NOTICE TO VENDORS
REQUEST FOR PROPOSALS
Bid #1819-35

Notice is hereby given for sealed proposals to be received on or before the 21st day of June, 2019, at a local time of 4:00 P.M.

FOR THE PURCHASE OF A: Type IIIL Ambulance

QUANTITY: 1

REFERENCE NUMBER FOR THIS RFP: # 0000

PURCHASER:

ADDRESS:

CONTACT NAME:

TELEPHONE:

FAX:

EMAIL:

Bid Proposals will be accepted at the above location. Proposals received after the date and time stipulated above will be rejected. Proposals will be opened at the time stipulated in a manner to avoid public disclosure of the contents and only the names of the bidders will be read aloud.

Table of Contents

1 Introduction / Overview / Instructions to Bidders

1.1 Purchaser is requesting sealed proposals from qualified Bidders for the product specified in the requirements of this Request for Proposal (herein "RFP").

1.2 Questions related to this RFP shall be directed to the "Contact Person" specified on the first page of this RFP. All questions must be submitted in writing and include the reference number for this RFP, page number, and item number relating to each question. Bidders must understand that the only official answer or position of Purchaser will be the one stated in writing by Purchaser.

1.3 Purchaser is using a competitive sealed proposal method for procuring the product specified by this RFP. An award, if made, will be made to the responsible Bidder whose proposal is most advantageous to Purchaser, taking into consideration all the factors set forth in this RFP. Purchaser will not use any other factors or criteria in the evaluation of the proposals received.

1.4 The minimum criteria Purchaser will use to determine the "responsiveness" of each Bidder includes:

a) Completeness of Bidder's proposal, i.e., the degree to which it responds to all requirements and requests for information contained herein.
b) Bidder's demonstrated capabilities and qualifications as determined by reference checks, evaluation of materials, evaluation of construction techniques, etc.
c) Bidder's design, engineering, and reliability factors.
d) Bidder's past performance on similar proposals.
e) Bidder's ability, capacity, skills and financial resources to meet the requirements of this RFP at a fair and reasonable cost to Purchaser.

1.5 Purchaser recognizes that remounting the modular body onto a new chassis at the end of the life of the chassis will result in large financial savings to the Purchaser – so it is important that the vehicle(s) provided be of the highest quality to afford Purchaser with this cost savings through remounting in the future. Therefore, the Bidder selected for this contract must offer remounting of their vehicles in the same facility where the vehicle was originally manufactured. Bidders must have an established and functioning in-house factory remount program that has been in continuous operation for a minimum of ten years. Remount programs where remounts are accomplished by a dealer for the original manufacturer or by a sub-contractor are not acceptable.

1.6 In accordance with "Buy America" programs, proposals will be accepted only from Bidders that are 100% wholly owned, financed, and operated by USA-based entities. All work performed under this RFP must be performed wholly within the United States of America.

1.7 The Purchaser intends to receive a finished product of the highest standards of quality available. Manufacturers who design and build their own modular bodies and who have the expertise of an engineering staff

possess a greater capacity to handle a custom project of this type over manufacturers who purchase their modular bodies from an outside vendor. Therefore, the Purchaser requires the modular body, cabinetry, wall and ceiling panels, electrical system, paint finish and all major component assemblies specified herein to be wholly manufactured in one facility. This will also ensure the vehicle can be returned to its original condition using OEM components should accidental damage occur. Manufacturers who subcontract any of these components or any portion of their conversion are not acceptable and will be deemed non-compliant.

1.8 Bidder must have a minimum of ten years' experience providing ambulances similar in the scope of work that is described in this RFP.

1.9 The manufacturer of the ambulance conversion and the modular body must have constructed no less than 300 modular units during the past five calendar years; no less than 100 of which shall have been in active service for the past 24 months. This information must be available to the Purchaser for assurance of the feasibility, durability, safety, and performance of the vehicle being proposed. It is not the intent of these specifications to call for an experimental vehicle. No proposals will be accepted on "prototype" vehicles, but only on previously proven and accepted apparatus as built by manufacturer. Built-stock units or demo units that meet these specifications will be considered.

1.10 Purchaser hereby elects to exercise its "Legal Right to Specify" as set forth by the United States Supreme Court's affirmation of the decision handed down in the case of Whitten Corp. vs. Paddock, by the U.S. District Court of Massachusetts, the First Federal District Court:

a) That as trained professionals, the Purchaser is entitled to make informed judgments on products it feels best meets the needs of Purchaser. The court recognizes that technically, very few brands of material or equipment are exactly alike, and if the Purchaser wants to limit the specification to one source, it has the legal right to do so and enforce it.
b) Only the Purchaser has the responsibility and judgment for determining whether another product or proposed substitution is an "equal" substitution to what Purchaser specified and if it is acceptable in lieu of the Purchaser's original specification.
c) Finally, the courts concluded that "the burden is on the supplier or manufacturer who has not been specified to convince the Purchaser that their product is equal for the purpose of a particular project".

Purchaser has determined that this RFP represents the product to which all proposals shall be compared. Due to the fact that emergency response duties are ultra-hazardous, unavoidably dangerous activities, only trained personnel with specific knowledge in the area of emergency service equipment shall be allowed to make the final determining decision on the selection of the appropriate product to best meet and serve Purchaser's needs.

1.11 These specifications call for a new, tested, and certified commercially produced emergency vehicle of the type specified in the Ambulance

Design Criteria of the National Highway Traffic Safety Administration, I.S. Department of Transportation, Washington, D.C. These specifications are based upon the most current version of Federal Ambulance specification KKK-A-1822. If any item in this RFP deviates in any way from the Federal Ambulance specifications, this document shall prevail.

1.12 These specifications have been prepared after due consideration by Purchaser so alternate proposals on other ambulance body styles of KKK types will not be considered.

1.13 Proposals are solicited from all recognized and documented manufacturers of the ambulance body style set forth herein that hold certifications by qualified and accepted independent testing laboratories. These certifications will demonstrate the manufacturer's ability to construct a vehicle in accordance with the latest version of KKK-A-1822 and in accordance with the terms, specifications and conditions set forth in this RFP.

1.14 Some component items are specified by brand name and/or model number. These have been carefully selected because of the reliability and replacement availability. Brand names and model numbers of components offered in each Bidder's response must be included in order for the Bidder's proposal to be considered responsive.

1.15 Proposals where Bidder indicates "total exception" or "substantial exception" to these specifications or proposing to provide an alternate method of construction will immediately be rejected as non-complaint.

1.16 Multiple proposals for products from different manufacturers but represented by the same Bidder will not be accepted and shall result in immediate rejection of all proposals from the Bidder, its affiliates, or manufacturers it represents.

2 Instructions for Proposal

2.1 Compliance with RFP

All information submitted in response to this Request for Proposal (herein "RFP") becomes the property of Purchaser. All proposals must be in strict compliance with this RFP. Failure to comply with all provisions of this RFP may result in removing Bidder's proposal from further consideration.

Purchaser is not liable in any way for any costs incurred by any Bidder in the preparation of its proposal in response to this RFP.

2.2 Delivery of Proposals

All proposals shall be delivered to the address specified on the cover page of this RFP on or before the date and time specified.

Proposals shall be submitted in a sealed package. The outside of the RFP package must include the following:

- The statement: "Proposal for Ambulance Purchase Enclosed"
- RFP opening date
- Bidder's name and address

Failure to provide this information on the outside of the RFP package may result in the Bidder's proposal not being considered.

Do not submit proposals by fax or electronically. RFPs submitted in any manner other than the manner set forth herein will not be accepted or considered for award.

Purchaser will not accept (a) any proposals, or (b) any modifications to any proposal after the date and time specified on the cover page of this RFP.

2.3 Procedure for Evaluation of Proposals

Purchaser reserves the right to (a) reject any and all proposals, and/or (b) select the proposal deemed in the best interest of Purchaser.

Purchaser will first examine proposals to eliminate those which are clearly non-responsive to the stated requirements. Therefore, Bidders should exercise particular care in reviewing all requirements for this RFP.

The factors that will be considered in the evaluation of each proposal are listed below. Purchaser believes all these items are important and each will be carefully considered in its evaluation.

a) Total price.
b) The Bidder's responsiveness to the RFP. This includes Bidder's ability to follow the instructions for submitting proposals under this RFP, Bidder's overall approach and philosophy to meet Purchaser's needs pursuant to this RFP, Bidder's proposed team and organizational structure, Bidder's detailed plan of approach, Bidder's proposed quality program, and Purchaser's analysis of the risks posed by Bidder's proposal.
c) References.
d) Bidder's experience, ability, capacity, skill and financial strength to provide the services specified by this RFP.

Purchaser is extremely concerned with awarding this contract to the most qualified Bidder. Therefore, lowest total price will not be the overriding factor that governs the award of this contract. Purchaser shall evaluate each proposal based upon all the factors detailed herein.

Bidder grants Purchaser the right to contact any and all references to obtain, without limitation, information regarding Bidder's performance on previous projects. A sample of references will be checked by Purchaser for each Bidder considered a finalist.

2.4 Ambiguity, Conflict or Other Errors in the RFP

If any Bidder discovers any ambiguity, conflict, discrepancy, omission, or other error in this RFP, it shall immediately notify Purchaser of such error in writing and request modification or clarification of the document. Purchaser will make modifications by issuing a written revision and will give written notice to all parties who received this RFP from Purchaser.

Bidders are responsible for clarifying any ambiguity, conflict, discrepancy, omission, or other error in this RFP prior to submitting its proposal.

Purchaser reserves the right to waive what it may deem to be minor irregularities in any proposal, provided that such action is in the best interest of Purchaser. Any such waiver shall not modify any remaining RFP requirements or excuse the Bidder from full compliance with the RFP specifications and all other requirements if Bidder is awarded the contract.

2.5 Validity of Proposals

Purchaser shall accept all proposals that are submitted in the manner set forth herein. Purchaser reserves the right at its sole discretion to accept or reject in whole or in part any or all proposals submitted. Purchaser shall reject any proposal of any Bidder that is determined by Purchaser to be non-responsive.

Proposals shall be valid for a period of 60 days from the deadline set forth on the front page of this RFP to allow for a thorough technical evaluation of each proposal prior to award.

2.6 Response Format

To facilitate a fair evaluation and comparison of each proposal, all proposals must conform to the guidelines set forth in this RFP. Any proposal that does not comply with these guidelines may be considered non-responsive.

Proposals shall be bound in a three-ring binder for uniformity and ease of handling. The items listed below shall be submitted in the order shown in the three-ring binder. Each section shall be clearly labeled, with pages numbered and separated by tabs.

Tab 1: Letter of Introduction
Tab 2: Pricing
Tab 3: CAD Drawings
Tab 4: Purchaser's Request for Proposal
Tab 5: Exhibit E from RFP
Tab 6: Certification Documents for Bidder
Tab 7: Certification Documents for Bidder's employees
Tab 8: Insurance
Tab 9: Corporate capacity
Tab 10: References

The following items must be included in each Tab. Bidders that fail to include all listed items in the required format will be considered non-compliant.

Tab 1: Letter of Introduction

(a) Bidder shall submit a brief one-page letter of introduction which includes the following text:

"We certify and guarantee that we have read and understand the requirements set forth in the RFP and the vehicle we are proposing conforms in every way and in every detail to these requirements with the exception of the items set forth in Tab 5 of this proposal."

(b) The letter of introduction shall specify the name, address, telephone number, fax number and email address of the individual capable of answering any questions that may arise during the evaluation process.

(c) The letter of introduction shall provide a toll-free telephone line that is available to Purchaser for technical assistance, warranty support and component purchases.

(d) This letter of introduction must be signed by an individual authorized to commit the Bidder's organization to perform the work in Bidder's proposal.

Tab 2: Pricing

(a) Page one shall set forth the price in the following format:

$ 000,000	Cab and chassis price (reflecting the price for the cab and chassis as it is described in Exhibit A)
$ 000,000	Conversion price (reflecting all cab and chassis modifications as described in Exhibits B, C and D)
$ 000,000	**Total price for one vehicle**
0	Number of vehicles
$ 0,000,000	Grand Total

Page one shall also be signed and dated by an individual authorized to commit the Bidder's organization to perform the work in Bidder's proposal.

(b) Itemized pricing for the "**Total price for vehicle**" that is set forth on page one shall follow page one.

Purchaser reserves the right to delete any of the itemized features to reduce the "Total price for the vehicle".

Tab 3: CAD drawings

Bidders must submit detailed CAD drawings "drawn to scale" depicting their exact offering in response to this RFP. Generic or "standard" CAD drawings from any Bidder that does not depict the described interior and exterior configurations set forth in this specification is not acceptable.

One CAD drawing shall be submitted for each of the following nine views and shall be placed in Tab 3 in the following order:

Exterior views:

- Front of vehicle
- Rear of vehicle
- Streetside of vehicle (including the chassis)
- Curbside of vehicle (including the chassis)

Interior views for the patient compartment:

- Front bulkhead
- Streetside
- Curbside

- Rear doors
- Ceiling

Each of these nine views must include compartment configurations, measurements and special equipment as specified.

Due to the need to make an accurate and fair comparison between the proposals, any proposal submitted without these detailed CAD drawings shall be considered unresponsive and shall automatically be rejected from further consideration.

Tab 4: Purchaser's Request for Proposal

Bidder shall include one complete set of Purchaser's original RFP with all Exhibits in this section as it was issued by Purchaser.

Tab 5: Exhibit E from RFP

Exhibit E of the RFP must be signed by an individual authorized to commit the bidder's organization to perform the work in Bidder's proposal.

This certification must be executed and returned by Bidder even if Bidder has no exceptions to any of the specifications in this RFP.

