

**BID NUMBER: 0062**

**BID TITLE: EMS AMBULANCE**

**BID ENVELOPE/PACKAGE CONTAINING BID:**

**Bids MUST be received in a sealed envelope/package with the bid number, company name and opening date clearly marked. Failure to comply may result in rejection of your entire bid. Late bids, e-mailed bids and faxed bids will not be considered nor returned. Union County will not be responsible for any lost or misdirected mail.**



**UNION COUNTY FINANCE DEPARTMENT  
300 MAIN STREET  
MAYNARDVILLE, TN 37807  
[anndyer@unioncountyttn.org](mailto:anndyer@unioncountyttn.org)  
(865) 658-3400 Phone  
(865) 392-7428 Fax**



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**Bid documents must be completed in ink or typed, signed in ink, and free from alterations, erasures or mark-throughs.**

**BID NOTICE**

Union County EMS Will be accepting sealed bids for new Chevrolet 3500, or equivalent, Type I Ambulance two wheel drive. Sealed proposals must be submitted to Union County Finance Office, 300 Main Street, Maynardville, TN 37807 ATTN: BID 0062. Proposals will be accepted until 1:00 p.m. on December 3, 2018 (12/03/2018) at the Finance Office location. Submissions will be opened immediately following the close of bids. Bids will not be awarded until the bids have been reviewed for compliance and approved. Union County reserves the right to reject any and all bids.

Bid packet of detailed specifications and /or requirements may be obtained by email to [anndyer@unioncountyttn.org](mailto:anndyer@unioncountyttn.org) or found on the Finance website at <http://www.unioncountyttn.com/board.php?page=countyfinance>.

## SECTION 1 – GENERAL TERMS AND CONDITIONS

**1.1 ALTERATIONS OR AMENDMENTS:** Alterations, amendments, changes, modifications or additions to this solicitation shall not be binding on Union County without prior written approval.

**1.2 NO CONTACT POLICY:** After vendor receives a copy of this bid, any contact initiated by any vendor with any Union County representative, other than the Finance Department, concerning this invitation for bid is prohibited and agreements made thereto will not be considered binding on Union County. Any such unauthorized contact may cause the disqualification of the bidder from this procurement transaction.

**1.3 QUESTIONS:** Any questions concerning the bid document must be submitted to [anndyer@unioncountyttn.org](mailto:anndyer@unioncountyttn.org) no less than ninety-six (96) hours before bid opening date.

**1.4 BID STAMP:** The bid/time stamp in the Union County Finance office will be the time of record.

**1.5 TAXES:** Union County is not liable for Federal excise or State sales tax. Tax exemption certificates will be provided upon request.

**1.6 CONFLICT OF INTEREST:** If requested by the Director of Finance, vendors must complete and submit a “Conflict of Interest Affidavit Statement” prior to contract award, see T.C.A. 5-14-114 and T. C. A. 12-4-101.

**1.7 NON-COLLUSION:** Vendors, by submitting a signed bid, certify that the accompanying bid is not the result of, or affected by, any unlawful act of collusion with any other person or company engaged in the same line of business or commerce, or any other fraudulent act punishable under Tennessee or United States law.

**1.8 NON-DISCRIMINATION:** Vendors, during the performance of this contract, will not discriminate against any employee or applicant for employment because of race, religion, sex, national origin or disability except where religion, sex, national origin or disability is a bona fide occupational qualification reasonably necessary to the normal operation of the contractor.

**1.9 SAME AS OR EQUIVALENT TO:** Vendors are to bid as specified herein or propose an approved equal. Determination of equality is solely Union County’s responsibility. The designated brands are for reference purpose only, not a statement of preference. When an alternate manufacturer, brand, model or make is bid, Union County will determine if the item bid does meet or exceed the items as specified. If the bidder does not indicate that an alternate manufacturer, brand, model or make is being bid, it is understood that the item(s) bid are the same manufacturer, brand, model or make as was requested in the Invitation to Bid. Comparable products of other manufacturers will be considered if proof of comparability is contained in the bid. It shall be the responsibility of the vendors, including vendors whose product is referenced to furnish upon request catalog pages, brochures or other data as will provide an adequate basis for determining the quality and functional capabilities of the product offered. Failure to provide this data may be considered valid justification for rejection of bid.

