

WARE COUNTY, GEORGIA

Ware County Board of Commissioners

Detailed Bid Specifications

## **TYPE I MEDIUM DUTY AMBULANCE**

Intent of this Bid

This Request for Proposal (RFP) is intended to provide vendors with a common, uniform set of specifications to assist them in the development of their bids and to provide a uniform method for the bidding agency to fairly evaluate bids and subsequently select a vendor from which to purchase these ambulances.

The following specification describes a new ambulance that is expected to be acquired by this purchaser. The specification describes the needs of this purchaser as far as chassis configuration and module body design. A state of the art vehicle is required. However, manufacturers that utilize prototype equipment will not be considered. The builder's manufacturing history shall be supported by documentation where applicable, and by the reference section within this specification. The benchmark for the initial configuration of this ambulance shall be the current KKK Federal Specification for Ambulances. However, most requirements in this specification exceed the federal specifications because of the specific needs of this purchaser. Please note that the following specifications represent minimum general terms or requirements. While it is not the intent of this purchaser to preclude any qualified bidder from submitting a proposal, it must be clear that any bidder deviating in any substantial manner from these specifications will be rejected as being non-compliant.

In responding to this RFP, vendors should follow the prescribed format and use the forms included, thus providing the County with data that is easily compared with data submitted by other vendors in order to fairly and objectively evaluate the proposal.

The Bidding Agency assumes no responsibility for conclusion or interpretations derived from the information presented in this RFP, or otherwise distributed or made available during this procurement process. In addition, the Bidding Agency will not be bound by or be responsible for any explanation, interpretation or conclusions of the RFP or any documents provided by the Bidding Agency other than those given in writing by the Bidding Agency through the issuance of addenda. In no event may a vendor rely on any oral statement by the Bidding Agency or its agents, advisors or consultants. It is the full responsibility of the vendor to thoroughly investigate the needs, requirements of the Bidding Agency not necessarily assumed in this RFP and to submit a bid for: TYPE I MEDIUM DUTY AMBULANCE

## SECTION ONE

### VENDOR PROPOSALS DUE BACK

All proposals offered under this specification are due back to the Ware County Commissioners office before **Wednesday, February 29, 2012 at 10:30 a.m.** at which time each proposal will be opened and the review process started. Proposals may be mailed or hand delivered to:

**Ware County Board of Commissioners**

**P.O. Box 1069**

**800 Church St.**

**Suite 223**

**Waycross, GA 31502-1069**

Proposals should be sealed and clearly marked "**2012 Ambulance Proposal**".

### I. INSTRUCTIONS FOR BIDDERS

- a. This specification establishes standards for the design, construction and performance of a Type I Medium Duty Modular ambulance. The completed vehicle and components must comply with the current version of Federal Specification KKK-A-1822 unless specifically requested otherwise in the following document. As the criteria for compliance with KKK-A-1822 are well established, this document will not contain redundant references to their content.

*Is this paragraph understood? Yes \_\_\_\_\_ No \_\_\_\_\_ Bidder's initials: \_\_\_\_\_*

## II. SPECIFICATION BID REQUIREMENTS

- a. Bidders shall also indicate in the "yes/no" column if their bid complies **on each item and section** specified. Exceptions shall be allowed if they are equal to or superior to that specified and provided they are listed and fully explained on a separate page titled "exceptions". This page shall reference the exact section and letter of the RFP that is subject of the variance. (Example: II, a)
- b. Bids will not be accepted after the date and time stated in the invitation to bid.
- c. Payment shall be made in accordance with these specifications and the Bid Proposal submitted by the Bidder. Payment will be made upon acceptance of the vehicle(s) and equipment specified in this document.
- d. Bids received shall be evaluated by the Purchaser. This evaluation will be based on, but not limited to, completeness of proposal, exceptions, price, and delivery schedule.
- e. Bid Proposals taking total exception to these specifications will not be accepted.
- f. Any exception to the provisions in these specifications must be marked in the body of this document and itemized on a separate attached page(s) titled EXCEPTIONS.
- g. Referenced by section number and paragraph, a detailed explanation of the exception shall be provided along with by the bidder's alternative proposal.
- h. Bids not following this format shall be rejected without consideration. **NO EXCEPTIONS TO THIS REQUIREMENT.**
- i. The Contractor shall indemnify and save the Purchaser harmless from any and all claims, liability, losses, and causes of actions which may arise out of the fulfillment of this agreement. The Bidder shall pay all claims and losses of any nature whatsoever in connection therewith, and shall defend all suits, in the name of the Purchaser when applicable, and shall pay all costs and judgments which may ensue thereafter.

- j. Failure to deliver any part of the order to the terms required may be considered by the Purchaser as a breach of contract. In such case the vehicle(s) and equipment may be rejected and the purchaser shall retain the right to require forfeiture of the full amount of the Performance Bond (if required) as liquidated damages.
  
- k. When submitting their Bid Proposal, Bidders must return all pages of these specifications as part of the Bid Proposal as it will form the Contract between the Contractor and the Purchaser. Caution should be taken by the Bidder that all questions are answered in the spaces provided and that all information requested is provided.
  
- l. It is the Bidder's responsibility to be familiar with all federal, state, and local laws, ordinances, codes, and regulations concerning the submission of this bid and the work it effects. Ignorance of said enactments shall not relieve the Bidder of responsibility to comply or complete the bid work.
  
- m. In the event a clarification is requested on the contents of this specification, the question shall be addressed in writing to:

**Bill Parham, Interim Director**  
**3395 Harris Road, Suite 100**  
**Waycross, GA 31503**

- n. When a Bidder requests clarification, a copy of the request and this Agency's reply will be forwarded to all Bidders.
  
- o. The vehicle(s) shall, at the time of delivery, conform to the minimum requirements of the latest standards covering vehicles of this type. This shall include federal, state and local requirements.
  
- p. In the event the bidder represents more than one ambulance manufacturer meeting the manufacturer requirements outline herein, then the bidder shall "only" bid the highest quality vehicle that the bidder represents. Under no circumstances will multiple bids from the same bidder for different manufacturers be accepted. Should a bidder submit two or more bids representing more than one manufacturer, then **all bids** submitted by that bidder will be rejected as being non-complaint with the requirements of this specification. This purchaser is seeking quality equipment. Bidders are asked to bid only the product of the highest level of quality represented by that bidder.
  
- q. By signing this document, the Bidder agrees that this Bid is made without any understanding, agreement or connection with any other person, firm or corporations making a bid for the same purpose, and that this bid is in all respects fair and without collusion or fraud.

- r. It is the intent of this agency to enter into a contract with the successful bidder to allow that contract to be extended for 2 years, in order to add additional units to the contract. This contract shall allow for chassis model year increases, only if and when the successful bidder provides documentation from its chassis supplier on their letterhead indicating an increase to the chassis.
- s. This contract shall allow any other agency within the State of this contract, or any other State outside of this state to purchase off of contract. However, prospective purchasers shall enter into separate agreements for product being offered. The Bidding Agency does not control this contract outside of what it is intended on.
- t. Latest literature and detailed specifications on the unit proposed shall be included with the proposal submittal.

*Is this section understood and agreed to? Yes \_\_\_\_\_ No \_\_\_\_\_ Bidder's initials: \_\_\_\_\_*

### **III. TYPE OF BIDS TO BE SUBMITTED**

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

*Is this section understood and agreed to? Yes \_\_\_\_\_ No \_\_\_\_\_ Bidder's initials: \_\_\_\_\_*

### **IV. GENERAL REQUIREMENTS**

- a. Payment shall be made on delivery of the purchased item, or upon completion of all work contracted for (whichever occurs later) and to performed to the satisfaction of the purchaser.

b. All bid prices shall quote F.O.B. destination basis, at the Purchaser's specified location. Bid prices shall be complete and include all warranties and equipment specified. After bid, allowances will not be made for incorrect or incomplete bids proposals.

c. All prices, terms and conditions must be specified on the Bid Proposal Form.

*Is this section understood and agreed to? Yes \_\_\_\_\_ No \_\_\_\_\_ Bidder's initials: \_\_\_\_\_*

## **V. INSPECTION TRIPS**

### **a. PRE CONSTRUCTION CONFERENCE**

- i. There shall be a required pre-construction conference at the successful bidder's manufacturer's facility before any construction can begin.
- ii. The pre-construction conference meeting shall be conducted at the "primary builder", of the apparatus. No meeting shall take place at the dealerships place of business. This is the only method that will be the only acceptable way to conduct the pre-construction meeting. NO EXCEPTIONS.
- iii. At least two (2) department personnel along with a representative or dealer of the successful bidder shall attend.
- iv. At this meeting all parties shall again go over the specifications to insure that the apparatus is built to meet or exceed all requirements.
- v. After this meeting the representative of the successful bidder shall present the department with detailed drawings and work order to be used in the production of the apparatus being bid.

b. MID POINT INSPECTION

- i. There shall be a midpoint inspection trip at the factory of the successful bidder. The inspection trip shall consist of three (3) members from the Department who shall inspect the progress of the apparatus to insure compliance to all specifications.

c. PRE DELIVERY INSPECTION (FINAL)

- i. There shall be a pre delivery inspection trip at the factory of the successful bidder. The inspection trip shall consist of three (3) members from the department along with the representative of the successful bidder, to insure compliance to all specifications.
  - ii. All expenses relating to the Pre-Construction, Mid Point and Final inspection trips shall be at the cost of the successful bidder and be at no cost to the Department. This is to include all meals and lodging while at the inspection along with travel allowances for fuel for any factory under 500 road miles from (Bidding Agency) and/or round trip coach air flight, for up to 3 representatives for any factory that is over 500 road miles from (Bidding Agency) facility.
  - iii. "PRIVATE PLANE", is unacceptable and will not be considered.
- d. Under no circumstances shall the completed ambulance leave the manufacturer's facility unless everything is completed at the factory. Bidders that make allowances for units to be completed at their service facility or office shall not be acceptable to this bidding agency. NO EXCEPTIONS.

*Is this section understood and agreed to? Yes \_\_\_\_\_ No \_\_\_\_\_ Bidder's initials: \_\_\_\_\_*

**VI. ONE MONTH SERVICE CALL**

- a. After the vehicle has been in service for approximately one month, the successful vendor shall send a trained "FACTORY" employed personnel to bidding agency, for a service and warranty review.
  
- b. The Factory technician shall check all operating systems and repair or replace any items found defective or in need of re-work.
  
- c. However should a problem occur before the one month service call, the bidding agency will require immediate service from the FACTORY technician, at the Departments location. NO EXCEPTIONS

*Is this section understood and agreed to? Yes \_\_\_\_\_ No \_\_\_\_\_ Bidder's initials: \_\_\_\_\_*

**VII. BID PRICE TIME WINDOW**

- a. Bid prices shall be valid for at least forty-five (45) days from the date of the Bid Opening, or as otherwise specified on the Bid Proposal Form.

*Is this section understood and agreed to? Yes \_\_\_\_\_ No \_\_\_\_\_ Bidder's initials: \_\_\_\_\_*

**VIII. CHASSIS MANUFACTURE CERTIFICATIONS**

- a. This agency seeks the highest level of quality assurance and liability protection. To insure that these standards are met, Bidders must submit documentation that they are a current member of the Ford QVM (Qualified Vehicle Modifier) program.
  
- b. QVM certification applies even in cases where the chassis bid is not a Ford Motor Company product. In addition the bidder must have certification with International/Navistar Diamond Logic or Freightliner equivalent. They must be able to show that they have been factory trained. Bids not meeting this requirement cannot be considered.

*Do you meet requirements of this section? Yes \_\_\_\_\_ No \_\_\_\_\_ Bidder's initials: \_\_\_\_\_*

**IX. WARRANTY**

- a. The proposal shall include all warranties that are required in the following detailed specifications. The minimum acceptable warranty periods are noted below. In the blank lines the bidder shall note the terms of the warranty that apply to the manufacturer being proposed.
- b. Bidding Agency shall provide a minimum 36 month/36,000 mile Limited Warranty on the vehicle conversion, which covers defective parts and/or components, improper choice of materials, parts and/or components, improper design or engineering and poor or improper workmanship or quality control techniques. This warranty shall cover the complete vehicle, exclusive of the chassis, and shall include any and all costs for labor and parts or materials required to correct deficiencies. It is not the intent of this requirement that items such as light bulbs, or equipment installed in or on the vehicles which are covered by their own separate and specific warranty statements, be included in this warranty.

- c. State the General warranty terms you are bidding:

Number of year's \_\_\_\_\_ Mileage \_\_\_\_\_

- d. Since it is the purpose of these specifications to provide for a modular body that will offer many years of service, the Manufacturer of the vehicle(s) bid shall warranty the structural modular body for the life of the unit. This warranty shall be in writing and shall be included with the Bid Proposal. Bidders who fail to meet this requirement shall not be considered responsive.

- e. State the Structural warranty terms you are bidding:

Number of year's \_\_\_\_\_ Mileage limitations (if applicable) \_\_\_\_\_

- f. There shall be a Six year/72,000 mile electrical warranty provided on the ambulance conversion electrical system. Lifetime Electrical Warranty will not be accepted unless it covers the entire electrical system. A copy of the warranty statement shall be submitted with this Bid Proposal.

- g. State the Electrical warranty terms you are bidding:

Number of year's \_ \_\_\_\_\_ Mileage limitations \_\_\_\_\_

- h. A seven (7) paint warranty shall be provided on the paint and its application. A copy of the painter's warranty statement shall be included with this Bid Proposal. All warranties shall begin at the acceptance of the vehicle(s) by the Purchaser.

i. State the Paint warranty terms you are bidding:

Number of year's \_\_\_\_\_ NO MILEAGE LIMITATIONS? \_\_\_\_\_ YES \_\_\_\_\_ NO

j. For verification of the completed warranty terms stated above the bidder must include printed manufacturer's warranty certificates that meet or exceed the minimum required periods stated below.

Are the manufacturers warranties included? Yes \_\_\_\_\_ No \_\_\_\_\_

k. All warranties shall be from the manufacturer as opposed to a distributor or service center. This is necessary for the protection of the purchaser, and to guarantee a certain known level of service and warranty. If, however, the bidder feels that it is necessary to modify the manufacturer's warranties, then the bidder shall state why this modification is necessary. In addition, the bidder shall provide a full descriptive warranty certificate describing the warranty modification and the fact that it takes specific precedence over the warranty offered by the manufacturer. Is no such certificate is provided, then the modified warranty shall be considered invalid and the manufacturer's warranty shall remain in force. If the manufacturer states that no party is permitted to modify its warranty, then any warranty modification provided by the bidder, despite being in writing, shall automatically be rejected.

*Does the bidder conform to the above-written section? Yes \_\_\_\_\_ No \_\_\_\_\_*

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

i. Are the warranties pro-rated in any manner? Yes \_\_\_\_\_ No \_\_\_\_\_

If yes explain:

---

---

ii. Are the warranties transferable? Yes \_\_\_\_\_ No \_\_\_\_\_

If yes explain:

---

---

iii. Has the bidder modified the manufacturer's warranties? Yes \_\_\_\_ No \_\_\_\_

If yes explain:

---

---

If yes was chosen above, has the bidder included modified written warranties? Yes \_\_\_\_ No \_\_\_\_

If no explain:

---

If 'yes' was chosen above, has the bidder included financial statements, for the last five (5) years, of the warranty modifier? Yes \_\_\_\_ No \_\_\_\_

If no explain:

---

---

m. Bidder shall initial that this section is understood and has been answered truthfully.

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

*Do you meet requirements of this section? Yes \_\_\_\_ No \_\_\_\_ Bidder's initials: \_\_\_\_\_*

## **X. PRODUCT LIABILITY INSURANCE**

a. Proof of current liability insurance shall be supplied. The proof of insurance shall bear the insurance carrier's name, address and phone number. The proof shall also bear the name and address of the insured. This document shall contain the coverage schedule, explaining the type of insurance, the policy number, the effective date of coverage, the policy expiration date and the individual limits. The minimum amount of coverage shall be as follows.

b. Commercial General Liability - Aggregate policy limit of four million dollars.

c. Automotive Liability - Any Hired and Non owned Autos

- d. Combined Single Limits of One million dollars.
- e. Garage Liability - Any Auto
- f. Auto only - Each accident: limit of one million dollars.
- g. Workers Compensation and Employer's Liability –
- h. Each Accident: limit of five hundred thousand dollars.
- i. Disease policy: limit of five hundred thousand dollars.
- j. Disease - Each Employee: limit of five hundred thousand dollars.
- k. Automotive Damage, Physical Liability Damage
- l. Comprehensive Deductible:

Since these specifications describe an emergency vehicle that may be used under adverse conditions, this agency seeks to reduce its future liability exposure. Therefore, all bidders responding to these specifications shall submit a proper and verifiable Certificate of Insurance. This shall certify that the Manufacturer of the bid vehicle has in force, Product Liability insurance in the minimum amount of four million dollars (\$4,000,000.00). This insurance shall have been issued by a Company rated "A+" as reported in the current edition of Best's Key Rating Guide, published by Alfred M. Best Company, Inc.

- m. The amount of Product Liability must be adhered to by both manufacturer and dealer, who will be providing the bid. Utilizing the ambulance manufacturer's insurance will be acceptable if the bidder is an authorized dealer, they also must have coverage.
- n. Bidders failing to submit proof of the above requirement cannot be accepted and their Bid Proposal will be rejected.

*Do you meet requirements of this section? Yes \_\_\_\_\_ No \_\_\_\_\_ Bidder's initials: \_\_\_\_\_*

**XI. STATE AND LOCAL LICENSES**

- a. All Bidders must have any and all current licenses required by state law to do business in the state in which this agency resides.

*Do you meet requirements of this section? Yes \_\_\_\_\_ No \_\_\_\_\_ Bidder's initials: \_\_\_\_\_*

**XII. MISCELLANEOUS REQUIREMENTS**

- a. The bidding agency has concerns with bidders not having the completed unit built by the manufacturer. With that said, the bidding agency will not accept units that are not built and completed at the manufacturer's facility. This will eliminate split responsibility into service, warranty repairs. Add-on equipment shall be furnished by the manufacturer and not their Representatives, to avoid warranty issues. If the bidder makes any claim to adding equipment at the dealership, then your bid will be considered non-responsive and rejected. NO EXCEPTION.

*Do you agree to this section? Yes \_\_\_\_\_ No \_\_\_\_\_ Bidder's initials: \_\_\_\_\_*

- b. It is the intent of this agency to have the vehicle completed and ready for service once it leaves the ambulance manufacturer's facility. NO EXCEPTIONS.

*Do you agree to this section? Yes \_\_\_\_\_ No \_\_\_\_\_ Bidder's initials: \_\_\_\_\_*

- c. All equipment furnished shall be guaranteed to be new and of current manufacture; meet all requirements of this specification; and be in proper operating condition at the time of delivery. All parts shall be of high quality workmanship and construction.

*Do you agree to this section? Yes \_\_\_\_\_ No \_\_\_\_\_ Bidder's initials: \_\_\_\_\_*

- d. No part or attachment shall be substituted or applied contrary to the manufacturer's recommendations and standard practices.

*Do you agree to this section? Yes \_\_\_\_\_ No \_\_\_\_\_ Bidder's initials: \_\_\_\_\_*

**XIII. SERVICE AVAILABILITY**

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

Radius from Purchaser: Not more than \_\_\_\_\_ miles.

Facility Name (If not the manufacturer): \_\_\_\_\_

Address: \_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_\_ Zip Code: \_\_\_\_\_

Contact: \_\_\_\_\_

Phone: Toll Free Preferably: \_\_\_\_\_

Training Description: \_\_\_\_\_

*Do you meet requirements of this section? Yes \_\_\_\_\_ No \_\_\_\_\_ Bidder's initials: \_\_\_\_\_*

#### **XIV. DRAWINGS AND DOCUMENTS**

- a. Bidders shall include with the Bid Proposal: literature, photographs or similar documents which describe or depict the manufacturer's type and model proposed; a complete set of the manufacturer's specifications for the type and model proposed; and one (1) set of drawings. These drawings shall consist of: four (4) exterior views; front, rear, curbside and street side and four (4) interior views; front, rear, curbside and street side, showing the location of all requested features attached thereto.
  
- b. NOTE: the drawings submitted by the Bidder must show the design, layout, and features specified in this document. Submitting a manufacturer's "generic" or "standard feature" drawings, or photocopies of the reference drawings provided with this document, shall NOT be acceptable. Bidder's not including the required drawings will be considered non-responsive and will, therefore, be rejected.

*Are the required drawings included with this bid? Yes \_\_\_\_\_ No \_\_\_\_\_ Bidder's initials: \_\_\_\_\_*

- c. The bidder shall utilize these specifications and return their proposal in the same format as the specifications are provided. Failure to submit the bid specifications in alternate format will be grounds for rejection.

*Are your specifications in the same format? Yes \_\_\_\_\_ No \_\_\_\_\_ Bidder's initials: \_\_\_\_\_*

IT IS AGREED BY THE UNDERSIGNED BIDDER THAT THE SIGNING AND DELIVERY OF THIS BID REPRESENTS THE BIDDER'S ACCEPTANCE OF THE TERMS AND CONDITIONS OF THE FOREGOING SPECIFICATIONS AND PROVISIONS, AND IF AWARDED THE BID BY THIS AGENCY, WILL REPRESENT THE AGREEMENT BETWEEN THE PARTIES.

Sign in ink in the space provided below. UNSIGNED bids will be considered incomplete and will be subject to rejection.

Name of Firm:

\_\_\_\_\_

Signed (in ink):

\_\_\_\_\_

(Signature of Officer of Company)

Title: \_\_\_\_\_

Date Signed: \_\_\_\_\_

Street Address:

\_\_\_\_\_

Mailing Address:

\_\_\_\_\_

City: \_\_\_\_\_

State: \_\_\_\_\_

Zip Code: \_\_\_\_\_

Phone Numbers:

Phone: \_\_\_\_\_

Fax: \_\_\_\_\_

Email Address:

\_\_\_\_\_ @ \_\_\_\_\_

Ambulance Manufacturer:

---

Model Year: \_\_\_\_\_

Model Designation: \_\_\_\_\_

Delivery will be made within \_\_\_\_ days of receipt of chassis by the Manufacturer

**TO BID AMOUNT:** \_\_\_\_\_ \$ \_\_\_\_\_

## **SECTION TWO**

### **XV. SPECIFICATIONS**

#### **I. CAB & CHASSIS**

- a. Chassis shall be current model year International TerraStar CHASSIS.
- b. The chassis required for this project is specified in detail below. Failure of the bidder to provide the chassis exactly as specified will be grounds for rejection of the bidder's proposal as being non-responsive. Exceptions will be made only if the bidder can prove that a required feature is unavailable from the chassis O.E.M.

#### **II. CHASSIS WARRANTY**

- a. The chassis manufacturer's standard vehicle warranty polices shall apply.

#### **III. SPARE TIRE**

- a. A spare tire and rim shall be ordered with the chassis and shipped loose with the delivery of the completed unit.

IV. RUNNING BOARDS/ CAB STEPS

- a. .125" thick aluminum diamond plate fuel tank and battery box covers shall be fabricated and installed under the driver and passenger entry doors. They shall be of a design that allows step-up/step-down access for ease of entry and egress.
  
- b. Under the driver's door, the step assembly will feature a slide-out battery tray 250# heavy-duty, stainless steel, ball bearing slides to allow easy access to chassis batteries. The door covering the battery tray will be a bottom hinged design with dual Southco non-locking trigger latches.

*Above section bid exactly as written: Yes \_\_\_\_ No \_\_\_\_*

V. WHEEL INSERTS

- a. A set of Phoenix Stainless Steel wheel inserts shall be provided for the front and rear wheels. The wheel inserts shall be Ford QVM and match to fit the chassis.
  
- b. Braided stainless steel air stem extensions shall be furnished for the inside dual rear wheels to allow these wheels to easily be checked and filled with air.

*Above section bid exactly as written: Yes \_\_\_\_ No \_\_\_\_*

VI. SIREN SPEAKERS

- a. There shall be provided two (2) 100 watt electronic speakers. The speakers shall be recessed into the front bumpers.
  
- b. A separate speaker shall be provided for the specified Federal Q2E siren unit, to be recessed in center of bumper when feasible.

*Above section bid exactly as written: Yes \_\_\_\_ No \_\_\_\_*

VII. AIR RIDE KNEELING FEATURE OVERRIDE SWITCH

- a. A manual air dump override switch shall be installed to allow this agency to override the rear air suspension kneeling feature. It shall be an on/off style switch which, when in the "on" position, will allow the system to kneel whenever the left rear entry door is open. When this switch is in the "off" position, the kneeling feature will be disabled. The switch shall be installed inside the rear entry doors.

*Above section bid exactly as written: Yes \_\_\_\_ No \_\_\_\_*

VIII. EXHAUST SYSTEM

- a. The exhaust system shall conform to the chassis manufacturer's requirements.

*Above section bid exactly as written: Yes \_\_\_\_ No \_\_\_\_*

IX. SPLASH GUARDS / MUD FLAPS

- a. There shall be provided a set of splash guards installed in the front wheel wells of the cab. The splash guards shall be constructed of aluminum and shall be securely fastened to the inside of the wheel well.
- b. Additionally, there shall be provided a set of heavy duty rear mud flaps. The flaps shall be made of thick rubber material and shall be as wide as the dual rear wheels.
- c. The mud flaps shall be securely fastened to the module body using stainless steel fasteners.

*Above section bid exactly as written: Yes \_\_\_\_ No \_\_\_\_*

X. CUSTOM CENTER CONSOLE – CAB

- a. There shall be provided a custom center console in the cab, which shall replace the OEM center console, and shall be located between the driver and passenger seats. The console shall come complete with the necessary switch panels and other controls as required by these specifications.
- b. The switch panel shall incorporate rocker style switches, door and compartment indicator lights, voltmeter and amp gauges. The switches shall be aligned so that the "off" position is down or towards the rear of the cab.

- c. The console shall be constructed to make the maximum use of the space available. As the Department requires, the console shall contain room for various map books and glove boxes.
- d. The front console shall have two (2) Cup Holders.
- e. The console shall be covered with a scorpion paint-type material.
- f. NOTE: Exact layout to be determined by the purchasing agency.

*Above section bid exactly as written: Yes \_\_\_\_ No \_\_\_\_*

#### XI. BODY CONSTRUCTION OVERVIEW

- a. The dimensions of the patient module shall be in accordance with manufacturer's specifications with minimum dimensions of 169" in length, 96" in width, and 72" headroom.
- b. There shall be a bulkhead separating the cab and patient compartment that allows for a pass through area.
- c. The ambulance body shall be constructed of custom designed aluminum extrusions and aluminum plate. The ambulance body shall be designed and engineered specifically as an emergency vehicle and shall be built to meet the heavy duty requirements of emergency service.
- d. The body shall be of welded construction for maximum strength and integrity for the entire life of the ambulance. The aluminum extrusions shall be custom designed structural shapes that are an alloy of 6061 and heated to a temper of T6 hardness.
- e. The aluminum shapes shall be designed with a force fit interlocking system that shall eliminate any vibration to the welded structural members. The interior structural members, sides and roof shall be spaced a minimum of 14 inches on center. The floor structure shall be a minimum 14 inches on center. The floor, roof and sides shall be of a cage-type construction that is built to form an independent structure.

- f. The exterior walls shall be constructed of a minimum of .125 inch thick aluminum plate 3003 alloy with a heat treated plate that is stretch leveled to a tolerance of +/- 0.003 inches. The exterior walls shall interlock into place.
  
- g. All exterior compartments shall be separate and individual components and no two compartments shall share a common wall.

*Above section bid exactly as written: Yes \_\_\_\_ No \_\_\_\_*

## XII. BODY TO CHASSIS MOUNTING

- a. OEM 2" high "High Hat" laterals with 2" x 2" x 4" x 3/16" thick structural steel angle welded to each end are attached laterally to the chassis on Ford OEM rubber body mounting bushings.
  
- b. The frame spacers are to be supported by outriggers made of 5" x 5" x 5" x 3/8" thick steel angles which are bolted to the outer side of the chassis frame rails with three (3) 1/2" Grade 5 bolts each. Additionally, steel surfaces that will come into contact with aluminum floor structure components are to be covered with PVC tape to prevent contact between the dissimilar metals.
  
- c. At the floor structure is to be bolted in place with not less than twelve (12) 1/2" Grade 5 T-head bolts through holes in the 2" x 2" aluminum longitudinal floor framing members and steel angle brackets welded to the ends of steel lateral frame spacers. This design allows the body to be removed and remounted without disturbing the finish floor in the interior patient compartment.

*Above section bid exactly as written: Yes \_\_\_\_ No \_\_\_\_*

## XIII. VEHICLE LOWER RUB RAIL

- a. The lower rub rail shall be of a polished aluminum "C" channel that is 2" wide x 3" high. The "C" channel shall have a recessed section that will have reflective red/white striping applied. The extruded rub rails shall be installed on lower sides of the modular body using stainless steel fasteners and rubber spacers between the rail and body.
  
- b. Since "C" Channel is readily available to all manufacturers there shall not be an exception to this section. The safety in adding the reflective striping along with the ease or replacement is the preferred and acceptable method.

*Above section bid exactly as written: Yes \_\_\_\_ No \_\_\_\_*

XIV. ROOF RADIUS

- a. The roof radius shall be an extruded aluminum shape with an alloy and temper of 6061-T6 with an ultimate strength of 42,000 PSI.
- b. The shape shall be a four inch radius with a built-in inner structural connector to form a one piece side and roof structure.
- c. The roof radius shall incorporate a built-in drip molding to aid in the channeling of water.

*Above section bid exactly as written: Yes \_\_\_\_ No \_\_\_\_*

XV. ROOF CONSTRUCTION

- a. The roof shall be constructed of 0.125" thick aluminum plate. The roof structure shall consist of 2" x 3" 6063-T5 aluminum tubing that shall span the full width of the body and have a bow effect to facilitate water runoff from the roof.
- b. Roof structure that is less than 0.125" thick will not be accepted.
- c. The roof tubes shall be welded to the roof and to the inner structural connector of the radius. The aluminum plate sheet roof shall be completely welded to the roof radii.

*Above section bid exactly as written: Yes \_\_\_\_ No \_\_\_\_*

XVI. CORNER RADIUS

- a. The corner radius shall be of the same heavy duty construction as the roof radius, except there shall be a built-in drip molding. The corner radius shall be a three inch radius.
- b. All corners shall be a semi-hollow shape for structural strength and shall give a smooth exterior appearance without the need for bending or forming sheet metal.

*Above section bid exactly as written: Yes \_\_\_\_ No \_\_\_\_*

XVII. SIDE STRUCTURE

- a. The sides shall be constructed with four corner radii. The radii shall be a three inch arc shape with interlocking edges on both sides. The extrusions shall be of an alloy of 6061 with a heat treated temper of T6.
- b. The corner and roof shall be designed to work as a system that has a double gusset connector in each corner joint.
- c. The roof, corner and sides shall be welded so as no bolts or rivets are required or permitted.
- d. The sides shall be of a 'jig-locked' style construction. The jig shall hold the corners and body side panels in place while an inner 6063-T5 structure is welded into place. The members shall be located 14 inches on center and welded to the roof rail and inner structure connector that shall be the roof members.
- e. The exterior aluminum panels .125" shall interlock with the roof, corner and specially designed extruded aluminum compartment door frames and shall be constructed of a 6063-T5 material. The door frame extrusion shall be designed to match fit the exterior compartment doors. The frame shall be a full ¼" thick to allow for taping for door hinges.
- f. The door frame shall have an exterior trim edge that shall channel any water away from the compartment openings.

*Above section bid exactly as written: Yes \_\_\_\_\_ No \_\_\_\_\_*

XVIII. FLOOR STRUCTURE

- a. The floor structure shall consist of 2" x 3" x 0.125" structural 6063-T5 aluminum tubing. The tubing shall be located on 12 inch centers.
- b. These tubes shall extend the full width of the body between compartment boxes. The floor tubes shall be completely welded to the side structure channels.
- c. An aluminum moisture shield, with a minimum thickness of 0.063", shall be provided above the floor tubes.

- d. The entire underside of the modular body shall be sealed.

*Above section bid exactly as written: Yes \_\_\_\_ No \_\_\_\_*

#### XIX. COMPARTMENT CONSTRUCTION

- a. All exterior compartments shall be constructed of 0.125" smooth aluminum plate. All corners and seams shall be completely welded to prevent outside elements from entering the compartment.
  
- b. Each compartment shall be finished with a "scorpion liner" type material. NO EXCEPTIONS.
  
- c. Additionally, each compartment shall be vented with a four inch aluminum vent.

*Above section bid exactly as written: Yes \_\_\_\_ No \_\_\_\_*

#### XX. DOOR CONSTRUCTION

- d. All door edges and frames shall be constructed of a specially designed extruded aluminum shape of 6063-T5 alloy and temper. All door frames shall be welded to the exterior sheets and to the side structure channels.
  
- e. The exterior sheets shall fit into the door frame and shall be welded to the frame from the inside of the door body. The door edges shall all be welded together and then welded to the outer panels.
  
- f. Exterior door panels shall be 0.125" thick 5052-H32 aluminum plate with an ultimate strength of 38,000 PSI. The panel shall fit into the door edge extrusion and shall be welded to the extrusion from the inside of the door.
  
- g. The entry door inner liner shall be constructed of 0.100" aluminum plate sheets with reflective chevron striping. The liners shall be fastened to the door extrusions with stainless steel screws. Locking type washers shall be provided on each screw to minimize vibration back-out. The liner shall be removable for access to the latching

mechanism. Inner door panels that are one piece will not be acceptable. The lower aluminum panel shall be covered with Red/Yellow Reflective striping. NO EXCEPTIONS.

*Above section bid exactly as written: Yes \_\_\_\_ No \_\_\_\_*

XXI. DRIP RAIL

- a. Every compartment door opening shall have a built in integral drip rail. This method is preferred due to the, add on drip rails having to be re-glued or replaced

*Above section bid exactly as written: Yes \_\_\_\_ No \_\_\_\_*

XXII. EBERHARD LOCKING PULL HANDLES LATCHES

- a. There shall be provided locking grabber latches on each exterior door. The door handle shall be bolted into place to allow for easy repair or replacement if damaged. The latches shall be controlled with connecting rods.
  
- b. NO CABLES SHALL BE NEEDED OR SUPPLIED.
  
- c. The handles shall be chrome Eberhard "EASY GRABBER SERIES 2100" grabber with large, easy to use handles. Bidders offering other than these style door handles will not be acceptable. These handles are available to all manufacturers.

*Above section bid exactly as written: Yes \_\_\_\_ No \_\_\_\_*

XXIII. STAINLESS STEEL DOOR HINGES

- a. There shall be provided a stainless steel continuous hinge on each of the exterior doors. The hinges shall extend the full length of the door and shall contain a minimum 1/4" stainless steel pin.
  
- b. All hinges shall be bolted to the door and door frame using 1/4" stainless steel bolts for easy removal if damaged. The hinge shall be separated from the door and frame by a Mylar strip which shall act as a corrosion barrier.

*Above section bid exactly as written: Yes \_\_\_\_ No \_\_\_\_*

XXIV. DOOR HOLD BACKS

- a. There shall be provided a gas style hold openers on each exterior compartment and side entry door. The door opener shall be bolted to the door using a factory hold brackets.

*Above section bid exactly as written: Yes \_\_\_\_ No \_\_\_\_*

XXV. CAST DOOR GRABBERS

- a. There shall be provided a four (4) set of cast door grabbers installed on the rear entry doors. The cast grabbers shall consist of two parts: a loop and receiver.
- b. The loop shall be installed on the lower portion of the rear entry door. The corresponding receiver shall be installed on the rear wall.
- c. When the rear doors are opened, the door grabbers shall securely hold the doors open.

*Above section bid exactly as written: Yes \_\_\_\_ No \_\_\_\_*

XXVI. MODULE AND ENTRY DOOR INSULATION

- a. There shall be provided a combination of fiberglass batt insulation, polystyrene plank foam insulation and flexible foil faced bubble wrap insulation.
- b. The module side walls, flooring and ceiling shall be a combination of 2.5" thick batt fiberglass insulation and also silver flexible foil faced bubble wrap insulation. The insulation must meet ASTM E84 20/30 guidelines for flame and smoke.

*Above section bid exactly as written: Yes \_\_\_\_ No \_\_\_\_*

XXVII. FLOOR INSULATION

- a. The ambulance flooring system shall be insulated with 1-1/2" thick expanded Polystyrene plank foam insulation. The foam panels shall be cut to closely fit the spaces between the structural framing and shall be attached to the underside of the floor skin with a spray adhesive suitable for use on EPS insulation.
- b. After the insulation is in place, an aluminum weather shield (.060" aluminum) cover is to be bonded to the entire bottom side of the floor framing to protect the insulation from road splash.

- c. Addition Blue Block Foam will be applied to the module interior to extra insulation.
  
- d. The doors shall incorporate minimum 1.5" thick high density rigid polystyrene foam insulation. NOTE: All insulation including batt, foil bubble wrap and rigid polystyrene must be installed, but not covered for inspection at the midpoint inspection trip. NO EXCEPTIONS.

*Above section bid exactly as written: Yes \_\_\_\_ No \_\_\_\_*

XXVIII. FENDER FLARES

- a. A polished aluminum fender flair shall be installed around the rear wheel well openings. They will be installed so as not to interfere with tire rotation, movement, or replacement. A layer of butyl self sealing tape will be applied between the fender flares and the body panels for corrosion protection.

*Above section bid exactly as written: Yes \_\_\_\_ No \_\_\_\_*

XXIX. FUEL FILL BEZEL

- a. The fuel tank fill will be protected by a cast aluminum fuel fill guard with polished flanges

*Above section bid exactly as written: Yes \_\_\_\_ No \_\_\_\_*

XXX. REAR BUMPER

- a. The rear bumper sub-structure must be constructed from 1-1/2" x 3" steel channels and 10 gauge steel plate. The components must be fully welded and coated with automotive water based undercoating to prevent rust, and then bolted to the OEM frame rails.
  
- b. Aluminum diamond plate bumper pods, approximately 23" wide x 11" deep x 4" high shall be constructed to fit over the outboard ends of the sub-structure and must be bolted in place using stainless steel fasteners.

- c. The middle portion of the bumper assembly (approximately 48" wide) shall incorporate a fold up section of aluminum grip strut material. The hinge must be stainless steel and installed so that the step folds toward the body to facilitate stretcher loading.

*Above section bid exactly as written: Yes \_\_\_\_ No \_\_\_\_*

XXXI. CAB TO PATIENT COMPARTMENT PASS-THRU

- a. A 17" wide x 17" (subject to chassis design) high pass-through opening with a sliding window shall be framed into the front wall. It shall have a head bumper for occupant safety and shall coincide with an opening of equal size framed into the back wall of the chassis-cab. The space between the cab and module shall be sealed by the installation of a flexible rubber "accordion" style enclosure. Inflatable or rigid seals shall not be acceptable.

*Above section bid exactly as written: Yes \_\_\_\_ No \_\_\_\_*

XXXII. MODULE UNDERCOATING

- a. A non-flammable / non-combustible water based automotive undercoating shall be applied to the underside of the body.
  
- b. Manufacturer's must not undercoat the underside of the body until after final inspections, this will allow for inspection of the under body without the undercoating applied. Manufacturer's that undercoat prior to this inspection will be grounds for non-acceptance of the vehicle.

*Above section bid exactly as written: Yes \_\_\_\_ No \_\_\_\_*

XXXIII. EXTERIOR COMPARTMENTS

a. COMPARTMENT A

- I. This compartment shall be located on the forward driver's side of the ambulance body. The compartment shall be 74" High x 22" Wide x 20" Deep. The compartment floor shall be of a 'sweep out' style.

- II. The compartment shall be designed to house an oxygen cylinder and shall contain an approved oxygen cylinder retention system. There shall be provided access to this compartment from within the patient compartment.
  
- III. The compartment shall have a single, vertically hinged door with a “scorpion” style interior surface and a LED strip compartment light that activates upon opening of the compartment door.
  
- IV. In addition there shall be one a Stair Chair Recessed Pocket in the forward area to accommodate the departments Stryker Stair Chair. (may be alternately located in Compartment F.)

*Above section bid exactly as written: Yes \_\_\_\_ No \_\_\_\_*

b. COMPARTMENT B

- I. This compartment shall be located aft of compartment “A” and shall be 40” High x 43” Wide x 20” Deep. The compartment floor shall be of a ‘sweep out’ style.
  
- II. There shall be one (1) adjustable shelf provided.
  
- III. This compartment shall have dual vertically hinged doors with a “scorpion” style interior surface and a LED strip compartment light that activates upon opening of the compartment door.
  
- IV. NOTE: Power Panel will be installed in an exterior side compartment or in the interior of the module. Interior power panel compartments will not be accepted. The door handles shall be the same as the exterior and entry door compartment handles.

*Above section bid exactly as written: Yes \_\_\_\_ No \_\_\_\_*

c. COMPARTMENT C

- I. This compartment shall be located aft the rear wheel well of the apparatus and shall be 40” High x 40-1/2” Wide x 20” Deep. The compartment floor shall be of a ‘sweep out’ style.

II. The compartment shall have dual vertically hinged doors with “scorpion” style interior surface and LED strip compartment light that activates upon opening of the compartment door.

III. In addition there shall be one (1) adjustable shelf in the compartment.

*Above section bid exactly as written: Yes \_\_\_\_ No \_\_\_\_*

d. COMPARTMENT D

I. This compartment shall be located on the forward passenger’s side of the ambulance body. The compartment shall be 74” High x 22” Wide x Full Depth (ALS). The lower section of the ALS will be for locking drug box storage and will be accessible from the interior of the patient module only.

II. The middle section shall consist of a slide out drawer/desk to accommodate laptop and printer usage. This section shall not be accessible from the outside. The design of the section is to be such that the user would sit in the swivel jump seat and have access to the working side of the drawer.

III. The upper section shall have a split door design with Plexiglas windows. A single point latch shall be provided to secure both doors.

IV. The upper compartment shall have two each adjustable shelves “aluminum”, on uni-strut tracks.

V. The compartment shall have a single, vertically hinged door with a “scorpion” style interior surface and a LED strip compartment light that activates upon opening of the compartment door.

VI. Final layout of this compartment shall be determined during pre-build *meeting*.

*Above section bid exactly as written: Yes \_\_\_\_ No \_\_\_\_*

XXXIV. COMPARTMENT E

- a. This compartment shall be incorporated into compartment D, as the battery storage will be under the driver's door.

*Above section bid exactly as written: Yes \_\_\_\_ No \_\_\_\_*

XXXV. COMPARTMENT F

- a. This compartment shall be located aft of the rear wheels and shall be 30" High x 17-1/2" Wide x 20" Deep.
- b. This compartment shall have a single vertically vented hinged door with a "scorpion" style interior surface and a LED strip compartment light that activates upon opening of the compartment door. It shall be of sweep out design.
- c. It is acceptable to incorporate this space into the compartment G if noted in the exceptions section.

*Above section bid exactly as written: Yes \_\_\_\_ No \_\_\_\_*

XXXVI. COMPARTMENT G

- a. This compartment shall be the rearmost compartment and shall match be 74" High x 22" Wide x 20" Deep.
- b. The compartment shall have a single vertically vented hinged door with "scorpion" style interior surface. The compartment shall contain a LED strip compartment light that activates upon opening of the compartment door.
- c. In addition there shall be two (2) adjustable aluminum shelves and one (1) vertical divider. All shelves and dividers shall be scorpion lined.