It is expected that Bidders may offer deviations, alternatives, or exceptions to the specifications set forth in this RFP. Bidders are cautioned that they must submit their proposals using the format set forth herein and indicate each and every item that deviates in any way so a fair comparison and fair evaluation may be performed by Purchaser.

Bidders that do not furnish any item exactly as described in this RFP must indicate a deviation even though they feel they are exceeding what is described. Purchaser or its designated agent shall be the final judge on if any proposed exception or substitution meets or exceeds the minimum expectation of Purchaser. Unless the exceptions granted are acknowledged by Purchaser in writing at time of order, such exception shall not be accepted at time of delivery and the delivered product shall be expected to conform to every detail of this RFP or suffer rejection.

Bidders must use the form set forth at Exhibit E to show every exception proposed by Bidder that deviates from the specifications in the RFP. *Bidders are cautioned that Exhibit E must be executed and returned even if Bidder takes no exceptions to any of the specifications in this RFP.*

Tab 6: Certification Documents for Bidder

Third party certifications demonstrate levels of competency and a commitment to superior quality workmanship. These requirements are mandatory regardless of the brand chassis set forth in this RFP to establish "good engineering practices" relative to the Bidder's production techniques. Therefore, each Bidder must include the following items in this section:

(a) Bidder must include a copy of valid test documents from a bonded independent testing laboratory showing that all tests specified in the most current version of Federal ambulance specification KKK-A-1822, as amended, have been performed by Bidder for the specific type of ambulance described in this RFP. These documents must address and evaluate the specific methods of construction and components (such as door latching, framework, cabinetry) provided pursuant to this RFP.
(b) Bidder must include proof of its registration by NHTSA as a final stage manufacturer. This is a legal requirement in the United States for manufacturers that convert chassis for use as an ambulance.
(c) Bidder must meet the standards set forth by Ford Motor Company's "Vehicle Modifier Program" (herein "QVM") regardless of the chassis specified in this RFP. Bidder shall be a currently approved QVM participant and must submit a copy of its current authorization document. If Bidder's QVM certification was withdrawn or suspended by Ford Motor Company within the last five years, the Bidder shall provide a full written explanation of each QVM violation and the subsequent remedies.
(d) Bidder must be a current member of the Ambulance Manufacturer's Division of the National Truck Equipment Association (NTEA) to demonstrate industry participation in an evolving standards process. Current documentation of participation in NTRA's Member Verification Program must be submitted in this section.
(e) Bidder must submit documents to indicate that it actively participates in a "Drug-free Workplace" program.
(f) Bidder must submit a notarized document attesting that it has performed at least 1000 factory remounts with a list of at least 15 references for whom it has performed multiple fleet remounts to demonstrate the cost-effectiveness and durability of their modular bodies.

Tab 7: Certification documents for Bidder's employees

It is important for Purchaser to receive the finest workmanship possible in the construction of the vehicle specified in this RFP. To quantify the wording "finest workmanship possible" and remove the subjective nature of such a statement, Purchaser requires the vehicle to be built by individuals holding the third party certifications set forth hereinafter. These certifications will demonstrate Bidders level of competency and a commitment to superior quality workmanship. Therefore, each Bidder must include copies of the following certifications in this section:

(a) At least 75% of the engineers, mechanics and technicians responsible for the construction of this vehicle shall hold one or more certifications from either (i) The National Institute for Automotive Service Excellence (ASE), and/or (ii) The Emergency Vehicle Technician (EVT) Certification Commission, Inc. To avoid showing favoritism toward any one organization, either one or both of the organizations specified in (b)(i) and (b)(ii) above shall be acceptable in meeting the required 75% threshold specified herein. Proposals are solicited from all Bidders submitting evidence in Tab 7 documenting that its engineers, mechanics and technicians meet these qualifications at the time their proposals are submitted.
(b) Bidders must submit current individual certifications for all welders employed by the Bidder who are used to fabricate any portion of the modular body and its related component assemblies. Welders must be certified to American Welding Society (AWS) standards and copies of these certifications must be included in this section.
(c) The manufacturer of the modular body must submit valid documents in this section (1) indicating that it is an authorized applicator of the paint system being provided and (2) documents attesting to current certification of its painting specialists by the paint manufacturer must also be provided. These requirements are necessary to ensure adherence to quality control procedures.
(d) Finally, Bidders must include a Management Summary for key personnel (e.g., senior managements such as corporate officers) stating formal education, training, degrees and certifications held.

Tab 8: Insurance

The manufacturer must maintain a minimum of $10,000,000 product liability insurance. A valid Certificate of Insurance shall be included in this section. No "third party" insurance documents are allowed from any party who is not actually fabricating the vehicle.

Purchaser reserves the right at its sole discretion to require a Performance Bond from Bidder at time of award. Penalties may be assessed by Purchaser for not providing vehicle(s) to these specifications in a timely manner.

Tab 9: Corporate Capacity

Bidders are cautioned to carefully follow all instructions in this section. Failure to provide any of the requested data in the format requested shall be grounds for disqualifying Bidder's proposal from further consideration.

Bidder shall provide:
(a) A brief outline describing Bidder's ability to perform the work specified in the RFP. This descriptive statement shall indicate Bidder's credentials to deliver the services sought under this RFP and shall include (a) background and organizational history of the Bidder, (b) how long Bidder has been performing

the type of services required by this RFP including the number of years bidder has been in business, (c) approximate number of employees today.

(b) A statement by Bidder on any mergers, acquisitions or sales associated with the Bidder in the last ten years and, if so, an explanation providing relevant details.

(c) A statement by Bidder on any existing and/or pending litigation against Bidder, details describing the nature of any such existing and/or pending litigation, and an opinion of legal counsel as to whether any such litigation may impair the Bidder's performance under this RFP. Bidder must include a statement attesting that there is no existing or pending litigation against Bidder if such is the case.

(d) A statement by Bidder on any bankruptcy or insolvency proceedings associated with the Bidder in the last ten year and, if so, an explanation providing relevant details.

(e) Bidder shall certify that it has a "Project Manager" system in place to provide a single "point of contact" (along with the name of that individual) to provide Purchaser with timely information and regular progress reports during the construction process and to assist with inspections and acceptance of the vehicle upon delivery. Weekly progress reports shall be available via a dedicated website with password access by the Purchaser. These weekly reports shall track the vehicle(s) purchased hereunder through the production process and include photographs during the various stages of the production process and shall document the resolution of outstanding technical issues.

(f) A detailed overview of Bidder's Quality Assurance / Quality Control program shall be included.

Tab 10: References & Warranties

A. Provide a complete list of customers for projects of similar size and scope as that called for in this RFP.

B. Include a list of at least 15 governmental entities presently under contract or that have been under contract within the last 5 years, including the name and telephone numbers of a contact person for each such entity. Each reference should include:
   - The organization's name and address
   - The name, title, telephone number, and email address of the contact person.

   Purchaser reserves the right to contact any and all references to obtain, without limitation, ratings for Bidder's performance on the listed jobs.

C. Include copies of Bidder's warranties for the following:
   - Structural Warranty for the Modular Body
   - Paint
   - Electrical System
   - Vehicle Conversion

3 Methods of Construction

All features described herein shall be built exactly as specified unless Purchaser accepts Bidder's modifications as set forth in Exhibit E.

3.1 Module Body Construction

1. The modular body shall be designed and fabricated with the following key concerns in mind:
   (a) The greatest possible payload capacity is desired.
   (b) The safety of all occupants of the vehicle is of paramount concern.
   (c) The body design, including all construction materials and fabrication techniques shall be of the highest workmanship with proven characteristics of durability and reliability.
   (d) The body shall be easily remounted onto a new chassis.
   These specifications have been established for the purpose of accomplishing these key concerns.
2. The construction process set forth in this RFP will ensure that the body will remain structurally intact since the structural integrity of the unit is of extreme importance to Purchaser. The Purchaser, while interested in attaining the greatest possible payload, is not willing to compromise the structural requirements of a strong, durable and safe body. Bidder must understand that the construction specifications supersede concern over payload, and that the lightest body (with the greatest payload) will not necessarily be deemed sufficient to meet the stringent quality and safety requirements set forth herein.
3. Aluminum has been shown to reduce weight over several other materials. Aluminum also possesses anti-corrosion properties that are essential for this type of vehicle. The exact aluminum material requirements are set forth in detail herein. The materials and design specified herein shall allow the manufacturer to warrant the materials and workmanship of the modular body for a period of 25 years. The manufacturer's 25-year structural warranty shall be fully transferable to a new owner should the vehicle ever be sold.
4. Purchaser desires a vehicle body with maximum safety, longevity, and durability in mind. An anticipated renewable service life of 25 years or more is mandatory with the intention of remounting the module repeatedly onto new chassis. Therefore, the following shall be considered as minimum acceptable requirements to achieve these goals. One primary construction requirement is that the modular body is manufactured with all-aluminum, all-welded construction. There shall be four vertical and four roof corner extrusions of solid extruded aluminum. Modular bodies that do not utilize an extruded aluminum framework including extruded tubing corners such as described shall not be acceptable due to their lack of structural rigidity and high accident repair costs. No rivets, screws, liquid adhesive, tape, or other similar fastening methods shall be used for the attachment of any structural member or aluminum sheets. No "bonded" or "glued" exterior sheet metal body panels

or doors shall be accepted due to the lack of long-term structural integrity found in this method of attachment.

5. For optimum safety of personnel and durability, the module structure (including roof and sidewall surfaces) shall be of fully-welded all aluminum construction. MIG welding and pulse welding technology shall be used to fabricate an integral structure utilizing the following elements to form a rigid cage structure using corner extrusions that are a full ¼" thick solid extruded aluminum without internal slots or spaces. The only exception to pulse welding shall be the welding of heavy bar stock, which shall be MIG welded only.
6. Gusset support plates shall be installed throughout the vehicle for added strength. Each gusset plate shall be a minimum of 6" x 6" x 8" x 3/16" thick aluminum. A minimum of 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 and all body corners. Designs that utilize no gussets, or gussets of lesser strength, are not acceptable.
7. The exterior modular body skin shall be smooth and continuous. No exterior body moldings shall be installed to cover or trim any seam joints of the exterior body wall skin.
8. A pie-shaped tubular aluminum extrusion ¼" solid thickness with a 2.25" outside radius shall be used for all vertical corners of the module and all four sides of the roof perimeter. The extrusion shall have an integral panel external groove for the interior aluminum panels. The exterior walls shall fit into a recessed groove in the front face of the extrusion and shall be continuously MIG welded to the corner extrusion. The walls shall also be intermittently welded with a minimum of 1.5" long welds approximately every 6" to 8" on the interior surface where the wall and extrusion meet. The two sidewalls shall have a minimum thickness of .125" with flat surfaces to allow for a full 2" welded joint with sidewall and roof extrusions. When finished, the extrusion and exterior aluminum sheet walls shall exhibit a smooth seamless appearance. The extrusion shall be 6061-T6 high strength aluminum alloy. No surface metal that has been bent, brake-formed, or welded to form the corners of the module will be accepted by Purchaser.
9. Streetside and curbside wall frames shall incorporate doorway extrusions of 6063-T5 high strength aluminum alloy with an integral solid rib .375" thick X .75" wide, extending as one uninterrupted piece from the bottom of the wall to the top where possible and welded to the adjacent perimeter extrusion. The side doorway opening shall consist of vertical extrusions of 6063-T5 high strength aluminum alloy 2.75" x 2.00" x .125" thick with an integral solid rib .375" thick x .75" wide on both sides of the extrusion. The interior of the extrusion shall be divided by a .125" thick rib creating two separate hollow spaces. These same extrusions shall also be used whenever possible where there are two adjacent doorway openings (such as entry doors and exterior compartment doors) to provide additional strength. Doorway headers shall consist of single tubular version of the above extrusion that together shall form 4-sided framework for each exterior doorframe.

10. Vertical and horizontal beams of 1” x 2” x .125” and 2” x 2” x .125” thick 6063-T52 high strength aluminum allow tubular extrusions shall also be used where applicable to provide additional strength and increase the structural integrity and shall be welded to the adjacent perimeter extrusions when necessary.
11. The roof frame shall consist of 2” x 2” x .125” thick 6063-T52 high strength aluminum alloy tubular extrusions extending transversely (with approximately 14” spacing) for the full width of the roof that are welded to the upper perimeter extrusions. Two 2” x 1” x .125” thick 6063-T52 high strength aluminum alloy tubular extrusions extending longitudinally for the full length of the roof forming a centerline trough at ceiling level below the transverse extrusions. The longitudinal extrusions shall be fully-welded to each ceiling transverse extrusion. Two 2” x 2” x ¼” thick 6061-T6 high strength aluminum alloy tubular extrusions shall be installed transversely approximately 7” inboard from the front and rear corner extrusions to provide additional strength and increase the structural integrity.
12. The rear wall frame shall consist of horizontal 1” x 2” x .125” thick 6063-T52 high strength aluminum alloy tubular extrusions welded to the rear corner vertical perimeter extrusions and doorway extrusions. A separate set of horizontal 1” x 3” x .125” thick 6063-T52 high strength aluminum alloy tubular extrusions shall be installed at the header and floor threshold level on either side of the doorway opening and welded to the rear corner vertical perimeter extrusions and the doorway extrusions.
13. The rear doorway opening shall consist of vertical and lower horizontal extrusions of 6063-T5 high strength aluminum allow 2.75” x 2.00” x .125” thick with an integral solid rib .375” thick x .75” wide on both sides of the extrusion. The interior of the extrusion shall be divided by a .125” thick rib creating two separate hollow spaces. These extrusions shall be welded to adjacent perimeter extrusions to form the framework for the rear door opening. 2” x 3” x .250” 6061-T6 high strength aluminum alloy tubular extrusions shall be installed below the doorway threshold to provide additional structural integrity and impact resistance. Two tubes shall be installed vertically and two will be installed at a 45-degree angle.
14. The doorway header shall consist of a horizontal extrusion of 6063-T5 high strength aluminum alloy 2.75” x 2.00” x .125” thick with an integral solid rib .375” thick x .75” wide on both sides of the extrusion.
15. The front wall frame shall consist of vertical and horizontal 2” x 2” x .125” thick 6063-T52 thigh strength aluminum alloy tubular extrusions welded to the upper and lower perimeter extrusions. A single 2” x 2” x .250” thick 6063-T52 high strength aluminum ally tubular extrusion shall form the lateral header above the cutaway opening and be welded to the front corner vertical perimeter extrusions. The bottom tubular extrusion at floor level shall be a 2” x 3” x .250” thick 6063-T52 high strength aluminum alloy and welded to the front corner vertical perimeter extrusions.
16. Each exterior wall shall be fabricated from outer panels of 5052-H32 aluminum plate .125” thick.
17. The aluminum panels on the exterior walls shall be pulse-welded to each frame member at intervals of no more than 8” to 10” to assure a lifetime rattle-

free and rigid structure. The use of adhesives, tape, rivets or other fasteners are unacceptable.

18. The roof shall be fabricated from a single panel of 5052-H32 aluminum plate with a minimum thickness of .125". Roofs fabricated from multiple sheets are not acceptable due to potential leaking problems and the lack of structural integrity. Bidders are cautioned that crowned roofs are not acceptable to Purchaser. Inherent design flaws in crowned roofs result in undue stress on the roof perimeter when force is applied resulting in structural failure.
19. The corner extrusions of the walls and roof shall be 100" peripheral welded externally and have 1" long "skip welds" internally every 8" to 10" to the .125" thick aluminum exterior panels and the corner castings, forming an extremely strong, durable structure. Spot-welding or skip welding anywhere on the external surface of the modular body is not acceptable to Purchaser.
20. No particleboard, Masonite, luan, chipboard, plywood, or any other wood products are to be used in any portion of the modular body.
21. A CPI- brand polished cast aluminum fuel fill shall be installed on the streetside of the module.
22. Module to Cab construction: The front bulkhead partition shall be constructed of at least .090" welded aluminum sheet with 2" x 2" x .125" thick aluminum tubing framework. Plywood partitions are not acceptable due to the lack of structural integrity. The forward side of the partition facing the cab shall be covered with fire retardant, noise insulating liner that is color coordinated with the cab interior.

3.2 Floor Construction

1. The modular floor shall be constructed of ¾" thick multi-ply composite sheet composed of a polyurethane foam core reinforced with continuous and woven fiberglass strands. This floor shall extend from side to side and front to rear. The composite sheet shall have high thermal and acoustic insulation properties and shall be securely attached to the module floor frame. It shall be installed as a single piece whenever possible. When installed, no visible seams or depressions may show in the floor covering where the composite sheet has been attached to the aluminum framework. Absolutely no wood product for this application is an acceptable alternative. Samples of the composite sheet shall be provided upon demand for inspection by Purchaser. This item must meet AMD Standard #020 – "Floor Distributed Load Test."
2. An aluminum moisture shield of at least .063" thick shall be provided under the floor. This shield shall be fully sealed to prevent any penetration by moisture.
3. A separate heat shield, constructed of at least 18-gauge galvanized or aluminized steel shall be installed between the muffler(s) and the modular body and at any other location where the exhaust system is less than 3" from the module. No aluminum heat shields are permitted pursuant to the requirements set forth by QVM.
4. Polystyrene plank insulation of at least 1' thick shall be installed between the floor and the minimum .063" thick aluminum subfloor to provide additional

insulation from heat and noise. In no case shall any insulation be exposed to the bottom of the vehicle (such as spray-on insulation).

5. The exterior floor structure of the module shall be coated with a durable automotive grade undercoating which shall be applied beneath the moisture shield in accordance with QVM requirements.
6. The module floor structure shall consist of one 1” x 2” x .250” thick 6063-T52 high strength aluminum alloy primary box beam extrusion extending the full interior width of the modular body at the front edge and 2” x 2” x .125” thick 6063-T52 high strength aluminum alloy box beam extrusion shall be installed longitudinally curbside and streetside adjacent to the exterior compartment and squad bench areas running the full length of the body except for fuel filler pipe clearance. The transverse crossmembers shall be welded to sections of ¾” thick x 3” wide solid aluminum bar 6061-T6511 high strength alloy installed longitudinally for mounting the module to the chassis framerails. The finished assembly shall be securely welded to the wall structures and exterior compartments forming a unitized modular frame.
7. The floor frame shall be securely welded to each wall with full MIG welds on at least three sides of each joint forming a high strength, durable module.
8. The modular body shall be capable of supporting the entire weight of the fully loaded vehicle on its top or side, if overturned, without separation of joints or permanently deforming roof beams or reinforcements, body posts, doors, stringers, floor, inner linings, outer panels, and other reinforcements. The module body shall be all aluminum and all MIG welded construction to assure compliance with this requirement. The use of any other material, or spot welds, bolts, screws, rivets, or other mechanical fasteners, or any glue, adhesive, or two-sided tape, is not acceptable.
9. As evidence that the modular body meets the strength criteria set forth herein, the body shall be tested and certified to comply with AMD standard #001 “Static Load Test for Ambulance Body structure.” Specifically, the module body shall have applied a roof load of 2.5 times the curb weight of the vehicle without sustaining any damaged, bent or torn materials, and with entry doors properly opening and closing during and after the load test.
10. Drip rails of extruded anodized aluminum shall be installed above all doors without the use of screws or other mechanical fasteners. Painted drip rails are not acceptable due to the high potential for paint chipping. Drip rail cannot be part of the doorframe extrusion. Drip rails must be easily removable for replacement in case of damage.

3.3 Module Door Construction

1. Door panel separation, dirt accumulation at seams, paint imperfections, misalignment, and even malfunctions where the door cannot be operated have been observed in many styles of door construction. These problems, combined with the expected rugged use of the vehicle doors, shall be eliminated with the overall design and construction process set forth herein. The end result will be a high quality, rigid door that will not bend or flex and that will eliminate the commonly seen structural defects described above.

2. All doorway openings shall be framed with high-strength 6063-T52 aluminum alloy extrusion. This shall be 2.125” x 1.375” x .125” thick with an integral solid rib .375” thick x .75” wide. Extrusion joints at the corners shall be fully welded forming a rigid frame around all doorway openings. The extrusion shall also provide a dual-compression sealing surface for the door seals.
3. All module doors shall be constructed of a special extrusion frame with integral seal mounting provisions for double surface seal mounting and seal protection. The door opening area shall be completely free and clear so that when doors are open the hinges, latches, pins, door seal and door checks shall not protrude into the opening area. All module doors shall have no exposed exterior seams when completed.
4. All hinges shall be stainless steel, one side full swaged, .075” thick x 3” with .25” diameter stainless steel pin and 1” long hinge sections. Each hinge shall extend the full length of each door, and be securely fastened to the door and the module no more than every 3” with a flush-fitted aluminum rivet. Threaded bolts or screws are unacceptable due to the likelihood of loosening or thread stripping. Hinges that have slots or elongated holes that require the user to constantly readjust the doors to compensate for sagging are not acceptable because of the continuous adjustments that they require.
5. Each module exterior door shall have a quarter-round shaped hollow-core door seal installed. The door seal shall be manufactured from EPDM (Ethylene-Propylene-Diene-Monomer) for flexibility at low temperatures and superior resistance to aging, weathering, and ozone. Seals mounted on the door opening shall not be permitted. The seal shall be installed only on each door and shall run uninterrupted fully around the perimeter of each door with no breaks for latches, hinges, switches, etc. With the door closed, the seal shall be compressed between the door extrusion and the doorframe extrusion, forming a weather tight seal.
6. Module exterior doors shall have key operating locks and shall be keyed alike (#1250) unless other specified. A minimum of six keys shall be provided with the vehicle.
7. A door latching system is required that provides maximum safety to all on-board personnel and security for all stored equipment. Therefore, all module exterior compartment “primary” doors shall have #9000SS-SP locking “D” ring handles with EBERHARD-brand #206 latches. This shall permit direct activation of the door latch via the handle. Any exterior compartment “secondary” door shall incorporate an interior release handle and automatic “slam latching” when the door is closed. The only exception to this shall be the R4-2 battery storage compartment door which shall use a #52C slam latch.
8. A lock service access plate shall be provided on the inside of each module exterior door. The access plate shall be .125” thick with a brushed aluminum finish that is firmly attached but easily removable for routine lock lubrication. Latch installation that requires the removal of the inner door panel to access the latch is not acceptable.
9. All door handles shall have polished cast aluminum “D” ring door handle spacers installed between the door surface and the handle surface. All

handles must have rubberized gaskets installed between the painted body surfaces and the handle components. All striker bolts must be recessed into the doorframes. No surface mounted striker bolts or Nader pins are permitted to protrude into the door opening that can snag equipment or injure a person removing items from a compartment.

10. "Paddle" style handles and/or rotary latching mechanisms utilizing rod or cable actuators are not an acceptable substitute and are not permitted due to inherent design flaws and maintenance issues and because these style handles that can collect sand, ice, snow, etc. causing these style handles to fail.
11. Entry door latches shall be operable from both inside and outside of the module. Latches shall be lockable by key on the exterior and by twist knob on the interior. The door latch system shall be so mounted as not to project into the door open area.
12. The side personnel door shall have an EBERHARD-brand #206 latch with a #9000SS-SP locking "D" ring handle. This shall permit direct activation of the door latch via the handle.
13. Interior door handles shall be near flush folding to prevent accidental opening and comply with FMVSS #206.
14. Each module entry door shall have .125" thick 5052-H32 aluminum exterior panel welded to the perimeter extrusion at least 1" every 6" to 8". Each door shall also have an interior panel constructed with painted aluminum. The interior panel of each door shall be secured with solid shank rivets to prevent loosening and installed in a manner to eliminate raw exposed edges. No threaded steel fasteners such as screws or bolts are permitted due to the potential for constant loosening, deformation, and electrolytic corrosion. The interior of each door shall be fully insulated with 2" thick polystyrene foam planking. The entire inside edge of the doorframe shall be sealed. The outer edge of the door exterior panel shall have a radius of .063" to enhance paint adhesion and minimize potential chipping. Inner door panels covered with upholstery or vinyl are not acceptable due to the high potential for damage.
15. Each module entry door shall be equipped with a minimum .125" thick reinforcement extrusion at the attachment point for the grab rail to prevent metal fatigue. An aluminum tapping plate measuring 1" x ¾" x ¾" thick shall be welded into the doorframe at the mounting point for the door hold open.
16. The side entry door shall be constructed as described hereinabove and equipped with a gas shock door retainer that shall hold the door in a 90-degree open position. A replaceable 2" wide nylon strap shall be attached at the bottom of the door and attached to the frame of the module to act as a "strain relief" to prevent overstress of the door hold-open and hinge. The strap shall incorporate metal eyelets on both ends and use threaded fasteners for attachment.
17. Each rear entry door shall have two "grabbers" as door hold open retainers. The retainers shall be located at both the top and bottom of each door to prevent damage to the doors which is typical with a single door hold-open device. Gaskets must be installed behind each hold open device.

18. The module entry door latches, hardware and hinges shall comply with FMVSS #206 and AMD Standard #002 – “Body Door.”
19. A stainless steel threshold plate shall be provided at the rear personnel doors. This plate shall conform to the doorframe structure and the inner edges shall be sealed where the threshold meets the floor covering to prevent moisture from accumulating under the threshold plate. A replaceable 2” wide anti-skid surface shall be incorporated across the full width of the threshold plate.
20. An alternating red/white diagonal pattern reflective striping panel (a minimum of 10” high) shall be installed on the lower interior face of each of the three module entry doors. Each color shall be 2” wide and the diagonals shall angle “outboard” when the doors are open (facing aft).
21. The module shall be equipped with a minimum .063” thick heavy-duty bright aluminum diamondplate kickplate under the rear doors. This kickplate shall extend the full width of the rear wall from corner extrusion to corner extrusion. This kickplate is to be installed as an overlay utilizing Ultra-Grip rivets for easy replacement.
22. Heavy-duty medical grade seamless stainless steel grab bars with a minimum diameter of 1.25” shall be used within the patient compartment and provided for each entry door. Grab rails shall be one-piece style and have a full radius at each end. All grab bars and grab rails shall be yellow, knurled, antimicrobial and must be ADA compliant. Grab rails that are multi-piece are not acceptable due to the inability to thoroughly decontaminate such items. Rails that have blunt ends are not acceptable due to the potential for occupant injury. Smaller diameter rails are not acceptable.
23. The side entry door grab bars shall be installed horizontally near the center of the door.
24. Each rear door shall have an “L” style grab bar, at least 17” long horizontally and 33” long vertically. The vertical side shall be mounted adjacent to the door hinge to allow the handle to be used for entry/exist without causing the door to inadvertently close when pulling force is applied.
25. Reinforcement tapping plates, .125” thick, shall be welded into the doorframe structure and installed at all grab bar mounting points to assure maximum strength. Simply using the inner door panel surfaces as a mounting point shall not be permitted.
26. Two grab bars of heavy-duty medical grade seamless stainless steel, 1.25”diameter, shall be securely mounted longitudinally to the ceiling slightly off center toward the primary and secondary patients’ positions. Grab rails shall be of a single-piece style and shall incorporate radius ends. The design and style shall match the grab rails described hereinabove.
27. Reinforcement tapping plates that are a minimum of .125” thick shall be welded to the module framework at the grab rail mounting points to assure maximum strength. Grab rails shall not be attached to the ceiling surfaces only. All surfaces of the grab rails shall have a full radius, including the ends. This item must meet AMD Standard #008 – “Load Test for Ambulance Grab Rail.”

3.4 Exterior Compartment Construction

1. The module shall be equipped with the exterior compartments with dividers and shelving as indicated herein. The arrangement and dimensions for each compartment has been developed for the specific needs of the Purchaser. Other alternative arrangements shall not be considered. Sizes may be larger as long as the minimum size indicated herein is provided within the design parameters described. All cabinets and compartments shall meet AMD Standard #019 – “cabinet and Compartment Measuring Guidelines.”
2. All exterior compartments must be constructed of .125” thick walls and .090” thick ceilings with an aluminum alloy of 5052-H32. All compartments shall be fully seam-welded and fully welded to the modular body structure. No mechanical fasteners shall be allowed. No caulked seams or intermittent welding of seams shall be allowed. The use of lesser thickness aluminum or the use of aluminum diamondplate to form the compartment walls or floor is not acceptable due to those products having less strength and being subject to stress cracking.
3. The exterior compartment door openings shall be framed with 2.125” x 1.375” x .125” thick 6063-T52 high strength aluminum extrusion with an integral lip .375” thick and extending .75”. Each corner shall be continuously welded. The bottom of each compartment shall be flush with the bottom extrusion (sweep-out style) thereby enabling easy cleaning and removal of equipment.
4. Exterior compartment doors shall have a fully welded .125” thick extrusion forming its perimeter. Corners shall be ground to form a .063” radius, blended smooth with the extrusion. A one-piece hollow core seal shall be attached to a recess in the door extrusion. Installation of the seal in the exterior compartment opening is unacceptable since it exposes the seal to damage from equipment being installed in or removed from the compartment.
5. The exterior door panel shall be 5052-H32 aluminum, .125” thick. The panel shall be welded to the perimeter extrusion at least 1” every 6” to 8”. The door interior panel shall be a minimum .063” thick bright diamondplate aluminum and shall be secured with solid shank aluminum rivets to prevent loosening and installed in a manner to eliminate raw exposed edges. No threaded steel fasteners such as screws or bolts are permitted due to the potential for constant loosening, deformation, and electrolytic corrosion. The interior of each door shall be fully insulated with 2” thick polystyrene foam planking. A .125” thick brushed aluminum access panel shall be provided for servicing the latch.
6. Each exterior compartment door shall be equipped with a gas shock hold-open device that allows travel over 90-degrees.
7. All adjustable shelf tracks in the exterior compartments shall be heavy-grade extruded aluminum UNISTRUT-style mounting track. All track shall be attached to the compartment walls via intermittent welding. No screws or rivets shall be used for attachment of the UNISTURT track to the compartment surfaces since these may weaken and separate under heavy loads. Kitchen shelf track or other similar lightweight household-grade shelf track is not acceptable.

8. Adjustable shelving for the exterior compartments shall be fabricated of .125" thick 5052-H32 aluminum with a formed 1" high lip on the front and the rear. Shelving shall be prepared and painted to match the compartment finish. A 1.25" long brake-formed downward lip shall be fabricated at the ends of each shelf to allow mating to the shelf track. Shelving shall be attached via spring-style fasteners specifically designed for use with the extruded track.
9. A red reflector, at least seven square inches in size, shall be installed on the interior surface of each module exterior compartment door. The reflectors must be highly reflective DOT-approved tape designed for vehicle installation (Truck-Lite #98176 series or equal). Foam-backed glue-on or screw-style reflectors are not acceptable due to their high potential for cracking, damage, loss and deterioration.
10. A completed label attesting that the vehicle is designed, built and certified to the most current version of Federal Specification KKK-A-1822, as amended, shall be installed in the front streetside compartment on the inner face of the compartment door on a permanently mounted aluminum plate installed.

3.5 Construction of Rub Rail, Fenders, Rear Bumper/Step, Side Stepwell, Tag Frame, Module Stone Guards, Mounting Body to Chassis, Oxygen System, HVAC System

1. Rub Rails:
   (a) The modular body shall have a 2" x 3.5" x .125" thick aluminum beam welded along the sides of the module to act as a side impact crash beam and support the rub rails. The side impact crash beam shall be welded to all possible vertical beams along the sides. The upper edge shall incorporate a .375" thick x .75" wide solid aluminum lip that shall act as the lower mating surface for side doors of the module.
   (b) The rub rails shall extend the full length of the modular body on each side with tapered ends. The rub rails shall be .125" thick aluminum diamondplate formed into an "L" section with a 2" x 1" x .125" thick tubular aluminum beam welded inside the diamondplate "L" section for greater strength. The rub rails shall be secured to the module side beams with .25" diameter stainless steel bolts, nuts and lock washers and shall be spaced .125" from the modular body with nylon spacers to allow water, cleaning solutions, road salt, etc. to drain from the body and permit easy rub rail replacement in case of an accident. Rub rails formed only from diamondplate are not acceptable because they are not impact resistant.
2. Fenders:
   (a) The module shall be equipped with 5052-H32 aluminum inner fenders .063" thick, fully curved to the contour of the wheels, and MIG welded in place. Joints with the modular body shall also be sealed.
   (b) The module wheel housing shall be so constructed for easy tire removal.
   (c) Each rear wheel area shall be provided with one-piece CPI-brand heavy-duty polished cast aluminum fenderettes. Formed sheet metal, fiberglass, or rubber fenders are not acceptable due to their lack of resistance to impact damage.

3. Rear Bumper:
   (a) A heavy-duty combination rear bumper/step shall be provided at the rear of the module. The bumper step shall extend across the rear of the modular body. The rear bumper/step shall be spaced 1.5" from the rear of the modular body and shall not be connected to the module at any point in order to protect the modular body from damage in the event of a minor accident. In no instance shall integral or add-on "tow eyes" be incorporated into the step assembly since the step assembly is not rated for chassis towing. Any towing must be performed via direct attachment to the chassis frame components per QVM requirements. Seam-welded aluminum diamondplate boxes shall be installed on each end and incorporate 2" x 16" heavy-duty rubber dock bumpers.
   (b) The rear step/bumper shall be fully welded to provide maximum strength. The step/bumper shall be bolted via grade 8 plated bolts to the chassis frame and not fastened to the modular body in any way. Bumper assemblies that are welded to the chassis frame are not acceptable since they are difficult to replace and can cause damage to the chassis frame in a minor accident. This item must meet AMD Standard #018 – "Rear Step and bumper Static Load Test."
   (c) A step shall be incorporated in the center portion of the bumper/step. The step opening shall be 48" wide and shall extend 10" behind the modular body. The step material shall be high strength, one-piece extruded aluminum with anti-skid teeth formed into the surface and machine stamped openings to prevent slipping and buildup of mud, ice or snow. The step shall be mounted on a full-length hinge, allowing the step to be lifted out of the way for easier cot loading and unloading. The top of the step shall be within 2" of midway between the ground and the patient compartment floor with the vehicle loaded with the rated payload. The bumper/step frame shall be treated to be resistant to corrosion.
   (d) Diamondplate box covers with angled outside corners shall be installed on each end of the bumper with the folding bumper step between each box.
4. Side Stepwell:
   (a) The side stepwell shall be made of a minimum .125" thick NFPA-compliant anti-skid aluminum diamondplate, fully seam welded into place to form an integral component of the module. The step surface shall be completely flush for easy "sweep-out" cleaning. No lip is permitted. The stepping surface shall comply with NFPA 1901 standards (section 15.7.4) for slip resistance.
   (b) A stainless steel threshold shall be provided above the stepwell. The inner edges shall be sealed where the threshold meets the floor covering to prevent moisture accumulation under the threshold plate. A replaceable 2" minimum anti-skid surface shall be incorporated across the full width of the threshold plate.

5. Module Stone Guards: The front corners of the modular body shall be equipped with stone guards constructed of diamond tread bright aluminum and secured to the module with Ultra-Grip rivets. Stone guards shall extend around the module forward corners and to the cab body. All edges of the stone guards shall be sealed with a flexible sealant to prevent accumulation of moisture and dirt between the body and stone guards.
6. Mounting modular body to chassis:
   (a) Purchaser requires a mounting system that provides a stable and durable attachment of the module body to the chassis frame. Therefore, the modular body shall be mounted to the chassis by a minimum of eight 5/8" diameter grade 8 bolts provided. The use of any other style of mounting system that requires wood or rubber block spacers (such as "u-bolt" mounting systems) or other "direct contact" mounting systems are prohibited since these cause undue stress on the chassis frame rails and result in a rough ride.
   (b) To distribute the load and torsion evenly across the entire mounting surface of each lateral floor structure cross member, the module mounting points shall be reinforced with longitudinal 3" wide by .75" thick 6061-T6 high strength aluminum alloy flat bar "sleeper rail" welded to the lateral module floor framework.
   (c) Heavy-duty vibration absorbent elastomer bushings with a steel inner sleeve installed between the module "sleeper rail" and the chassis frame shall be used at each mounting point. These bushings shall be fabricated to resist crushing and deformation.
   (d) The modular body shall not be welded to the chassis at any point.
7. Oxygen System:
   (a) All oxygen piping shall be electrostatically conductive medical-grade green oxygen hose rated at 250 P.S.I.G. use of any other material for oxygen piping is not acceptable. The hose shall be of a length that it may be connected to an oxygen cylinder standing on the ground prior to loading the replacement cylinder into the compartment. The hose connecting the cylinder regulator to the distribution network within the module shall be fabricated as a separate length of hose with matching threaded connectors and attached to a "thru-wall" fitting in the compartment. This hose shall be easily replaceable in the event of damage. This item must meet AMD Standard #015 – "Ambulance Main Oxygen System Test".
   (b) A cylinder-changing wrench shall be furnished, chained and clipped within the oxygen compartment. The chain shall be covered with plastic, heat shrink-wrap, or similar material to eliminate chain rattling and potential tangling of the chain. Stranded wire cable is not an acceptable substitute due to safety concerns.
   (c) An oxygen pressure-reducing regulator with an inlet filter and CGA540 fitting at the cylinder shall have line relief valve set at 200 PSI maximum, and a range of 0 to 2,500 PSI with the gauge scale graduated in not more than 100-PSI increments shall be provided. The regulator shall be easy to connect and preset, with a locking adjustment, at 50, +/-5, PSI line

pressure permitting a minimum of 100-LPM flow rate at a bottle pressure of 150 PSI.

8. HVAC System:
   (a) A temperature control system is required that provides quick and simple operation while maintaining a uniform temperature throughout the patient compartment. The HVAC unit must be located so it is easy to access for service. The HVAC system specified in Exhibit D shall be installed in a fully insulated cabinet to provide maximum cooling and heating performance.
   (b) A Hi-capacity fresh air vent exhaust fan shall be installed at the rear of the module. This fan shall be flush-mounted over the rear doors on the interior of the vehicle. The fresh air intake shall be located at the front of the module. The fan shall have high and low speeds, and shall be controlled by a switch on the EMT panel. Rear-mounted intakes shall not be permitted due to the entry of dust and noxious fumes into the patient compartment. Roof-mounted ventilators are prohibited due to their propensity to allow water to enter the patient compartment.
   (c) The fan shall be rated by its manufacturer to produce a minimum free airflow rate of at least 300 cubic feet per minutes. The vent fan shall provide a complete change of air in the patient compartment every two minute. The ventilation system shall comply with AMD Standard #007 – "Carbon Monoxide Levels for Ambulance Compartment Interiors".
   (d) The HVAC system shall have an air return filter grill that is a minimum of 240 square inches installed near floor level to expedite the heating & cooling process. The return air register shall incorporate a replaceable filter that is readily available from local vendors. Filters that are proprietary to a specific ambulance manufacturer or any other "sole source" outlet are unacceptable. Two high-capacity adjustable discharge registers shall be installed near ceiling level for the HVAC system. This shall maintain a circulating airflow for even temperature distribution within the patient compartment. Systems with return air vents located near the face (discharge) of the HVAC unit are unacceptable since they do not allow for adequate air recirculation and efficiency.
   (e) The blower motor for the HVAC unit shall be replaceable from the front of the unit without requiring removal of the entire unit from the cabinet. This system shall operate independently from the HVAC system controls located in the chassis. UV-detectable Freon dye shall be installed in the system to aid in detection of any potential leaks. Electrically-controlled water valves shall automatically activate the flow of hot water to the rear heater when the thermostat setting for heat is selected. Vacuum-style control valves are not acceptable. Dual drain lines for water condensation shall be installed and shall terminate below the module. The system shall meet AMD Standard #012 – "Ambient Temperature Test" and Standard #014 – "Cooling System Test".
   (f) An electronic thermostat with digital temperature display shall control this system and shall be installed in the action area panel. Household style thermostats are not acceptable.

3.6 Patient Compartment Interior Construction

1. All hinge doors shall be fabricated with .75” x .75” x .125” thick welded tubular aluminum frame with either .25” thick polycarbonate panels or painted aluminum inserts as specified herein. All outside doorframe edges shall be covered with 1” x 1” polished aluminum edge trim. Doors shall be attached to the cabinet framework via the use of full-length stainless steel hinges. Intermittent hinges, household grade fasteners, or the use of regular steel hinges are not acceptable.
2. To ensure good working conditions and to create a stable patient environment, the module shall be manufactured with particular attention to thermal and sound control. The module shall have non-woven polyester batten mat insulation installed within all four walls and the ceiling. This insulation shall provide superior thermal and acoustic insulation qualities. Alternative materials are not acceptable due to the superior thermal and noise insulation qualities provided by this product. Fiberglas products are not acceptable due to the potential for airborne particles being released into the air over time.
3. The insulation shall be fire retardant, non-absorbent, non-settling, non-hygroscopic, mildew, bacteria, and vermin proof. Sound levels shall comply with AMD Standard #006 – “South Level Test Code for Ambulance compartment Interiors.”
4. The module interior ceiling shall be .063” thick aluminum painted with white rock guard type paint for maximum light reflectivity. Plastic, wood panel, fiberglass, or similar product ceiling surfaces are not permitted due to their lack of structural integrity.
5. The module interior walls shall be painted aluminum.
6. Two 2” x 1” x .125” thick 6063-T52 high strength aluminum alloy tubular extrusions shall extend the entire centerline length of the module creating a full-length total access channel for installation of the main wiring harness and to also provide access to the inner roof surface for antenna cables and antenna bases. Extrusions shall be fully welded (2”) to each roof box, adding strength to the roof structure.
7. All interior cabinets shall have aluminum walls fabricated from a combination of welded panels with minimum thicknesses ranging from .063” to .125” thick. The use of wood or plastic in the fabrication of these cabinets is prohibited due to their inherent lack of structural integrity and excess weight.
8. All interior cabinets shall be fabricated from a combination of various sizes of square and rectangular welded aluminum tubing. All tubing shall have walls that are a minimum of .125” thick. Cabinets formed from bending sheet aluminum are not acceptable due to stress cracking.
9. All finished cabinetry shall be sealed and completely finished with white texturized acrylic coating to provide durability.
10. Framing for all interior cabinetry shall be welded to form a crash-stable structure to support each cabinet opening.
11. All interior cabinets shall be welded to the structural framework components of the module, thus making the cabinets an integral part of the module to

resist tearing loose under severe conditions. Cabinets that are bolted, screwed or otherwise similarly attached to the module framework are prohibited since these cabinets fail at the attachment points when subjected to severe stress.

12. Locations and dimensions of the interior cabinets shall be in accordance with the minimums described herein. Alternative arrangements and different sizes are not acceptable.
13. All sliding polycarbonate doors shall slide in felt-lined aluminum tracks. These doors shall be rattle-free and constructed in a manner that prevents inadvertent movement. All polycarbonate used in the interior cabinet doors (both sliding and hinged doors) shall be a minimum of .25" thick.
14. All polycarbonate sliding doors shall be equipped with full-length satin finish extruded aluminum handles. Finger holes or handles that require drilling of the polycarbonate for attachment are prohibited.
15. All interior cabinet door latches shall be compliant of the new KKK-1822F standards and incorporate a quick-release/slam-shut style that permits quick opening with gloved hands. No plastic latches are acceptable since they lack durability and do not withstand repeated decontamination over time. All sliding doors shall incorporate a locking pin to keep doors from accidental sliding.
16. Adjustable shelving for all interior cabinets shall be fabricated of .125" thick 5052-H32 aluminum with a formed 1" high lip on the front and the rear of the shelf. Shelving shall be prepared and painted to match the compartment finish in which it is used. A 1.25" long brake-formed downward lip shall be fabricated at the ends of each shelf to allow mating to the shelf track. Shelving shall be attached via spring-style fasteners specifically designed for use with the extruded track.
17. All interior aluminum shelving shall have the lip edges covered by push-on plastic protective edging (such as TRIMLOCK-brand or equal).
18. Countertops throughout the patient compartment shall be fabricated from high-density solid surface acrylic material (such as Corian-brand or equal) incorporating "seamless" integral lips creating a "recessed" work surface. The countertops must overlap the cabinet edge seams on which they are installed to minimize the potential for the collection of fluids. Molded plastic or flush edge countertops are not acceptable.
19. All upholstery shall be fabricated using heavy-duty automotive grade vinyl with a minimum rating of 40 oz. And comply with FMVSS #302. All cushions, backrests, etc. shall be fabricated using high-density foam and covered with vinyl in a manner that minimizes any exposed seams. This material shall be fire retardant, washable, non-hygroscopic and bacteriostatic. No embossing, diamondpleated stitching, welding, or plastic trim shall be acceptable due to the weakening effect of these items on the upholstery with repeated use. Backrests and seat cushions shall have a nominal 3" thickness.
20. Color-coordinated plastic caps shall be installed over all exposed fasteners used to install the upholstery anywhere in the patient compartment.

21. There shall be removable covers with padded vinyl positioned over the ceiling centerline wiring trough, concealing the main wiring channel and allowing easy access to wiring and antenna cables.
22. The rear door, right side door, and walk-thru opening to the cab shall be thickly-padded overhead with vinyl covered foam padding for protection of personnel. All interior corners shall be rounded and padded whenever possible.
23. The floor covering shall be installed as a single-piece without any seams or splicing.
24. The floor covering must extend across the floor area in a single piece and continue up the curbside face to the top of the squad bench and entirely up the face of the street sidewall to the action shelf to permit ease of cleaning and decontamination.
25. The cot fastener shall be secured to the floor structure using aluminum bar stock welded to the cross frames under the floor of the module. This item must meet AMD Standard #004 – "Litter Retention System."
26. The attendant's seat base (installed at the head of the primary patient's stretcher) shall be directly attached to the modular floor using high-strength steel fasteners threaded into .75" thick x 6" wide aluminum bar stock welded to the floor structural framework. Wooden seat bases, non-FMVSS compliant swivel seat bases, and bolt-thru style seat base installations are not acceptable to Purchaser. The seat base must be approved for the specified seat and shall meet AMD Standard #025 – "Occupant Head Clearance Zones."

3.7 Electrical System & Exterior Lighting

1. The electrical system for this vehicle is extremely important to Purchaser. Electrical systems have proven to often be the most complex and troublesome system on emergency vehicles. A system is desired that is simple in design so any electrical diagnosis and repair time will be minimized. The electrical system must be thoroughly engineered and manufactured to allow simple personnel operation. The system must be designed to minimize the possibility of experiencing dead batteries, shorted electrical components and lengthy troubleshooting. To address the above objectives, the requirements for the electrical system are set forth in detail herein.
2. Electrical systems that have components that are "sole source" or "proprietary" to any manufacturer are not acceptable to Purchaser. Due to the inherent problems associated with availability as well as high replacement costs, the installation of a printed circuit board-based or micro-processor controlled master electrical system for the modular body is not acceptable.
3. The electrical system shall be an electro-mechanical "hardwired" system manufactured by the Bidder to ensure reliable access to replacement parts using commercially available components for ease of service by Purchaser and to reduce "out-of-service" time for the vehicle. Electrical systems incorporating Printed Circuit Boards ("PCB") are not an acceptable substitute for an electro-mechanical "hardwired" system because PCBs are highly

susceptible to minor electrical surges, moisture, and damage from vehicle vibration. PCBs are also not acceptable to Purchaser because they are expensive to replace and they become obsolete with the passage of time. Finally, the Purchaser does not want to be subject to proprietary PCBs which Purchaser can only acquire from one source. Hardwired systems have stood the test of time proving they are durable and reliable and they can quickly and easily be repaired with common components that are locally available. Purchaser is not willing to accept the risk of having its unit out of service for an extended period of time while waiting for Bidder to replace a proprietary PCB that has failed or been damaged. Therefore, the design requirements set forth herein for the modular electrical system must be strictly followed with no exceptions.

4. All wiring devices, switches, outlets, etc., except circuit breakers shall be rated to carry at least 125% of the maximum amp load for which the circuit is protected. The utilization of lightweight ribbon type wiring is not acceptable.
5. To minimize potential electrical problems, a minimum of five separate and distinct braided ‘ground” straps shall be installed with two in the cab area and three in the module area. A centralized grounding system comprised of a separate ground wire harness for all interior/exterior circuits shall be installed and attached to the frame of the chassis via #2 gauge cable. All miscellaneous grounds shall be connected to the central grounding point on the frame.
6. All electrical connections added by the Bidder that are subject to “high-heat” exposure shall use Zinc-coated “Stover” lock nuts. This requirement includes, but is not limited to, such items as engine grounds, alternator taps, rectifiers, solenoids located in the engine compartment, and any other similar use. This method shall prevent loosening of the fasteners caused by recurrent expansion/contraction of the metal due to heat exposure.
7. All electrical connections/fasteners which may be exposed to harsh environmental elements such as water and that do not utilize weatherproof connectors shall have a spray-on plasticized coating applied for protection. This process shall decrease the potential for any corrosion or loss of adequate conductivity. Such areas shall include items such as battery cable connectors, ground straps, etc.
8. Locking quick disconnect plugs shall be utilized for connecting the cab console to facilitate ease of removal during service and remounting. All wiring shall be run inside fire resistant high temperature loom rated at 300-degrees F. All apertures on the vehicle shall be properly grommeted for passing wiring and shall conform to SAEJ1292. Electrical wiring systems shall have 6” service loops at all connections.
9. All relays, switches, etc. shall be knife terminal type for dependability and ease of field maintenance. No soldered-in or hard-wired components preventing individual component replacement shall be accepted by Purchaser. Bidder-added electrical system wiring shall have no splices within a wiring harness. Wiring shall run uninterrupted from one component to the next.

10. Large-size heavy-duty rocker switches shall be provided with an engraved label defining the switch functions. Switches shall be color-coded whenever possible and shall illuminate when the circuit is activated. Labels shall be backlit and readable at night. “Mini-style” switches are not acceptable. Light intensity shall be controlled via the headlight rheostat switch. The switches shall be designed for individual replacement. Switches that are incorporated into a consolidated circuit board panel are not acceptable due to the high cost of replacement of the entire panel.
11. The vehicle shall be equipped with a master module disconnect switch. The switch shall be a rocker type switch that has a different shape and feel than any other switch and illuminated red when “on”. The switch shall control an Eaton P/N 6041H105 Military Spec solenoid that is rated at 200 amps continuous duty.
12. All wire shall be copper and conform to SAEJ1292 and shall be color-coded and heat stamped with a specific function code a minimum of every 4”. Wire shall be rated at a minimum of GXL high temperature wire with wire sizes provided that are capable of carrying 125% of the load demand of each circuit. No lightweight wiring (such as ribbon wiring) shall be permitted regardless of whether the system is “hot” or “cold” wired by the manufacturer. This item must meet AMD Standard #005 – “12” VDC Electrical System.”
13. All circuit breakers shall be heavy-duty automotive grade “automatic reset” type circuit breakers (unless otherwise specified herein) with adequate amperage rating to handle the load. The minimum acceptable amperage shall be 10 amps. Circuit breakers shall be heavy duty for dependable and reliable service. Circuit breakers must be “bolt-in” style breakers.
14. At all connection points where a wire is attached to a metal connector, there shall be sufficient heat shrink-wrap applied to aid in the prevention of dislodgment of the connector.
15. Multiple 12 VDC outlets shall be installed in the module as specified herein. The receptacles shall receive 12 VDC power from a medical isolator with a Schottky diode, heat sink mounted and rated at 20 amperes and 45 volts peak inverse voltage.
16. Wiring for the 125 VAC system shall be 10/3 SO type cable from the shoreline plug to the circuit breaker box, and 14/3 SO cable from the circuit breaker box to the receptacles and the engine block heater. All cable shall be rated at 600 volts at 90-degrees C and covered with 149-degree C fire retardant wire loom. This vehicle must comply with AMD Standard #009 – “125 VAC Electrical Systems”.
17. All exterior door switches shall be hermetically sealed and magnetically controlled, preventing any moisture or dirt from entering the switch. The use of door switches that are not hermetically sealed and magnetically controlled is not acceptable since that style is subject to corrosion and rust. There shall be a spike suppression diode installed across the coil of the door relays to prevent any high voltage pulse from damaging these switches.
18. The attendant control panel shall be located in the action wall area. The panel(s) shall be fabricated from aluminum. The panel(s) shall be hinged for

easy access for maintenance. The attendant control panel shall provide switching as set forth herein.

19. All warning lights, floodlights and taillights shall be connected using multi-conductor shielded cables and connectors that are approved by the manufacturer of the warning light. Absolutely no splicing of any wiring is permitted.
20. Scene & Exterior Lights:
    (a) Front and rear side marker lights shall flash with the directional signals in addition to operating as marker lights.
    (b) Ten identification/clearance lights shall be installed on the module and/or light bars per FMVSS #108. These lights shall have chrome-plated flanges.
    (c) Side and rear reflectors a minimum of 7 square-inches in size shall be installed on the module in compliance with FMVSS. These reflectors shall be highly reflective DOT-approved tape designed for vehicle installation (TRUCKLITE-brand #98176 series or equal). Foam-back glue-on or screw-style reflectors are not acceptable due to the high potential for cracking, damage, loss, and deterioration.
    (d) Rear load lights shall activate along with backup lights whenever the rear doors are opened, the transmission is placed in reverse, or by switch on the front control panel.
    (e) The curbside load lights shall activate when the curbside entry door is opened, or by switch on the front control panel.
    (f) Backup lights shall be installed in a manner that will illuminate the rear of the vehicle when both rear doors are deployed in the “open” position. This shall provide additional illumination and safety in addition to the floodlights mounted over the rear doors.

3.8 Paint Procedures

1. Purchaser requires a premium quality basecoat/clearcoat system with a low VOC polyurethane clearcoat for the module body. This process is required so the highest possible gloss will be provided. The basecoat provides superior color while the clearcoat provides superior appearance and luster retention characteristics when compared to other types of paint. In addition, the 3.5 VOC clearcoat achieves a smooth, hard, high gloss finish providing a higher resistance to chemical sprays, salt sprays, humidity, and temperature changes. Finally, this process best resists chipping. The final paint application shall be free of imperfections such as orange peel, streaking, or a dull finish.
2. Bidder shall have a valid paint application process control program in place and submit a copy of that document upon request.
3. Bidder shall maintain an outside paint audit system. The paint manufacturer shall provide regular onsite inspections of the Bidder’s paint process to assure a consistent level of quality. Audit reports from these inspections shall be available to Purchaser upon request.

4. The entire exterior of the module shall be cleaned and prepared for painting according to the following minimum requirements. Any deviation in this process must be clearly explained in detail by Bidder.
    - Use a liquid cleaner to remove surface contaminants, grease and wax.
    - Clean all aluminum surfaces to be painted with a solvent cleaner.
    - Sand aluminum with 180 grit sandpaper followed by 320 grit sandpaper.
    - Apply two coats of Vinyl Wash Primer to .2 to .4 dry mils.
    - Apply two to three coats of Epoxy Primer 2 to 3 dry mils.
    - Sand cured Epoxy primer with 80 or 180 grit sandpaper as determined by the amount of body filler to be applied to each area of the module.
    - Apply body filler.
    - Sand cured body filler with 80 grit sandpaper followed by 180 grit sandpaper.
    - Apply three coats of Epoxy primer over cured body filler.
    - Apply sanding guide coat and sand epoxy primer. Finish sanding with 320 grit sandpaper.
5. The following paint application shall be followed:
    - Spray opacity card to determine the number of coats required to achieve opacity/coverage.
    - Apply Prism Basecoat as recommended to achieve opacity/coverage.
    - Apply clearcoat to achieve 2 to 2.5 mils dry film build.
    - Total dry film thickness shall be a minimum of 4.2 mils.
    - After the finish has cured properly, DA sand with minimum 1200-grit sandpaper followed by 1500-grit sandpaper to remove surface imperfections.
    - Power buff the paint finish to create a high gloss appearance.
6. A labeled container containing fresh paint of each color used on the vehicle shall be provided upon delivery as a “touch up” kit.
7. Corrosion is the probable cause of the majority of paint failures. To reduce the possibility of corrosion-caused failures the following corrosion control procedures shall be followed utilizing specifically formulated chemical coatings (hereinafter “coating”) designed to reduce the potential for electrolysis between dissimilar metals:
    (a) Exterior Lights: When attaching any light to the module or to the cab where a rubber gasket or insert is not used, apply the coating to the fastener holes to seal the light and the body surface. Sealing the lights in this manner shall prevent water and contaminants from creeping behind the light and into the body.
    (b) Fenderettes: Apply coating to the fastener openings and fasteners.
    (c) Diamondplate: When attaching any diamondplate to the module (such as stone guards, rear kick plate, fenderwell covers, etc.) apply coating to the back of the plate. This seals the plate to the module and provides a moisture barrier. Also apply coating to the fasteners used to attach the diamondplate.
    (d) Rear Bumper: Apply coating between any aluminum and steel components that come in contact with each other.

(e) Hinges: Apply the coating to both sides of all module exterior door hinges. Apply coating to each rivet before it is placed in the hole. Wipe excess sealant away after the rivet is installed. The use of dielectric tape is not an acceptable substitute.
(f) Rub Rails: Coat the screws and spacers.
(g) Miscellaneous: Apply the coating on all fasteners that are exposed to the elements. For example, spray the bolts that connect the running boards to the vehicle. Coat the fastener any time a screw or rivet is inserted in the module or cab.
(h) Special Note: Where threaded steel fasteners (such as screws or bolts) are used to attach items to the painted exterior aluminum surfaces of the body (such as warning lights) the use of "inserts" is mandatory to eliminate the occurrence of dissimilar metal contact. Bidders must provide samples to Purchaser of products used upon request by Purchaser.

3.9 Warranties & Delivery

1.1 Warranties: Warranties defined as "Lifetime" or "Limited Lifetime" are not acceptable to Purchaser. Bidders must clearly state their warranty period reflecting a specific time period in months and/or years and/or mileage. Bidders are cautioned that warranties defined as "lifetime" or "limited lifetime" are not acceptable since the courts have not provided a clear legal definition for words that are generally held to be nothing more than a marketing tool. Copies of Bidder's warranties must be submitted in the bid package. These warranties shall meet or exceed the following minimum standards:

(a) Structural Warranty for the Modular Body
Bidder shall provide a 25-year unlimited-mileage structural warranty on the modular body, exterior skin, subfloor structure, exterior compartments, and interior aluminum cabinets. This warranty shall include structural defects from electrolysis. This 25-year structural warranty shall be fully renewed for 25 years if the original manufacturer remounts the modular body onto a new chassis.

(b) Warranty for Paint Finish
Bidder shall provide a minimum 7-year unlimited-mileage paint warranty covering materials and labor for defects in materials and workmanship. Items covered under this warranty shall include:

- Cracking, checking, peeling or delamination of the topcoat and other layers of paint.
- Loss of gloss caused by cracking, checking or hazing.
- Any paint finish failure caused by improperly applied finishes.

The following minimum warranty schedule must be provided:
0-48 months: 100% coverage
49-60 months: 50% coverage
61-84 months: 25% coverage

All limitations, exclusions, and warranty procedures shall be clearly indicated.

Warranty for Paint Corrosion: Bidder shall provide a minimum 3-year unlimited-mileage corrosion warranty covering materials and labor for the repair of paint deterioration caused by blisters or other film degradation. The following minimum warranty schedule must be provided:

0-12 months: 100% coverage
13-24 months: 50% coverage
25-36 months: 25% coverage

Any corrosion warranty that is prorated before the specified minimum time periods is not acceptable. All limitations, exclusions, and warranty procedures shall be clearly indicated.

(c) Warranty for Electrical System

Bidder shall provide a 10-year 100,000-mile electrical warranty covering components and labor which shall include the following components:

- Main wiring harness and battery harness cables.
- Relays.
- Automatic and manual reset circuit breakers.
- Voltmeters, ammeters, and shunts.
- Switches and solenoids.
- Diodes, rectifiers, and heat sinks.
- All terminal strips and multi-pin connectors.
- All wire terminals and magnetic door switches.

Major electrical components manufactured by third-parties such as sirens, light bars, flashers, alternators, batteries, inverters, battery chargers, etc. shall be covered by the individual manufacturer's warranties.

(d) Warranty for Vehicle Conversion

Bidder shall warrant the vehicle and furnished equipment against parts failure or malfunction due to installation errors, defective workmanship and missing or incorrect parts for a minimum period of 36 months or 36,000 miles operation, whichever occurs first. This warranty shall specifically include windows and molding, floor covering, door locks, latches, and related hardware.

(e) Manufacturer's Pass-Through Warranties

All equipment and components installed on the vehicle or purchased with the vehicle shall be covered by the warranty of the manufacturer of such equipment or components. Bidder shall extend any additional warranties on any components on the vehicle which may be provided by the supplier of the component. These warranties shall be included in the owner's manual that is provided with the completed vehicle.

1.2 Delivery:

(a) An operating instruction handbook on the vehicle, repair manual and parts handbook shall be furnished with each vehicle.

(b) An accessory, components, equipment and systems instruction handbook(s) shall be furnished with each vehicle.

(c) The handbooks shall cover installation and operation instructions, drawings, illustrations, manufacturer's part numbers, service & lubrication instructions, assembly and disassembly instructions, along with safety precautions to ensure proper installation, operation and maintenance.

(d) Complete wiring diagrams shall be furnished in the owner's handbook. These diagrams shall be specific to the completed vehicle and shall not be "generic" in nature. Each optional electrical circuit shall be indicated on a separate page.

(e) The delivery of the completed ambulance must be with 45 days after the successful bidder receives the Purchase Order.

(f) The delivery will take place at the successful Bidder's facility.

Exhibit A

Exhibit A is attached to and by reference is hereby incorporated into and made a part of that certain Request for Proposal for a new ambulance.

This section describes the cab and chassis that shall be supplied by the Bidder.

Year: 2019

Make: Ford

Model: E-450

Engine: 6.8L V10 Gasoline

GVWR: 14,500 lbs

Wheelbase: 158”

Cab to Axle: 100”

Paint color: White

Batteries: Dual batteries

Fuel tank: 55 gallon

Transmission: Automatic

Wheels: 16”

Rear axle ratio: 3.73

HVAC specifications: Single zone manual

Alternator: Dual

Other special features: Cruise control, engine cover console delete, preferred equipment package, interior upgrade, exterior upgrade, engine block heater, keyless entry, and message center.

Exhibit B

Exhibit B is attached to and by reference is hereby incorporated into and made a part of that certain Request for Proposal for a new ambulance.

Chassis Modifications by Bidder

1. Bidder must ensure that the loading height of the completed vehicle will meet the most current version of KKK-A-1822 specifications. Any modifications must be in accordance with QVM directives.
2. Air valve extensions for inner rear tires shall be installed.
3. The cab shall be equipped with .125" thick aluminum diamondplate running boards. These shall be 13" deep at the front of the module and taper to approximately 8" depth at the front wheelwells. The running boards shall include an 8" wide splash shield to protect the cab doors and running boards from stones, dirt, and debris spray from the front wheels and include step grating with the Bidder's company logo welded into the step area..
4. A set of heavy-duty black polypropylene (minimum ¼" thick) grooved anti-sail style mud flaps shall be installed behind the rear wheels.
5. The master switch panel in the cab shall provide switches for the following:
   Master Module Power
   Kussmaul Sequence Master Switch
   Emergency Warning Lights (Primary / Secondary)
   Wig / Wag
   Horn / Siren
   Left Scene Lights
   Right Scene Lights
   Rear Load Lights
   Squad Bench Dome Lights (Low Intensity)
   Blank Switch
   Module Power
6. Separate color-coded door-open warning lights shall be provided for the personnel doors and exterior compartment doors on the module. The door open warning lights shall flash whenever any door is opened.
7. The master switch panel shall be mounted on the cab console securely mounted to the floor midway between the driver and passenger. The console shall be fabricated from welded aluminum and coated with a heavy-duty UV-stabilized urethane elastomer finish. The console shall be easily removable via quick connection wiring harnesses and quick-release fasteners for easy access and servicing. The console shall have (2) built in cup holders.
8. A FEDERAL-brand 12" Flexhead work light with rheostat intensity control and red/clear lens shall be installed on the console for use by the passenger for writing reports, reading maps, etc.
9. An SAE J994 "rated" audible warning device (reverse alarm) shall be provided and activated when the vehicle is shifted into reverse gear. The

alarm will have a minimum rating of at least 107 dB (+/- 4 dB) at four feet. No "defeat" switch will be installed so vehicle operation will comply with OSHA regulations.

10. A 200-amp rated digital display combination ammeter/voltmeter shall be installed on the front console. The ammeter shall incorporate a #DCS-35-300-1 Hall-effect sensor.
11. The engine high idle speed control shall be automatic high idle in lieu of chassis OEM system. Both the module and the cab shall have conspicuously displayed "No Smoking – Oxygen Equipped" and "Fasten Your Seatbelts" warning decals. The text and dimensions of these signs must comply with current "KKK" specifications.
12. This vehicle must meet AMD Standard #013 – "Weight Distribution." A certified weight ticket indicating the finished weight of the completed vehicle shall be provided at time of delivery.
13. A permanent style label stating "Gasoline Only" shall be installed over the fuel fill opening.

Exhibit C

Exhibit C is attached to and by reference is hereby incorporated into and made a part of that certain Request for Proposal for a new ambulance.

Modular Body – Special Exterior Features

All features described in Exhibit C shall be built exactly as specified unless Purchaser accepts Bidder's modifications as set forth in Exhibit E.

1. The completed vehicle shall have the following nominal dimensions:

   Exterior dimensions of overall vehicle (including chassis, module and rear step):

   Height: 106"
   Width: 96" (excluding mirrors and lights)
   Length: 272"

   Exterior dimensions of modular body:

   Height: 87.625" (to top of modular roof)
   Width: 96" (excluding mirrors and lights)
   Length: 166" (outside front wall to outside rear wall)

2. The exterior compartments shall be referred throughout this document as set forth here. These references must be used on all CAD drawings. Standing outside the unit facing the back of the modular body:
   - The left rear compartment on the streetside shall be **L1**.
   - The left intermediate compartment on the streetside shall be **L3/2**.
   - Immediately above the L3/2 compartment shall be the **L3/1** compartment which shall house the electrical power distribution panel.
   - The front left compartment on the streetside shall be **L4**.
   - The right rear compartment on the curbside shall be **R1**.
   - The right intermediate rear compartment shall be **R2**.
   - The right front compartment on the curbside shall be **R4/1**.
   - Immediately below the R4/1 compartment shall be installed a separate externally vented compartment **R4/2** which shall store the chassis batteries.
3. Compartment **L1** shall have the following nominal sizes:

   Height: 81.875"
   Width: 33.25"
   Depth: 20.375"
   Pass Thru Height: 70"
   Pass Thru Width: 30"

   - L1 shall be used for: vertical storage of backboards, scoop stretchers, and other patient immobilization devices.

- L1 shall have a single vertically-hinged exterior door.
- L1 shall be divided into two equal sections.
- The forward section shall have 2 adjustable horizontal shelves.
- The aft section shall have aluminum UNISTRUT-style tracks horizontally-welded to the back wall. Two adjustable .125" thick aluminum vertical dividers shall be installed for backboard storage.
- Access from the patient compartment to the interior upper section of L1 shall be accomplished by the installation of a vertically hinged door with the following nominal pass-thru dimensions:
  Height: 41.625"
  Width: 16.625"

4. Compartment **L3/2** shall have the following nominal sizes:
   Height: 35"
   Width: 50.25"
   Depth: 20.375"
   Pass Thru Height: 34"
   Pass Thru Width: 48.25"
   - L3/2 shall be used for: storage of the inverter, second HVAC, and other miscellaneous storage.
   - L3/2 shall have dual vertically-hinged exterior doors.
5. Compartment **L3/1** shall house the electrical Power distribution Panel and associated electrical components. The L3/1 shall have the following nominal sizes:
   Height: 46.875"
   Width: 35.25"
   Depth: 7"
   Pass Thru Height: 33.125"
   Pass Thru Width: 30"
   - L3/1 shall be used for: housing the electrical Power distribution Panel and associated electrical components. This location will allow easy troubleshooting and repair while minimizing entry into the module by service personnel.
   - L3/1 shall have one vertically-hinged exterior door.
6. Compartment **L4** shall have the following nominal sizes:
   Height: 81.875"
   Width: 19.125"
   Depth: 22.375"
   Pass Thru Height: 70"
   Pass Thru Width: 18.125"
   - L4 shall be used for: Oxygen storage
   - L4 shall have single vertically-hinged exterior door.
7. Compartment **R1** shall have the following nominal sizes:
   Height: 81.875"
   Width: 21"
   Depth: 20.375"

Pass Thru Height: 70”
Pass Thru Width: 18.125”

- R1 shall be used for: Misc. storage.
- R1 shall have a single vertically-hinged exterior door.
- R1 shall have one adjustable .125” thick aluminum shelf.

8. Compartment **R2** shall have the following nominal sizes:
   Height: 23.5”
   Width: 21”
   Depth: 20.375”
   Pass Thru Height: 21.5”
   Pass Thru Width: 15.625”
   - R2 shall be used for: storage of miscellaneous equipment.
   - R2 shall have single vertically-hinged exterior door.
   - R2 shall have one horizontal adjustable shelf.
   - Access to R2 from the interior of the patient compartment via the aft squad bench lid shall be provided.
9. Compartment **R4/1** shall have the following nominal sizes:
   Height: 57.5”
   Width: 23.125”
   Depth: 29.5”
   Pass Thru Height: 56.75”
   Pass Thru Width: 18.125”
   - R4/1 shall be used for: storage of miscellaneous equipment.
   - R4/1 shall have a single vertically-hinged exterior door.
   - R4/1 shall have two adjustable horizontal shelves.
   - The lower section of R4/1 (see cabinet H3) shall be accessible from inside the patient compartment through dual hinged doors.
   - This compartment shall have the following nominal sizes:
     Height: 33.5”
     Width: 29.5”
     Depth: 22.125”
     Pass Thru Height: 32.625”
     Pass Thru Width: 25.5”
   - The right front of R4/1 (see cabinet H2) shall be accessible from inside the patient compartment through a single door in the upper right portion of the bulkhead cabinet. This area shall have the following nominal sizes:
     Height: 22”
     Width: 12.5”
     Depth: 22.125”
     Pass Thru Height: 21”
     Pass Thru Width: 10.75”
   - The drug storage compartment (see cabinet H1) shall have a hinged and key locking door and shall be located in the upper left portion of

the right front interior/exterior cabinet in the R4/1. The drug storage compartment shall have the following nominal sizes:

Height: 22”
Width: 12.5”
Depth: 22.125”
Pass Thru Height: 21”
Pass Thru Width: 10.75”

10. Compartment **R4/2** shall have the following nominal sizes:

Height: 13.125”
Width: 16.625”
Depth: 20.375”
Pass Thru Height: 10.375”
Pass Thru Width: 14.625”

- R4/2 shall be fully sealed off from the patient compartment.
- R4/2 shall be designed to store the chassis batteries.
- The chassis batteries shall be secured on an aluminum tray with self-latching 100% extension slides (Accuride-brand or equal).
- R4/2 shall have a single vertically-hinged exterior door that is vented to the outside.

11. Each exterior compartment shall be equipped with a wall-mounted 12 VDC LED light which automatically illuminates when the compartment door is opened.
12. Exterior compartments shall be coated in a multi-step process using an etching primer, high-solids color coat, and a Zolatone “splatter” finish for high chip resistance and durability.
13. There shall be one side entry door at the right front of the module with the following nominal opening size:

Pass Thru Height: 70”
Pass Thru Width: 30”

- The side entry door shall be equipped with an 18” x 24” fixed privacy-tint safety glass window which complies with FMVSS #205.
- A door-activated clear light shall be installed in the right side lower wall of the side door stepwell. It shall be a flush-mounted 4” diameter LED sealed version with rubber mounting grommet that shall activate whenever the side entry door is opened or the bench dome lights are activated to illuminate at low intensity mode.

14. Each rear entry door shall be equipped with a 12” x 36” fixed privacy-tint safety glass window which complies with FMVSS #205.
15. The left rear personnel door shall be secured in the closed position with automatic slam latching. The right rear personnel door shall have an EBERHARD-brand #206 latch with a #9000SS-SP locking “D” ring handle. This shall permit direct activation of the door latch via the handle.
16. Electric door locks shall be installed on the following doors: L1, L3/2, L4, R1, R2, R4/1, R3 (side entry door), and RR (rear entry doors). The electric

locks shall be activated by the chassis OEM circuit, and side entry door switch.

17. Tag Frame: A CPI-brand #LP0005 polished aluminum tag frame with integral clear illumination light shall be installed on the rear of the module.
18. Courtesy Lights: Two 4" white LED lights shall be installed on the front o
19. Scene & Exterior Lights:
    (a) A handheld spotlight with momentary "ON" switch shall be provided with the following features:
        - The spotlight shall be hard wired with an 8-foot spiral cord.
        - It shall have a "blue-eye" bulb with 400,000 candlepower.
        - This spotlight shall be installed in a recessed "well' on the passenger side of the console.
        - Clips, hangers or spotlights shipped "loose" are not acceptable.
    (b) Two WHELEN-brand #900 series flood/work lights with integral chrome plated flanges and 8-32 degree built-in optical tilt shall be mounted on the right and left sides of the module and controlled with individual switching from the cab.
    (c) Two 4" diameter red LED marker/turn/hazard warning lights shall be installed on the rear sides of the module. These lights shall incorporate a sealed lens assembly with rubber mounting grommet.
    (d) Two WHELEN-brand #900 series flood/load lights with integral chrome plated flanges and 8-32 degree built-in optical tilt shall be mounted on the rear of the module. The lights shall not be obstructed when the rear doors are opened.
    (e) CPI-brand #LH46118 triple-cluster with polished aluminum light housings shall be mounted below floor level on the rear kickplate for the rear taillights. The lights shall be installed using OEM weatherproof connectors. No taillight shall be obstructed when the rear entry doors are opened. The lights shall have the following features:
    Brake lights: Whelen #600 series – red lens – LED version.
    Turn signals: Whelen #600 series – amber lens – LED version.
    Backup lights: Whelen #600 series – clear lens – LED version.
20. Emergency Visual Warning System shall include the following:
    (a) Each light fixture shall have a chrome plated flange.
    (b) Center-mounted on front of module: one WHELEN #900 series clear LED warning light.
    (c) Upper front corners of module: two WHELEN #900 series red LED warning lights.
    (d) Front of the module in between the center light and the corner lights: Two Whelen #900 series red LED warning lights.
    (e) Front fenders of cab: two WHELEN #700 series red LED intersection lights with "DEUTSCH" weatherproof connectors.
    (f) Grill of chassis: two WHELEN #500 series red LED lights with "DEUTSCH" weatherproof connectors.
    (g) Each side of the module at top outer corners: two WHELEN #900 series red LED warning lights.

(h) Rear of module at top corners: two WHELEN #900 series red LED warning lights. The lights shall not be obstructed when the rear entry doors are opened.
(i) Center-mounted over the rear doors of module: one WHELEN #700 series amber LED warning light.
(j) Over each module wheelwell: One WHELEN #700 series red LED warning light.
(k) Rear mid-level warning lights that shall serve as brake lights when not in emergency mode: Two WHELEN # 900 red LED warning lights.
(l) Warnings lights to be programmed for "Comet Flash" and have clear lenses.
(m) A WHELEN #AFM1660 electronic flasher shall power all of the flashing warning lights.

21. Siren System:
(a) A WHELEN (model #295HFSC9) 200-watt electronic siren and microphone shall be mounted in the cab console.
(b) The siren shall incorporate a "hands-free" feature operated from the OEM chassis horn ring via a switch on the cab console.
(c) The siren shall meet AMD Standard #023 – "Siren Performance Test".

22. Speaker System:
- Two CPI-brand #SA4319 series polished aluminum 100-watt speakers shall be installed in the face of the front bumper and be connected to the sire amplifier. The siren speakers shall not block airflow to the grill in any manner.

23. Oxygen System:
(a) The oxygen tank shall be located in compartment L4.
(b) The oxygen tank restraint system shall be certified to comply with AMD Standard #003 – "Oxygen Tank Retention System". The restraint system shall have a vertically adjustable bracket to accommodate different cylinder sizes.
(c) The oxygen tank restraint system shall be ZICO #QR-MV and shall include 3 straps and a vertical restraint designed and installed to fit over the neck of an "M" size oxygen tank.

24. Exterior Paint & Lettering:
(a) The module shall be painted to match the cab.
(b) The outside wheels on the chassis shall have stainless steel wheel inserts.
(c) A "Star of Life" Ambulance decal package shall be provided and installed on the ambulance in accordance with the most current version of Federal Specification KKK-A-1822, as amended.
(d) There shall be an 8" wide reflective 3M lemon yellow beltline stripe installed around the modular body and the sides of the chassis cab body.
(e) 1/2" wide blue reflective pinstripe tape shall be installed at the top and bottom edges of the beltline stripe.

(f) This specification requires the lettering and graphics to be supplied or installed by the Bidder. The lettering and graphics shall match Gulf County EMS Medic #1 unit. Contact Houston Whitfield at 850-227-5839 for more information regarding the lettering and graphics package.

Exhibit D

Exhibit D is attached to and by reference is hereby incorporated into and made a part of that certain Request for Proposal for a new ambulance.

Modular Body – Special Interior Features

All features described in Exhibit D shall be built exactly as specified unless Purchaser accepts Bidder's modifications as set forth in Exhibit E.

1. The completed vehicle shall have the following interior dimensions for the patient compartment:

   Height: 72.375" (headroom height)
   Width: 91.5" (streetside wall to curbside wall)
   Aisle: 50.5"
   Length: 155.5" (front bulkhead partition to inside of rear entry doors)

2. The cabinets in the patient compartment shall be referred throughout this document as set forth here. These references must be used on all CAD drawings. Standing at the rear of the unit facing the bulkhead of the patient compartment:
   - The left rear cabinet on the streetside shall be **A**.
   - The cabinet aft of the CPR seat over the aft action area shall be **B**.
   - The cabinet over the CPR seat on the streetside shall be **C**.
   - The cabinet over the countertop of the action area shall be **D**.
   - The cabinet directly behind the attendant seat in the left front bulkhead shall be **E**.
   - The cabinet in the center of the front bulkhead shall be **G**.
   - The cabinet in the top of the front right bulkhead shall be **H**. This cabinet shall be divided into two separate cabinets: **H1** on the left; **H2** on the right.
   - The cabinet in the front right bulkhead directly below cabinet H shall be **H3**.
   - The foward cabinet in the center of the curbside wall over the squad bench shall be **J1**.
   - The aft cabinet in the center of the curbside wall over the squad bench shall be **J2.**
3. Cabinet **A** (the left rear cabinet on the streetside) shall have the following nominal sizes:
   Height: 42.625"
   Width: 18.625"
   Depth: In/Out"
   Pass Thru Height: 41.625"
   Pass Thru Width: 16.625"

- Cabinet A shall have two full width adjustable shelves.
- Cabinet A shall have a vertically-hinged door with a polycarbonate door panel insert.
- The door for cabinet A shall be hinged on the left and open toward the rear of the patient compartment.
- Cabinet A shall provide inside/outside access to the streetside exterior compartment on the backside of cabinet A.

4. Cabinet **B** (the cabinet aft of the CPR seat over the aft action area) shall have the following nominal sizes:
   Height: 21.625”
   Width: 22.875”
   Depth: 19”
   Pass Thru Height: 20.625”
   Pass Thru Width: 19.75”
   - Cabinet B shall have one full width adjustable shelf.
   - Cabinet B shall have a vertically-hinged door with polycarbonate door panel insert.
   - Cabinet B shall have a minimum of 20” of clear space from the bottom of this cabinet to the top of the countertop below the cabinet.
5. Cabinet **C** (the cabinet over the CPR seat on the streetside) shall have the following nominal sizes:
   Height: 9.125”
   Width: 29”
   Depth: 10”
   Pass Thru Height: 7.625”
   Pass Thru Width: 25”
   - Cabinet C shall have no shelves.
   - Cabinet C shall have dual polycarbonate sliding doors.
   - Bidder acknowledges that AMD Standard #025 – “Occupant Head Clearance Zones” requires cabinet C to have a minimum of 43” of clear space from the bottom of this cabinet to the top of the seat below this cabinet.
6. Cabinet **D** (the cabinet over the countertop of the action area) shall have the following nominal sizes:
   Height: 21”
   Width: 54.5”
   Depth: 12.25”
   Pass Thru Height: 18”
   Pass Thru Width: 52”
   - Cabinet D shall have one full width adjustable shelf.
   - Cabinet D shall have dual sliding polycarbonate doors.
   - Cabinet D shall have the restocking feature.
7. Cabinet **E** (the cabinet directly behind the attendant seat in the left front bulkhead) shall have the following nominal sizes:

Height: 49.625”
Width: 12.5”
Depth: 11”
Pass Thru Height: 48.625”
Pass Thru Width: 10.5”

- Cabinet E shall have no shelves.
- Cabinet E shall have a single vertically-hinged painted aluminum door that is vertically hinged and opens toward the curbside.