**1.10 MULTIPLE BIDS/AWARDS:** Union County will consider multiple bids that meet specifications. Bid awards may include multiple approved vendors and the list of approved vendors may be added to or deleted from at anytime.

**1.11 STATE OF TENNESSEE CONTRACTORS’ LICENSE LAW (T.C.A. 62-6-119 b):** No bid will be opened or considered for which the total cost of the project is twenty-five thousand dollars (\$25,000) or more, unless the outside of the sealed bid envelope/package containing the bid provides the following information: the Company Name, the Contractor’s license number, license classification, the date of the license expiration and that part of each license classification applying to the bid. In addition, each heating ventilation or air conditioning, plumbing and electrical subcontractor’s license number, date of the license expiration and that part of each classification applying to the bid if the value of the work is \$25,000 or greater, must be notated. If the value of either the contractor or the subcontractor’s work is less than \$25,000, the bid envelope/package containing the bid is to be notated with the phrase “Contractor or Subcontractor’s Bid is Less than \$25,000” after each appropriate heading. In the case of joint ventures, each party submitting the bid must provide this information. If no subcontractors are being used, the outside of the envelope/package containing the bid must state, “No Subcontractors are being used on this project.”

**1.12 ACCEPTANCE:** Vendors shall hold their price firm and subject to acceptance by Union County for a minimum period of sixty (60) working days from the date of the bid opening, unless otherwise indicated in their bid. to be supplied, their conformity with specifications, their suitability to the requirements of Union County and the delivery terms. Any or all bids may be rejected for good cause.

**1.13 BID AWARDS:** Bids will be awarded to the lowest and best bidder, taking into consideration the qualities of the articles to be supplied, their conformity with specifications, their suitability to the requirements of Union County and the delivery terms. Union County also reserves the right to not award this bid.

**1.14 PROTEST:** Any vendor wishing to protest the bid award shall notify in writing the Union County Director of Finance, 300 Main Street, Maynardville TN 37807. No protest will be accepted, except those protests made in writing and received within (10) ten calendar days of the bid award. Protests must be in writing and envelopes/package containing protest must be clearly marked with bid number and words "BID PROTEST". The Director of Finance, in conjunction with the Finance Committee, and with the advice and counsel of the County Attorney, shall review and make a final decision as to any bid protest. Appeals shall be filed in the Circuit or Chancery Courts of Union County within sixty (60) days of the final decision.

VENDORS PLEASE NOTE: UNION COUNTY WILL NOT STOP THE PURCHASE PROCESS. THE PURCHASE MAY BE COMPLETED OR THE PROJECT MAY BE RE-BID WHILE THE PROTEST PROCEDURE IS STILL IN OPERATION. IF A RE-BID IS MADE, THE PROTESTING VENDOR SHOULD SUBMIT A NEW BID. OTHERWISE, THEY WILL BE WITHOUT A BID ON THE RE-BID. FURTHER, THE RE-BIDDING WILL NOT END THE APPEALS PROCESS. IT WILL CONTINUE UNTIL A FINAL DECISION IS REACHED OR THE COMPLAINANT WITHDRAWS THE APPEAL.

**1.15 DELIVERY:** Bid pricing is to include complete supply and delivery to Union County, Tennessee. Vendors are to state the delivery time in the bid. Union County requires that vendors deliver all products "free on board" to final destination unless indicated otherwise in their bid, reference Terms & Conditions section 2.4.

**1.16 PROOF OF FINANCIAL AND BUSINESS CAPABILITY:** Bidders must, upon the request of Union County, provide satisfactory evidence of their ability to furnish products or services in accordance with the terms and conditions of these specifications. