished to the Massachusetts Department of Revenue to determine whether you have met tax filing or tax payment obligations. Providers who fail to correct their non-filing or delinquency will not have a contract or other agreement issues, renewed, or extended. This request is made under the authority of Massachusetts General Laws c.62C s 49A.

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SPECIFICATIONS FOR A NEW EMERGENCY MEDICAL VEHICLE BIDDER INSTRUCTIONS:

The following specification describes a new ambulance that is expected to be acquired by the Town of Freetown. The specification describes the needs of the town as far as chassis configuration and module body design. A state of the art vehicle is required. However, manufacturers that utilize prototype equipment or manufacturing processes will not be considered. The builder's manufacturing history shall be supported by documentation where applicable, and by the reference section within this specification. The benchmark for the initial configuration of this ambulance shall be the current KKK Federal Specification for Ambulances. However, most requirements in this specification exceed the federal specifications because of the specific needs of this purchaser.

Please note that the following specifications represent minimum general terms or requirements. While it is not the intent of the town to preclude any qualified bidder from submitting a proposal it must be clear that any bidder deviating in any substantial manner from these specifications will be rejected as being non-compliant.

Finally, manufacturers or distributors for manufacturers submitting bids shall include the following information with their proposal:

MINIMUM REQUIRED STANDARDS:

The highest degree of quality, both in the materials and in the building processes, is required for the emergency medical vehicle being proposed. At a minimum the manufacturer being proposed must meet all current mandated and voluntary ambulance design standards in effect at the date of the proposal submission. All current Federal Motor Vehicle Safety Standards (FMVSS) must be met, as well as all current Federal Ambulance Design Standards (KKK-A-1822).

The bidder shall state the date of certification for the current KKK-A-1822: _____

The manufacturer shall also comply with Ford Motor Company's QVM program. A copy of the manufacturers' current QVM certification must be submitted with the bid.

The current QVM certification is included. Yes_____ No_____ Initial: _____

PROPOSAL COMPLETION PROCESS:

Various areas in the following specifications require a response from the bidder. In order to aid in the evaluation process all responses must be consistent and, most importantly, legible. Therefore, the areas that are to be completed by the bidder, along with any other materials that may be submitted by the bidder, must be typed. Bids that are submitted with either hand-written responses or with hand stamped responses shall be automatically rejected as being non-compliant.

Does the bidder understand this requirement? Yes_____ No_____ Initial: _____

SINGLE SOURCE MANUFACTURER:

To simplify warranty coverage and to assure a consistent level of quality throughout the vehicle, a manufacturer is desired that manufactures the major components for the ambulance (excluding the chassis). Major components are defined as including the module body, the aluminum interior cabinets, and the converter-added electrical wiring system. The Town understands that manufacturers may purchase some elements, such as switches, boards, etc. with which to manufacture a system.

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Further, this specification requires the vehicle manufacturer to own the design of, as well as the rights to, the onboard converter-added electrical system. Generic aftermarket systems that are manufactured by an outside company and installed by the vehicle converter are not acceptable.

These requirements are addressed elsewhere within this specification where the specific defined items are located. Manufacturers who outsource any of the above-referenced components shall be considered non-responsive and will be rejected.

Bidder states that the represented vehicle builder manufactures all of the major components as defined above:

Yes _____ No _____ Initial: _____

Bidder states that the represented vehicle builder owns the design of the converter-added electrical system, as well as all rights to that system:

Yes _____ No _____ Initial: _____

Component manufacturer (by company name):

Modular Body: _____

Interior Cabinets: _____

Electrical Wiring System: _____

QUOTATION:

The overall quotation shall include a firm price for a vehicle meeting these specifications. The length of time that the price will be held shall be clearly stated in the quotation. The quotation shall include a specific delivery window based on the number of calendar days following the award of the contract. The model year of both the chassis and the conversion shall be clearly stated in the contract.

WARRANTY:

The proposal shall include all warranties that are required in the following detailed specification. Lifetime warranties will not be accepted because of their unclear nature of duration. All warranties must have specific time durations and shall define warranties on specific components. The minimum acceptable warranty periods are noted below. In the blank lines the bidder shall note the terms of the warranties that apply to the manufacturer being proposed.

MODULAR BODY STRUCTURAL WARRANTY: 15 years/Unlimited Miles
Proposed warranty term: _____ years/_____ Miles

Note: The structural warranty, as noted in the structural section of this specification, will include the module doors, continued module body door alignment, and all interior cabinet construction. It shall also be extended on 5 year intervals in the event that the body is placed on a new chassis provided that (1) the re-chassis is performed by the original manufacturer, (2) the structural warranty has not expired at the time of the re-chassis, and (3) this purchaser approves any structural repairs at the time of the re-chassis. These terms and

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conditions must be explicitly stated in the manufacturer's warranty certificate.

Does the structural warranty proposed comply with the above-stated terms and conditions? Yes____
No____

ELECTRICAL WARRANTY: 6 years/72,000 Miles
Proposed warranty term: ___ year(s), _____ Miles

CONVERSION WARRANTY: 2 Years/24,000 Miles
Proposed warranty term: ___ year(s), _____ Miles

PAINT WARRANTY: 4 Years/48,000 Miles
Proposed warranty term: ___ year(s), _____ Miles
(No paint vendor warranties will be accepted)

Are the manufacturers warranties included? Yes____ No____

Warranties shall not be pro-rated in any manner and shall be transferable for their duration. All warranties shall be from the manufacturer as opposed to a distributor or service center. This is necessary for the protection of the purchaser, and to guarantee a certain known level of service and warranty. If, however, the bidder feels that it is necessary to modify the manufacturers' warranties, then the bidder shall state why this modification is necessary. In addition, the bidder shall provide a full descriptive warranty certificate describing the warranty modification and the fact that it takes specific precedence over the warranty offered by the manufacturer. If no such certificate is provided, then the modified warranty shall be considered invalid and the manufacturer's warranty shall remain in force. If a warranty modification is proposed through either a distributor or service center, then complete financial statements for that business covering the past five (5) years MUST BE SUBMITTED with the bid. If the manufacturer states that no party is permitted to modify its warranty, then any warranty modification provided by the bidder, despite being in writing, shall automatically be rejected.

Does the bidder conform to the above-written section? Yes____ No____

In order to simplify the evaluation process the following questions must be answered and this section must be initialed by the bidder.

Are the warranties pro-rated in any manner? Yes____ No____
If yes explain.

Are the warranties transferable? Yes____ No____
If yes explain.

Has the bidder modified the manufacturers' warranties? Yes____ No____
If yes explain.

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If yes was chosen above, has the bidder included modified written warranties?

Yes____ No____

If no explain.

If 'yes' was chosen above, has the bidder included financial statements, for the last five (5) years, of the warranty modifier? Yes____ No____

If 'no' explain.

Bidder shall initial that this section is understood and has been answered truthfully. Initials: _____

Note: Bidders, who are found to be untruthful in this, or in any other section of this bid, will have their bid automatically rejected.

SERVICE AVAILABILITY:

Service will be a major factor in the award of this proposal. Convenience and experience will be determining factors in defining acceptable service. A service facility within a radius as described below will be required. Personnel performing the service shall be trained by the manufacturer with emphasis in the area of electrical service. In order to evaluate the proposed service facility the following information shall be provided on the appropriate lines.

Radius from purchaser: Not more than 50 miles.

Facility name: _____

Address: _____

City: _____ State: _____

ENGINEERING SUPPORT:

Due to the complexity of the design of the vehicle, proposals will be accepted only from manufacturers that utilize well-defined engineering techniques. Computer Aided Design (CAD) drawings of both the interior of the

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patient area and the overall layout of the module body will be mandatory. At a minimum these drawings shall include all exterior elevations, all interior views (4), and a plan view of the roof/ceiling. All options and elements required within these specifications shall be depicted on the prints. The purpose of this requirement is to assure this purchaser that vehicle proposals indeed meet the stated requirements as set forth in these specifications. Generic CAD drawings are not acceptable. The drawings, as submitted, shall accurately depict the exact vehicle that is being proposed. Bidders not including the required drawings will be considered non-responsive and will, therefore, be rejected.

Are the required drawings included with this bid? Yes_____ No_____

SAFETY CERTIFICATION:

The verification of construction techniques used throughout the building process must be furnished by the manufacturer/bidder. The installation methods and construction techniques associated with seat belt retention, cabinet construction and installation, oxygen cylinder retention and module to chassis mounting systems must be verified through a controlled Hygee sled test that simulates an actual impact condition. This test must be performed, under both side and frontal impact conditions, to a minimum force of 30 G's. All testing must be performed by a testing agency that is independent of the manufacturer.

As proof of this verification process being performed, the bidder must provide the following information (leave blank if this is not a sled test being verified):

Testing Facility Name: _____
Date Tested: _____ / _____ / _____
'G' Force Tested To: _____ G's

The bidder must perform and certify to dynamic sled or impact testing run on the ambulance body to a load of 30 G's. The body tested shall include normally installed components for each of the following areas of the vehicle. The body structure and installed components shall not show evidence of structural failure or separation from its mounted position as a result of the test. All test results must be witnessed and verified by a Registered Professional Engineer.

BODY INTEGRITY VERIFICATION:

In addition to the testing described in the preceding section the bidder must also ensure the integrity of the patient compartment of the vehicle in the event of an accident by performing dynamic testing to demonstrate compliance to International Standard ECE R29 and SAE Standards SAE J2422 and SAE J2420 applied to the rear of the body. Testing shall involve a Dynamic Preload side impact on a 20 degree fixture at 13,000 foot lbs, a 22,000 roof load and a rear impact at 32,600 foot lbs. Impact shall be provided by a 13,000 lb platen cart moving at the speeds prescribed to achieve the necessary impact energy. The impact cart shall include DAS, a propulsion system capable of +/-0.25 mph speed control, remote braking and Ethernet communication in concert with an installed barrier facility.

During the above described testing, two Hybrid III 50th percentile mannequins shall be installed, one in the standard attendant's seat, and one on the squad bench area. Bidder will be required to demonstrate via photos or other evidence as may be approved by this agency that the mannequin restraint systems worked properly and that the mannequins remained in their original positions.

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Does the bidder comply with this requirement? Yes____ No____ Initial_____

Full documentation, signed by a professional engineer from the testing laboratory shall be provided with the bid proposal.

INTERIOR OCCUPANT PROTECTION:

For the safety of the attendants working in the patient area, the vehicle shall be equipped with an interior occupant protection system incorporating an emergency inflatable airbag system at both the attendant and the CPR seat locations. In the event of a side impact rollover collision, the bags shall be triggered by an electronic sensor to inflate and protect the occupants against severe head strikes typical of such collisions.

The attendant seat location shall be protected by an inflatable head cushion technology as well as a unique inflatable tubular system to prevent the attendant from impinging into the danger zones of the inhalation area.

The CPR seat location shall be protected by a combination of an inflatable tubular system at the forward side to protect against entry into the inhalation area as well as a system of progressive resistance head protection cushions. The progressive resistance head protection cushions shall incorporate layers of foam of increasing densities. Should a head strike occur, then the increasing density of the cushion as the impact progresses shall lessen the likelihood that the head will reach the aluminum cabinet material behind the cushions. It should be noted that standard single density foam cushions will not meet the requirements of this section. The bidder must have performed both actual impact tests as well as computer simulations in order to test the efficacy of this material in reducing head strike intensities to a survivable rate.

All airbag seating locations shall have been tested with a variety of occupant sizes. Those tests shall include Hybrid III fully instrumented test mannequins including 5% child (115 lbs.), 50% female (163 lbs.), and 95% male (195 lbs.). Testing shall have included at least fourteen (14) fully instrumented destructive dynamic roll crashes and an additional six (6) side impact destructive crashes. Roll crash testing shall be performed at 17-19G's while side impacts shall be approximately 27G's.

The vehicle must have been certified as compliant to standards ECE R29, SAE J2420, and SAE J2422. The bidder must show evidence that their service facility is trained and certified to service or to replace the airbags should the need arise. Such certification shall be attached to the proposal (NO EXCEPTIONS).

Each seating position shall include seat belts as follows:

Attendant seat:	Three point seat belt.
CPR seat:	Three point seat belt with removable third point latch.
Ends of bench:	Three point seat belt with removable third point latch.
Center of bench:	Two point seat belt.

Each seat belt shall have been tested to verify its latching capabilities and performance as well as the extent to which it allows movement by the "spooling effect" within the retractor. Those tests shall verify that this spooling effect allows less than three inches (3") of belt travel before latching.

There shall be a barrier constructed at the head of the squad bench that will provide a 16" high restraint which, when working in conjunction with the above three point belt system will assist in securing the occupant in the event of a rollover collision.

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REFERENCES:

The proven durability and reliability of this product is of the utmost concern. Each bidder submitting a proposal must furnish references consisting of in-service units of similar chassis make and conversion processes being proposed.

All references shall include owner, address, contact name and phone number, and the model owned. A minimum of 15 references shall be provided ON A SEPARATE SHEET OF PAPER WITH THE FOLLOWING:

1. Owner: _____

Address: _____

Contact: _____

Phone #: 1-(____)-____-_____

LIABILITY:

The bidder shall defend, indemnify, and save harmless the Town of Freetown and its officials from all claims, demands, payments, suits, actions, recoveries, and judgments of every description, whether or not well founded in law, brought or recovered against it, by reason of any act or omission of said bidder, his agents or employees, in the execution of the contract or in consequence of insufficient protection or for the use of any patented invention by said bidder, and a sum sufficient to cover aforesaid claims may be retained by the purchaser from money due or to become due to the bidder under this contract, until such claims have been discharged or satisfactorily secured.

Each bidder must furnish a Certificate of Insurance showing aggregate total of insurance which shall not be less than twenty-five million dollars (\$25,000,000).

Certificate of Insurance included with proposal? Yes _____ No _____

In addition, the bidder is to assume any risk of loss to the ambulance until the ambulance is delivered to this purchaser.

Does the bidder understand this requirement? Yes _____ No _____

PAYMENT:

Payment shall be made on delivery of the purchased item, or upon completion of all work contracted for (whichever occurs later) and performed to the satisfaction of the purchaser. Clauses requiring prepayment of any portion of the contract amount will render the bid non-responsive whereupon it will be rejected.

Does the bidder comply with this requirement? Yes _____ No _____

If no explain:

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DELIVERY PROCESS:

The vehicle shall be delivered over the road to the Town of Freetown. Delivery shall be stated in number of calendar days after award of contract. The town has the right to reject the vehicle if it does not conform to these specifications to the satisfaction of the Town of Freetown / Fire Chief.

Does the bidder understand this requirement? Yes_____ No_____

PRICE AND TAXES:

All prices quoted shall be for a definite fixed price unless otherwise specified. Prices shall exclude Federal, State, and other taxes to the extent that this purchaser is exempt. All pricing shall be F.O.B.

F.O.B. : _____

SPECIFICATION DESIGN:

The following specifications were created by the Town of Freetown / Fire Chief in order to best describe a need. However, it is not the intent of the town to exclude any manufacturer from submitting a bid on these specifications. In many places required equipment or features are identified by brand name. The bidder shall note that the use of brand names within this document is meant to describe a required level of quality or performance. The bidder may substitute equipment or features provided that the substitutions meet the intent of the specification. The bidder shall note, however, that substitute components shall be included in the list of exceptions. Exceptions should be listed per the following bid completion requirements.

TYPE OF BIDS TO BE SUBMITTED:

In the event that the bidder represents more than one ambulance manufacturer meeting the manufacturer requirements outlined herein, then the bidder shall only bid the highest quality vehicle that the bidder represents. Under no circumstances will multiple bids from the same bidder on different manufacturers be accepted. Should a bidder submit two or more bids representing more than one manufacturer, then all bids submitted by that bidder will be rejected as being non-compliant with the requirements of this specification.

The Town of Freetown is seeking quality equipment. Bidders are asked to bid only the product of the highest level of quality represented by that bidder.

Is this requirement understood and met? Yes_____ No_____ Bidder's initials: _____

INFORMATION TO BE SUBMITTED WITH PROPOSAL:

The information requested within this bid must be furnished in full. Any bidder not completing this proposal or not furnishing any required information will not be considered. If a bidder will not furnish a material or fabrication process exactly as described in this specification, then that difference must be designated in the list of exceptions. If a substitution is being proposed, then the bidder must note the section to which the alternative is being proposed and provide technical data, supported by a registered engineer, supporting the fact that the substitute is equal to or better than the item as specified. If this data is not submitted with the bid, then the bid shall be rejected as being non-compliant. Bidder added narrative describing a substitution as being a clarification, exceeding, being equal to, etc. will not be accepted. Statements such as these, with or without the technical data described in this section, will cause the bid to be rejected as being non-compliant. This purchaser reserves the right to require samples of any deviating material to be provided for evaluation.

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Does the bidder comply with these requirements? Yes _____ No _____ Initial: _____

DIRECTIONS FOR RESPONDING TO EACH SECTION:

Each individual section of the specification shall be followed by three (3) response lines. The lines shall read as follows:

Above section bid exactly as written. _____
Section not provided. _____
Bidder is offering an alternative to this section. _____

On the line to the right of each statement the bidder shall mark an X to signify the appropriate response. If a bidder is offering an alternative to the written section, then an exception must be taken for the section. The exception must be accompanied by data supported by a registered engineer to demonstrate the equivalency of the alternate item. The bidder shall note that the data submitted must correspond with the substitutions offered. If the data submitted does not cover all substitutions offered, then the bid shall be rejected as being non-compliant.

Does the bidder understand this requirement? Yes _____ No _____ Initial: _____

EXCEPTIONS TO SPECIFICATIONS:

Exceptions to these specifications shall be noted on a separate sheet(s) of paper. All exceptions taken shall be recorded per the guidelines defined above. Each exception shall be noted by page number and item header.

Page #: _____ Header: _____
Exception: _____

CHASSIS, 2012 FORD 189", 4 X 4 F-450 CAB/CHASSIS:

The vehicle converter shall supply a 2012 189" wheelbase Ford F-450, 4X4 cab/chassis. The chassis shall include Ford's Ambulance Prep Package.

Above section bid exactly as written. _____
Section not provided. _____
Bidder is offering an alternative to this section. _____

ENGINE AND RELATED EQUIPMENT:

- 6.7 L Power Stroke V-8 Turbo Diesel.
- Includes diesel emissions fluid (DEF)
- Engine Block Heater.
- 40 gallon fuel tank mounted between the frame rails aft of the rear axle.

Above section bid exactly as written. _____
Section not provided. _____
Bidder is offering an alternative to this section. _____

TRANSMISSION:

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- Automatic. TorqShift electronic 6-Speed SelectShift with overdrive
- Transmission Oil Cooler.

Above section bid exactly as written. _____
Section not provided. _____
Bidder is offering an alternative to this section. _____

REAR AXLE:

- Ratio: 4.10:1 limited slip

Above section bid exactly as written. _____
Section not provided. _____
Bidder is offering an alternative to this section. _____

OVERALL WEIGHT RATINGS:

- GVW: 16,500 lbs.
- Front Springs: 7,000 lbs. Combined Rating @ Ground
- Rear Springs: 12,000 lbs.
- Shock Absorbers: 1.38" Front and Rear, Heavy Duty Gas Type
- Stabilizer Bar: Front and rear

Above section bid exactly as written. _____
Section not provided. _____
Bidder is offering an alternative to this section. _____

TIRES AND WHEELS:

- Quantity of seven (7) tires with spare shipped loose
- Tire size to be 225/70R19.5 Load Range 'G'
- Rear tires: traction, front tires: all season radials
- 19.5" steel wheels

Above section bid exactly as written. _____
Section not provided. _____
Bidder is offering an alternative to this section. _____

BRAKES:

- Front and Rear: Four wheel disk with antilock
- Power Assist: Hydro Boost
- Parking Brake: Foot Operated, hand release

Above section bid exactly as written. _____
Section not provided. _____
Bidder is offering an alternative to this section. _____

INTERIOR APPOINTMENT STANDARDS:

- HD Ford XR-50 power steering
- Tilt/telescoping steering with factory speed control
- Dual padded sun visors

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- Power door locks
- Power windows
- Power/Heated mirrors with clearance lights
- 12V power point
- Adjustable gas and brake pedals
- Heat/Air conditioning
- Dual O.E.M. cloth-covered captain's chairs with inside folding arm rests
- Rubber floor covering
- Second generation driver and passenger air bags
- An AM/FM stereo/CD/MP3 player with two (4) speakers installed in cab
- Factory gauges for oil pressure, fuel capacity, and water temperature.

The converter-added digital display shall provide both ammeter and voltmeter.

- Above section bid exactly as written. _____
- Section not provided. _____
- Bidder is offering an alternative to this section. _____

ADDITIONAL APPOINTMENT STANDARDS:

- XLT trim package
- Chrome front bumper and grille surround
- Tinted glass
- Dual electric horns
- Interval wipers
- ICC lights
- Halogen jewel effect headlights
- Daytime running lights
- Sound reduction package
- Integrated auxiliary idle control
- Auxiliary heat/AC connections
- Front license plate bracket
- Under hood service light
- Two front tow hooks
- SOS Post Crash Alert System
- Perimeter Anti-theft alarm
- Remote keyless entry
- Shift on the fly

- Above section bid exactly as written. _____
- Section not provided. _____
- Bidder is offering an alternative to this section. _____

BATTERIES:

The vehicle shall be equipped with two (2) 750 cca batteries located in the OEM location under the chassis hood. The total cca rating for this vehicle shall be 1,500 cca.

- Above section bid exactly as written. _____
- Section not provided. _____

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Bidder is offering an alternative to this section. _____

ALTERNATORS:

Dual O.E.M. Motorcraft alternators shall be installed by the chassis manufacturer. These alternators shall be internally regulated and shall provide a total of 320 amps.

Above section bid exactly as written. _____
Section not provided. _____
Bidder is offering an alternative to this section. _____

WARRANTY:

The chassis manufacturer's standard vehicle warranty policies shall apply.

Above section bid exactly as written. _____
Section not provided. _____
Bidder is offering an alternative to this section. _____

FORD F-SERIES SPECIAL INSTRUCTION

Freetown qualifies for ford fleet discount.

CHASSIS INTERIOR COLOR:

The chassis interior shall be O.E.M. gray.

CHASSIS HARDWARE AND ACCESSORIES:

The items to follow represent chassis modifications, hardware, and accessories that are required. Failure to provide these features will be cause for rejection of the bidder's proposal as being non-responsive.

DIESEL EXHAUST FLUID (DEF):

The fill for the DEF tank will be located in the driver's side of the body forward of the rear wheels. A label stating "DIESEL EXHAUST FLUID (DEF)" will be installed next to the fill neck.

Above section bid exactly as written. _____
Section not provided. _____
Bidder is offering an alternative to this section. _____

STAINLESS STEEL WHEEL COVERS

Stainless steel DOT approved wheel inserts shall be installed on all four outside wheels of the chassis. The rear wheels shall include braided stainless steel filler extensions. The extensions shall be fastened to the center wheel hub with stainless steel brackets. Designs that do not incorporate the filler extensions will be unacceptable as they hinder inflation of the inner tire.

Above section bid exactly as written. _____
Section not provided. _____
Bidder is offering an alternative to this section. _____

MUD FLAPS, FRONT:

The vehicle converter shall install mud flaps behind the front wheels. The mud flaps shall attach to the chassis front fenders and shall protect the cab body panels from road debris.

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Above section bid exactly as written. _____
Section not provided. _____
Bidder is offering an alternative to this section. _____

MUD FLAPS, REAR:

The vehicle converter shall install individual rubber mud flaps behind each rear wheel. The mud flaps may incorporate the converter's corporate logo provided that the logo is made out of stainless steel or equivalent and attached to the mud flap. Logos either printed on, or otherwise incorporated into the mud flap are not desirable as they cannot be removed and possess a tendency to fade.

Above section bid exactly as written. _____
Section not provided. _____
Bidder is offering an alternative to this section. _____

DOCK BUMPERS, REAR:

The rear step end caps shall include two heavy duty rubber dock bumpers installed on the outer face of the diamond plate. These bumpers shall serve to protect the diamond plate from damage due to minor contact.

Above section bid exactly as written. _____
Section not provided. _____
Bidder is offering an alternative to this section. _____

REAR STEP/BUMPER REINFORCEMENT:

The end caps of the rear step shall be reinforced for added impact protection. The reinforcement shall tie into the chassis framework via a 1.5" x 3" x .357" aluminum channel. The top of the channel shall be trimmed with polished aluminum diamond plate for appearance purposes.

Above section bid exactly as written. _____
Section not provided. _____
Bidder is offering an alternative to this section. _____

REAR STEP/BUMPER ASSEMBLY:

The rear of the vehicle shall be equipped with a step/bumper assembly to be fabricated from .125" polished aluminum diamond Treadplate. The assembly shall be spaced out from the rear kick plate a minimum of 1.5". The center section of the assembly shall pivot up and over center on two (2) .5" bolts to stay in the 'up' position. This section shall be a minimum of 9.5" deep and shall be constructed with grip-strut on the stepping surface to provide for better footing. The ends of the assembly shall be fixed diamond tread plate. The distance between the top of the step and the ground shall not be less than 16". The fold-up portion of the step shall rest under the rear of the module when in the up position.

Above section bid exactly as written. _____
Section not provided. _____
Bidder is offering an alternative to this section. _____

MIRROR: OEM

The mirror set shall be OEM supplied, and installed by the chassis manufacturer.

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Above section bid exactly as written. _____
Section not provided. _____
Bidder is offering an alternative to this section. _____

MONROE REAR AIR SUSPENSION WITH AIR DUMP:

The vehicle shall include a Monroe air ride system installed in the rear suspension. The system shall include an air dump feature, wired through the left rear entry door magnetic switch, to lower the cot loading height. This system shall also include Monroe's quick recovery kit and an air dryer.

Above section bid exactly as written. _____
Section not provided. _____
Bidder is offering an alternative to this section. _____

AIR SUSPENSION OVERRIDE SWITCH:

A manual air dump override switch shall be installed as noted below. This switch shall override the air dump activated by opening of the left rear patient compartment entry door.

Switch Location: by rear curbside door

Above section bid exactly as written. _____
Section not provided. _____
Bidder is offering an alternative to this section. _____

FRONT STABILIZER BAR:

A Roadmaster brand stabilizer bar shall be installed on the front of the vehicle.

Above section bid exactly as written. _____
Section not provided. _____
Bidder is offering an alternative to this section. _____

BATTERY HEAT SHIELDS:

Battery heat shields will be provided and installed for all batteries located beneath the hood.

Above section bid exactly as written. _____
Section not provided. _____
Bidder is offering an alternative to this section. _____

REVERSE ALARM:

An audible alarm shall be installed to activate when the vehicle is placed into reverse gear. There shall be, installed on the front console and wired through the vehicle electrical system, a momentary cutoff switch to disable the alarm. This switch shall automatically reset each time the vehicle is placed into reverse gear.

Above section bid exactly as written. _____
Section not provided. _____
Bidder is offering an alternative to this section. _____

DUAL CAMERA SYSTEM:

The vehicle shall be equipped with a Voyager VCCS130 backup camera mounted over the rear doors. A

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second identical camera shall be installed on the vehicle interior as noted below. The driver area monitor shall be a Voyager AOM711 wide format LCD style with a 7" non-glare color screen. The monitor shall be capable of handling two camera inputs with manual or automatic source selection. It shall have an auto power-on feature when the vehicle is shifted into reverse.

Second camera location: over rear doors

Above section bid exactly as written. _____
Section not provided. _____
Bidder is offering an alternative to this section. _____

AM/FM/CD PLAYER:

The OEM AM/FM/CD player shall be installed in the cab and wired to the OEM cab speakers. This unit shall also be capable of being wired to patient area speakers should they be required within this specification.

Above section bid exactly as written. _____
Section not provided. _____
Bidder is offering an alternative to this section. _____

CONVERSION:

The following section describes the required body design, manufacturing process, and materials. Adherence to this section is of extreme importance to this purchaser due to space requirements and safety concerns. The bidder must meet this section as closely as possible without utilizing experimental or prototype designs in order to be considered for bid award.

MINIMUM BODY DIMENSIONS:

The completed vehicle shall have the following minimum dimensions:

(Exterior)
-Height: 92"
-Width: 96.25"
-Length: 167"

(Interior)
-Height: 72"
-Aisle 48"
-Length: 163"

OVERALL DIMENSIONS (Including Chassis, Module and Step):

-Height: 117" (to top of vent)
-Width: 100"
-Length: 301"

Above section bid exactly as written. _____
Section not provided. _____
Bidder is offering an alternative to this section. _____

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MODULAR BODY STRUCTURAL DESIGN REQUIREMENTS:

The module body shall be designed and fabricated with the following key elements in mind:

1. The greatest possible load carrying capacity is desired.
2. The safety of all vehicle occupants is of paramount concern.
3. The body design, including construction materials and fabrication techniques shall be proven to be durable.
4. The body shall be easily retrofitted to a new chassis should that need ever arise.

With these concerns in mind the following requirements have been established for the purposes of this specification:

The vehicle converter shall design and construct its own module bodies, and maintain an engineering staff at its manufacturing facility to handle any custom body changes that may be necessitated by this design. It is the intent of the town to receive a finished product of the highest standards of quality available. Vehicle manufacturers who design and build their own bodies and who have the expertise of an engineering staff will possess a greater capacity as far as handling a custom project of this type than manufacturers who purchase their bodies from an outside vendor. Accountability and quality of the design and construction of the body are enhanced when the vehicle converter manufactures the body.

Above section bid exactly as written. _____
Section not provided. _____
Bidder is offering an alternative to this section. _____

GENERAL BODY DESCRIPTION:

The construction process described within this specification will ensure that the body shall remain structurally intact. However, to achieve this level of quality and durability, the module body, including all doors, must be constructed correctly initially. This specification requires that the module body, including all doors, be built within a tolerance of one five-thousandths of one inch. To achieve this, the vehicle manufacturer must use, as standard practice, precision computerized equipment such as found in Strippet machines and microprocessor controlled milling machines and chop saws. Use of precision equipment will ensure that all door openings, door handles and latches, body windows, and warning light assembly installation locations are of the correct size and square to the body. Cutting done by hand, such as with a jigsaw, is not desired unless it involves the chassis, or unless a warning light assembly must be located in such a way that it depends on the layout of the finished vehicle. (E.g. when a light must be centered within a paint stripe since the exact stripe location will not be determined until the module is built and mounted.) In addition, utilization of computerized equipment will simplify the production of replacement body panels in the event of an accident since the computer can duplicate a given part exactly. This includes documentation of all body light locations.

Above section bid exactly as written. _____
Section not provided. _____
Bidder is offering an alternative to this section. _____

PAYLOAD REQUIREMENTS:

The vehicle payload shall meet or exceed that called for in the current KKK-A-1822 specification. The vehicle manufacturer shall, upon notice by the town, provide a written statement from an independent engineer that the model being offered has met this set of criteria. Before delivery of the completed unit the manufacturer shall weigh the vehicle. A written statement of those weights shall be affixed to the inside of the street side front #1 compartment door. The Town of Freetown / Fire Chief reserves the right to have the finished vehicle

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weighed independently upon delivery. If it is found that the written statement of weight provided by the manufacturer is inaccurate beyond what may be reasonably explained as a slight difference in the calibration of the scales, then the vehicle will be rejected. It should be noted that this purchaser, while interested in attaining the greatest possible payload, is unwilling to compromise on the structural requirements of a strong, durable, and safe body. All bidders must understand these factors supercede concern over payload, and that the lightest body (greatest payload) will not necessarily be deemed sufficient to meet the stringent quality and safety requirements set forth herein.

Above section bid exactly as written. _____
Section not provided. _____
Bidder is offering an alternative to this section. _____

MODULE BODY CONSTRUCTION AND WARRANTY:

The module body shall be constructed per the following detailed specifications. Generally speaking the body shall be of all-aluminum construction. Aluminum is shown to reduce weight over several other materials. It also possesses anti-corrosion properties that are essential for a vehicle of this type. The exact aluminum material requirements are explained in further detail below.

The choice of materials and the design shall allow the manufacturer to warrant the materials and workmanship of the module body for a period of fifteen (15) years as set forth in the warranty section of this specification. The manufacturer's structural warranty shall specifically cover:

- The continued and correct alignment of both compartment and access doors.
- Seam or joint separation in door construction.
- Aluminum interior cabinetry.

The warranty shall be fully transferable to a new owner should the vehicle ever be sold. In addition, should the manufacturer bidding this proposal re-chassis the vehicle within the period of the initial structural warranty, then an additional 5 years shall be added to the remaining amount of warranty coverage left at the time of re-chassis. This warranty shall be revalidated in five-year increments each time the body is mounted to a new chassis provided that the warranty has not expired, that this purchaser authorizes any necessary repairs, and provided that the original manufacturer performs the re-chassis.

Above section bid exactly as written. _____
Section not provided. _____
Bidder is offering an alternative to this section. _____

CORNER POST SUPPORTS:

The body structure must be able to support the loaded weight of the vehicle in the unlikely event of a rollover. A structure is required that will enhance the safety of both patients and attendants in the event of an accidental collision. The foundation of a solidly built module body is the utilization of strong corner posts in both the sidewalls and the roof. A one-piece 90-degree radius post is required. The posts shall include a full length W shaped extrusion that forms a fully encased web inside the post for strength. This reinforcing member shall angle inward just before it joins the radius to form a small slot where the edges of the aluminum skin will be inserted prior to the final welding. Because the structural integrity of a body is derived from the corner posts, subfloor, and framework, corner posts that are a part of the exterior body skin (e.g. rolled corner posts) will not be considered, nor will corner posts which do not have an integral center reinforcement as part of the extrusion.

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Above section bid exactly as written. _____
Section not provided. _____
Bidder is offering an alternative to this section. _____

CORNER POST STRENGTH:

The corner post extrusions shall possess a minimum ultimate tensile strength of 27,000 psi (6063-T5).

Above section bid exactly as written. _____
Section not provided. _____
Bidder is offering an alternative to this section. _____

ROOF EXTRUSIONS:

The horizontal roof extrusions shall conform to the same construction description as the vertical wall extrusions. They will, however, include an extruded drip rail as a part of the one-piece posts. Because the drip rail is a part of the post itself there will be no seams between the rail and the body above the rail. In addition there shall be drip rails installed above all body doors that are not full height. These rails shall attach via a durable adhesive.

Above section bid exactly as written. _____
Section not provided. _____
Bidder is offering an alternative to this section. _____

WALL AND ROOF SKIN SUPPORTS:

The exterior wall and roof skins shall be supported on the inside by 2" square tubing with .125" wall. These structural supports shall be strategically located at the load bearing points of the module body. The roof structural support beams shall be spaced on minimum 12" centers for adequate load support. Wall tubing of .125" thickness or less will not be acceptable.

Above section bid exactly as written. _____
Section not provided. _____
Bidder is offering an alternative to this section. _____

HORIZONTAL WALL SUPPORT:

In addition to the vertical wall supports there shall be a horizontal beam, located in the beltline area, to provide additional protection in the event of a side body collision.

Above section bid exactly as written. _____
Section not provided. _____
Bidder is offering an alternative to this section. _____

GUSSET ENHANCEMENT:

Gusset supports, made from 2" square tubing, shall be installed throughout the vehicle for added strength. Each gusset shall be a minimum of 5" long at its longest point. A minimum of twenty-four (24) of these gussets shall be welded into the vehicle support structure. Areas of installation shall include but not be limited to: all door openings, all body corners, and above all wheel wells. Designs that utilize no gussets, or gussets of lesser material size or strength, are not acceptable.

Above section bid exactly as written. _____

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Section not provided. _____
Bidder is offering an alternative to this section. _____

EXTERIOR BODY PANELS:

The materials selected for the body skin have been chosen because of this vehicles expected heavy-duty cycle and the good wear characteristics that this material has shown in the field. The material shall be a minimum 5052-H34 alloy with an ultimate tensile strength of 38,000 psi. This material has been chosen because it is less prone to fail due to stress than other weaker materials such as 5052-H32 alloy.

Above section bid exactly as written. _____
Section not provided. _____
Bidder is offering an alternative to this section. _____

EXTERIOR BODY PANELS (PART 2):

The thickness required for exterior body panels is:

-Side, front, and rear walls: .125"
-Ceiling and floor panels: .090"

Note: The roof shall be constructed with a single sheet of 5052-H34 .090" thick aluminum. This one-piece construction is preferred over a multiple piece design. The roof shall incorporate a 3/8" crown designed to allow water to drain.

Above section bid exactly as written. _____
Section not provided. _____
Bidder is offering an alternative to this section. _____

FLOOR CONSTRUCTION:

Floors that are uneven or are incapable of adequately supporting the load being carried on the vehicle are unacceptable. For that reason thin floor panels and/or a lack of floor supports are not desirable. To prevent buckling, sagging, oil canning or any other structural breakdown of the flooring system a detailed description of the required construction process is provided.

The body subfloor shall be constructed of .090" 5052-H34 aluminum. The floor, from the front to the rear and from curbside to street side shall be supported by a minimum 2" x 3" tubular beams with a .25" wall. The floor just behind the axle shall be supported by a minimum 1.5" x 3" tubular beam with a .25" wall. All beams shall be strategically located at the load bearing points of the floor and welded into place. The interior of this vehicle shall contain no wood or wood products of any kind. The subfloor, above the aluminum sheet shall be specially constructed to provide both acoustic and thermal protection for the patient interior. It shall consist of the .090" aluminum with tubular understructure as noted above. The underside of this area is to be sprayed with a sound reduction coating. In addition, a .125" damping pad, a .125" sound barrier sheet, and a .625" composite floor panel shall be installed prior to installation of the vinyl floor covering. The Town of Freetown / Fire Chief reserves the right to inspect the process proposed by the bidder and to make determinations regarding the acceptability of that process. The resultant subfloor shall have no organic, wood, or wood products and shall be guaranteed against rotting or water absorption for a minimum of fifteen years. It shall not support or attract mold or fungus.

Above section bid exactly as written. _____

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Section not provided. _____
Bidder is offering an alternative to this section. _____

SKIN TO SUPPORT ATTACHMENT:

All exterior aluminum body panels shall be attached to the underlying structural supports via high performance polyurethane two sided tape. The tape shall have a polyurethane foam core for environmental resistance and an acrylic adhesive for a durable bond. The tape will be used as an insulating agent to hold the panels tightly against the structural supports, thus eliminating vibration and oil-canning.

In addition to the tape attachment system, all panels shall be welded to structural members at the perimeters only. Welding in the center of the panels is not desired as the process will cause heat distortion of the body panels and lessen the overall quality of the finished appearance. Use of the tape, as described here, will eliminate heat distortion without damaging the structural integrity of the module body.

Above section bid exactly as written. _____
Section not provided. _____
Bidder is offering an alternative to this section. _____

SKIN TO SUPPORT ATTACHMENT (PART 2):

Each body panel shall be welded to all horizontal frame members, including the roof extrusions. In addition, the panels shall be welded to the vertical corner posts. In the case of the roof, the perimeter of the one-piece roof sheet shall be welded. This method of attachment shall provide a total welding application to the entire perimeter of the body skin and a taped/insulating application to the interior surfaces of all walls. Methods of panel attachment that utilize rivets will not be acceptable.

Above section bid exactly as written. _____
Section not provided. _____
Bidder is offering an alternative to this section. _____

STRUCTURAL INTEGRITY VERIFICATION:

Structural integrity, as stated elsewhere in this specification, is of extreme importance to this purchaser. As such, it is required that the manufacturer maintain a program of simulated crash tests. The manufacturer's Hygee sled testing program must be current and have been maintained on a continuous basis for a period of time not less than ten years. In addition, the sled testing shall have subjected a body, built to the above-written specifications, to a minimum of 30 G's in both side and frontal impact conditions. Neither photographs of vehicles that have been involved in accidents, nor statements or observations relevant to an accident, be it from a customer or a manufacturer's representative, shall suffice as a substitute for this requirement. The sled testing must take place in a controlled environment whereupon meaningful engineering data can be gathered and applied to the structural design of the module body. Accidents that take place outside of this controlled environment do not yield any meaningful data. Therefore, real world accidents are considered anecdotal and cannot realistically be used by the manufacturer to judge the safety of a design.

Above section bid exactly as written. _____
Section not provided. _____
Bidder is offering an alternative to this section. _____

MODULAR DOOR DESIGN:

Door panel separation, dirt accumulation at seams, paint imperfections, misalignment, and even malfunctions

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whereupon the door cannot be operated have been observed in many styles of door construction. These problems, along with the expected rugged use of the vehicle doors, shall be eliminated with a good overall design and construction process. With these thoughts in mind the modular doors shall be constructed as follows:

- Above section bid exactly as written. _____
- Section not provided. _____
- Bidder is offering an alternative to this section. _____

OUTER DOOR SKIN:

The door facing and edges shall be formed from a single sheet of aluminum. The aluminum used for the doors shall not be less than 5052-H34 alloy with an ultimate tensile strength of 38,000 psi. The material shall be .125" thick. All module doors shall be flush fit to the body side. The door panels must be welded at the corners.

- Above section bid exactly as written. _____
- Section not provided. _____
- Bidder is offering an alternative to this section. _____

INNER DOOR REINFORCEMENT:

Each door shall include an internal extrusion for added reinforcement. The extrusions shall extend around the entire perimeter of the door. Additional reinforcement shall be installed through the center of the door and around each window where applicable. In addition to the extrusions reinforcing each outer door pan, the extrusions themselves shall be reinforced through a dual joining method. First, each mitered corner, where the frame corners join, shall be fitted with a one-way solid aluminum insertable key. This key shall prevent the corner from pulling apart, and shall act as a solid aluminum internal gusset. Secondly, each corner where the frame joins shall be welded to further prevent any separation. The end result will be a rigid door that will not bend or flex and that will eliminate the other commonly seen structural defects described above.

- Above section bid exactly as written. _____
- Section not provided. _____
- Bidder is offering an alternative to this section. _____

INNER DOOR PAN:

An inner door pan shall fit flush with the inner edges of the door. Inner door pans that do not fit flush will have sharp or ragged edges exposed and will not be acceptable. The panels must be attached to the door structure with machine screws and Nutserts to prevent stripping. Sheet metal screws or rivets will not be accepted. Lastly, a closed cell cross-linked polyolefin foam tape shall be used beneath the inner door panels to isolate the panels from the door frames. This process will prevent door rattling.

- Above section bid exactly as written. _____
- Section not provided. _____
- Bidder is offering an alternative to this section. _____

DOOR SEAL:

All module doors shall incorporate an extruded rubber seal located around the perimeter of the door. The seal shall insert into a groove in the inner door extrusion. Seals that are installed around compartment openings will be easily torn by the movement of equipment across them. In addition, glue will not be permitted except in the case of a double door compartment. The requested design does not include a groove on the underlying door edge of a double door compartment. That edge alone will require an adhesive. Glue for all seals is not

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desirable because of increased replacement time and insufficient durability.

Above section bid exactly as written. _____
Section not provided. _____
Bidder is offering an alternative to this section. _____

DOOR JAMB:

All doorjamb must be separate from the body skin and must be welded to the 2" x 2" tubular body frame members so as to ensure continued door alignment and proper latching. The compartment frame shall be designed in such a manner as to provide extra protection around the compartment openings. The reinforcement tube shall be at least 1" wide. For added strength, the frame shall be at least .188" thick where screws are attached.

Prior to door installation the doors shall be true fit to the doorjamb. The fitting, prior to installation, shall provide added assurance that the door aligns properly with the doorjamb.

Above section bid exactly as written. _____
Section not provided. _____
Bidder is offering an alternative to this section. _____

HINGING:

All doors shall have full-length stainless steel hinges. The hinges shall be .070" thick and shall incorporate a .25" diameter pin.

All hinges shall have un-slotted mounting holes for an exact and permanent installation. Hinges that utilize slotted mounting holes are unacceptable because of the continued adjustments that they require.

There shall be an insulating material installed along the length of the hinge where the hinge meets the door frame to separate the stainless hinge from the aluminum body. This material shall be transparent so as not to be visible at any point while the door is being used.

Above section bid exactly as written. _____
Section not provided. _____
Bidder is offering an alternative to this section. _____

HOLD-OPEN DEVICES:

The following door hold-open devices shall be installed:

- Compartment doors: Gas filled, 100-degree extension actuator
- Side access door: Gas filled, 110-degree extension actuator
- Rear doors: Cast Products grabber style devices

Spring-loaded devices are not desired because of their weaker holding capabilities and a lack of smooth door operation.

Above section bid exactly as written. _____
Section not provided. _____
Bidder is offering an alternative to this section. _____

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DOOR HANDLES AND LATCHING SYSTEM:

A door latching system is required that provides safety to all on-board personnel and security to all stored equipment. The patient area must be capable of being quickly secured. The following minimum features are to be designed into the module door latching system:

- All door handles shall be rugged automotive style handles that are near flush with the outer door panel. Each handle shall actuate a Nader rotary safety latch.
- The handle and latching system shall be designed by their manufacturer to accommodate electromagnetic activation. Paddle style or D ring style handles that must be retrofitted for this application are unacceptable.
- The entire exterior handle assembly shall be Tri/Mark Series 2100 cast metal that is chrome plated and buffed to a high luster.
- All doors shall have an exterior key lock.
- All three patient area access doors shall include both interior and exterior latch activators. The rear doors shall have an activator installed on the outside of each door. The interior activators shall be located in a recessed pan on the door. A manual lock/unlock device shall be located within the pan. This pan shall be powder coated cast aluminum for extra durability and for ease of decontamination. No plastic products shall be used for this application.
- Exterior double door compartments shall include two exterior latching devices, one on each door.

The latching system shall be a proven system that has been subjected to the simulated sled tests as described elsewhere in this specification. Latching systems that have not been subjected to these tests will not have reliable data available as to installation and retention characteristics. Again, only controlled testing fulfills this requirement. Neither pictures of accidents, nor common observations gathered from damage surveys will suffice.

- Above section bid exactly as written. _____
- Section not provided. _____
- Bidder is offering an alternative to this section. _____

PATIENT AREA DOOR OPENINGS:

REAR DOORS:

Two (2) doors shall be provided at the rear of the module body. The overall opening of the access to be a minimum of 58.3" in height x 46.75" in width. Both inside and outside door handles shall be installed on each rear door. Left rear doors that can only be activated from the inside are not acceptable.

SIDE DOOR:

One (1) side door shall be provided on the curb side of the module body. The opening shall have minimum overall dimensions of 78.6" in height x 30" in width.

- Above section bid exactly as written. _____
- Section not provided. _____
- Bidder is offering an alternative to this section. _____

MODULE TO CHASSIS MOUNTING SYSTEM:

This purchaser requires a mounting system that provides a stable and durable attachment of the module body to the chassis frame. To accomplish this requirement the following body attachment method shall be used: A minimum of (5) five Mounting platforms shall be attached along the outside of each chassis frame rail for a

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total of (10) ten. Each platform shall consist of (1) top plate of .375" thick steel and (2) side reinforcement plates made of .25" steel. There shall be a .375" full backing plate where the mount attaches to the frame rail. The plates shall be welded along all seams with a heavy continuous weld. The body substructure shall include a 1" by 3" solid aluminum tie down bar welded to each sub structure cross member. To complete the body to chassis attachment, a tuned mounting system shall be used. The elastomer mount shall be custom-tuned to the specific chassis type for vibration reduction, structure borne noise attenuation and to provide low profile, low frequency isolation necessary for ideal patient compartment conditions. Standard chassis furnished mounting donuts will not meet the requirements of this specification. The mount shall be attached to each platform by (2) .625" Grade 8 bolts with washers and locking nuts. The platform shall be attached to the chassis frame rail with (3) .625" diameter Grade 8 bolts with washers and locking nuts. The fail safe elastomer isolation mount shall then attach to the aluminum body tie down bar with a .75" diameter Grade 8 bolt, a washer, and a locking nut.

The mounting system must have been subjected to a documented Hygee dynamic frontal impact test of at least 30 G's to verify the integrity of the mounting system in the event of a serious accident. No exceptions to this requirement are permissible. This purchaser requires a mounting system that provides a stable and durable attachment of the module body to the chassis frame. To accomplish this requirement the following body attachment method shall be used:

- Above section bid exactly as written. _____
- Section not provided. _____
- Bidder is offering an alternative to this section. _____

INSULATION:

The patient area, including the doors, shall be insulated with 2" Technicon polyfiber for both thermal and acoustic insulation. The headliner area of the vehicle shall also include a barrier insulation of Reflectix material for increased protection.

- Above section bid exactly as written. _____
- Section not provided. _____
- Bidder is offering an alternative to this section. _____

STREETSIDE FRONT COMPARTMENT (#1):

The compartment described above shall feature the following minimum dimensions:

- Clear Door Opening: 18.75" wide x 79.1" high
- Actual Dimension: 21.5" wide x 82.1" high x 20" deep

This compartment shall be accessed through a single hinged door meeting the standards for door construction, hinging, and latching outlined within this specification. The compartment shall house the vehicle's primary O2 cylinder and shall be vented to the outside in such a way as to prevent moisture from entering the compartment. Under no circumstances shall vents be installed within the compartment door. The compartment itself shall be constructed as an individual box and welded into the body structural framing.

The material used shall be .125" polished aluminum diamond plate that is continuously welded at all seams. The compartment shall include two strips of LED lights, one to either side of the compartment door, to provide lighting inside the compartment. A 20 inch compartment will be built above the large one for storing compressor, inverter and spare nuts.

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Above section bid exactly as written. _____
Section not provided. _____
Bidder is offering an alternative to this section. _____

DIVIDER FIXED, VERTICAL COMPARTMENT

A 16" vertical divider shall be installed as noted below. The divider shall be non-adjustable and shall be fabricated from the same material used in the construction of the compartment in which it is to be installed.

Quantity: 1

Above section bid exactly as written. _____
Section not provided. _____
Bidder is offering an alternative to this section. _____

STREETSIDE INTERMEDIATE COMPARTMENT (#2):

The compartment described above shall feature the following minimum dimensions:

Clear Door Opening: 51.75" wide x 38.3" high
Actual Dimension: 55.5" wide x 41.5" high x 20" deep

This compartment shall be accessed through double hinged doors meeting the standards for door construction, hinging, and latching outlined within this specification. A portion of this compartment shall house the vehicle's required onboard electrical components as specified for use on this vehicle. The remainder of the compartment shall be utilized for storage of miscellaneous items as required by this purchaser. This compartment shall be vented to the outside in such a way as to prevent moisture from entering the compartment. Under no circumstances shall vents be installed within the compartment door unless they are required for airflow to equipment installed within this compartment. The compartment itself shall be constructed as an individual box and welded into the body structural framing. The material used shall be .125" polished aluminum diamond plate that is continuously welded at all seams. The compartment shall include two strips of LED lights, one to either side of the compartment door, to provide lighting inside the compartment.

Above section bid exactly as written. _____
Section not provided. _____
Bidder is offering an alternative to this section. _____

SHELVING FOR DOUBLE-DOOR EXTERIOR COMPARTMENT:

A shelf shall be installed in the location(s) noted below. All shelving is to be fabricated from 3003-H14 aluminum diamond plate. This material shall be .125" thick. All shelving is to include a 2" integral lip to prevent equipment from sliding off of the shelf. The compartment light shall meet the lighting criteria as described elsewhere within this specification.

Quantity: one
Locate: adjustable

Above section bid exactly as written. _____
Section not provided. _____
Bidder is offering an alternative to this section. _____

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STREETSIDE REAR COMPARTMENT (#4):

The compartment described above shall feature the following minimum dimensions:

Clear Door Opening: 26" wide x 58.3" high
Actual Dimension: 30.6" wide x 61.5" high x 20" deep

This compartment shall be accessed through double hinged doors meeting the standards for door construction, hinging, and latching outlined within this specification. This compartment shall be utilized for storage of miscellaneous items as required by this purchaser. This compartment shall be vented to the outside in such a way as to prevent moisture from entering the compartment. Under no circumstances shall vents be installed within the compartment door. The compartment itself shall be constructed as an individual box and welded into the body structural framing. The material used shall be .125" polished aluminum diamond plate that is continuously welded at all seams. The compartment shall include two strips of LED lights, one to either side of the compartment door, to provide lighting inside the compartment.

Above section bid exactly as written. _____
Section not provided. _____
Bidder is offering an alternative to this section. _____

SWEEP OUT COMPARTMENT FLOOR:

The floor of the compartment(s), as noted below, shall be flush with the door frame so as to provide a sweep-out style compartment bottom. There shall be no lip at the forward edge of the compartment bottom, or any other obstruction, that may hinder the user's ability to sweep the compartment free of dirt and/or debris.

Quantity: one
Locate: front

Above section bid exactly as written. _____
Section not provided. _____
Bidder is offering an alternative to this section. _____

SHELVING FOR VERTICAL EXTERIOR COMPARTMENT:

A shelf shall be installed in the location(s) noted below. All shelving is to be fabricated from 3003-H14 aluminum diamond plate. This material is to be .125" thick. All shelving is to include a 2" integral lip to prevent equipment from sliding off of the shelf. The compartment light shall meet the lighting criteria as described elsewhere within this specification.

Quantity: one
Locate: adjustable

Above section bid exactly as written. _____
Section not provided. _____
Bidder is offering an alternative to this section. _____

CURBSIDE REAR COMPARTMENT (#5):

The compartment described above shall feature the following minimum dimensions:

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Clear Door Opening: 19.1" wide x 79.1" high
Actual Dimension: 23.6" wide x 82.1" high x 20" deep

This compartment shall be accessed through a single hinged door meeting the standards for door construction, hinging, and latching outlined within this specification. This compartment shall be utilized for storage of miscellaneous items as required by this purchaser. This compartment shall be vented to the outside in such a way as to prevent moisture from entering the compartment. Under no circumstances shall vents be installed within the compartment door. The compartment itself shall be constructed as an individual box and welded into the body structural framing. The material used shall be .125" aluminum that is continuously welded at all seams. The compartment shall include two strips of LED lights, one to either side of the compartment door, to provide lighting inside the compartment.

Above section bid exactly as written. _____
Section not provided. _____
Bidder is offering an alternative to this section. _____

SWEEP OUT COMPARTMENT FLOOR:

The floor of the compartment(s), as noted below, shall be flush with the door frame so as to provide a sweep-out style compartment bottom. There shall be no lip at the forward edge of the compartment bottom, or any other obstruction, that may hinder the user's ability to sweep the compartment free of dirt and/or debris.

Quantity: curbside and streetside rear
Above section bid exactly as written. _____
Section not provided. _____
Bidder is offering an alternative to this section. _____

SHELVING FOR VERTICAL EXTERIOR COMPARTMENT:

A shelf shall be installed in the location(s) noted below. All shelving is to be fabricated from 3003-H14 aluminum diamond plate. This material is to be .125" thick. All shelving is to include a 2" integral lip to prevent equipment from sliding off of the shelf. The compartment light shall meet the lighting criteria as described elsewhere within this specification.

Quantity: 3
Locate: divider to front wall
Above section bid exactly as written. _____
Section not provided. _____
Bidder is offering an alternative to this section. _____

DIVIDER FIXED, VERTICAL COMPARTMENT

A 16" vertical divider shall be installed as noted below. The divider shall be non-adjustable and shall be fabricated from the same material used in the construction of the compartment in which it is to be installed.

Quantity: 1
Locate: 10 inches from front wall
Above section bid exactly as written. _____

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Section not provided. _____
Bidder is offering an alternative to this section. _____

BACKBOARD RETENTION CHANNELS:

An aluminum channel with molded rubber for backboard storage shall be installed in the designated compartment.

Quantity is each: [3] 3" for plastic backboards

Above section bid exactly as written. _____
Section not provided. _____
Bidder is offering an alternative to this section. _____

CURBSIDE FRONT COMPARTMENT (#6):

The compartment described above shall feature the following minimum dimensions:

Clear Door Opening: 22.1" wide x 59.1" high
Actual Dimension: 26.7" wide x 62.1" high x 30" deep

This compartment shall be accessed through a single hinged door meeting the standards for door construction, hinging, and latching outlined within this specification. This compartment shall also be accessible from the vehicle interior front wall area. This compartment shall be utilized for storage of purchaser-supplied jump kits and other miscellaneous items as required by this purchaser. The compartment itself shall be constructed as an individual box and welded into the body structural framing. The material used shall be .125" aluminum that is continuously welded at all seams. The compartment shall include two strips of LED lights, one to either side of the compartment door, to provide lighting inside the compartment.

Above section bid exactly as written. _____
Section not provided. _____
Bidder is offering an alternative to this section. _____

KKK-A-1822 CERTIFICATION LABEL:

The vehicle shall have weight/payload, electrical load, and the current KKK-A-1822 certification stickers installed in the O2 compartment. Failure to provide these certification labels will be cause for rejection of the completed vehicle. Labels that are found to be falsified will also be cause for rejection of the completed vehicle. The purchaser reserves the right to request documentation showing that all required testing has been completed at the time of the bid opening. Failure to provide this documentation, if requested, will result in the bid being rejected without further consideration.

Above section bid exactly as written. _____
Section not provided. _____
Bidder is offering an alternative to this section. _____

SPECIAL BODY REQUIREMENTS:

The requirements set forth in the following section of this specification represent items and features that may not be offered as standard by the bidder. If the bidder is unable to furnish any items listed in this section, then that inability must be listed and explained in the bidder's list of exceptions. Failure to do so will result in rejection of the bidder's proposal as being non-responsive.

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3" DROP SKIRT DESIGN:

The curbside skirt, forward of the rear wheel well shall be dropped three (3) inches. Two integral aluminum diamond plate steps shall be installed within the side access door step well for improved accessibility to the patient compartment. Under no circumstances shall this be accomplished by bolting an additional step to the step well. The design must be such that all steps are integral. The use of bolts, rivets, or any other type of fastener is prohibited.

Above section bid exactly as written. _____
Section not provided. _____
Bidder is offering an alternative to this section. _____

BODY MOLDING:

A chrome trim piece with rubberized insert is to be installed midway up the streetside of the module body.

Above section bid exactly as written. _____
Section not provided. _____
Bidder is offering an alternative to this section. _____

SOUNDPROOFING:

To insure good working conditions and to create a stable patient environment, the vehicle shall be manufactured with particular attention paid to sound control. The following process must be performed throughout the manufacturing cycle of the vehicle:

1. Underbody shall be completely sprayed with sprayable, non-flammable latex sound control coating
2. Body Interior walls, roofs and interior compartment walls shall be sprayed with sprayable non-flammable latex sound control coating
3. The interiors of all access and compartment doors shall be sprayed with sprayable non-flammable latex coating
4. The backs of all interior cabinets shall be wrapped in antiphon damping material
5. Door interiors are to be lined with polydamp intefoam extensional damping pad
6. The body structural tubes shall filled with non-resonating dampening material
7. Side stepwell areas are to be backed with PT Damping Pad
8. All walls shall be insulated with 2" Technicon polyfiber acoustic insulation. Headliners shall be double insulated with 2" Technicon Polyfiber and a Reflectix barrier.
9. A .125" damping pad, a .125" sound barrier sheet, and a .625" composite floor panel shall be installed prior to installation of the vinyl floor covering.
10. A chassis tuned mounting system shall be used to provide vibration reduction and structure borne noise attenuation.

Above section bid exactly as written. _____
Section not provided. _____
Bidder is offering an alternative to this section. _____

HINGED STREETSIDE WHEEL WELL COMPARTMENT & TRAY:

A diamond plate compartment shall be constructed above the street side wheelhouse. This compartment shall be accessed through a hinge-down door and shall include a slide-out tray. The slide-out tray shall be fabricated from aluminum diamond plate and shall include Accuride slides with a locking mechanism to assure that the tray will remain in the "closed" position. The door and compartment construction methods and materials utilized

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shall match those listed within the appropriate section of this specification.

Above section bid exactly as written. _____
Section not provided. _____
Bidder is offering an alternative to this section. _____

SPECIAL INSTRUCTION, BODY MODIFICATIONS

MODULE BODY HARDWARE:

The following section lists hardware items that are to be installed on the vehicle body.

WINDOWS, MODULE BODY ENTRY DOORS:

The rear module body access doors shall include windows. The two rear doors shall feature fixed windows. Each of these windows shall measure 16.5"h x 17"w and shall be glazed and tinted in accordance with FMVSS.

The windows shall have dark privacy glass. The windows shall meet FMVSS glazing standards. No films are to be used. The windows shall be encased in extruded aluminum frames. Under no circumstances will RV style windows, windows that rely on rubber gaskets, windows that do not feature extruded aluminum frames, or windows that do not meet the above stated minimum dimensions be acceptable. The windows shall have star of life designs in Gerber vision adhesives

Above section bid exactly as written. _____
Section not provided. _____
Bidder is offering an alternative to this section. _____

WINDOW, CURBSIDE OF BODY ABOVE SQUAD BENCH:

There shall be a fixed privacy window installed in the curbside of the body above the squad bench. This window shall measure 13.5"h x 34"w and shall have dark privacy glass. The window shall meet FMVSS glazing standards. Gerber vision film are to be used. This window shall be encased in an extruded aluminum frame. Under no circumstances will an RV style window, a window that relies on a rubber gasket, a window that does not feature an extruded aluminum frame, or a window that does not meet the above stated minimum dimensions be acceptable.

Above section bid exactly as written. _____
Section not provided. _____
Bidder is offering an alternative to this section. _____

SPLASH SHIELDS:

Stainless steel splash shields are to be installed on the lower front face of the module body just aft of the cab access doors. These shields are to have a #8 mirror finish and shall match the height of the diamond plate corners guards that are to wrap around the lower corner posts on the side of the body.

Above section bid exactly as written. _____
Section not provided. _____
Bidder is offering an alternative to this section. _____

STAINLESS STEEL FENDERS:

Polished stainless steel fender flares shall be installed above each wheel well opening. The mounting of these

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flares shall provide for no contact between the stainless steel fender, fasteners, and the aluminum body skin. This is done to eliminate any contact between dissimilar metals and the electrolysis that may result.

- Above section bid exactly as written. _____
- Section not provided. _____
- Bidder is offering an alternative to this section. _____

RUB RAILS:

Polished stainless lower body rub rails shall be installed on each side of the module body. Each rail shall be securely installed yet simple to remove and replace in the event of damage. Each rail is to be a three piece assembly to include a channel style rub rail and two removable end caps. These rails are to have a #8 mirror finish. Rubber rub rails are not acceptable to this purchaser.

- Above section bid exactly as written. _____
- Section not provided. _____
- Bidder is offering an alternative to this section. _____

EXTENDED CORNER GUARDS:

Extended stainless steel stone guards and polished aluminum diamond plate corner guards shall be installed as noted below. The guards shall be extended and shall terminate where noted.

- Locate: Front of body
- Configure: Extend to bottom of paint stripe

- Above section bid exactly as written. _____
- Section not provided. _____
- Bidder is offering an alternative to this section. _____

REAR ACCESS DOOR HOLD-OPEN DEVICES:

Cast Products "Grabber" style rear door hold-open devices shall be installed to maintain the rear access doors in the 'open' position. One loop shall be installed on each door, and the appropriate socket shall be installed on the body. These devices are to be chrome finish in lieu of Cast Products' standard finish.

- Above section bid exactly as written. _____
- Section not provided. _____
- Bidder is offering an alternative to this section. _____

ELECTRIC LOCKS, COMPARTMENT DOORS:

Power activated door locks shall be installed on all exterior compartment doors. Locks shall be activated by switches located at each patient area access door and in the front radio console. Each lock may be individually overridden by the use of a key.

- Above section bid exactly as written. _____
- Section not provided. _____
- Bidder is offering an alternative to this section. _____

ELECTRIC LOCKS, ACCESS DOORS:

Power activated door locks shall be installed on patient area access doors. Locks shall be activated by

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switches located at each patient area access door and in the front radio console. Locks may be overridden by a manual slide lever or by the door key.

- Above section bid exactly as written. _____
- Section not provided. _____
- Bidder is offering an alternative to this section. _____

CONCEALED DOOR LOCK SWITCH:

A concealed weatherproof switch shall be installed as indicated below to operate the power door locks specified above. The switch shall be wired to unlock only.

Locate: front grill

- Above section bid exactly as written. _____
- Section not provided. _____
- Bidder is offering an alternative to this section. _____

DOOR LOCKS WIRED THROUGH OEM SWITCHES:

The power door locks specified above are to be wired to the O.E.M. chassis door lock switches.

- Above section bid exactly as written. _____
- Section not provided. _____
- Bidder is offering an alternative to this section. _____

REFLECTORS ON ENTRY DOORS:

Red reflectors shall be installed on the inside on the patient area doors.

- Above section bid exactly as written. _____
- Section not provided. _____
- Bidder is offering an alternative to this section. _____

DOOR REFLECTION:

Red Scotchlite strips, 2" x 12", shall be installed horizontally across the top of each entry door. This material is in addition to the reflectors listed above.

- Above section bid exactly as written. _____
- Section not provided. _____
- Bidder is offering an alternative to this section. _____

RUBBER MATTING IN EXTERIOR COMPARTMENTS:

Black rubber matting material shall be cut to size and installed on the bottoms of all exterior compartments and shelves. The material shall feature integral ridges to help equipment to stay in place.

- Above section bid exactly as written. _____
- Section not provided. _____
- Bidder is offering an alternative to this section. _____

RUBBER-COVERED WALLS IN BACKBOARD COMPARTMENT:

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The walls of the backboard compartment shall be covered with self-adhesive textured rubber matting to protect the walls and the equipment stored in this area from any damage.

Color: Gray _____
Above section bid exactly as written. _____
Section not provided. _____
Bidder is offering an alternative to this section. _____

GRIP LOCK TRIM-EXTERIOR SHELVES AND DIVIDERS:

Grip-Lock trim material shall be installed on the faces of all exterior compartment shelves and dividers where applicable.

Above section bid exactly as written. _____
Section not provided. _____
Bidder is offering an alternative to this section. _____

PAINT AND STRIPING:

An acrylic urethane paint process is required on the module body. This process shall extend to the chassis if the vehicle converter must perform paint or body work to the chassis. The acrylic urethane process is required so that the highest possible gloss will be provided. Acrylic urethane possesses superior color and luster retention characteristics when compared to other types of paint. In addition, an acrylic urethane process provides a higher resistance to chemical sprays, salt sprays, humidity, and temperature changes.

Lastly, this process, given the expected life of the vehicle and its heavy-duty cycle, will best resist chipping. The final paint application shall be free of material application imperfections such as orange peel, streaking, or a dull finish. Once painted, the vehicle shall be inspected under a black light to bring any small imperfections, not seen with the naked eye, to attention. Any such imperfections shall be repaired prior to the conclusion of the paint inspection process. The final application shall provide a high gloss on all body surfaces including the roof and excluding the underside.

Above section bid exactly as written. _____
Section not provided. _____
Bidder is offering an alternative to this section. _____

PREPARATION:

To produce an acceptable paint finish, the following paint process must be used:

All body doors and hardware must be removed prior to any wash, prime or final paint application. All material impurities and oils must be removed from the bare aluminum body. The entire module body, excluding the underside, will have all visible welds ground down and all material imperfections filled. All holes (e.g. for hinge mounting, etc.) shall be plugged at this stage to prevent any cleaning agents from entering the module body framework. The body shall be prepared for paint by spraying with a phosphoric acid-based cleaner to remove dirt and oil and to etch the body for superior paint adhesion. The application of the cleaner shall be followed with a water rinse. Next, a chromium-free titanium composite coating shall be applied to the body to enhance paint adhesion and to prevent corrosion.

The body shall be rinsed with de-ionized water to prevent salts from accumulating on the surface. The body

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will, then, be baked dry prior to the application of three (3) coats of Sikkens Colorbuild primer. The primed body shall be finish sanded and made ready for the final paint application. All module doors, though handled separately from the body, shall undergo the same process as described above.

- Above section bid exactly as written. _____
- Section not provided. _____
- Bidder is offering an alternative to this section. _____

PAINT MANUFACTURER'S INSPECTIONS:

The manufacturer shall maintain an outside paint audit system. As part of that audit the paint manufacturer shall regularly receive and test sample paint panels that are painted along with module bodies. The paint manufacturer shall also provide regular onsite inspections of the vehicle manufacturers paint process to assure a consistent level of quality. Audit reports from these inspections shall be provided to management.

- Above section bid exactly as written. _____
- Section not provided. _____
- Bidder is offering an alternative to this section. _____

ADDITIONAL CORROSION PREVENTION MEASURES:

All locations where fasteners penetrate the outer skin of the module body shall be coated with ECK anti-corrosion agent. In addition, all fasteners that penetrate the outer skin of the module body shall be treated with an anti-corrosion agent to assure the maximum protection against vehicle corrosion and electrolysis.

- Above section bid exactly as written. _____
- Section not provided. _____
- Bidder is offering an alternative to this section. _____

NON-METALLIC HOLE INSERTS:

All locations where light heads and fenders attach to the aluminum body shall utilize threaded Nylon inserts to isolate the fasteners from the aluminum module body skin and structure. This practice, along with the other measures described above, shall act to minimize the threat of electrolysis.

- Above section bid exactly as written. _____
- Section not provided. _____
- Bidder is offering an alternative to this section. _____

PAINT WARRANTY:

The paint warranty provided by the converter must meet all warranty standards as set forth elsewhere within this specification. At a minimum this warranty will be 4 years/48,000 miles. The warranty MUST NOT be prorated in any manner. Bidder must submit a manufacturer's paint warranty certificate with the bid. Failure to do so will result in automatic rejection of the bidder's proposal.

- Above section bid exactly as written. _____
- Section not provided. _____
- Bidder is offering an alternative to this section. _____

CHASSIS PAINT COLOR:

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The chassis shall be painted by the ambulance converter with Sikkens Autocryl acrylic urethane paint. The paint shall meet the following requirements:

Color: RED
Number: FLNA 3225

Above section bid exactly as written. _____
Section not provided. _____
Bidder is offering an alternative to this section. _____

BODY PAINT COLOR:

The final paint application to the vehicle body shall be made with Sikkens Autocryl acrylic urethane paint.

Color: RED
Number: FLNA 3225

Above section bid exactly as written. _____
Section not provided. _____
Bidder is offering an alternative to this section. _____

VEHICLE STRIPING:

An 8" wide Scotchlite reflective beltline stripe shall be applied to the vehicle. The successful bidder shall provide, prior to any material application, CAD drawings that depict the required stripe as it will appear on the finished vehicle. The color shall be as follows:

Color: white
Material: Scotchlite

Above section bid exactly as written. _____
Section not provided. _____
Bidder is offering an alternative to this section. _____

BLACK PIN STRIPE:

The single color stripe, as described above, shall include a 1/4" black pinstripe that surrounds the entire accent stripe.

Above section bid exactly as written. _____
Section not provided. _____
Bidder is offering an alternative to this section. _____

SPECIAL INSTRUCTION, PAINT & STRIPING:

Inside bottom door panels and rear perimeter shall have #983-72 6" wide red and #983-23 6" wide yellow green diamond grade reflectix tape applied in a chevron design

CABINET DOORS, PLEXIGLAS, HANDLES AND HARDWARE:

Information relative to interior door materials, handles, and hardware is provided below:

HANDLES FOR PLEXIGLAS DOORS:

All sliding Plexiglas doors within the patient compartment of the vehicle are to have extruded handles installed

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the full height of each door at the outermost edge.

Above section bid exactly as written. _____
Section not provided. _____
Bidder is offering an alternative to this section. _____

LATCHES FOR HINGED DOORS:

The hinged doors within the patient compartment are to utilize Southco Stainless Steel flush-style latches as noted below. These latches shall feature recessed pull ring style handles. The latches shall be both positive (mechanical latching) and passive (latches automatically).

Note: Locking latch locations are to be noted on the drawings.

Above section bid exactly as written. _____
Section not provided. _____
Bidder is offering an alternative to this section. _____

PLEXIGLAS COLOR:

The Plexiglas interior cabinet doors shall be a light gray tint.

Above section bid exactly as written. _____
Section not provided. _____
Bidder is offering an alternative to this section. _____

INHALATION PANEL:

To prevent contamination of the inhalation panel the panel shall be fabricated using no wood or wood based products. The material used shall be a .5" thick synthetic polyurethane foam with layers of continuous strand fiberglass and woven roving fiberglass sanded on both sides. The material shall have a minimum composite density of 26 pounds per square foot. This material shall not absorb liquids and shall not attract bacteria, molds or fungi. The material is to be covered with Formica material in a color matching that required within this document.

Above section bid exactly as written. _____
Section not provided. _____
Bidder is offering an alternative to this section. _____

AVONITE COUNTER TOP WITH COVERED INTERIOR EDGES:

The patient area countertop(s) shall be constructed of Avonite solid surface material. The countertops shall incorporate a 1" retention lip around the perimeter of the material. The area where the lip meets the horizontal surface of the counter shall be rounded and smooth as opposed to a 90 degree mating of materials. A radius cove molding shall be installed at either end of the countertops where the material meets the cabinet wall. The rear edge of the material, adjoining the side wall of the vehicle, shall be sealed with silicone. In addition, any and all areas that require seams due to manufacturing processes shall be sealed with silicone. This material shall be uniform throughout so that scratches can be buffed out without causing adverse effects on the appearance of the material. The Avonite color required is noted below:

Copper Canyon

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INTERIOR COLOR SCHEME:

The following materials/colors shall be installed in the vehicle interior:

Floor: LONCOIN FLECKSTONE CARNELLIAN 151
Risers: WILSONART BURGUNDY #D369
Walls: WILSONART NATURAL ALMOND #D30
Cabinets: CREAM PUFF PAINT
Upholstery: PATRIOT PLUS BURGUNDY #8569
Accent Stripe: WILSONART PEBBLE #D337

Note: The flooring material and the upholstery are to be treated with an antimicrobial agent.

Above section bid exactly as written. _____
Section not provided. _____
Bidder is offering an alternative to this section. _____

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INTERIOR STORAGE AREAS:

All interior storage cabinets, including the interior of the squad bench, shall be painted for ease of cleaning. Under no circumstances shall carpet be used within these storage cabinets as it is impossible to decontaminate. The paint color is listed within the "Interior Color" section of this specification. The paint shall be treated with an antimicrobial agent.

Above section bid exactly as written. _____
Section not provided. _____
Bidder is offering an alternative to this section. _____

RISERS:

The interior of this vehicle shall be constructed without the use of wood or wood-based products. The risers shall be constructed of a reinforced structural composite consisting of a high density polypropylene core laminated between two layers of .024" aluminum skin. The composite shall then be covered by a Formica laminate to match the interior of the vehicle. The finished riser panels shall be impervious to water or other forms of moisture and must be guaranteed against rotting or decomposition.

Above section bid exactly as written. _____
Section not provided. _____
Bidder is offering an alternative to this section. _____

STAINLESS STEEL STREET SIDE RISER:

The street side riser beneath the main cabinet wall shall be covered with a single sheet of stainless steel. If the "Interior Color" section of this specification calls for an accent stripe, then the stainless steel shall stop at the bottom of this stripe. The stainless material shall be installed flush with the riser and trimmed at the top and both sides so as to cover the edges. The bottom of the material shall be formed at a 90 degree angle so that, upon installation, the 4" rolled floor will seal against the stainless steel. Designs that do not include this stainless steel riser will not be considered as they will not be capable of protecting the riser from damage due to cot movement, Etc. In addition, stainless steel risers that have exposed edges, or that are more than one piece, will not be acceptable.

Above section bid exactly as written. _____
Section not provided. _____
Bidder is offering an alternative to this section. _____

STAINLESS STEEL CURBSIDE RISER:

The curbside riser beneath the squad bench shall be covered with a single sheet of stainless steel. The stainless material shall be installed flush with the riser and trimmed at the top and both sides so as to cover the edges. The bottom of the material shall be formed at a 90 degree angle so that, upon installation, the 4" rolled floor will seal against the stainless steel. Designs that do not include this stainless steel riser will not be considered as they will not be capable of protecting the riser from damage due to cot movement, Etc. In addition, stainless steel risers that have exposed edges, or that are more than one piece, will not be acceptable.

Above section bid exactly as written. _____
Section not provided. _____
Bidder is offering an alternative to this section. _____

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ATTENDANT SEAT:

An attendant's seat base shall be fabricated from aluminum and shall be installed in a position at the head of the cot. The base shall house the vehicle's heat/AC unit as described in that section of this specification. The material shall be perforated to promote airflow to the unit. An EVS bucket type seat with a built-in child safety seat and 3-point occupant restraint shall be installed on the seat base in the rear-facing position. The seat shall be upholstered to match the vehicle interior, and shall be capable of adjustment from front to rear. Under NO circumstances shall this seat be installed in any manner that allows it to swivel due to the lack of stability and weaker structural characteristics inherent in such designs. The entire seating assembly, as described here, shall be subjected to a Hygee sled test of at least 30 G's to test the structural integrity of the design, as well as seatbelt retention characteristics, in order to assure a certain level of safety for the vehicle occupants.

Above section bid exactly as written. _____
Section not provided. _____
Bidder is offering an alternative to this section. _____

SEAT BELTS:

Each seating position shall include seat belts as follows:

Attendant seat: Three point seat belt.
CPR seat: Three point seat belt with removable third point latch.
Ends of bench: Three point seat belt with removable third point latch.
Center of bench: Two point seat belt.

Each seat belt shall have been tested to verify its latching capabilities and performance as well as the extent to which it allows movement by the "spooling effect" within the retractor. Those tests shall verify that this spooling effect allows less than three inches (3") of belt travel before latching.

Above section bid exactly as written. _____
Section not provided. _____
Bidder is offering an alternative to this section. _____

ALUMINUM INTERIOR CABINETS, STREET SIDE:

This specification requires an all aluminum modular cabinet design. Aluminum, a minimum of .063" thickness, is required over wooden cabinetry due to its lighter weight, greater durability, and the ease with which it can be decontaminated. The main cabinet wall shall be of modular construction. All individual cabinets shall be of welded construction. To insure the safety of patients and attendants in the rear of the vehicle, the main cabinet wall installation shall have been tested to a minimum frontal impact of 30 G's per the requirements of the Safety Certification section of this specification. The main cabinet wall may not be constructed of any wood or wood product. Wooden cabinetry can warp, expand, contract, splinter, separate, or crack. Wood will also harbor bloodborne pathogens whereas aluminum can be easily cleaned. Aluminum will remain stable and securely mounted (no fibers to compress) over many years and miles of continuous service. For these reasons, wooden cabinets, even when laminated with another material, will not be acceptable. Bids received that utilize any material other than that which is specified above will be considered non-responsive and will be rejected without further consideration.

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Above section bid exactly as written. _____
Section not provided. _____
Bidder is offering an alternative to this section. _____

INTERIOR CABINETRY, STREET SIDE

All of the aluminum cabinetry within the vehicle shall be of welded construction. Methods of cabinet construction that utilize rivets or adhesives of any type will not be considered.

Above section bid exactly as written. _____
Section not provided. _____
Bidder is offering an alternative to this section. _____

ALUMINUM CABINET WARRANTY:

The all aluminum cabinet construction, as described within this section, shall be warranted against any structural defects for a period of time not less than 15 years. This warranty shall be stated within the manufacturer's structural warranty document, and shall not be subject to any mileage limitations.

Above section bid exactly as written. _____
Section not provided. _____
Bidder is offering an alternative to this section. _____

CABINET BEHIND ATTENDANT SEAT:

A vertical storage cabinet shall be located behind the attendant seat. The upper storage area shall house the primary electrical distribution area. The lower section shall be used for miscellaneous storage. The left and right cabinet walls shall be fitted with Unistrut shelf track for an aluminum adjustable shelf. Each area shall be accessed through hinged doors. The electrical distribution area shall include a Southco key lock/latching device. The entire cabinet shall be fabricated from aluminum. The interior of the cabinet shall be painted and trimmed as described in the cabinet construction section of the specification.

Number of Doors: 2 (Including Electrical Cabinet)
Number of Shelves (Adjustable): 2
Number of Shelves (Fixed): 1

Above section bid exactly as written. _____
Section not provided. _____
Bidder is offering an alternative to this section. _____

INTERIOR OCCUPANT PROTECTION:

For the safety of the attendants working in the patient area, the vehicle shall be equipped with an interior occupant protection system incorporating an emergency inflatable airbag system at both the attendant and the CPR seat locations. In the event of a side impact rollover collision, the bags shall be triggered by an electronic sensor to inflate and protect the occupants against severe head strikes typical of such collisions.

Above section bid exactly as written. _____
Section not provided. _____
Bidder is offering an alternative to this section. _____

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ATTENDANT'S SEAT PROTECTION:

The attendant seat location shall be protected by an inflatable head cushion technology as well as a unique inflatable tubular system to prevent the attendant from impinging into the danger zones of the inhalation area.

- Above section bid exactly as written. _____
- Section not provided. _____
- Bidder is offering an alternative to this section. _____

CPR SEAT PROTECTION:

The CPR seat location shall be protected by a combination of an inflatable tubular system at the forward side to protect against entry into the inhalation area as well as a system of progressive resistance head protection cushions.