*Above section bid exactly as written: Yes \_\_\_\_ No \_\_\_\_*

XXXVII. DOOR LATCHING HARDWARE

- a. All module doors, compartment and entry, shall utilize two (2) rotary style latches per door leaf, closing onto two (2) "Nader" striker pins with capped heads and adjustable cage nuts. Construction using other latching methods, striker pins without capped ends, or single striker pins are NOT acceptable.

- b. All exterior patient compartment doors shall be keyed alike.

*Above section bid exactly as written: Yes \_\_\_\_ No \_\_\_\_*

XXXVIII. COMPARTMENT DOOR HANDLES

- a. All exterior compartment doors shall have a chrome plated Eberhard Model # 21000 "E Grabber Series", locking handle with neoprene gasket. There shall be 2-pt locking pull handle assembly made out of die cast material. The handle shall be large and easy enough to use. The assembly shall include a double-bitted key cylinder in locking versions, factory installed gasket and free-wheeling feature, water resistant, and blind mounting brackets for security and appearance. The handle will be connected to the latching mechanism by threaded rods. Latching systems using cables or pinned rods will NOT be acceptable.
- b. Since these door handles are readily available to all manufacturer's there will be no exceptions to this section.

*Above section bid exactly as written: Yes \_\_\_\_ No \_\_\_\_*

XXXIX. COMPARTMENT DOOR PUNCHED LOUVER(S)

- a. One (1) exterior compartment door(s) shall be provided with machine stamped louvers in the exterior skin and the interior diamond plate liner. The punched door louver shall be located on the street side forward compartment. Add on style louvers will not be acceptable and your bid will be deemed non-responsive and will be ground for rejection.

*Above section bid exactly as written: Yes \_\_\_\_ No \_\_\_\_*

XL. SIDE ENTRY DOOR

- a. A side entry door to the patient compartment shall be provided, sized and located as shown in the attached prints. It shall have a full length stainless steel hinge, with pin not less than 1/4" in diameter, on the forward edge of the door and a stainless steel spring controlled door check which will hold the door at not less than 90 degrees when open.

*Above section bid exactly as written: Yes \_\_\_\_ No \_\_\_\_*

XLI. CURBSIDE ENTRY DOOR HANDLES

- a. The curbside module entry door shall have a chrome plated Eberhard locking handle with neoprene gasket on the exterior of each door. On the interior of this door, a Tri-Mark automotive lever style handle with slide lock lever and black plastic bezel will be installed.

- b. These handles will be connected to the rotary latching mechanism by steel rods with an anti-corrosion coating factory applied. Latching systems using cables or pinned rods for latch activation will NOT be acceptable.

*Above section bid exactly as written: Yes \_\_\_\_ No \_\_\_\_*

XLII. REAR ENTRY DOORS

- a. Double leaf rear entry doors to the patient compartment shall be provided, sized and located as shown in the attached prints. They shall have a full length stainless steel hinges with pins not less than 1/4" in diameter.
  
- b. One (1) pair of Cast Products "Grabber" door hold open devices shall be installed on the exterior of the doors to hold them open when necessary. The devices shall be located on the approximate horizontal centerline of each door as indicated in the attached prints. The rubber insert into the "female" side of the hold open device shall be replaceable.

*Above section bid exactly as written: Yes \_\_\_\_ No \_\_\_\_*

XLIII. REAR ENTRY DOOR HANDLES

- a. Each rear module entry door shall have a chrome plated Eberhard locking handle with neoprene gasket on the exterior of each door. On the interior of each door, a Tri-Mark automotive lever style handle with slide lock lever and black plastic bezel will be installed.
  
- b. These handles will be connected to the rotary latching mechanism by steel rods with an anti-corrosion coating factory applied. Latching systems using cables or pinned rods for latch activation will NOT be acceptable.

*Above section bid exactly as written: Yes \_\_\_\_ No \_\_\_\_*

XLIV. ENTRY DOOR GRAB BARS

- a. A 1.25" diameter stainless steel grab bar with 120 degree "V"-style bend shall be provided and installed on the inside of each entry door.

*Above section bid exactly as written: Yes \_\_\_\_ No \_\_\_\_*

XLV. ENTRY DOOR FINISHES and COMPONENTS

a. ENTRY DOOR UPPER LINERS

- I. Above the kick plate, the entry doors shall be finished using vinyl wrapped and 1/8" aluminum panel. The vinyl shall match the seating color selection and the padding shall be approximately 1/4" thick. The upper liner shall be secured to the inside of the entry doors using stainless steel screws. Locking type washers shall be provided to prevent back-out due to vibration.

*Above section bid exactly as written: Yes \_\_\_\_ No \_\_\_\_*

b. CENTER DOOR LINER

- I. An aluminum plate covered in matching formica shall be utilized and attached to each entry door. The cover shall be secured to the inside of the center of each entry door with stainless steel screws and a "J" channel slot so that it allows easy removal to access the door latching mechanism. Locking type washers shall be provided to prevent back-out due to vibration.

*Above section bid exactly as written: Yes \_\_\_\_ No \_\_\_\_*

c. ENTRY DOOR KICK PLATES

- I. A piece of .063" smooth aluminum plate will be installed on the lower inside portion of each door to serve as a kick panel. The kick plates will be attached to the door pan and liner using stainless steel screws. The kick plate shall be covered in Reflective Red/Yellow Chevron's

*Above section bid exactly as written: Yes \_\_\_\_ No \_\_\_\_*

d. SIDE ENTRY DOOR WINDOW

- I. A 19" x 18" black aluminum framed window is to be centered in the entry door, with the top of the window about 6" down from the top of the door. The dark tinted window shall be capable of opening via a sliding section of the glass. The sliding section must be positively latched when in the closed position to prevent it from being opened from the outside. It must also include a sliding screen section to cover the opening.

*Above section bid exactly as written: Yes \_\_\_\_ No \_\_\_\_*

e. REAR ENTRY DOOR WINDOW

- I. Two (2) 9" wide x 18" high black aluminum framed window is to be centered in the entry door, with the top of the window about 6" down from the top of the door. The dark tinted window shall be single piece fixed glass.

*Above section bid exactly as written: Yes \_\_\_\_ No \_\_\_\_*

XLVI. INTERIOR CABINETRY

a. CONSTRUCTION REQUIREMENTS

- I. In general, the interior of this ambulance shall incorporate features to mitigate injuries to passengers caused by sudden hard braking or accident impact. Exposed edges shall be protected by radius or chamfer trim and, where possible, corners shall be rounded with radius trim. All devices and equipment will be mounted as flush as possible with its surrounding surface. Padding shall be installed in areas where features may obstruct head movement as attendants work within the patient compartment.
- II. The layout of interior cabinetry for this ambulance shall be as indicated in the enclosed drawings. Variation from this design may not serve the needs and requirements of this agency and may be cause for rejection of the bid. As stated earlier in this document, the bidder must supply drawings which will be considered when determining whether a particular design meets those needs.
- III. The cabinets in this vehicle shall be constructed of 3/4" cabinet grade plywood which has been covered by a commercial grade high pressure plastic laminate prior to its use in fabricating the cabinetry. . Plastic, fiberglass, or composite wood will not be acceptable for use in the cabinetry structure.
- IV. All cabinets will be fastened together by the use of aluminum angles set into the inside corners and fastened with wood screws. Construction that glues the components together and uses wood screws driven into the edge of the plywood is NOT acceptable due to the reduced holding capability of screws driven into the veneered edge. Additionally, cabinetry shall be firmly bolted to mounting plates welded to the body side structure.

V. All cabinet trim, 'head-knocker' pads and various other trim pieces shall be covered in color coordinated vinyl upholstery.

VI. Additionally there shall be provided full dry eraser board material on the interior side walls.

VII. The CPR seat is to be deleted. The action area counter top is to extend all the way across the area normally occupied by the CPR seat.

*Above section bid exactly as written: Yes \_\_\_\_ No \_\_\_\_*

b. CABINET DOORS

I. All cabinets along the street and curb side of the vehicle shall have a mitered framed, sliding transparent Plexiglas door assembly. Each door shall be fitted with a full length, extruded aluminum door handle. The door pull extrusion shall also add bend resistance to the door. The door track/frame extrusion shall incorporate a rubber track to prevent the door from sliding free during transit. Additionally the corners of the assembly shall have supporting corner angle. All extrusions shall be anodized.

II. Color shall be Clear.

*Above section bid exactly as written: Yes \_\_\_\_ No \_\_\_\_*

c. CABINET RESTOCKING FEATURES

I. The streetside and curbside upper cabinets shall have gas filled restocking features installed to allow the cabinets to be opened in the upright position for ease of loading supplies.

*Above section bid exactly as written: Yes \_\_\_\_ No \_\_\_\_*

d. INTERIOR SHELVING

I. All shelving in the interior module shall be aluminum and painted white with a black rubber edge. The shelving shall have adjustable struts that are bolted in and not screwed. No wood is desired or will be acceptable. NO EXCEPTIONS.

*Above section bid exactly as written: Yes \_\_\_\_ No \_\_\_\_*

e. CABINET ABOVE FORWARD ACTION AREA

- I. There shall be one cabinet located above the forward action area. The cabinet shall have (1) aluminum shelf painted white. The dimension shall be 38-1/2" W x 16" High and as deep as possible.

f. CABINET ABOVE SECOND ACTION AREA

- I. There shall be a cabinet located above the rearward action area directly above the counter. The cabinet shall have one (1) painted aluminum adjustable shelf. The dimension shall be 30-1/2" W x 20" High and as deep as possible.

g. CABINET BELOW SECOND ACTION AREA COUNTER

- I. There shall be a cabinet located below the second action area counter. The cabinet shall have one (1) aluminum painted adjustable shelf. The dimension shall be 21-1/2" W x 16" High and as deep as possible.

h. CABINET REAR UPPER AREA

- I. There shall be one cabinet located in the upper rear area of the street side cabinet. The cabinet shall have one (1) aluminum painted adjustable shelf. The dimension shall be 23" W x 20" High and as deep as possible.

i. CABINET CENTER UPPER AREA

- I. There shall be one cabinet located in the upper center, above the normal CPR seat location, area of the street side cabinet.
- II. This cabinet shall have the compartment heater flushed installed as per that specification.

j. CABINET IN PLACE OF CPR SEAT

- I. There shall be one cabinet located in the space normally occupied by the CPR seat. The dimensions shall be as required to fill the space. No shelf is to be provided in this cabinet.

k. CABINET REAR CENTER AREA

- I. There shall be a cabinet located directly aft of the second action area counter. The cabinet shall have one (1) aluminum painted adjustable shelf. The dimension shall be 33-1/2" W x 23-1/2" High and as deep as possible.

l. CABINET REAR ABOVE REAR EXIT DOORS AREA

- I. There shall be a cabinet located directly above the rear exit doors. The cabinet shall be of size allowed by the space available. There shall be at least two sliding access doors, clear in color located in this cabinet.

*Above section bid exactly as written: Yes \_\_\_\_\_ No \_\_\_\_\_*

XLVII. GRAB BAR ABOVE COT

- a. One (1) 1.25" diameter x 72" long stainless steel grab bar shall be provided and installed on the ceiling above the primary cot per the attached prints. The grab bar will include one (1) welded intermediate stanchion and all fastening points shall fall on roof tubes or backer plates for added strength and support.

*Above section bid exactly as written: Yes \_\_\_\_\_ No \_\_\_\_\_*

XLVIII. UPHOLSTERY

- a. All vinyl upholstery shall be vacuum formed seating, applied over high density foam. For seat cushions, the foam must be 2.5" thick. For back and head rests, it shall be 2" thick.

- b. Because of this agency's concern for reducing the exposure of stitched seams to fluid borne pathogens - all seat cushions, back, arm, head rests and header pads shall be vacuum formed seamless design. Designs using piping, welts, stitched seams, or heat sealed joints to join upholstery panels are not acceptable. Each cushion shall be backed by 1/4" laminated wood. All upholstery must be easily removable to facilitate cleaning in case of contamination.
  
- c. Exact color shall be determined at the pre-build meeting.

*Above section bid exactly as written: Yes \_\_\_\_ No \_\_\_\_*

#### XLIX. SEAT CUSHION ATTACHMENT

- a. To further aid in easy removal for cleaning and disinfecting, all seat cushions shall be attached to seat bases using Velcro or 3M Dual-Lock fastening systems.
  
- b. Due to the weight, the seat back cushion behind the bench seat shall also have at least two hangers made of aluminum or stainless steel, as additional support, as the Velcro method will not hold the weight of the cushion by itself.

*Above section bid exactly as written: Yes \_\_\_\_ No \_\_\_\_*

#### L. PADDED TRIM

- a. To mitigate injury to passengers, trim pieces consisting of PVC covered with 1/4" high density foam and wrapped with heavy duty vinyl to match seating upholstery will be installed:
  - I. At the vertical outside corner of the cabinet forward of the attendant seat.
  
  - II. At the upper horizontal and vertical corners above the action area
  
  - III. Above the side entry door.
  
  - IV. Above the rear entry doors

V. On the bottom of the bench side cabinet.

VI. Any other place that presents a hazard to the occupants.

*Above section bid exactly as written: Yes \_\_\_\_ No \_\_\_\_*

#### LI. FLOOR COVERING

- a. There shall be provided a heavy duty commercial grade vinyl floor covering the interior patient compartment. The floor covering shall be Lonseal II heavy-duty safety vinyl. The floor covering shall be constructed of multiple layers composed of polyvinyl chloride (PVC) resin, plasticizers, fillers and pigments. The co-calendar war layer shall be formulated to provide maximum resistance to foot traffic and most commercial and healthcare chemical. The middle layer shall provide dimensional stability, sound-absorbing properties and resiliency under foot. The floor shall be heavy duty insulated and sound proofing. The flooring shall extend the full length and width of the patient compartment consisting of a minimum of  $\frac{3}{4}$  inch plywood, seven ply exterior grade. The flooring shall be covered with a no wax commercial heavy duty vinyl covering diamond shape Lon plate or similar product (Gunpowder Gray #424TX). The framing system and framing welding techniques shall be in accordance with manufacturer's specifications. Aluminum sub floor shall be 1/8 inch between the frame and plywood floor shall be installed. The vinyl flooring is to be extended up the sidewall a minimum of three inches (3").
- b. Flooring shall meet or exceed all ASTM and / or NFPA Standards as pertains to friction, flame spread, smoke density, abrasion resistance, flexibility and chemical resistance.
- c. The sub flooring shall be made of  $\frac{3}{4}$ " marine grade plywood.

*Above section bid exactly as written: Yes \_\_\_\_ No \_\_\_\_*

#### LII. CEILING HEADLINER

- a. The ceiling will be finished with 1/8" Luan backed glossy white commercial grade plastic laminate panels. Any seams shall be trimmed to prevent sagging and provide a clean attractive appearance. The ceiling panel shall be mechanically attached to the roof structure but all fasteners shall be hidden.

- b. Headliners with padded vinyl or un-backed fiberglass, masonite or pressboard materials will not be acceptable due to their potential for contamination, tears, cracking and spalling, thus involving costly repairs.
  
- c. Along the longitudinal center of the ceiling, a padded cover shall be installed to close-off the electrical wiring chase. It must be covered with vinyl to match the upholstery.

*Above section bid exactly as written: Yes \_\_\_\_ No \_\_\_\_*

LIII. CABINET LAMINATE COLOR

- a. The laminate color for the outside finish of all cabinets shall be white. The laminate color for the inside finish of the cabinetry shall be white.
  
- b. Exact color shall be determined at the pre-build conference.

*Above section bid exactly as written: Yes \_\_\_\_ No \_\_\_\_*

LIV. DRY ERASE MARKER BOARD

- a. The squad bench wall and the action area walls shall have a white dry eraser marker board material applied.

*Above section bid exactly as written: Yes \_\_\_\_ No \_\_\_\_*

LV. ACTION AREA

- a. This area shall have inside / outside access to the on board medical oxygen cylinder.
  
- b. Directly attached to the above area shall be the action area. This area shall have a STARON countertop, equal to corian brand.
  
- c. Bidders that offer ABS or Formica covered countertop will be considered non-responsive and that bid will be rejected. NO EXCEPTION.
  
- d. The action area shall be located on the forward driver's side of the module. The action area shall contain a switch panel that controls the lighting, AC/Heat, exhaust fan and other specified equipment.

- e. The action area shall also contain connections for a suction device, oxygen regulators and electrical connections. There shall be provided a LED under-counter light located underneath the overhead cabinets. There shall also be provided access to compartment through a window covered with a hinged Plexiglas door.
  
- f. There shall be a slide out drawer located below the action area counter top adjacent and forward of the jump seat. The size shall be 12 X 16 X 3. It shall be equipped with a An Illinois Lock Company D901 (or equivalent) lock. Exact dimensions and location to be determined at pre-build meeting.
  
- g. The action area shall have a counter top that provides the maximum sized work area possible.

*Above section bid exactly as written: Yes \_\_\_\_ No \_\_\_\_*

LVI. OXYGEN VIEWING PORT

- a. There shall be a contoured Plexiglas viewing door on the forward section of the Action Area allowing access to the main oxygen storage cylinder. The door shall wrap around the corner of the wall and have a hinge.

*Above section bid exactly as written: Yes \_\_\_\_ No \_\_\_\_*

LVII. CPR SEAT

- a. The CPR seat shall be deleted as noted cabinet section of this document.

*Above section bid exactly as written: Yes \_\_\_\_ No \_\_\_\_*

LVIII. SIDE ENTRY STEP WELL

- a. There shall be provided inside the module side entry door, a step well utilizing two steps. The two-step step well shall be fabricated using heavy duty aluminum diamond plate.
  
- b. The step well shall be approximately 32 inches in width x 20 inches in depth. The step platforms shall be a minimum 9 inches deep and the steps approximately 7 inches in height.

*Above section bid exactly as written: Yes \_\_\_\_ No \_\_\_\_*

LIX. ATTENDANT'S SEAT

- a. A Wise brand rear facing automotive style attendant's seat with a three (3) point harness featuring seamless vinyl design shall be provided and installed adjacent to the Action Area. This seat shall be of a type that has integrated child safety seating and hardware installed behind the fold down cushion. Color to match interior vinyl.

*Above section bid exactly as written: Yes \_\_\_\_ No \_\_\_\_*

LX. ATTENDANT SEAT BASE

- a. The attendant seat shall be mounted to a swivel pedestal to allow access to the slide-out technology desk located in the forward compartment.

*Above section bid exactly as written: Yes \_\_\_\_ No \_\_\_\_*

LXI. ALS CABINET

- a. This cabinet is located in the front of the module on the passenger side. The cabinet shall have four doors with Plexiglas inserts in the upper doors only. A split door design shall be used. No window is to be provided in these doors. An Illinois Lock Company D901 lock (or equivalent) will be provided for the upper section of this cabinet. There shall be a slide out technology desk between the upper and lower cabinets.
- b. Additionally, the upper section shall be accessible from outside. The exact layout shall be determined at the pre-build meeting.
- c. The cabinet shall be approximately 56" Tall x 32" Wide x 26" Deep.

*Above section bid exactly as written: Yes \_\_\_\_ No \_\_\_\_*

LXII. GLOVE BOX CABINET

- a. A cabinet shall be built and installed above the side entry door to house three boxes of protective gloves. The cabinet shall have a single, clear Plexiglas door with three oval cutouts to allow gloves to be removed without opening the door. The cabinet door is to be secured as such to prevent opening when gloves are removed through cutouts.

- b. The bottom edge of the glove box shall be covered by padded vinyl trim to protect occupants.

*Above section bid exactly as written: Yes \_\_\_\_ No \_\_\_\_*

LXIII. SQUAD BENCH

- a. The squad bench is located on the passenger side of the module. The bench shall have a hinged lid, which locks when closed. When open, the bench lid shall be held open by gas struts. The entire squad bench shall be utilized for storage.
  
- b. The squad bench shall include 3 sets of seatbelts.
  
- c. The squad bench and lid shall be covered in laminate. There shall be provided a seat cushion and back rest pad. The seat cushion and back rest pad shall be covered in seamless vinyl upholstery.

*Above section bid exactly as written: Yes \_\_\_\_ No \_\_\_\_*

LXIV. SAFETY WEB AT FORWARD END OF SQUAD BENCH

- a. Safety webbing shall be provided at the forward end of the squad bench. It shall be installed from the squad bench to the ceiling, with seatbelt buckles at the bottom and bolted to the ceiling at the top. The design of the net adjustment buckles shall be of such that they do not slip under normal use.

*Above section bid exactly as written: Yes \_\_\_\_ No \_\_\_\_*

LXV. SHARPS DISPOSAL AT HEAD OF SQUAD BENCH

- a. A 4" sharps drop shall be provided in the squad bench lid. The opening shall align with a sharps container (specified elsewhere in this specification) installed beneath the bench lid. The opening shall be covered with a hinged 1/4" thick Red Plexiglas door. A vinyl biohazard sticker shall be applied to the Plexiglas door in accordance with OSHA regulations.

*Above section bid exactly as written: Yes \_\_\_\_ No \_\_\_\_*

LXVI. TRASH DISPOSAL AT HEAD OF SQUAD BENCH

- a. A 6" trash drop shall be provided in the squad bench lid. The opening shall align with a 2 gallon trash container installed beneath the bench lid. The opening shall be covered with a hinged 1/4" thick Red Plexiglas door. A vinyl biohazard sticker shall be applied to the Plexiglas door in accordance with OSHA regulations.

*Above section bid exactly as written: Yes \_\_\_\_ No \_\_\_\_*

LXVII. CS UPPER SQUAD BENCH CABINET

- a. There shall be two (2) cabinets located above the squad bench. These cabinets shall have sliding Plexiglas doors and full length extruded aluminum handles. The dimension of the two cabinets shall be 32" Wide x 7" High and as deep as possible.

*Above section bid exactly as written: Yes \_\_\_\_ No \_\_\_\_*

LXVIII. COT FASTENER SYSTEM

- a. There shall be provided a DUAL position Stryker style cot fastener system.
- b. Special Instructions: Distance from the back door to the end of the stretcher shall be determined during pre-build meeting.
- c. In addition the Stryker Safety hook shall be mounted in the center position.

*Above section bid exactly as written: Yes \_\_\_\_ No \_\_\_\_*

LXIX. IV HOLDER

- a. There shall be provided four (4) each Cast folding IV hangers, swing down type IV holders for two IV bags. The IV hangers shall be mounted in a location to be determined at the pre-build conference.

*Above section bid exactly as written: Yes \_\_\_\_ No \_\_\_\_*

LXX. 12 VOLT DC ELECTRICAL SYSTEM

- a. The electrical system and associated equipment shall comply with all Federal Motor Vehicle Safety Standards, Federal Motor Carrier Safety Regulations, and shall also conform to all applicable SAE recommended standards and practices.

- b. The apparatus body and accessory electrical equipment shall be served by circuits separate and distinct from the chassis circuits. All wiring shall be permanently color coded and marked to identify each wire for its entire length.
  
- c. Wiring shall be routed in conduit or loom that is rated to a minimum of 300° Fahrenheit and shall include a service loop of wire that will permit replacement of wire terminals. All conduits, looms and wiring harnesses shall be securely fastened to the body or frame with insulated metal cable straps.
  
- d. All electrical system components and wiring shall be located and installed in such a manner that facilitates easy removal and servicing.

*Above section bid exactly as written: Yes \_\_\_\_ No \_\_\_\_*

LXXI. MODULE POWER DISCONNECT SWITCH

- a. An "On/Off" style master module disconnect switch shall be installed in the left side of the floor console recessed for ease of access. The switch must be capable of carrying the load of both OEM batteries when in the "On" position, as well as completely disconnecting both batteries when in the "Off" position. This switch shall NOT disconnect battery power to the chassis circuits, but to the module, or converter added circuits only. The switch shall be recessed as to not interfere with anything. Switches that have multi-position settings allowing power from either battery independent of the other will be unacceptable.

*Above section bid exactly as written: Yes \_\_\_\_ No \_\_\_\_*

LXXII. 12 VOLT OUTLETS

- a. There shall be provided Two (2) 12VDC outlet power source for cigar lighter shall be provided; one in the action area; one in the action area wall and one above the top of the ALS cabinet.

*Above section bid exactly as written: Yes \_\_\_\_ No \_\_\_\_*

LXXIII. SIRENS

- a. There shall be provided and installed a Whelen MODEL 295HFSA7 200-watt siren with full function including PA, Wail, Yelp, Phaser and horn override. The unit shall provide horn/siren switch on control panel for siren to horn.
  
- b. There shall be provided and installed a Federal E-Q2B™ Electronic Siren. This shall be independent of the main siren.

*Above section bid exactly as written: Yes \_\_\_\_ No \_\_\_\_*

LXXIV. EMERGENCY LIGHTING

a. There shall be provided a complete LED emergency lighting system. This lighting system shall include the following minimum:

- I. Seven (7) Whelen 900 Series LED across front of module w/chrome flanges. Flash pattern to be determined at pre-build meeting.
- II. Four (4) TIR6 500 Series LED Grill Lights Top row lens Red with bezels. Bottom Row lens clear.
- III. Two (2) 700 Series LED Front Intersector Lights Split Len Red with bezels
- IV. Two (2) 700 Series LED Red Intersector on Module above rear wheels with bezels
- V. Four (4) 900 Series Red LED Lights with chrome flanges- Two each per Side
- VI. Six (6) 900 Series Red LED Lights with chrome flanges- Rear Mount
- VII. One (1) 900 Series Amber LED Light with chrome flanges- Rear Mount
- VIII. All lights shall come complete with chrome bezels.

*Above section bid exactly as written: Yes \_\_\_\_ No \_\_\_\_*

LXXV. WIG WAG HEADLIGHTS

a. The vehicle will be equipped with Wig-Wag headlights.

*Above section bid exactly as written: Yes \_\_\_\_ No \_\_\_\_*

LXXVI. SCENE LIGHTS

- a. There shall be provided six (6) each Whelen 900 series halogen scene lights. The lights shall be located each side and rear of the ambulance. In addition each light will have a chrome flange.
  
- b. The right side scene lights shall activate upon opening of the curb side door. The rear scene lights shall activate by opening the rear door or upon putting the vehicle in reverse.

*Above section bid exactly as written: Yes \_\_\_\_ No \_\_\_\_*

LXXVII. DRIVERS CONTROL CONSOLE

- a. There shall be provided a drivers control console fabricated from .75" thick birch plywood. The console shall then be covered with a non skid, UV protected, heavy duty black spray on polyurethane liner material. NO EXCEPTIONS
- b. All corners of the drivers control console shall be free of sharp edges and the console shall be fastened to the cab floor in such a manner as to allow for quick and easy removal for access to components below.
- c. In addition the console shall house other on board meters such as voltmeters, amp meter as well as the electronic sirens and the subsequent mounting of agencies mobile radios.
- d. Unit shall be equipped with custom console for two (2) radios; siren, (2) glove box holders, 2 drink holders and two (2) clip board holders, etc. Items shall be bolted in the cab but easily removable by one person.
- e. A 12 volt automotive type cigar lighter socket shall be provided on the passenger side to accommodate GPS technology without utilizing the chassis provided socket.
- f. There shall be a drawing provided for customer approval before construction.

*Above section bid exactly as written: Yes \_\_\_\_ No \_\_\_\_*

LXXVIII. DRIVER'S CONTROL PANEL

- a. There shall be provided a custom control panel fabricated from aluminum and mounted in the center console area. All switches shall be rocker style and shall contain switches for the following applications:

I. Master Switch

II. Emergency Lights Switch(s)

III. Scene Light Switch(s)

IV. Door Open Indicator

V. Compartment Open Indicator

VI. Cole Hersee Module Disconnect Switch

VII. Hand Held Spotlight w/hanger assembly

VIII. Other Indicators and/or Switches as Necessary

IX. All switches shall be lighted and properly identified.

X. All switches shall have their orientation as to the off position to the rear or down.

*Above section bid exactly as written: Yes \_\_\_\_ No \_\_\_\_*

LXXIX. REAR BRAKE, BACK UP AND TURN SIGNAL LIGHTS

- a. There shall be provided a set of Whelen 600 series LED Red tail lights on the rear lower riser of the ambulance body.
- b. There shall be provided a set of Whelen 600 series LED back-up lights on the rear lower riser of the ambulance body.
- c. Additionally there shall be provided a set of amber turn signals with arrows.
- d. Additionally there shall be provided a cast aluminum recessed tag holder with LED tag light.

- e. All tail lights shall come complete with chrome bezels. NO EXCEPTIONS

*Above section bid exactly as written: Yes \_\_\_\_\_ No \_\_\_\_\_*

LXXX. LICENSE PLATE HOLDER

- a. A cast aluminum license plate bracket with polished flanges shall be recessed into the rear riser. It shall be provided with two (2) LED license plate lights.

*Above section bid exactly as written: Yes \_\_\_\_\_ No \_\_\_\_\_*

LXXXI. MARKER LIGHTS

- a. There shall be provided the proper number of LED ICC / marker lights located on the apparatus body above the drip rails.

*Above section bid exactly as written: Yes \_\_\_\_\_ No \_\_\_\_\_*

LXXXII. BACK UP ALARM

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

*Above section bid exactly as written: \_\_\_\_\_*

LXXXIII. PATIENT COMPARTMENT LIGHTS

- a. INTERIOR DOME LIGHTING

- I. General lighting for the patient compartment shall be as follows: Eight (8) overhead L.E.D. dome lights shall be mounted, four (4) over the squad bench side and four (4) over the primary cot side. These lights must be recessed into the ceiling headliner, protruding not more than 1 1/2".

- II. These lights are to be controlled by switches in the attendant's switch console. Additionally, all eight shall automatically light on their "low" setting when either the side or rear entry doors are opened.

III. Any lighting system using a rheostat to control lamp intensity is NOT acceptable to this agency.

IV. One (1) addition dual intensity LED dome light Red, installed in the ceiling over the attendant seat. It shall be controlled by a separate rocker switch located in the action area switch panel.

V. Three 12 volt florescent type lights are to be installed adjacent to the LED ceiling lights as space allows. These are to be controlled by a separate switch in the action area panel.

*Above section bid exactly as written: Yes \_\_\_\_ No \_\_\_\_*

LXXXIV. STEPWELL LIGHT

a. There shall be provided an LED step well light located at the curbside entry interior door step well.

*Above section bid exactly as written: Yes \_\_\_\_ No \_\_\_\_*

LXXXV. CHECKOUT TIMER SWITCH

a. A 60 minute spring wound mechanical timer(s) shall be provided and installed to control the squad bench side LED lights specified above. The timer shall be installed in the curbside wall adjacent to the side entry door.

*Above section bid exactly as written: Yes \_\_\_\_ No \_\_\_\_*

LXXXVI. ACTION AREA LIGHT

- a. There shall be provided a 12 inch fluorescent light mounted above the work surface, underneath the overhead cabinets.
- b. The action area light shall be controlled by a switch located in the action area switch panel.

*Above section bid exactly as written: Yes \_\_\_\_ No \_\_\_\_*

—

LXXXVII. COMPARTMENT LIGHTS

a. There shall be provided LED strip lights in each exterior compartment that activates upon opening of the compartment doors.

*Above section bid exactly as written: Yes \_\_\_\_ No \_\_\_\_*

LXXXVIII.   HANDHELD SPOTLIGHT

- a. To aid in night operation, one (1) Optronics Blue Eye 400,000 candle power hand held spotlight with momentary "on" switch shall be provided. This light shall be hard wired to connections beneath the switch console in the cab. This spotlight shall be "shipped loose", but shall include a mounting bracket to allow this agency to mount the light in a location of its own choosing.

*Above section bid exactly as written: Yes \_\_\_\_ No \_\_\_\_*

LXXXIX.   RADIO PRE-WIRE

- a. There shall be provided two (2) 12 volt lead for the future installation of a Department supplied radio. They shall have 8ga wire for radios and will be located behind the driver's seat and (1) in the radio/electric cabinet.
  
- b. Additionally there shall be provided a 25 amp power supply for Department add on equipment.
  
- c. Exact layout and location of radio pre wire shall be determined during pre construction conference.

*Above section bid exactly as written: Yes \_\_\_\_ No \_\_\_\_*

XC.   RADIO CONDUIT

- a. A three inch conduit will be supplied and run in a location to be determined at the pre-build conference.

*Above section bid exactly as written: Yes \_\_\_\_ No \_\_\_\_*

XCI.   ANTENNA COAX PRE-WIRE

- a. There shall be supplied a minimum of 2 each coax pre-wires (RG-58 Shielded Coax) that shall run from an antenna on the cab roof and terminate, at the location of the radio installation.
  
- b. Exact layout and location of antenna pre-wires shall be determined during pre construction conference.