8. Cabinet **G** (the cabinet in the center of the front bulkhead) shall have the following nominal sizes:
   Height: 21.75”
   Width: 35.25”
   Depth: 12.5”
   Pass Thru Height: 15.75”
   Pass Thru Width: 15.5”
   - Cabinet G shall have no shelves.
   - Cabinet G shall have dual sliding polycarbonate doors.
9. Cabinet **H** (the cabinet in the top of the front right bulkhead) shall be divided in the center with a fixed wall thereby creating two separate cabinets. The cabinet on the left side shall be **H1** and the cabinet on the right shall be **H2**.
   - Cabinet **H1** shall have the following nominal sizes:
     Height: 22”
     Width: 12.5”
     Depth: 22.125”
     Pass Thru Height: 21”
     Pass Thru Width: 10.75”
   - Cabinet H1 shall have no shelves.
   - Cabinet H1 shall have a vertically-hinged painted aluminum door that is hinged on the left and opens toward the streetside.
   - The door for cabinet H1 shall have a locking latch.
   - Cabinet **H2** shall have the following nominal sizes:
     Height: 22”
     Width: 12.5”
     Depth: 22.125”
     Pass Thru Height: 21”
     Pass Thru Width: 10.75”
   - Cabinet H2 shall have no shelves.
   - Cabinet H2 shall have a vertically-hinged painted aluminum door that is hinged on the right and opens toward the curbside.
   - Cabinet H2 shall provide inside/outside access to the curbside exterior compartment.
10. Cabinet **H3** (the cabinet in the front right bulkhead directly below cabinet H) shall have the following nominal sizes:
    Height: 33.5”
    Width: 29.5”

Depth: 22.125”
Pass Thru Height: 32.625”
Pass Thru Width: 25.5”

- Cabinet H3 shall have two adjustable shelves.
- Cabinet H3 shall have dual hinged polycarbonate doors.
- Cabinet H3 shall provide inside/outside access to the curbside exterior compartment to the right of cabinet H3.

11. Cabinet **J1** (the cabinet in the center of the curbside wall over the squad bench) shall have the following nominal sizes:
    Height: 9.5”
    Width: 34”
    Depth: 10”
    Pass Thru Height: 7”
    Pass Thru Width: 15.25”
    - Cabinet J shall have no shelves.
    - Cabinet J shall have dual sliding polycarbonate doors.
    - Bidder acknowledges that AMD Standard #025 – “Occupant Head Clearance Zones” requires cabinet J to have a minimum of 43” of clear space from the bottom of this cabinet to the top of the seat(s) below this cabinet.
12. Cabinet **J2** (the cabinet in the center of the curbside wall over the squad bench) shall have the following nominal sizes:
    Height: 9.5”
    Width: 34”
    Depth: 10”
    Pass Thru Height: 7”
    Pass Thru Width: 15.25”
    - Cabinet J shall have no shelves.
    - Cabinet J shall have dual sliding polycarbonate doors.
    - Bidder acknowledges that AMD Standard #025 – “Occupant Head Clearance Zones” requires cabinet J to have a minimum of 43” of clear space from the bottom of this cabinet to the top of the seat(s) below this cabinet.
13. The color of the polycarbonate used throughout the interior of the patient compartment shall be clear.
14. A hinged polycarbonate access window to allow full access for the operation of the main oxygen tank valve and viewing of gauges from the EMT seat shall be installed in the right side wall of the action area.
15. Alternating red/white 10” diagonal reflective stripes shall be placed at the bottom on the interior side of the side entry door and each of the rear personnel doors.
16. Patient Compartment to <u>Cab Access</u>:
    (a) A walk-thru door shall be installed in the front bulkhead to allow access from the cab to the patient compartment. This door shall be as large as possible given the specifications for the surrounding cabinetry; shall have

sliding track hardware; and shall be able to be secured in the open and closed positions. The sliding track system shall not use any rollers, bearings, or similar moving parts to ensure a low maintenance rattle-free door.

(b) The walk-thru door shall horizontally slide into a stowed position. The door shall incorporate a polycarbonate viewing window with minimum dimensions of 12" x 16".

17. Bio-Hazard/Trash:
    - Two 2-gallon size disposable biohazard containers with mounting brackets shall be provided.
    - Pull out drawer in the face of the squad bench that shall hold (2) 2 gallon containers.
18. Glove Box Storage: Install a Bowman's GS-109 stainless steel (3) glove box holder above the side entry door with a strap on the end of the holder to retain the glove boxes.
19. Seating / Upholstery:
    (a) The vinyl color used throughout the patient compartment shall be dark blue.
    (b) Attendant seat:
    - Seat brand to be installed: Wise Captain-style high-back seat model #WM1639.
    - Seat base to be installed: Wise swivel seat base #WM1935.
    - The seat belt shall be red in color to provide a visual method of engagement by the occupant.
    - This seat shall be installed at the head of the primary patient's stretcher and shall be adjustable fore and aft a minimum of 6".

    (c) CPR seat:
    - A streetside CPR seat shall be installed with a minimum 3" foam seat and backrest cushions. The seat shall be a minimum of 29" wide before installation of the padding.
    - The seat belt shall a 6-point harness system and be red in color to provide a visual method of engagement by the occupant.
    - Cabinetry adjacent to the CPR seat shall have rounded corners and heavy upholstered padding to protect occupant's head and torso from injury.

    (d) Squad bench: The squad bench on the curbside of the vehicle shall have the following features:
    - a minimum 3" thick foam-padded seat and a full-length minimum 3" foam-padded backrest that is designed for removal for cleaning;
    - a 2-section split squad bench with two lids that are held closed with quick release slam type latches that incorporate flush "paddle style" handles in the lower face of the squad bench;
    - each lid shall be held open by a gas-filled hold-open device;
    - full-length storage that is finished in the same manner as the interior medical supply cabinets.

- Two sets of 6-point harnesses shall be mounted at the squad bench area and three complete sets of seat belts and retractors for one supine patient.
- The seat belts shall be red in color to provide a visual method of engagement by the occupant.
- The squad bench platform shall be fabricated from welded aluminum tubing a minimum of .125" thick that is welded to the module framework. The exterior shall be constructed with .125" thick aluminum sheet that is welded to the tubular frame of the squad bench. The top and corners of the squad bench base shall be protected with polished aluminum trim to reduce damage from the cot striking the squad bench base. A platform that is formed only from bending sheet aluminum is not acceptable due to stress cracking.
- There shall be a nylon net at the head of the squad bench extending from the ceiling to the squad bench platform. This net shall be a nominal 58" X 17" in size and shall serve to protect the occupants from falling or being thrown into the stepwell of the side personnel door in the event the vehicle stops abruptly.

20. Floor Covering: The floor covering shall be a premium quality no wax vinyl type and shall be Lonseal / Lonplate - brand or equal. The floor covering shall be gray 421 Mica.
21. Handrails / Mounting Brackets: Two CPI-brand ceiling mounted #IV2007 Dual Bag/Bottle IV holders with rubber anti-sway device shall be provided and securely installed. One shall be installed at the torso position for the primary cot and one at the head of the squad bench.
22. Cot / Litters / Mounts:
    (a) Barstock shall be welded to the floor structure to accommodate a Stryker 6377 dual position system, a Ferno Stat-Track system, and Stryker Performance and Power Load systems.
    (b) Bidder shall install a purchaser supplied Stryker Performance Load system with a floor plate and inductive charging.
    (c) The cot that will be used in this unit shall be a Stryker Power Pro XT cot. This note is for reference only. Bidder shall not supply one of these cots.

23. Module 12 VDC Electrical System:
    (a) 12 VDC outlets:
        - Style: cigarette
        - Number: 2
        - Mounting locations: (1) action area panel, (1) upper ALS cabinet
        - A matching unwired female mating connector shall also be provided for each receptacle
    (b) Interior lighting must meet AMD Standard #016 – "Patient Compartment Lighting Level Test" and shall consist of:
        - Style: 8" diameter dual-intensity WHELEN LED dome lights
        - Number: 8

- Mounting locations: 4 streetside over the primary patient and 4 curbside over the squad bench.
- Lights over the squad bench shall come on low intensity when opening either the rear or side personnel doors and may also be switched from the cab console.

(c) Three Trucklite LED # 80251C lights shall be installed in the module center trough with a switch on the action area panel and a switch at the side entry door.

(d) A 0-30 minute check out timer switch shall be installed by the side entry door that shall power the (3) center trough lights.

(e) A LED light shall be installed above the action area countertop and shall have an integral switch.

(f) The control panel at the action area shall provide switching for the following:

- Bench dome lights (high and low intensity)
- Cot dome lights (high and low intensity)
- Action Area light
- Center LED lights
- Suction pump
- Vent fan
- Inverter (switch and wiring shall be installed)

(g) A KUSSMAUL-brand #091-32 Sequencer / Load Manager shall be installed in the cab console. When the vehicle electrical load exceeds alternator output and voltage decreases, the Sequencer / Load Manager shall decrease the electrical load by turning off the loads controlled by switches in the master switch panel until the alternator output matches or exceeds the electrical load.

24. <u>125 VAC Electrical System</u>:

(a) A shoreline input shall be provided for the purpose of connecting the vehicle's 125 VAC system to shoreline power when the vehicle is stationary. The shoreline shall have the following features:

- 30-ampere twist-lock inlet.
- Mounted streetside of the module forward of the door hinge for the front streetside compartment.
- A matching unwired female mating connector shall also be provided.
- The plug shall have a spring-loaded cover suitable for wet locations.
- An engraved permanent label shall be applied at the shoreline plug stating the function, input rating, and maximum amperage rating.
- An ignition disable circuit to prevent engine ignition while the shoreline is connected shall be installed.
- Pilot light over the shoreline to indicate when the shoreline is hot.

(b) One UL approved circuit breaker box, rated for 70 amperes and 240 volts shall be provided for the 125 VAC shoreline system. The circuit breaker box shall be installed on the streetside of the cab behind the driver's seat. Two 15-ampere ground fault interrupt (GFI) circuit breakers shall be

installed. One breaker shall provide power to the engine block heater and function as an "on-off" ("summer/winter") switch for the block heater. The other breaker shall provide power to the patient compartment receptacles. Any additional 125 VAC powered items shall have a separate circuit breaker and be permanently marked as to the item it controls.

(c) 125 volt AC outlets:

- Style: hospital grade (green dot) duplex receptacles (vertically-oriented) with an internal light that illuminates when energized.
- Number: 3
- Mounting locations: (1) multi-outlet strip under the action area panel, (1) above aft action area, and (1) in the right front section within cabinet H-3.
- Each outlet shall have a permanent label installed next to the outlet that states "125 VOLT AC".
- A Vanner 1050 watt inverter with battery charger and transfer switch shall be installed in the L3/2 compartment with cover.

25. Oxygen System: A complete piped oxygen system with flush mounted oxygen outlets with color-coded Ohio Diamond style connections shall be provided. Satin gray finish aluminum trim bezels shall be provided for the oxygen outlets. The following oxygen outlets shall be installed:
    - Location: at primary patient's head in action area.
      Type of outlet: single
    - Location: at primary patient's head in the center trough
      Type of outlet: single
    - Location: at secondary patient's head on curbside wall.
      Type of outlet: single
26. Vacuum System:
    (a) The vehicle shall be equipped with an Sscor self-contained wall-mounted aspirator system with disposable collection canisters.
    (b) Two spare canisters of a minimum 1000cc capacity shall be provided.
    (c) This system shall meet AMD Standard #021 – "Aspirator System Test".
27. Stereo Speakers: Two speakers shall be installed in the rear center trough wired to the chassis radio with volume knob located in the action area panel.
28. HVAC System:
    (a) The patient compartment shall be equipped with dual heavy-duty high-capacity combination heater/air conditioner systems with a minimum 24,000 BTU for cooling and 36,000 BTU for heating for each system.
    (b) (1) HVAC system shall be located in its own fully insulated compartment over cabinet **H**.
    (c) (1) HVAC system shall be located in the L3/2 compartment and ducted into the patient compartment just aft of the action area control panel.
    (d) These HVAC systems shall be completely independent of each other. This is so that if one system fails, the other system will still work and keep the unit in service.
    (e) Install an additional engine driven air conditioner compressor.

(f) Install (2) an under-the-body auxiliary mounted A/C condensers
(g) NOTE: A price for a unit with a single HVAC system shall be included in the bid as an option.

29. Fire Extinguishers: Two AMEREX-brand #A500T 5-pound ABC-type dry chemical fire extinguishers with a minimum rating of 2A10BC shall be provided and installed in mounting brackets. The fire extinguishers shall be mounted in the cab behind the driver seat and the other shall be installed at delivery.

Exhibit E

Exhibit E is attached to and by reference is hereby incorporated into and made a part of that certain Request for Proposal for a new ambulance.

So Purchaser may make a fair comparison and evaluation of all proposals, Bidder must indicate each deviation from the specifications for this RFP even if they believe it exceeds what is described. Unless the exceptions granted are acknowledged by Purchaser in writing at time of order, such exceptions shall not be accepted at time of delivery and the delivered product shall be expected to conform to every detail of this RFP or suffer rejection.

Bidder hereby certifies (a) that it has read and understands all specifications in the RFP, and (b) Bidder shall conform in every way and in every detail to the specifications in the RFP without any deviation whatsoever except for the itemized exceptions set forth by Bidder in this Exhibit E.

This certification must be executed by Bidder even if Bidder has no exceptions.

Bidder's Name:_____

Bidder's signature: _____

Date:_____

Bidders shall use the following format to identify each exception from the specifications:

Exception # 1: Reference item # _____ on RFP page # _____

Original text found in specification: "quote the relevant text from RFP"

Bidder's proposed modification: For each exception, Bidder must include a detailed technical description of what they propose to furnish as well as a full explanation of why the exception equals or exceeds the item specified.

Continue this format for additional exceptions.

Bidders may prepare additional pages for Exhibit E so long as each page is numbered (page 1 of "x").