- Above section bid exactly as written. _____
- Section not provided. _____
- Bidder is offering an alternative to this section. _____

TESTING:

All airbag seating locations shall have been tested with a variety of occupant sizes. Those tests shall include Hybrid III fully instrumented test mannequins including 5% child (115 lbs.), 50% female (163 lbs.), and 95% male (195 lbs.). Testing shall have included at least fourteen (14) fully instrumented destructive dynamic roll crashes and an additional six (6) side impact destructive crashes. Roll crash testing shall be performed at 17-19G's while side impacts shall be approximately 27G's.

- Above section bid exactly as written. _____
- Section not provided. _____
- Bidder is offering an alternative to this section. _____

CERTIFICATIONS:

The vehicle must have been certified as compliant to standards ECE R29, SAE J2420, and SAE J2422. The bidder must show evidence that their service facility is trained and certified to service or to replace the airbags should the need arise. Such certification shall be attached to the proposal (NO EXCEPTIONS).

- Above section bid exactly as written. _____
- Section not provided. _____
- Bidder is offering an alternative to this section. _____

STREET SIDE CABINET WALL:

The street side main cabinet wall shall be constructed from aluminum as described above. Each cabinet within the cabinet wall shall be designed and constructed as an individual welded aluminum box. Each box shall be insulated and soundproofed. The boxes shall then be bolted together to form the main cabinet wall. This design will allow for future modifications to the cabinetry should equipment storage requirements be updated. The cabinet wall assembly shall be further insulated against noise and temperature extremes. The entire assembly shall be bolted to the module body structure. Cabinets that are welded or otherwise permanently affixed to the module body structure will be unacceptable. Such permanent installation methods limit the ability to make design updates at a later time.

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They also increase the time and cost involved with regard to remounting the body onto a new chassis should that occasion ever arise. Likewise, cabinets mounted with the use of either rivets or adhesives of any kind will not be considered without exception.

Cabinet wall design: See Drawings

Above section bid exactly as written. _____
Section not provided. _____
Bidder is offering an alternative to this section. _____

CABINET SHELVING:

All interior cabinet shelves shall be fabricated from aluminum. The shelves shall utilize mini Unistrut adjustable shelf track.

Above section bid exactly as written. _____
Section not provided. _____
Bidder is offering an alternative to this section. _____

TESTING AND STRUCTURAL INTEGRITY:

The cabinet wall design and construction methods described within this specification shall have been subjected to Hygee sled testing as described within the "Safety Certification" section of this document. This testing shall have been performed to a minimum of 30 G's. This testing is in addition to all other testing, whether mandated or voluntary, that has been performed. The cabinet wall shall not be, in any way, responsible for any portion of the module body's structural integrity. However, the cabinet wall, as well as the methods and materials used to attach the wall to the vehicle, must be structurally sound in the unlikely event that this vehicle is involved in an accident. This testing is required as an added assurance that the vehicle interior is crash-stable and safe for all vehicle occupants. Proposals that include cabinet wall designs that have not been subjected to this testing will be rejected on the basis of being non-responsive.

Above section bid exactly as written. _____
Section not provided. _____
Bidder is offering an alternative to this section. _____

CPR SEAT HEAD PROTECTION:

The progressive resistance head protection cushions shall incorporate layers of foam of increasing densities. Should a head strike occur, then the increasing density of the cushion as the impact progresses shall lessen the likelihood that the head will reach the aluminum cabinet material behind the cushions. It should be noted that standard single density foam cushions will not meet the requirements of this section. The bidder must have performed both actual impact tests as well as computer simulations in order to test the efficacy of this material in reducing head strike intensities to a survivable rate.

Above section bid exactly as written. _____
Section not provided. _____
Bidder is offering an alternative to this section. _____

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ADJUSTABLE VERTICAL DIVIDERS:

Adjustable shelf tracks shall be recessed into the upper and lower walls of the cabinet(s) listed below. Plexiglas dividers shall be fabricated and shall fit vertically into the recessed tracks. The dividers shall be adjustable within the track and held into position with cushioned track shelf supports. Note the quantity and location information provided below:

Locate: over action area
Quantity: 10

Above section bid exactly as written. _____
Section not provided. _____
Bidder is offering an alternative to this section. _____

RESTOCKING CABINET FRAMES, STREETSIDE:

The street side cabinet(s) listed below shall feature sliding Plexiglas doors that hinge upward for cleaning and restocking of the cabinet in addition to the normal sliding mode of operation. The extruded door frame shall be installed at the top with a full length piano hinge. This will allow the entire frame to flip upwards providing complete access to the cabinet. The door and frame shall be held in the "up" position with two gas-charged cylinders, and in the down position with two sliding dead bolt type latches. The remainder of the door construction shall adhere to the appropriate section of this specification.

Locate: top rear cabinet and cabinet over action area

Above section bid exactly as written. _____
Section not provided. _____
Bidder is offering an alternative to this section. _____

SHARPES/WASTE DISPOSAL:

A sharps/waste disposal area shall be installed in a tip-out door under the inhalation counter top as per drawings.

Above section bid exactly as written. _____
Section not provided. _____
Bidder is offering an alternative to this section. _____

INSIDE/OUTSIDE ACCESS:

An inside/outside dual access storage area shall be provided as indicated below. This area shall be accessible through both an exterior compartment door, and an interior cabinet door.

Locate: Rear of main cabinet wall
Door Style: hinged Plexiglas

Above section bid exactly as written. _____
Section not provided. _____
Bidder is offering an alternative to this section. _____

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ALUMINUM INTERIOR CABINETS, CURB SIDE:

All of the cabinets located within this section shall meet the same standards for construction, design, materials, and testing as designated in the previous section. Failure of the bidder to provide aluminum cabinets meeting these criteria shall be grounds for rejection of the bid as being non-responsive.

Above section bid exactly as written. _____
Section not provided. _____
Bidder is offering an alternative to this section. _____

SQUAD BENCH STORAGE:

A storage area, fabricated from .063" 5052-H32 aluminum, shall be installed beneath the squad bench cushions. This storage area shall be painted and trimmed per the cabinet construction section of this specification. Access to this area shall be gained by raising the bench cushion. This area shall be as large as possible given the design mandates present in the federal 'K' specifications, and the presence of the wheelhouse directly beneath this area. Note that storage areas made of wood, whether or not they are laminated or otherwise covered with another material, will not be acceptable.

Above section bid exactly as written. _____
Section not provided. _____
Bidder is offering an alternative to this section. _____

BENCH END RESTRAINT:

There shall be a barrier constructed at the head of the squad bench that will provide a 16" high restraint which, when working in conjunction with the above three point belt system will assist in securing the occupant in the event of a rollover collision. Used in conjunction with the horizontal storage of (3) O2 bottles as noted below

Above section bid exactly as written. _____
Section not provided. _____
Bidder is offering an alternative to this section. _____

BENCH HOLD OPEN:

24lb. Gas piston style hold-open devices shall be installed on the flip-up squad bench cushions. These devices will provide for smooth and simple operation. For that reason substitute hold-open devices, such as ratchet style devices, will not be acceptable.

Above section bid exactly as written. _____
Section not provided. _____
Bidder is offering an alternative to this section. _____

BENCH HOLD DOWN:

Paddle style latches shall be installed on each flip-up bench cushion to hold the cushions in the 'closed' position. The operation of these latches shall be passive and shall required intentional unlatching in order to raise the squad bench cushion. Each latch is to be flush mounted in the face of the squad bench riser.

Above section bid exactly as written. _____
Section not provided. _____
Bidder is offering an alternative to this section. _____

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SQUAD BENCH EDGE PROTECTION:

An aluminum angled trim piece shall be installed along the bottom edge of each bench cushion. Each piece shall be bent to follow the contour of each cushion on the horizontal plane. These trim pieces shall provide added protection for the upholstery against extensive wear.

Above section bid exactly as written. _____
Section not provided. _____
Bidder is offering an alternative to this section. _____

SHARPES/WASTE DISPOSAL:

A sharps waste disposal shall be installed in the face of the squad bench per the instructions listed below. This drawer will house a sharps/waste disposal location. Both the sharps and the waste containers shall be easily removable from the drawer. The drawer will include a Southco latching device to hold it in the 'closed' position.

Locate: end of bench by rear doors

Above section bid exactly as written. _____
Section not provided. _____
Bidder is offering an alternative to this section. _____

BENCH CEILING CABINET:

A cabinet shall be installed at ceiling level over the full length of the squad bench. This cabinet is to be fabricated from .063" 5052-H32 welded aluminum. The interior of the cabinet shall be painted per the cabinet construction description listed elsewhere within this specification. The cabinet is to be accessed through hinged Plexiglas doors that are held in the 'open' position by gas piston hold-open devices. This cabinet is to be a maximum of 9" H to allow enough clearance between the bottom of the cabinet and the top of the seat below to meet KKK-F requirements.

Above section bid exactly as written. _____
Section not provided. _____
Bidder is offering an alternative to this section. _____

INSIDE/OUTSIDE ACCESS:

An inside/outside dual access storage area shall be provided as indicated below. This area shall be accessible through both an exterior compartment door, and an interior cabinet door.

Locate: Curb side rear
Door Style: Hinged Plexiglas

Above section bid exactly as written: _____
Section not provided: _____
Bidder is offering an alternative to this section: _____

SPECIAL INSTRUCTION, CURBSIDE CABINETS:

ALUMINUM INTERIOR CABINETS, FORWARD WALL:

Like all other cabinets in the patient area that are to be fabricated and installed by the manufacturer, the cabinets on the forward wall are to be fabricated from aluminum as dictated in the appropriate section above. Again, failure of the bidder to meet the criteria established within this specification with regard to cabinet

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design, construction, materials, and testing will be cause for rejection of the bid as being non-responsive.

Above section bid exactly as written. _____
Section not provided. _____
Bidder is offering an alternative to this section. _____

FRONT WALL CABINET:

A cabinet shall be provided on the front wall of the patient area just inside the side access door. This cabinet shall run from floor to ceiling and shall be fabricated from .3003-H14 welded polished aluminum diamond treadplate. The cabinet shall be anchored at both the top and bottom for stability. This stability must have been tested through a Hygee sled test of at least 30g's. Under no circumstances shall this cabinet be welded to any module body structural member. This storage area shall be used to house purchaser supplied bagged equipment and supplies.

Shelf Quantity: 3 (.125" thick material)
Shelf Type: 1 fixed, 2 adjustable
Shelf Liner: rubber matting

Above section bid exactly as written. _____
Section not provided. _____
Bidder is offering an alternative to this section. _____

FRONT WALL CABINET HINGED DOORS:

Access to the front wall cabinet, as described above, shall be provided per the description below.

Door Type: Hinged Plexiglas
Quantity: 2 (Equal size)
Locate: Front wall cabinet
Latch Style: Southco

Note: The hinges on the front wall cabinet shall be polished stainless steel stamped from Grade 304 stainless steel to prevent corrosion.

Above section bid exactly as written. _____
Section not provided. _____
Bidder is offering an alternative to this section. _____

FRONT WALL CABINET HINGED DOORS:

Access to the front wall cabinet, as described above, shall be provided per the description below.

Door Type: Solid Formica covered hinged doors
Quantity: 1
Locate: Front wall cabinet, top 20 inches
Latch Style: Southco with 5 button push lock

Note: The hinges on the front wall cabinet shall be polished stainless steel stamped from Grade 304 stainless steel to prevent corrosion.

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Above section bid exactly as written. _____
Section not provided. _____
Bidder is offering an alternative to this section. _____

SIMPLEX COMBINATION LOCK:

A push button activated Simplex combination locking device shall be installed as noted below. The combination for this lock shall be changeable so that a new combination can be set at a later time.

Quantity: 2
Locate: top cabinet of front wall

Above section bid exactly as written. _____
Section not provided. _____
Bidder is offering an alternative to this section. _____

CROSSOVER CABINET:

An aluminum crossover cabinet shall be installed above the walkthrough/pass-through area at the forward end of the patient compartment. This cabinet shall include a solid hinged door.

Above section bid exactly as written. _____
Section not provided. _____
Bidder is offering an alternative to this section. _____

SPECIAL INSTRUCTION, FRONT WALL CABINET:

*

MODULE INTERIOR ACCESSORIES AND TRIM:

The following section addresses interior accessories and trim features. All installation locations, as noted below, shall be strictly adhered to by the bidder. The items in this section will directly influence the quality of care given to the patient, as well as the safety of the attendants. For these reasons the installation locations listed below must be met without exception.

IV HOOKS:

Cast Products recessed swing-down IV hangers shall be installed per the instructions listed below. These hangers are to be near flush mounted into the patient area ceiling to reduce their interference with the walkway when not in use. The arms of each hanger shall be rubberized so as to reduce the possibility of injury that may occur if contact is made with them. This style IV hanger shall be sufficient to meet Federal KKK-1822-E.

Quantity: 4
Locate: 2 Mid body over squad bench
Locate: 2 Mid body over cot

Above section bid exactly as written: _____
Section not provided: _____
Bidder is offering an alternative to this section: _____

ANTI-MICROBIAL COATED COT CEILING GRAB RAIL:

A grab rail shall be installed in the ceiling as noted below. This rail is to be constructed of stainless steel. Integral stanchions shall be welded into place at fixed points along the length of the rail for attachment to the

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ceiling. The rail shall attach through aluminum mounting plates that are welded to the module roof structure for strength and durability. Because contamination occurs most often as a result of contact, this feature must be treated with an anti-microbial agent consisting of an inorganic ceramic coating embedded with silver ions. This coating shall be effective against a broad range of microbes including bacteria, molds, algae and fungi.

Split Rails For Cot: Two 2' sections
Locate: Each side of CPR seat over cot

Above section bid exactly as written. _____
Section not provided. _____
Bidder is offering an alternative to this section. _____

ANTI-MICROBIAL COATED BENCH CEILING GRAB RAIL:

A grab rail shall be installed in the ceiling as noted below. This rail is to be constructed of stainless steel. Integral stanchions shall be welded into place at fixed points along the length of the rail for attachment to the ceiling. The rail shall attach through aluminum mounting plates that are welded to the module roof structure for strength and durability. Because contamination occurs most often as a result of contact, this feature must be treated with an anti-microbial agent consisting of an inorganic ceramic coating embedded with silver ions. This coating shall be effective against a broad range of microbes including bacteria, molds, algae and fungi.

Size: 6'
Locate: curbside of ceiling over cot

Above section bid exactly as written. _____
Section not provided. _____
Bidder is offering an alternative to this section. _____

VERTICAL GRAB RAIL WITH ANTI-MICROBIAL COATING:

A vertical grab rail shall be installed as noted below. This rail is to be constructed of stainless steel with a brushed finish. The rail is to attach to the mounting location at each end. The attachment points shall be reinforced for added strength and durability. Because contamination occurs most often as a result of contact, this feature must be treated with an anti-microbial agent consisting of an inorganic ceramic coating embedded with silver ions. This coating shall be effective against a broad range of microbes including bacteria, molds, algae and fungi.

Size: 2'
Locate: Right front cabinet wall next to side patient door.

Above section bid exactly as written. _____
Section not provided. _____
Bidder is offering an alternative to this section. _____

PATIENT AREA DOOR GRAB RAILS:

Angled door handles shall be installed on the interior door panels of each access door. The handles shall be one-piece and shall be constructed of stainless steel. The handles shall feature smooth radius corners and

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flange mounts at each attachment point. Because contamination occurs most often as a result of contact, this feature must be treated with an anti-microbial agent consisting of an inorganic ceramic coating embedded with silver ions. This coating shall be effective against a broad range of microbes including bacteria, molds, algae and fungi.

- Above section bid exactly as written. _____
- Section not provided. _____
- Bidder is offering an alternative to this section. _____

COVE MOLDING:

A radius cove molding shall be installed at all areas of the floor that may have seams.

- Above section bid exactly as written. _____
- Section not provided. _____
- Bidder is offering an alternative to this section. _____

PROTECTIVE EDGE TRIM:

The 90 degree edges of the squad bench, the attendant seat riser, and the front wall cabinet shall be protected by a chamfered trim angle.

- Above section bid exactly as written. _____
- Section not provided. _____
- Bidder is offering an alternative to this section. _____

CEILING:

The patient area ceiling shall be constructed of a bright white Alcopla aluminum composite material consisting of a polyethylene core laminated between two sheets of coated aluminum. The headliner shall be smooth, impervious to moisture, easy to clean and durable. It shall have the same rate of expansion and contraction as the aluminum body. Headliner that is padded or upholstered in any way will not be considered, nor will any headliner made of wood or wood products due to the lower degree of durability and the risk of contamination inherent in such materials. Plastic, fiberglass or ABS headliner material is not acceptable due to the cracking commonly causing by the differing rates of expansion. Lastly, the headliner material shall be treated with an antimicrobial agent. The bidder, at the request of the purchaser, may be required to submit proof of the application along with a detailed description of the agent used and the types of organisms that it effects.

- Above section bid exactly as written. _____
- Section not provided. _____
- Bidder is offering an alternative to this section. _____

FIRE EXTINGUISHER:

Two (2) 5# ABC fire extinguishers, with mounting brackets, shall be supplied on the completed vehicle per the notations below.

Note: Ship Loose

- Above section bid exactly as written. _____
- Section not provided. _____
- Bidder is offering an alternative to this section. _____

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PATIENT AREA RADIO SPEAKERS:

Two (2) speakers shall be installed in the patient area. The speakers shall include a volume switch that is integral to the rear action area switch panel. The volume shall be controlled by individual up/down switches of the type described in the electrical section of this specification.

Speaker Location: Over rear doors

Above section bid exactly as written. _____
Section not provided. _____
Bidder is offering an alternative to this section. _____

COT MOUNTS AND ACCESSORIES:

The following cot mounting hardware shall be installed per the instructions listed below. The installation shall meet the hardware manufacturer's installation guidelines. In addition, the installation process shall have been subjected to Hygee sled testing as outlined elsewhere within this document.

Does your installation meet the sled testing requirements?

Above section bid exactly as written. _____
Section not provided. _____
Bidder is offering an alternative to this section. _____

COT MOUNT:

One (1) Ferno cot mount shall be installed per the instructions and recommendations of the hardware manufacturer. The cot mount shall be installed as noted below. The cot mount installation must meet all requirements for cot retention as set forth in the current federal specification.

Cot Model: Ferno
Cot Mount Position: Center mount

Above section bid exactly as written. _____
Section not provided. _____
Bidder is offering an alternative to this section. _____

ELECTRICAL EMERGENCY VISUAL WARNING SYSTEMS:

Warning lights are to be installed per the following instructions:

FRONT LIGHT BAR:

A Whelen Ultra Freedom light bar, 55" in length, shall be installed per the instructions listed under the front light bar mounting section of this specification. The light bar is to include two red corner LED modules, four red front facing LED modules, two front facing LR11 clear flashing LED takedown lights, and two LR11 clear flashing LED alley lights.

FRONT LIGHT BAR MOUNTING:

The light bar specified above shall be installed per the instructions listed below. The light bar model is also provided for clarification purposes.

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Light Bar Location: Cab roof with Permanent Mount
Light Bar Model: Whelen Freedom ALL LED light bar

HEADLIGHT FLASHER:

The vehicle headlights shall alternately flash through the activation of the appropriate switch on the cab control console. This feature shall be accomplished through a solid state flashing device that is a part of the primary electrical control board.

A programmable phase control shall be built into the system board to allow alteration of the light flashing sequence. The flash pattern must be capable of being switched from an alternating pattern to a pulsating pattern.

The phase of "on" time can be programmed to flash when desired for an effective light pattern. For instance: If the left grill light is flashing "on", the right flashing headlight is desired to be "on". Different flash patterns may be achieved through programming.

Above section bid exactly as written. _____
Section not provided. _____
Bidder is offering an alternative to this section. _____

L.E.D. WARNING LIGHTS ON COMPARTMENT DOORS:

Install custom made L.E.D. light strip(s) on the compartment door interior door panels. The light strip shall be comprised of twelve lights. Each light is to be centered behind a scalloped integral lens for maximum light disbursement. Each light strip is to be twelve inches in length. When mounted the lens shall be flush with the aluminum diamond plate inner panel. The light strip shall flash when the compartment door is open, and the red flashing light circuit is activated. The lens shall be designed to provide a bright and intense light from a distance. As distance is decreased the light shall become less intense, preserving night time visibility for people working near the vehicle. L.E.D. lamps shall be used due to their "cold" operating temperature, low amp requirement, and long life expectancy. The lights are to provide additional lighting to warn traffic and pedestrians of open compartment doors, and to provide additional safety for the attendants.

Quantity: 4
Compartment: all rear facing doors
Color: RED
Status: Flash

Above section bid exactly as written. _____
Section not provided. _____
Bidder is offering an alternative to this section. _____

LIGHT, AMBER SUPER L.E.D., 900 SERIES

Whelen 900 Series amber super L.E.D. lighting shall be installed per the quantity and location requirements listed below. All lighting is to include the optional chrome flange.

Quantity: 2
Locate: REAR AT WINDOW LEVEL, OVER RED LEDS

Above section bid exactly as written. _____

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Section not provided. _____
Bidder is offering an alternative to this section. _____

L.E.D. LIGHTING:

Whelen 900 Series red super L.E.D. lighting shall be installed per the quantity and location requirements listed below. All lighting is to include the optional chrome flange.

Quantity: 10
Locate: KKK locations and rear at window level

Above section bid exactly as written. _____
Section not provided. _____
Bidder is offering an alternative to this section. _____

WHITE SUPER L.E.D. KKK LIGHT, 700 SERIES:

A Whelen 700 Series white super L.E.D. light assembly shall be installed as noted below to function as a KKK light. The light is to include the optional chrome flange.

Quantity: 1
Lens Color: White
Locate: Center of body front face

Above section bid exactly as written. _____
Section not provided. _____
Bidder is offering an alternative to this section. _____

AMBER SUPER L.E.D. KKK REAR LIGHT, 700 SERIES:

A Whelen 700 Series amber super L.E.D. light assembly shall be installed as noted below to function as a KKK light. The light is to include the optional chrome flange.

Quantity: 1
Lens Color: Amber
Locate: Centered above rear doors

Above section bid exactly as written. _____
Section not provided. _____
Bidder is offering an alternative to this section. _____

GRILLE LIGHTS, 500 SERIES SUPER LED's TIR6:

One pair of Whelen 500 series TIR6 Super LED light assemblies shall be provided and installed as grille warning lights. The installation shall be done in such a way as to not impede airflow through the chassis manufacturer's O.E.M. grille. Aftermarket, modified, or improvised grille work will not be acceptable. The required lens color is listed below.

Lens Color: Red

Above section bid exactly as written. _____
Section not provided. _____

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Bidder is offering an alternative to this section. _____

GRILLE LIGHT HOUSINGS FOR 500 SERIES TIR6 LIGHTS:

Grille light housings for 500 series TIR6 LED lights are to be installed on the front of the chassis in the grille area.

Above section bid exactly as written. _____
Section not provided. _____
Bidder is offering an alternative to this section. _____

INTERSECTION LIGHTS – FRONT FENDERS

In the front fenders of the cab-chassis, there shall be one (1) Whelen Engineering Series 700 Super LED light (Red) with flanges, located on each side (total of 2).

Above section bid exactly as written. _____
Section not provided. _____
Bidder is offering an alternative to this section. _____

AUDIBLE EMERGENCY WARNING SYSTEMS:

The following audible emergency warning features shall be installed on the vehicle:

SIREN:

The vehicle manufacturer shall supply and install a Federal EQ2B 200 watt siren as noted below. The siren shall be fully electronic and shall feature digital output control.

Siren Location: Cab Radio Console
Quantity: 1

Above section bid exactly as written. _____
Section not provided. _____
Bidder is offering an alternative to this section. _____

SIREN INSTALLATION:

The electronic siren specified above shall be installed in the designated location and wired for operation through the speakers noted below.

Above section bid exactly as written. _____
Section not provided. _____
Bidder is offering an alternative to this section. _____

SIREN SPEAKERS:

Cast Products SAD3806 and SAP3806 speakers shall be installed on the chassis per the instructions listed below. The speakers shall be wired for operation through the siren listed above.

Quantity: 2
Locate: Bumper mounted

Above section bid exactly as written. _____

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Section not provided. _____
Bidder is offering an alternative to this section. _____

SIREN SPEAKER INSTALLATION:

The siren speakers specified above shall be bumper mounted and wired for operation.

Above section bid exactly as written. _____
Section not provided. _____
Bidder is offering an alternative to this section. _____

LIGHTING:

Lighting information is noted below:

SIDE BODY RUNNING LIGHTS:

One Whelen 700 Series L.E.D. light with a red lens and a chrome flange shall be installed on each side of the vehicle towards the rear of the body. These lights shall function as both running lights and turn signals.

EXTERIOR COMPARTMENT LIGHTING:

The compartment lighting for the exterior compartments noted above shall consist of LED lighting strips. Strips of LED lights shall be installed on each side of the compartment opening on the inside of the door jamb and shall direct the light back into the compartment. These light strips shall fit securely into clips installed in this location. These strips shall be semi rigid. Please note that rope lighting is not an acceptable alternative to this requirement.

Above section bid exactly as written. _____
Section not provided. _____
Bidder is offering an alternative to this section. _____

ICC MARKER LIGHTS:

The required ICC marker lights for this vehicle are to be LED. Bidder should note that some lightbars have ICC lights already installed. In that case those lights shall be installed in lieu of the lights described here unless denoted within this document.

Above section bid exactly as written. _____
Section not provided. _____
Bidder is offering an alternative to this section. _____

RUNNING BOARD LIGHTS, WHELEN PAR 16 L.E.D.

Clear Whelen Par 16 round L.E.D. lights mounted in chrome flanges shall be installed in the front of the module body. Locate in the stainless steel stone guard above the running boards. The lights shall be wired to the chassis door switch and illuminate the step/running board.

Above section bid exactly as written. _____
Section not provided. _____
Bidder is offering an alternative to this section. _____

SCENE LIGHTS:

Whelen #90COENZR 900 Series LED Scene Lights shall be installed in the quantity and locations noted below. Each light shall include the optional chrome flange. These lights shall be activated by right and left side

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switches located within the front electrical control console. Additional means of activation, if any, are listed in the electrical section of these specifications.

Quantity: 4
Locate: 2 per side, upper corners

Above section bid exactly as written. _____
Section not provided. _____
Bidder is offering an alternative to this section. _____

LOAD LIGHTS:

Whelen #90COENZR 900 Series LED Scene Lights shall be installed in the quantity and locations noted below. Each light shall include the optional chrome flange. These lights shall be activated when the rear doors are opened, and by a switch located within the front electrical control console. Additional means of activation, if any, are listed in the electrical section of these specifications.

Quantity: 2
Locate: over rear doors

Above section bid exactly as written. _____
Section not provided. _____
Bidder is offering an alternative to this section. _____

TAIL LIGHTS: Whelen 600 Series L.E.D. tail/brake, back-up, and turn signal lights shall be installed on the rear of the module body per the instructions listed below. All six of these lighting assemblies shall include the optional chrome flange.

Locate: stacked on rear

Above section bid exactly as written. _____
Section not provided. _____
Bidder is offering an alternative to this section. _____

ELECTRICAL POWER GROUP:

The vehicle electrical system is extremely important to this purchaser. The requirements for the onboard electrical system are noted in detail below. The bidder's electrical system, should it deviate in any way from that, which is specified, shall be explained in great detail. This explanation shall present facts relative to the bidder's system only. The bidder shall not draw any comparisons between the electrical system being offered, and the system being specified. Any comparisons or decisions regarding one system versus another will be made solely by the purchaser and shall be based entirely on the written description as provided by the bidder at the time the proposal is submitted. All decisions made by the purchaser as to the merits of one system over another will be final and will not be subject to discussion, either verbal or written, at any point.

CONVERTER ADDED ELECTRICAL SYSTEM STANDARDS:

The converter added electrical system must meet all current KKK ambulance design standards. The converter added electrical system has proven to sometimes be the most complex and troublesome system on this type of vehicle. A system is desired that is simple in design so that electrical problem diagnosis and repair time can be minimized. The electrical system must be thoroughly engineered and manufactured to allow simple personnel

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operation. Finally, the system must be designed so that the probability of experiencing dead batteries, shorted electrical components and engaging in lengthy troubleshooting procedures will be reduced. Past experience has shown that the electrical output provided by the chassis charging system can be marginal and under certain circumstances the electrical load can exceed the alternator output. In addition, some electrical systems have not provided proper circuit protection and at times have not provided adequate wiring for the load. To address the above objectives, the following minimum electrical system design is required:

VANNER #20-1050CUL INVERTER CHARGER with on demand activation

Vanner #20-1050 CUL inverter charger will be installed in the compartment above the Oxygen bottle. A panel will be installed in the action area to note inverter status and battery condition. System will be "on demand".

Above section bid exactly as written. _____
Section not provided. _____
Bidder is offering an alternative to this section. _____

BATTERY SELECTOR SWITCH:

A two-position power selector, turning the battery power to the ambulance systems either On or Off shall be furnished. The switch shall be located on or near the driver's seat base. Unless otherwise specified, the battery switch shall not disconnect power to the OEM chassis systems. Note: Ford products are not permitted to disconnect chassis power with this switch.

Above section bid exactly as written. _____
Section not provided. _____
Bidder is offering an alternative to this section. _____

VARIABLE THROTTLE ADVANCE:

In order to reduce the number of component parts and unnecessary throttle linkages, the factory electronic throttle control shall be utilized to activate the throttle advance system. The controls shall require that the chassis be placed in Park or Neutral with the Module Disconnect switch in the On position and the Park Brake engaged before activation of the throttle advance. A digital display warning on the driver console, accompanied by an audible tone, must instruct the driver to Set Park Brake or Release Park Brake to engage or disengage the automatic throttle control. No Exceptions.

Above section bid exactly as written. _____
Section not provided. _____
Bidder is offering an alternative to this section. _____

AUTOMATIC LOAD MANAGEMENT:

In order to insure that onboard personnel attention is focused on victim care rather than being occupied with monitoring vehicle systems, an automatic load management system is required. The bidder must provide a system that continually monitors the vehicles charging system while it is sitting on scene. The system design shall have the ability to automatically shut down not less than ten pre-programmed electrical circuits to prevent a deficit charging condition while the vehicle is sitting at idle. The system shall be programmed to automatically scan the electrical system on one-minute intervals.

If a deficit charging condition continues for more than one minute, a pre-programmed circuit shall shut down, correspondingly reducing the electrical draw. If the deficit condition continues, a second circuit shall automatically shut down. This process shall continue to repeat at one-minute intervals until at least ten circuits

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are shut down with corresponding load reductions. In the event any circuits are being controlled (disabled) by the load management system, the driver must be informed in two ways. First, a digital display warning shall appear on the driver information panel indicating Load Management Active. At the same time, the L.E.D. switch indicator light shall begin to flash for each specific circuit that is being disabled. Systems that cannot indicate specific circuits being affected by the Load Management System are not acceptable.

Load management systems must be programmed through a microprocessor based logic and memory system rather than a series of mechanical relays. Systems that require manual activation of Load Management will not be acceptable. Once the deficit condition ceases to exist, the system must be capable of restarting any disabled circuit without any action required by the driver.

The bidder is required to furnish a system that permits the end user, if he so desires, to determine prior to production the order of priority for shedding loads. Although the entire system must function automatically, it must also be designed so that it can be set by the end user to a System Off mode for restocking, training, or maintenance convenience. The System Off setting shall not be merely a switch which would permit the operator to easily turn off Load Management. The intent is to keep the system active at all times when the vehicle is in operation.

- Above section bid exactly as written. _____
- Section not provided. _____
- Bidder is offering an alternative to this section. _____

LOW AMPERAGE SWITCHING:

Electrical devices that are not activated automatically shall be controlled from either the cab or patient area control panels through the use of manual switches. A low amperage switch that sends only an on/off signal to the central electrical distribution area is required. The switches provided shall have documented durability ratings at a minimum of fifty million (50,000,000) cycles. The switch design shall include magnetic technology to attain the required durability ratings. Membrane or rocker style switches will not be acceptable due to their tendency to degrade and fail in continued field use. To eliminate loose or poor contacts, it is unacceptable to have soldered or terminal type connections for the switches. The switches must be an inherent part of the panels.

- Above section bid exactly as written. _____
- Section not provided. _____
- Bidder is offering an alternative to this section. _____

SWITCH "ON" INDICATOR LIGHT:

All switches (unless otherwise noted) on the panels described below shall include a red L.E.D. indicator light that will indicate when power is being applied to a circuit. Designs that have indicator lights that activate to indicate switch position only are not acceptable. In addition, the indicator lights shall be independently programmable to flash or steady burn as required to meet the end user specification.

- Above section bid exactly as written. _____
- Section not provided. _____
- Bidder is offering an alternative to this section. _____

SWITCH PANEL DESIGN:

Each console shall contain a combination of control switches as described above and also an integral digital

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vacuum florescent message center. The message center shall provide driver/attendant information as described below. The message center is required over the use of buttons, lights or gauges because of the ease in acknowledging the specific information. The drivers display shall be capable of displaying at least four sets of 20 character messages at one time. The rear display shall be capable of displaying two sets of 20 character messages at the same time. Both the cab and patient area switch panels shall be fabricated on a pre-printed circuit board. The circuit boards must be common in design and must be interchangeable between all models offered by the manufacturer being proposed. Switch panels that are not standard in design and are not interchangeable from one unit to another will not be considered.

The switch panels shall be fabricated so that they can be removed for service in less than three minutes. The removal of each panel shall be facilitated by the use of a single four-wire connector for panel control and communication. An optional rear AM/FM speaker system will have its own six-wire connector in addition to the standard panel connection. Volume control must not have any protruding knobs. It shall be flush to the panel surface and shall meet the following requirements for decontamination and spill resistance.

- Above section bid exactly as written. _____
- Section not provided. _____
- Bidder is offering an alternative to this section. _____

SWITCH PANEL DECONTAMINATION AND SPILL RESISTANCE:

Both the driver and the patient area switch panels must be designed so they can be easily decontaminated. Current designs make decontamination impossible when an attendant must use a contaminated glove to operate the switch panel while treating a patient. These areas become breeding grounds for bacteria. For this reason, the switch panels must be built in such a manner that there are no openings or crevices on the panel faces. The entire switch panel must be sealed with a protective overlay material. There shall be no printing or labeling on the face of this material. Holes in the panel through which switches, backlighting, or legends are inserted will be unacceptable. The panels must be cleanable with any commercially available spray type cleaner or disinfectant commonly used by fire and EMS services with no damage created by fluids leaking through openings onto the circuit boards or switch contacts.

The panel surface must be covered with a polyester film laminate for enhanced solvent resistance, strength, and durability. Both front and rear switch panels shall have been tested to at least a 24 hour exposure under DIN 42 115 Part 2 for the following commonly used chemicals: hydrogen peroxide <25%, bleach <20%, glycol, isopropanol, xylene, benzene, phosphoric acid <30%, ammonia <2%, hydrochloric acid <10%, acetic acid <50%, sulphuric acid <10%, diesel fuel, silicone oil, linseed oil, Windex, Formula 409, Fantastic, Wisk, Downey, washing powders, fabric conditioner, Ajax, and glycerin. The bidder shall be required, if asked, to provide the appropriate documentation showing that the above chemicals produced no visible damage after at least a 24 hour exposure. Bidders should be cautioned that commonly used polycarbonate or vinyl membrane fascia and nameplate substrates for electrical panels will not meet this requirement.

The panels shall be spill resistant to shed accidental moisture from spilled soft drinks or coffee cups. In addition, the surfaces of the panels shall be antimicrobial. This purchaser reserves the right to request documentation showing that the panel surfaces will kill microbes on contact. This antimicrobial property is to be inherent in the surface material itself and shall not need to be reapplied at any point in the future. Products offered that include aftermarket treatments of the panel surfaces will not be considered.

- Above section bid exactly as written. _____
- Section not provided. _____

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Bidder is offering an alternative to this section. _____

SWITCH PANEL BACKLIGHTING:

Both switch panels shall have backlight with fiber optic technology, powered with high intensity L.E.D. lights. All switch perimeters shall be lighted and raised for ease of switch location at night. In addition, the drivers control panel shall include a red color-coded area to further distinguish warning and emergency controls as well as specific blue color-coded areas for vehicle operation and maintenance systems. The remainder of the switch perimeters shall be green for easy nighttime visibility.

The switch panels shall include, on each panel, an individual intensity control. Switch panel lighting that operates at the same level as the cab instrument panel or that illuminates both the front and rear panels at the same intensity will not be considered. The bidder must provide totally independent control for each panel.

Above section bid exactly as written. _____
Section not provided. _____
Bidder is offering an alternative to this section. _____

CAB CONTROL SWITCHING AND DIGITAL DISPLAY:

Switch Activation:

The cab control center shall include 34 switches installed in a backlight aluminum control panel. The following minimum circuits shall be provided on the switch panel:

- Module Disconnect
- Master Warning Circuit
- Light Bars
- Red Flashing Lights
- Primary/Secondary Override (Each position shall have a red On indicator light)
- Right Scene Light
- Left Scene Light
- Rear Loading Lights
- Rear Heat/AC with temperature adjustment
- Single Button Vehicle Electrical Diagnostics
- Horn/Siren
- Vehicle Trip Odometer

Digital Message Center:

The following digital displays will appear on the faceplate of the cab console when selected:

- Voltage (to the nearest 0.10 volt)
- Amperage (to the nearest amp)
- Engine Tachometer
- Inside Patient Area Temperature
- Access or Compartment Door Open Warning Message
- Oxygen Warning For Both Tank and Line Pressure
- Electrical System Diagnostics
- 24 Hour Clock
- Trip Odometer

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- Emergency Brake Warning
- The System Shall be Capable of Displaying Specific Verbiage As Directed By The Customer

Above section bid exactly as written. _____
Section not provided. _____
Bidder is offering an alternative to this section. _____

PATIENT AREA CONTROL SWITCHES AND DIGITAL DISPLAY:

Switch Activation:

The patient area control center shall include 28 switches installed in a backlight aluminum control panel. The following circuits shall be provided on the switch panel:

- Rear Heat/AC Activation and Separate Temperature Control
- Rear Heat/AC Fan Speed Control
- Power Vent
- Cot Dome Lights and Bench Dome Lights
- Oxygen and Suction
- Patient Status
- Stop Clock
- Oxygen Line Pressure
- Oxygen Cylinder Pressure
- Radio Volume Control (when required)
- Electronic Privacy Glass Activation (when required)

Digital Message Center:

The following digital displays shall appear on the faceplate of the patient area control console when selected:

- Patient Area Temperature
- Thermostat Setting
- Oxygen Tank Pressure
- Oxygen Line pressure
- Oxygen Warning
- Stop Clock
- The System Shall Be Capable Of Displaying Specific Verbiage As Directed By The Customer

Above section bid exactly as written. _____
Section not provided. _____
Bidder is offering an alternative to this section. _____

SPARE SWITCHES:

Any spare or unused switches must be capable of being programmed later for additional functions including the ability to act as macro switches (one switch activating multiple features) without the need for rewiring.

Above section bid exactly as written. _____
Section not provided. _____
Bidder is offering an alternative to this section. _____

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MODULE COMPARTMENT AND ACCESS DOOR SWITCHES:

Exterior circuits such as loading lights, side scene lights and compartment lights shall be activated by low amperage, non-mechanical switches. The type of switch desired is a magnetic sensitive switch that activates the circuit when the magnetic plane is broken. Plunger type switches are not acceptable because of their short useful life and higher amperage requirements.

Above section bid exactly as written. _____
Section not provided. _____
Bidder is offering an alternative to this section. _____

DOOR OPEN INDICATOR:

A Door Open warning indicator, with accompanying audible chime shall be installed in both the cab and patient area. A digital display shall appear on both consoles indicating which specific door has been left ajar. In the case of access doors, the display will read Front Access Door Ajar or Rear Access Door Ajar. In the case of a module compartment door, the display will read Compartment #1 Ajar etc.

Under no circumstances will red flashing lights or systems that do not specifically pinpoint a specific open door be acceptable.

Above section bid exactly as written. _____
Section not provided. _____
Bidder is offering an alternative to this section. _____

CENTRAL ELECTRICAL DISTRIBUTION AREA:

The converter-added electrical system is to be centered around the use of a logic-controlled microprocessor built into a single circuit board. This logic control system is required to maximize reliability of the electrical system and to minimize downtime. It must be provided in order to match the type of control system used in the chassis and to prevent communication problems caused when dissimilar systems are employed. The design of the system must totally separate chassis operation from converter feature installations. In the unlikely event of converter component failure, the chassis must still remain operable.

The computer based electrical system must utilize components similar in design to the computerized chassis functions such as the OEM cruise control system, fuel feed system, transmission control system and braking system.

Above section bid exactly as written. _____
Section not provided. _____
Bidder is offering an alternative to this section. _____

MULTIPLEXED ELECTRICAL COMMUNICATIONS SYSTEM:

Because most chassis manufacturers have chosen multiplex electrical communication technology to operate the chassis system, this purchaser requires the same technology for the converter-added systems. A standardized electrical control and wiring system is required. The central processing distribution board must be pre-printed and must be common in design and interchangeable between all similar models offered by the manufacturer. The vehicle manufacturer must own and control all rights to the electrical system. Standard systems controlled by outside vendors and modified for a specific vehicle or manufacturer will not be acceptable due to the unpredictability for future parts or service. Switch panels or main boards that are not standard in design and are not interchangeable from one unit to another will not be considered. The system

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must consist of logic-controlled solid state circuitry installed on a pre-printed circuit board. Since solid state logic-controlled technology is commonly available and not proprietary to any one manufacturer and has been proven to be more reliable with greater benefits, a blanket exception or clarification regarding the electrical specification is not acceptable and will be cause for automatic rejection of the bid.

In addition to the main distribution board, the system will consist of a series of input or output control modules to manage and feed information and to control the various circuits required by this specification. All modules shall be pre-printed, solid state devices. Each output module must have 10 or more outputs and shall communicate with the central processing unit over a single wire.

The output modules shall be capable of carrying 10 amps load per output or a total load of 50 amps per module. The total system must be capable of expanding to control at least 160 output circuits. Each input module must have 10 or more switch inputs. The total system shall be capable of expanding to handle at least 40 inputs. AMP Mate-Lock connectors shall be used for all load connections. Molex connectors shall be used for data transmission lines. Under no circumstances will systems be acceptable that utilize screw type terminals or card connectors due to their susceptibility to working loose due to vibration normally encountered on a vehicle.

The system shall include as standard 16 analog inputs to manage information such as oxygen pressure, amperage, voltage etc. coming from an analog source. These analog inputs must be capable of being used in logic statements to enhance the operation and control of the vehicle.

Under no circumstances may the operation of the central processing unit or the input or output modules be based upon the operation of mechanical relays. Relay based systems require higher amperage operating current and rely on mechanical contact points designed to degrade with use, creating short duty cycles for the vehicle electrical system. Relay based systems, due to those limited short duty cycles, will not be acceptable for the requirements of this specification.

- Above section bid exactly as written. _____
- Section not provided. _____
- Bidder is offering an alternative to this section. _____

CENTRAL PROCESSING UNIT FUNCTION:

The central processing unit shall be fully programmable and shall control a number of functions. The minimum functions to be controlled are as follows:

- No Load Starting Circuit (as defined in subsequent sections of this specification)
- Load Management
- Sequenced Start Circuit Activation
- Electrical System Diagnostics
- Climate Control Heat/AC operation
- Intensity Controls for Patient Dome Lights
- Oxygen Warning System (high and low pressure)
- All Warning Light Flashers and Flash Patterns
- Patient Status System
- Electrical Diagnostics

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Above section bid exactly as written. _____
Section not provided. _____
Bidder is offering an alternative to this section. _____

CIRCUIT PROTECTION:

Each converter added electrical circuit must have circuit protection for both over current limit and over temperature condition. The circuit protection shall be provided by solid-state circuit breaker/switching devices (MOSFETS) for both the input and output wire feeds for each circuit. The circuit protection shall require no user intervention such as that required for circuit breakers or fuses.

For added protection and system reliability, all MOSFETS shall have heat sinks. Lack of heat sinks will be cause for automatic rejection of the system being offered. The system shall indicate an output fault warning on the digital display in the driver control area. Should a problem occur, the warning shall identify the specific module and the output number for easy troubleshooting and to minimize the down time of the vehicle.

Above section bid exactly as written. _____
Section not provided. _____
Bidder is offering an alternative to this section. _____

FIELD PROVEN AND TIME TESTED ELECTRICAL SYSTEM:

The converter-added electrical system represents the most important system in the design of this ambulance. Reliability and proven performance is essential. Therefore, the bidder must be able to demonstrate that he has at least ten years experience with solid state logic-controlled electrical systems installed in emergency vehicles. Further, the bidder must be capable of all programming required by the system without turning to outside vendors. This includes custom-programmed items as may be delineated in this specification.

The bidder may be required to demonstrate an in production or in service vehicle in order to guarantee compliance with this requirement. Prototype or first of a kind electrical systems are not acceptable. The purchaser may require the bidder to furnish specific references to further document compliance.

Above section bid exactly as written. _____
Section not provided. _____
Bidder is offering an alternative to this section. _____

SPLICE-LESS WIRING:

Each converter-added circuit shall be powered through an individual wire that is free of any splices within the wire harness. For ease of troubleshooting and for greater reliability, one end of the wire shall plug directly into the output module and the other end shall connect to the device or the pigtail of the device being powered.

The use of daisy-chain wiring will not be acceptable. The direct wiring technique described above is the only wiring system that will be accepted.

Above section bid exactly as written. _____
Section not provided. _____
Bidder is offering an alternative to this section. _____

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WIRING:

The following minimum wiring standards are required:

Identification

By color, by itemized number, and by actual circuit name, stamped every 4-6"

Size:

Size will vary and will be dependent upon each wire being able to carry a minimum of 125% of the actual circuit load.

Protection of Wiring:

All wiring must be run in breakaway wire loom for protection against abrasion or chafing.

Above section bid exactly as written. _____
Section not provided. _____
Bidder is offering an alternative to this section. _____

NO LOAD STARTING:

To assure the ability to start the unit, the vehicle electrical system must have the ability to manage electrical loads during the engine startup or cranking period. The system shall automatically shut down all converter-added electrical loads when the ignition is activated and the engine is cranking. Once the engine has started, the system shall automatically turn back on all loads that were previously in the On condition. This feature must be accomplished by system programming and not by means of a relay or a series of relays which are subject to failure, thereby causing the entire converter-added electrical system to fail. Relay based systems will not be considered.

Above section bid exactly as written. _____
Section not provided. _____
Bidder is offering an alternative to this section. _____

SEQUENCED START CIRCUIT ACTIVATION:

To prevent the heavy load burden placed on the alternator and charging system when all emergency warning circuits are activated at the same time by pre-loading the master switch, the vehicle electrical system shall automatically sequence all load-managed warning circuits so they come on one at a time. This sequenced start activation shall be an integral part of the electrical system and shall be accomplished without the use of relays or after market add-on systems.

Above section bid exactly as written. _____
Section not provided. _____
Bidder is offering an alternative to this section. _____

ELECTRICAL SYSTEM DIAGNOSTIC CHECK:

The electrical system must have built-in capability to self check each converter-added circuit and identify a short or open circuit by means of a single diagnostic switch. . The diagnostic system shall be operable from the driver's seat without exiting the vehicle. Diagnostic systems that are incorporated into exterior compartments, patient area interior cabinets, or remote locations will not be acceptable. The relevant

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information shall be displayed on the digital display on the cab switch panel. When the operator activates the Run Diagnostic switch, the unit will initiate the systems check. The digital display shall flash the message Running Diagnostics while the check is in progress. The system must go through all outputs for the vehicle to check for malfunctions. If a malfunction is found, the display shall stop flashing and steady burn to indicate the message Module #, Output #, Fail. This message will direct the service staff to the correct output module and the correct wire number in order to troubleshoot and repair the system. Once a failure is identified, the operator may continue to run the remainder of the diagnostic by pressing the Warning Reset switch. The bidder shall furnish with the vehicle a detailed diagram indicating each input and output module number and identifying each circuit controlled by the module.

Above section bid exactly as written. _____
Section not provided. _____
Bidder is offering an alternative to this section. _____

ELECTRICAL SYSTEM SUPPORT DATA:

Being able to service the electrical system should the need arise is of the utmost importance. To reduce the down time associated with servicing, the following information shall be provided at the time of delivery:

1. Electrical system operating instructions
2. Patient area heating/AC schematic and parts list
3. Oxygen and vacuum system schematic, parts list and leak check instructions
4. Battery and alternator schematic and system description
5. Radio communications installation instructions
6. Wire description list for converter added wiring
7. Individual schematics for all converter added electrical circuits

Above section bid exactly as written. _____
Section not provided. _____
Bidder is offering an alternative to this section. _____

MODULE DISCONNECT DEFAULT:

The 'Module Disconnect' circuit shall default to the "on" position when the battery switch is activated. Manual activation of the switch is not acceptable.

Above section bid exactly as written. _____
Section not provided. _____
Bidder is offering an alternative to this section. _____

BATTERY SWITCH:

A two position 'On-Off' "Master" battery switch shall be installed on the vehicle within easy reach of the driver. This switch shall control power to the converter-added electrical circuits. Items specified to be wired "Battery Hot" shall not be affected by the Master battery switch. Under no circumstances shall this switch control the chassis O.E.M circuitry. All chassis power (ignition, headlights, etc.) shall remain as designed by the chassis builder.

Above section bid exactly as written. _____
Section not provided. _____
Bidder is offering an alternative to this section. _____

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110V INTERIOR OUTLETS:

Duplex 110V interior electrical outlets shall be installed. Quantity and location information is noted below. Each outlet shall be GFI protected and shall illuminate when powered.

Quantity: 6
Locate: Inhalation Area (2)
Locate: Wall Over Bench
Locate: pass thru wall, wall in front cabinet above bottom shelf.
Locate: right hand wall by pass thru counter.
Locate: wall aft of CPR seat counter

Above section bid exactly as written. _____
Section not provided. _____
Bidder is offering an alternative to this section. _____

12V OUTLETS:

12 volt electrical outlets shall be installed within the vehicle. Quantity, location, and adapter type are provided below. All 12 volt outlets shall be protected by a Schottky medical isolator. In addition, the 12 volt outlets shall be wired through a 20 amp manual reset circuit breaker. All outlets, unless noted otherwise below, shall be battery switched. All 12 volt outlets shall be labeled.

Adapter Type: Cigarette Lighter Style
Quantity: 5
Locate: Inhalation Area (2)
Locate: Front Wall Cabinet over bottom shelf, pass thru wall and rear counter aft of CPR seat

Above section bid exactly as written. _____
Section not provided. _____
Bidder is offering an alternative to this section. _____

SHORELINE:

The vehicle shall be equipped with a Kussmaul Auto Eject shoreline. The male shoreline inlet shall be installed as noted below. This inlet shall be a straight three-prong type and shall include the female adapter plug. The shoreline shall be designed so that the plug will automatically eject from the inlet in the event that the vehicle is started while still plugged in. The shoreline shall include a hinged cover to protect it from the elements. The shoreline system shall be designed to handle a 20 amp load, and shall also include a 20 amp inline GFI breaker.

Locate: Street Side of Module Body as Far Forward as Possible

Above section bid exactly as written. _____
Section not provided. _____
Bidder is offering an alternative to this section. _____

SHORELINE INDICATOR:

A small AC pilot indicator light shall be installed as noted below. The light shall be wired in after the applicable circuit breaker so as to indicate not only the presence of AC power, but the fact that the circuit breaker is in the closed position.

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Locate: Over Shoreline Inlet

Above section bid exactly as written. _____
Section not provided. _____
Bidder is offering an alternative to this section. _____

BLOCK HEATER WIRED THROUGH SHORELINE:

The engine block heater shall be wired through the vehicle shoreline system. The wiring shall include a cutoff switch, to be installed with the onboard electrical components, to disable this feature for seasonal use.

Above section bid exactly as written. _____
Section not provided. _____
Bidder is offering an alternative to this section. _____

EXTRA CIRCUIT BREAKER:

A Spare 15 amp manual resetting circuit breaker shall be installed as a provision for the possible installation, at a later time, of additional equipment. This feature is in addition to any prewired that may be included elsewhere within this vehicle specification. The total number of spare breakers is listed below:

Quantity: 1

Above section bid exactly as written. _____
Section not provided. _____
Bidder is offering an alternative to this section. _____

CAB SWITCH PANEL INSTALLATION:

The cab control panel for the converter-added electrical circuits shall be flush mounted in the upper face of the cab console. The mounting surface shall be angled downward so that the digital readout and switches are visible to both the driver and passenger positions.

Above section bid exactly as written. _____
Section not provided. _____
Bidder is offering an alternative to this section. _____

SIDE DOOR ACTIVATED CURB SIDE SCENES:

The curb side scene lighting shall be programmed to be activated when the patient compartment side access door is opened. This is in addition to the other modes of operation as described elsewhere within this document. This feature shall be attained through the programming of the onboard electrical system. Systems that require additional wiring in order to provide this feature are not acceptable.

Above section bid exactly as written. _____
Section not provided. _____
Bidder is offering an alternative to this section. _____

REVERSE ACTIVATED LOADING LIGHTS:

The load lighting on the rear of the vehicle shall be programmed to be activated when the vehicle is placed into reverse gear. This is in addition to the other modes of operation as described elsewhere within this document. This feature shall be attained through the programming of the onboard electrical system. Systems that require

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additional wiring in order to provide this feature are not acceptable.

- Above section bid exactly as written. _____
- Section not provided. _____
- Bidder is offering an alternative to this section. _____

MODULE DISCONNECT TIMER:

The "Module Disconnect" circuit shall be wired to shut down when left in the 'On' position with the engine not running and the battery switch 'On.' If the shoreline is plugged in, then this feature will be disabled. Toggling the Module Disconnect switch shall reset the circuit for an additional time interval. The time interval shall be adjustable through software programming.

- Above section bid exactly as written. _____
- Section not provided. _____
- Bidder is offering an alternative to this section. _____

AUDIBLE LOW VOLTAGE ALARM:

An audible alarm shall be programmed to warn the operator should the vehicle's voltage drop below 11.8 volts for 120 seconds.

- Above section bid exactly as written. _____
- Section not provided. _____
- Bidder is offering an alternative to this section. _____

EMERGENCY BRAKE WARNING:

When the vehicle is placed into 'Park' or 'Neutral' with the "Module Disconnect" switch 'On' and the "Red Flashing Light" switch 'On', then an audible alarm, accompanied by a visual readout on the cab console digital display, shall warn the vehicle operator to engage the emergency brake. Likewise, when the vehicle is placed into gear, then the same alarm will sound with a visual display warning the operator to disengage the emergency brake.

- Above section bid exactly as written. _____
- Section not provided. _____
- Bidder is offering an alternative to this section. _____

BENCH ACTIVATED LOAD AND SCENE LIGHTING:

The scene lights on either side of the vehicle, along with the rear load lights, shall have control switches installed in the patient area at the foot of the bench in the riser. These control switches are in addition to the switches in the cab control console. There shall be a total of three (3) switches at this location to control the left side, right side, and rear lighting. These shall be momentary switches of the same style used in the front and rear control consoles. These switches shall operate in the following manner:

- If the light is 'On', then the switch will turn it 'Off'.
- If the light is 'Off', the switch will turn it 'On'.
- If the lights are 'Off' because the front console light switches are 'Off', then the switch will turn the lights 'On'.
- The lights will automatically turn 'Off' after closing the rear module entry doors so that the correct pre-selection of the front console switches will be maintained.

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Above section bid exactly as written. _____
Section not provided. _____
Bidder is offering an alternative to this section. _____

REPORT LIGHT:

Report lighting, as described below, shall be installed within the patient area. The fixture shall have three separate LED lights that can be illuminated either one, two, or all three at one time depending on the amount of light required. The fixture shall be controlled via two switches, one at either end. One switch will illuminate one bulb; the other switch shall illuminate two bulbs. Activation of both switches simultaneously will illuminate all three bulbs. The fixture will be wired through a switch on the rear electrical control panel. Activation of that switch will activate the lighting depending on the setting of the fixture switches. This design will allow for simple "one touch" operation while still providing for flexibility in terms of lighting needs.

Quantity: 1
Locate: action area

Above section bid exactly as written. _____
Section not provided. _____
Bidder is offering an alternative to this section. _____

DIGITAL CLOCK:

A large face digital 12/24 hr clock shall be provided and installed as noted below. This clock is to be 12V and is to include a lithium battery back-up. This clock is to be self-adjusting and is to include a highly visible red readout.

Locate: over rear doors

Above section bid exactly as written. _____
Section not provided. _____
Bidder is offering an alternative to this section. _____

STEP WELL LIGHT:

A E03 LED light shall be installed above the side step well to light the step well area when the side access door is opened. The light shall be activated by a magnetic door switch installed on the door as described elsewhere within this document.

Above section bid exactly as written. _____
Section not provided. _____
Bidder is offering an alternative to this section. _____

FLUORESCENT LIGHT:

Fluorescent lighting shall be installed per the quantity and location information noted below. Each light shall be a 24" Thinlite and shall be operable from the rear switch panel. Other modes of operation, as applicable, shall be noted elsewhere within this document.

Quantity: 3
Locate: Spaced Evenly from Front to Rear

Above section bid exactly as written. _____

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Section not provided. _____
Bidder is offering an alternative to this section. _____

PROGRAMMABLE LIGHT TIMER:

A momentary switch shall be installed as noted below to operate the specified lighting with the battery switch in the 'Off' position and the shoreline plugged in. The switch shall activate a programmable timer that will automatically shut the lights off after the specified period of time. This timer shall be field-programmable to allow the time to be adjusted after the vehicle has been delivered. The initial time setting shall be as follows:

Locate: curbside wall
Light(s) Controlled: FLUORESCENTS
Initial Time Setting: 15 MINUTES

Above section bid exactly as written. _____
Section not provided. _____
Bidder is offering an alternative to this section. _____

DOME LIGHTS:

Weldon LED dome lights shall be installed in the patient area ceiling. Quantity and location information is listed below. The lights shall be recessed into the headliner.

Over Cot: 3
Over Squad Bench: 3
Over walk/pass-through 1

Above section bid exactly as written. _____
Section not provided. _____
Bidder is offering an alternative to this section. _____

PREWIRED FOR FUTURE KOEHLER RESPONDER RA FLASHLIGHT INSTALLATION:

Prewired shall be provided as noted below for future installation of Koehler Responder Ra Flashlight charger bases.

Quantity: 2
Locate: STREETSIDE INTERMEDIATE

Above section bid exactly as written. _____
Section not provided. _____
Bidder is offering an alternative to this section. _____

AUXILIARY BRAKE LIGHTING:

The rear red flashing lights, as specified elsewhere within this document, shall be wired so that they illuminate when the brake pedal is depressed. This lighting is in addition to the specified brake/tail lights.

Configure: Emergency lighting is to override this feature

Above section bid exactly as written. _____
Section not provided. _____

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Bidder is offering an alternative to this section. _____

HEATING AND AIR CONDITIONING:

A temperature control system is desired that provides quick and simple operation while maintaining a uniform temperature throughout the patient compartment. The unit itself must be located so that it is easy to access for service. This location must also be near the O.E.M. heat/AC connection points when provided so as to increase the overall efficiency of the unit. The following minimum design standards must be adhered to in order to best meet the needs of this purchaser.

Above section bid exactly as written. _____

Section not provided. _____

Bidder is offering an alternative to this section. _____

SYSTEM CONTROLS:

The climate control functions shall be controlled through a primary location in the inhalation panel, and through a secondary location in the cab electrical control console. The switches used for the operation of this system shall be identical to the switches described in the "Electrical" section of this specification. Switches shall be present in the front console to select either 'Heat', 'A/C', or 'Off' functions and to select the desired temperature. Switches shall be present in the rear control panel to select either 'Heat', 'A/C', or 'Off' functions, 'Automatic' or 'Manual' mode of operation, and to select the desired temperature.

Above section bid exactly as written. _____

Section not provided. _____

Bidder is offering an alternative to this section. _____

THERMOSTAT:

The temperature level shall be adjustable from both the front and rear electrical control panels for the 12V system. Two switches at each location shall be used to scroll through desired temperature settings on one degree intervals. Once the desired temperature is set, then the system shall retain that setting regardless of the position of the battery switch. The temperature sensor for the system shall be located at the inhalation panel so as to attain a true patient compartment temperature. The temperature setting and the actual temperature reading shall be viewable from both the front or rear digital displays. This system is to be controlled through the converter-added electrical system. Under no circumstances shall household type thermostats be acceptable.

Above section bid exactly as written. _____

Section not provided. _____

Bidder is offering an alternative to this section. _____

SYSTEM OPERATION:

The system shall allow for both automatic and manual operation. When set to the manual mode the fan speed shall be infinitely adjustable from the rear control panel for extra ventilation. When set to the automatic mode the fan speed shall be controlled by the thermostat setting. The temperature that is selected shall be continuously maintained. When the selected temperature has been reached, then the system shall automatically cycle the fan speed down to reduce unnecessary electrical load.

Above section bid exactly as written. _____

Section not provided. _____

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Bidder is offering an alternative to this section. _____

HEATER WATER CONTROL:

The flow of hot water from the chassis to the converter-added heat/AC system shall be controlled by an electrically operated valve located under the hood. Water flow to the rear heater shall be activated when either the front or rear heater switch is turned to the 'On' position. It is a requirement of this specification that this type of valve be used unless the converter is supplying a self-contained heat-AC system. The term "self-contained" is defined as being a unit that does not require any water flow from the chassis. Under no circumstances will manual valves be considered. Manual valves are inconvenient and tend to leak.

Above section bid exactly as written. _____

Section not provided. _____

Bidder is offering an alternative to this section. _____

UNIT LOCATION AND SERVICE:

It is required that the heat/AC unit be installed inside a custom-made aluminum box beneath the attendant's seat. This box shall be perforated to provide air flow to the heat/AC unit mounted beneath the seat. This is required for efficiency, serviceability, and safety.

Many O.E.M. chassis builders provide tap-in points for the converter-added heat/AC unit behind the driver's seat. Therefore, system efficiency is higher when the hot water from the chassis is pumped to the area beneath the attendant's seat. Efficiency is not lost by pumping the water over an extended distance or up to ceiling level. Such a condition would naturally result in reduced patient area temperature levels as excessive flow resistance would be present.

The attendant's seat shall be installed on a hinged top cover for the aluminum heat/AC system housing. This allows the seat to be hinged forward and out of the way for service work. The unit will be accessible by removing two bolts located behind the seat and lifting the seat forward as opposed to dismantling cabinetry, etc.

In the unlikely event of a system leak the specified installation location will allow the leakage to run out onto the ground.

Above section bid exactly as written. _____

Section not provided. _____

Bidder is offering an alternative to this section. _____

FILTRATION SYSTEM:

A replaceable carbon filter shall be installed at the air intake area of the heat/AC system. Replacement of the filter shall be simple, and shall require very little time so as to assure that the vehicle will not have to be taken out of service. Replacement filters shall be readily available and shall be capable of being cut to the proper size to fit the vehicle.

Above section bid exactly as written. _____

Section not provided. _____

Bidder is offering an alternative to this section. _____

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AIR FLOW:

The installation of the heat/AC system shall include an air duct system to direct the airflow in such a way as to provide uniform temperature levels throughout the patient compartment. Air intake shall be from the floor level. The air shall be channeled through a duct that is aft of the heat/AC unit. The air shall exit through adjustable vents at the ceiling level above the attendant's seat. This design will allow for a circular flow of air throughout the patient compartment.

The specified design will separate the intake and exhaust ports. Separation of the intake and exhaust will decrease air turbulence and improve overall efficiency of the system. Systems that combine intakes and exhausts within the same grille work will not be acceptable.

Above section bid exactly as written. _____
Section not provided. _____
Bidder is offering an alternative to this section. _____

12V HEAT/AC SYSTEM:

The 12V heat/AC system shall be installed per the instructions listed above. The BTU and CFM ratings on this unit shall be as follows:

Heat: 65,000BTU
A/C: 32,000BTU
CFM: 650

Above section bid exactly as written. _____
Section not provided. _____
Bidder is offering an alternative to this section. _____

ULTRAVIOLET LAMP IN A/C SYSTEM DUCT:

A 13 watt Germicidal Ultraviolet Lamp shall be installed in the heat A/C duct in the patient area to reduce bacteria and mold growth. The lamp should have a wavelength of 254 nm and shall be resistant to vehicle vibration and shall be no more than 6" long. For maximum efficiency the lamp must be installed in the duct itself and not in the heat A/C unit. The lamp should be activated automatically anytime the blower fan for the heat A/C system is in the "on" position.

Above section bid exactly as written. _____
Section not provided. _____
Bidder is offering an alternative to this section. _____

ROOF MOUNTED POWER VENT:

A power vent shall be installed on the roof of the module body and shall be wired through a switch located on the rear control panel. The vent shall also be capable of being manually closed from inside the patient area.

Above section bid exactly as written. _____
Section not provided. _____
Bidder is offering an alternative to this section. _____

STATIC ROOF MOUNTED VENT:

A static vent shall be installed on the roof of the module body. The vent shall be capable of being manually

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closed from inside the patient area.

Above section bid exactly as written. _____
Section not provided. _____
Bidder is offering an alternative to this section. _____

CO MONITOR:

A 12V carbon monoxide detector shall be installed in the patient area near the rear doors. The device shall mirror the buildup of carbon monoxide in the human bloodstream. An alarm and health hazard display shall warn of toxic accumulation.

Above section bid exactly as written. _____
Section not provided. _____
Bidder is offering an alternative to this section. _____

CAB CONSOLE AND COMMUNICATIONS:

The vehicle communications and console features are designated below:

ANTENNA COAX #1:

An RG 58U coax shall be installed. A removable access plate in the patient area ceiling shall be provided for access to the exterior termination point located on the module body roof. Under no circumstances shall the vehicle design necessitate disassembly of the interior finish work to access the coax termination point. The coax shall terminate at the following locations:

Outside Termination: ROOF
Inside Termination: ACTION AREA

Above section bid exactly as written. _____
Section not provided. _____
Bidder is offering an alternative to this section. _____

ANTENNA COAX #2:

A second RG 58U coax shall be installed. A removable access plate in the patient area ceiling shall be provided for access to the exterior termination point located on the module body roof. Under no circumstances shall the vehicle design necessitate disassembly of the interior finish work to access the coax termination point. The coax shall terminate at the following locations:

Outside Termination: MID ROOF
Inside Termination: BEHIND DRIVERS SEAT

Above section bid exactly as written. _____
Section not provided. _____
Bidder is offering an alternative to this section. _____

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ANTENNA COAX #3:

A third RG 58U coax shall be installed. A removable access plate in the patient area ceiling shall be provided for access to the exterior termination point located on the module body roof. Under no circumstances shall the vehicle design necessitate disassembly of the interior finish work to access the coax termination point. The coax shall terminate at the following locations:

Outside Termination: MID ROOF
Inside Termination: CAB CONSOLE

Above section bid exactly as written. _____
Section not provided. _____
Bidder is offering an alternative to this section. _____

RADIO PULL WIRE:

A pull wire shall be installed to aid radio cable installation and prevent removal of interior panels once the vehicle has been completed. The following pull wire shall be installed:

Location: ACTION AREA
Terminate: BEHIND DRIVERS SEAT

Above section bid exactly as written. _____
Section not provided. _____
Bidder is offering an alternative to this section. _____

CAB CONSOLE:

A console shall be installed in the cab. The console shall be installed at floor level and shall allow space for siren and radio head installation. The console shall be color coordinated with the cab interior. The top of the console shall be on a slant and shall house the recessed emergency control panel and integral digital display. Under no circumstances shall the console interfere with the OEM vehicle controls or gauges, nor shall the control panel be installed in such a manner as to interfere with either the OEM vehicle controls, gauges, or the driver's line of vision.

Above section bid exactly as written. _____
Section not provided. _____
Bidder is offering an alternative to this section. _____

CONSOLE EXTENSION:

An aluminum console extension shall be fabricated and installed in the vehicle cab. The extension shall attach to the front console and shall include a location to mount siren and/or radio heads, as well as three slots for storage of map books and binders. The console extension shall be covered in carpet to compliment the interior cab color with holders for two large cups.

Above section bid exactly as written. _____
Section not provided. _____
Bidder is offering an alternative to this section. _____

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RADIO POWER/GROUND:

The vehicle manufacturer shall install heavy gauge cable B positive and ground for radio power. Termination is to be to insulated studs.

Locate: Behind Driver Seat
Status: Battery Switched

Above section bid exactly as written. _____
Section not provided. _____
Bidder is offering an alternative to this section. _____

OXYGEN AND SUCTION SYSTEMS:

Reliability, safety, and ease of operation are essential characteristics of the onboard oxygen and suction systems. System design must meet the following minimum guidelines. Bidders are asked to respond to each section appropriately per the bid requirements and to explain any variations to these requirements.

SWITCHING FOR OXYGEN AND SUCTION:

The rear switch panel shall contain two switches labeled "OXYGEN" and "VACUUM". Each of these switches shall electrically activate those respective systems. That activation shall be instantaneous. Systems that are not instantaneously responsive to their activation will not be considered.

Above section bid exactly as written. _____
Section not provided. _____
Bidder is offering an alternative to this section. _____

SYSTEM DESIGN:

A single piece manifold assembly shall serve as the basis for the oxygen delivery system. The manifold assembly shall incorporate ports for installation of O2 lines to all specified outlets, an electrically activated oxygen delivery solenoid, and a manual bypass valve. The assembly shall be installed behind the inhalation panel and shall be easily accessible.

Above section bid exactly as written. _____
Section not provided. _____
Bidder is offering an alternative to this section. _____

ELECTRICAL OXYGEN ACTIVATION:

The switch, located on the rear control panel and labeled "OXYGEN", shall activate the solenoid. This design will allow for the instantaneous flow of oxygen while eliminating the need to manually turn a valve to initiate oxygen flow.

Above section bid exactly as written. _____
Section not provided. _____
Bidder is offering an alternative to this section. _____

MANUAL BYPASS:

The oxygen solenoid shall be equipped with a manual bypass valve. Located behind the inhalation panel, the valve shall be easily accessible so that, in the unlikely event of an electrical failure, administration of oxygen may continue.

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Above section bid exactly as written. _____
Section not provided. _____
Bidder is offering an alternative to this section. _____

SYSTEM REGULATION:

The patient area shall be free of high pressure oxygen lines. To accomplish this the vehicle converter shall install a KKK approved regulator at the oxygen cylinder. The regulator shall include an integral dial type gauge to monitor the cylinder contents. A single low pressure line shall be installed from the regulator to the O2 manifold assembly. This method shall insure that all high pressure is maintained in an exterior compartment away from the interior patient area.

Above section bid exactly as written. _____
Section not provided. _____
Bidder is offering an alternative to this section. _____

OXYGEN LINES:

The O2 line connecting the regulator to the manifold assembly shall be rated at 200 psi working pressure and 1,250 psi burst pressure. The line shall be UL approved. There shall be NO connections installed in the line between the regulator and manifold assembly as these create a possibility for leakage. All connections shall be DISS style and shall be specific to the gas being supplied.

Above section bid exactly as written. _____
Section not provided. _____
Bidder is offering an alternative to this section. _____

LINE PROTECTION:

The O2 line shall be protected from crimping through the installation of a flexible spring guard on the portion of the line in the cylinder storage compartment.

Above section bid exactly as written. _____
Section not provided. _____
Bidder is offering an alternative to this section. _____

SYSTEM MONITORING:

The condition of the oxygen system shall be continually monitored and reported to the vehicle operators through the vehicle's onboard electrical system. Digital readouts containing the information listed below shall be available primarily at the patient area control console. The secondary location for availability of this information shall be the cab console. The information available shall include the following:

- Cylinder Pressure
- Line Pressure

In addition, this system shall be designed to offer a warning, both audible and visual, if the condition of the oxygen system falls outside of the following pre-programmed parameters:

- Low Cylinder Pressure (500 psi or below)
- Low Line Pressure (40 psi or below)
- High Line Pressure (75 psi or above)

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These oxygen system warnings shall immediately notify the personnel of a problem, again, via a digital readout and audible alarm. The system shall require the personnel to acknowledge receipt of the information.

- Above section bid exactly as written. _____
- Section not provided. _____
- Bidder is offering an alternative to this section. _____

PRELIMINARY SYSTEM TESTING:

The oxygen system shall be tested prior to installation in the vehicle. This test shall be performed by the vehicle manufacturer and shall subject the system to three times (3X) the working pressure. This test shall be conducted for a minimum of four (4) hours.

- Above section bid exactly as written. _____
- Section not provided. _____
- Bidder is offering an alternative to this section. _____

FINAL SYSTEM TESTING:

The completed system shall be tested again once it is installed in the vehicle. This test shall be performed at working pressure for a minimum of four (4) hours. After the system has passed the inspection process it shall be capped and tagged per Federal KKK specifications.

- Above section bid exactly as written. _____
- Section not provided. _____
- Bidder is offering an alternative to this section. _____

ADDITIONAL OXYGEN AND VACUUM SUPPLIES:

The oxygen and suction systems shall be complete upon delivery with the exception of the O2 cylinder. The cylinder shall be supplied and installed by the purchaser after delivery of the vehicle has taken place. One disposable mask shall be supplied with the completed vehicle.

- Above section bid exactly as written. _____
- Section not provided. _____
- Bidder is offering an alternative to this section. _____

OXYGEN BOTTLE MOUNT, VERTICAL TRACK FOR QRM-V:

Vertical track for mounting of a QRM-V O2 bottle mount shall be welded on the back wall of the compartment in the right hand corner. The O2 bottle mount is adjustable for "M" or "H" size tanks.

- Above section bid exactly as written. _____
- Section not provided. _____
- Bidder is offering an alternative to this section. _____

ZICO QRM-V CYLINDER BRACKET:

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A Zico QRM-V oxygen cylinder bracket shall be installed in the main O2 compartment.

Locate: STREET SIDE FRONT
Tank Size: "M"

Above section bid exactly as written. _____
Section not provided. _____
Bidder is offering an alternative to this section. _____

ACCESS TO CYLINDER VALVE FROM PATIENT AREA:

A clear Plexiglas door shall be provided in the patient area wall for access to the oxygen cylinder valve. The door shall be hinged so that it swings into the oxygen cylinder storage compartment. The opening shall be trimmed with anodized aluminum edging.

Above section bid exactly as written. _____
Section not provided. _____
Bidder is offering an alternative to this section. _____

OXYGEN OUTLETS:

Two oxygen outlets shall be installed in the rear inhalation panel unless otherwise noted below.

Above section bid exactly as written. _____
Section not provided. _____
Bidder is offering an alternative to this section. _____

ADDITIONAL OXYGEN OUTLETS:

Additional oxygen outlets shall be installed as noted below.

Quantity: ONE
Locate: BY CURBSIDE DOOR
Above section bid exactly as written: _____
Section not provided: _____
Bidder is offering an alternative to this section: _____

NCG OXYGEN AND SUCTION OUTLETS:

The oxygen and suction outlets installed in the vehicle shall be NCG style outlets.

Above section bid exactly as written. _____
Section not provided. _____
Bidder is offering an alternative to this section. _____

FLOWMETER:

Dial type flowmeter(s), in the quantity listed below, shall be supplied with the completed vehicle. Each flowmeter shall be supplied with a mating quick connect adapter. The flowmeter shall provide a maximum flow of 25 LPM.

Quantity: 1

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Above section bid exactly as written. _____
Section not provided. _____
Bidder is offering an alternative to this section. _____

CYLINDER WRENCH:

A cylinder wrench shall be installed inside the oxygen compartment. The wrench shall be installed in such a way as it will not move or rattle. The wrench shall be chained to the compartment so that it cannot be removed, however, the chain must not interfere with the operation of the wrench.

Above section bid exactly as written. _____
Section not provided. _____
Bidder is offering an alternative to this section. _____

HUMIDIFIER:

A disposable humidifier shall be supplied with the completed vehicle.

Above section bid exactly as written. _____
Section not provided. _____
Bidder is offering an alternative to this section. _____

SPARE 'D' BOTTLE STORAGE:

A dual 'D' bottle bracket shall be provided and installed in the location listed below.

Locate: Horizontal storage at end of squad bench

Above section bid exactly as written. _____
Section not provided. _____
Bidder is offering an alternative to this section. _____

"D" BOTTLE STORAGE IN HEAD OF BENCH:

Recessed storage for two (2) "D" size bottles shall be provided. These bottles are to be secured using a dual 'D' bottle bracket specified elsewhere within this document. This storage area shall be installed at the head of the squad bench horizontal to the bench floor. Access will be provided by an opening in the face of the bench facing the step well.

Above section bid exactly as written. _____
Section not provided. _____
Bidder is offering an alternative to this section. _____

PRIMARY VACUUM OUTLET:

A single vacuum panel shall be installed in the inhalation area. The outlet shall be of the same style as those of the oxygen system and shall be connected to the onboard vacuum pump.

Above section bid exactly as written. _____
Section not provided. _____
Bidder is offering an alternative to this section. _____

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SSCOR ASPIRATOR:

The manufacturer shall furnish and install an SSCOR suction system. The system shall include a #107CDC20 pump, a #22000 wall-mounted regulator, and a #23002 canister holder. The aspirator shall be accessible for use from the inhalation area per the attached prints.

Above section bid exactly as written. _____
Section not provided. _____
Bidder is offering an alternative to this section. _____

KKK SUCTION KIT:

A suction kit shall be included with the finished vehicle and shall include a suction rinsing bottle, (1) pharyngeal tip, and (1) yoke connector.

Above section bid exactly as written. _____
Section not provided. _____
Bidder is offering an alternative to this section. _____

LETTERING:

Lettering to be applied by dealer after Freetown views completed vehicle

Above section bid exactly as written. _____
Section not provided. _____
Bidder is offering an alternative to this section. _____

DEALER PREP. AND DEALER DELIVERY

A representative of the selling distributor shall inspect the vehicle prior to acceptance from the manufacturer and shall drive the completed unit back to the dealership for final prep and delivery to the end user.

Above section bid exactly as written. _____
Section not provided. _____
Bidder is offering an alternative to this section. _____

ADDITIONAL ITEMS

INCLUDE IN BIDS THE FOLLOWING;

1. **FERNO 35X PROFLEXX AMBULANCE COT, RED, WITH O2 HOLDER, IV POLE AND UNIVERSAL SIDE ARMS**
2. **FERNO 59T STAIR CHAIR- RED**
3. **Flashlights**
 - a. 2-(two) Koehler "Responder" hand lights with 12 volt chargers, one to be installed in the cab and one to be installed in the module pass through area.
4. **INTUBATION KITS (2) Complete or shall contain the minimum items:**
 - a. Roll / Carrying Case
 - b. Endotracheal tubes

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- i. Sizes: 2.0 – 5.0 un-cuffed
5.5 – 9.0 cuffed
- c. Magill Forceps
 - i. Adult
 - ii. Pediatric
- d. Lubricant (water soluble)
- e. Tape or Tube Restraint
 - i. One roll or 2 restraints
- f. Stylette
 - i. Sizes: Adult 14F
Pediatric 6F
- g. 10cc syringe
- h. Handles with Batteries:
 - i. Rusch Emerald Fiber Optic Laryngoscope or equivalent (Adult)
 - ii. Rusch Emerald Fiber Optic Laryngoscope or equivalent (Pediatric)
- i. Spare Batteries / Bulbs
- j. Blades (stainless)
 - i. Rusch or equivalent matching the handles listed in “h”
 - ii. Sizes: Curved #2, 3, 4, 5
Straight #1, 2, 3, 4
- k. Nasogastric tubes
 - i. Sizes: 5F, 8F, 10F, 14F
- l. 2 oz Catheter
- m. Hemostat

5. MOBILE RADIOS (2)

- a. Equip and install two Kenwood mobile radios model # TK-880 or equivalent.
 - i. One shall be installed in the cab
 - ii. One installed in action area in the patient compartment.

6. RUGGEDIZED COMPUTERS

- a. PANASONIC TOUGHBOOK 19 WITH LEDCO MOUNT (2)
 - i. One installed in cab.
 - ii. One installed in action area

7. TRADE:

All Bidders should visit the Freetown Fire Department where the 2001 Ford F-450 Type I, Class I ambulance is housed. All bidders shall take into consideration the existing condition of the trade-in, and should the bid be accepted, the bidder will be held responsible for any omission, misunderstanding or errors related to the trade-in. It is the intent of the purchaser to utilize the trade-in vehicle to provide EMS to the Town until the new vehicle is delivered and accepted by the Town. Bidders are cautioned that the trade-in vehicle does not include radios and/or medical equipment. The trade-in vehicle is available for inspection Monday-Friday, 0900-1500 hours and by appointment. Prospective bidders should contact The Freetown Fire Department at 508-763-4828 to schedule an appointment