*Above section bid exactly as written: Yes \_\_\_\_ No \_\_\_\_*

XCII. HEATING / AIR CONDITIONING DUCTED SYSTEM

- a. Heating and air conditioning for the patient compartment will be provided by a combination heat/ac unit.
- b. The heater portion will have a BTUH capacity of 35,000, the air conditioner will have a BTUH capacity of 32,000. A three-speed blower fan capable of 650 CFM on the highest setting will be included.
- c. To reduce the potential for condensate leakage, dual 3/8" ID drain hoses shall be installed on the AC drain pan. The drain hoses shall terminate below and outside the ambulance body.
- d. The combo system shall be provided with an electrically controlled water shutoff valve which shall close to stop the flow of hot water to the heater whenever the air conditioning is operating.
- e. The combo heat/air conditioning unit shall be installed over the walk through and shall be ducted along the centerline of the patient compartment ceiling, on either side of the center wiring chase. An insulated collector box shall be mounted directly to the heat/AC unit with a total of eight (8) separate outputs. Each output shall be connected to a 2" diameter plastic flexible duct run installed above the ceiling, and be connected to a single heat/AC vent mounted in the ceiling headliner. A total of eight (8) of these round low-profile adjustable vents shall be installed in the ceiling as indicated in the attached drawings. Each vent shall swivel 360 degrees to direct air flow as needed, and each shall have the ability to close and restrict the air flow from that vent up to 90% of capacity. The system shall be capable of providing in excess of 80 percent of the total air flow capability of the blower fan.
- f. It is important that this feature be installed entirely above the ceiling level, except for the low profile vents, so that headroom height is not affected. Designs that require the ductwork be installed in only one side of the patient compartment or below the ceiling level are not desired by this Agency.

*Above section bid exactly as written: Yes \_\_\_\_ No \_\_\_\_*

XCIII. THERMOSTAT

- a. A hose-line digital low voltage heating and air conditioning thermostat shall be provided to control the specified environmental systems. The thermostat shall be installed in the action area as indicated in the attached prints.

- b. The AC/HEAT System shall be certified to meet the KKK guidelines.

*Above section bid exactly as written: Yes \_\_\_\_ No \_\_\_\_*

XCIV. EXHAUST FAN

- a. The patient compartment of this ambulance will be ventilated with fresh outside air via one (1) static intake vent and one (1) power exhaust vent. The system shall be capable of completely exchanging the air volume within the patient compartment every two (2) minutes. The location of the intake and exhaust vents shall be as indicated in the attached drawings.

*Above section bid exactly as written: Yes \_\_\_\_ No \_\_\_\_*

XCV. OXYGEN SYSTEM

- a. This ambulance shall incorporate an on-board piped medical oxygen system in accordance with the guidelines put forth in KKK-A-1822, as currently amended.
- b. The system shall consist of a supply cylinder (when indicated below), low pressure, electrically conductive (green) hose approved for medical oxygen, and self-sealing oxygen outlets as indicated below. Industrial or welding oxygen hose is not acceptable. Medical certified hose and components must be utilized throughout.
- c. The oxygen system shall be piped to Ohio-type oxygen outlets located in the following areas:
- I. There shall be two (2) "Ohio" style type wall outlets (oxygen) in the action area and one (1) "Ohio" style type wall outlet (oxygen) located at curbside wall above squad bench located at the head. There shall be one (1) "Ohio" style type wall outlet (oxygen) located above the head of the stretcher in the ceiling.

*Above section bid exactly as written: Yes \_\_\_\_ No \_\_\_\_*

XCVI. SPECIAL CABINET PORTABLE OXYGEN STORAGE

- a. There shall be a cabinet constructed below the pass thru window in the bulkhead floor area to accommodate two (2) "D" Cylinders with regulator installed. The cabinet shall be designed so that it does not allow the cylinders to rattle. The cabinet shall be enclosed with a door that can be secured.

*Above section bid exactly as written: Yes \_\_\_\_ No \_\_\_\_*

XCVII. OXYGEN REGULATOR

- a. One (1) main oxygen tank regulator for large "H" and "M" oxygen cylinders with outlet pressure of 40-60 psig shall be provided.
  
- b. The entire system shall be tested after installation. Testing shall include a minimum four (4) hour nitrogen leak test.
  
- c. Additionally there shall be provided an oxygen wrench on tethered line mounted in the oxygen bottle compartment.

*Above section bid exactly as written: Yes \_\_\_\_\_ No \_\_\_\_\_*

XCVIII. MAIN OXYGEN CYLINDER BRACKET

- a. There shall be a Universal Zico Cylinder Bracket QRM-V O2 bottle mount to allow the department to utilize both "M" cylinder and "H" Cylinder bottles. There will be stainless steel straps.

*Above section bid exactly as written: Yes \_\_\_\_\_ No \_\_\_\_\_*

XCIX. SUCTION SYSTEM

a. ASPIRATOR

- I. A RICO RS4X disposable aspirator will be installed in the action area and connected to the vacuum inlet by a quick connect coupler. A semi-rigid pharyngeal suction tip and 10 feet of clear plastic tubing will be included.
  
- II. The system shall be located in the Action Area. Additionally, the system shall be connected to the 12 volt electrical system and be controlled by a switch in the Action Area.

*Above section bid exactly as written: Yes \_\_\_\_\_ No \_\_\_\_\_*

C. VACUUM PUMP

- a. A Gast electric vacuum pump shall be installed in the streetside #2 compartment. This pump will be activated by a switch in the attendant's switch console. It will be protected from damage by shifting equipment by means of a fabricated expanded aluminum mesh guard.

*Above section bid exactly as written: Yes \_\_\_\_ No \_\_\_\_*

CI. VACUUM OUTLET

- a. One (1) Ohio style quick disconnect vacuum outlet shall be provided and installed in the Action Area.

*Above section bid exactly as written: Yes \_\_\_\_ No \_\_\_\_*

CII. 110 VOLT AC WIRING AND COMPONENTS

- a. This vehicle shall be furnished with a two (2) wire plus ground 110 volt AC wiring system completely separate from its 12 volt DC system. It must comply with Article 551 of the National Electrical Code and is to be used for powering maintenance devices, battery chargers, etc. while on standby.
  
- b. The 110 volt system must include two (2) 15 amp GFI circuit breakers mounted in a circuit breaker box located in the electrical cabinet. One breaker shall control and protect the 110 volt outlets located in the patient compartment. The second breaker will control the OEM engine block heater connection and can be used as a "summer switch" to turn off the engine block heater when operation is not desired. Systems that require unplugging the block heater are not acceptable. These circuits shall be powered from the shoreline inlet included in this specification.

*Above section bid exactly as written: Yes \_\_\_\_ No \_\_\_\_*

CIII. SHORE POWER

- a. A Kussmaul "Auto Eject" system inlet, or "shoreline inlet", shall be installed where shown in the attached drawings. It must contain a male inlet connection rated and labeled for 20 amps, be suitable for wet conditions, and be protected by a yellow spring loaded plastic cover. A properly sized female mating plug must also be provided for connection to this agency's wiring.
- b. To protect this device from arcing during connection or disconnection, a time delay and interrupter device shall be installed.

*Above section bid exactly as written: Yes \_\_\_\_ No \_\_\_\_*

CIV. INVERTER PRE-WIRE

- a. Wiring will be furnished and installed for an inverter.

*Above section bid exactly as written: Yes \_\_\_\_ No \_\_\_\_*

CV. INVERTER / BATTERY CHARGER

- a. A Vanner brand 1050 watt inverter with a 55 amp battery charger and internal transfer switch shall be provided and connected to wiring provided in the cabinet behind the attendant seat. It shall be UL listed, KKK certified and wired to power the interior 110 volt receptacles.

*Above section bid exactly as written: Yes \_\_\_\_ No \_\_\_\_*

CVI. 110 VOLT RECEPTACLES HOSPITAL GRADE

- a. Four (4) hospital grade 110 volt AC duplex receptacles with green internal pilot lights and stainless steel face plates shall be installed in the patient compartment as follows: one (1) in the action area; one (1) in the curbside front inside/outside upper(ALS) cabinet; one (1) on the streetside wall in the monitor/defibrillator shelf area, and one (1) on the curbside wall adjacent to the bench and curbside entry door.
- b. All 110V AC duplex wall outlets shall be GFI protected with energized indicator light and wired to shoreline.

*Above section bid exactly as written: Yes \_\_\_\_ No \_\_\_\_*

CVII. PATIENT COMPARTMENT CLOCK

- a. One (1) 12 volt Intellitec "Emergency Time Manager" digital clock shall be provided in the action area. It shall feature a digital display of time (hours: minutes), a sweep second hand, elapsed time counter (hours: minutes), preset alarm intervals at one (1) minute, two (2) minutes, five (5) minutes and ten (10) minutes and shall have approximate dimensions of 4.75" high x 6.75" wide x 1" deep. 12 volt power to this clock shall be constant.

*Above section bid exactly as written: Yes \_\_\_\_ No \_\_\_\_*

CVIII. AMBULANCE BODY AND CHASSIS PAINTING

- a. Prior to applying the first coat of primer, all removable hardware items such as doors, handles, hinges, grab rails, lights, etc. shall be removed.

- b. The entire body shall be fully ground smooth and sanded to eliminate any visible welded deflections.
  
- c. The entire module shall be degreased. Degreaser shall be applied to manufacturer's recommendations. Body to be inspected for flaws and imperfections and to assure built to ordered specifications. All surfaces shall be sanded with 150 grit paper and all imperfections repaired. The priming and final coat of paint shall conform to the paint manufacturer's guidelines. Paint shall be PPG urethane.
  
- d. The doors and ambulance body shall be painted separately.
  
- e. The main body color shall be oxford white (Ford YZ). The paint finish shall be laid onto the body in a flat, orange peel free, minor like shine on all four sides.
  
- f. Roof color to match main body paint. There will be no unpainted surfaces on the roof. NO EXCEPTIONS.
  
- g. Exact paint codes shall be determined during the Pre Construction Conference.

*Above section bid exactly as written: Yes \_\_\_\_ No \_\_\_\_*

CIX. PAINT SCHEME AND LETTERING

- a. Stripe, shall match current fleet exactly.
  
- b. Lettering: shall match current fleet exactly.
  
- c. Paint Stripe and Lettering to be determined at the pre-construction conference. Bidder must provide pricing and it will be the responsibility of each bidder to insure that their bid contains the correct information.

*Above section bid exactly as written: Yes \_\_\_\_ No \_\_\_\_*

CX. AMBULANCE MARKING PACKAGE

- a. The vehicle shall be supplied with lettering and 'Star of Life' symbol decal package as described in Federal Specifications KKK-A-1822D 3.16.4. The "ambulance marking package" is to be installed per department required locations.

- b. Decals: Install 32" Star of Life decal on Module Roof.

*Above section bid exactly as written: Yes \_\_\_\_ No \_\_\_\_*

CXI. FIRE EXTINGUISHER

- a. There shall be one (1) Five pound (5#) A-B-C type fire extinguisher provided and shipped loose with the vehicle on delivery.

*Above section bid exactly as written: Yes \_\_\_\_ No \_\_\_\_*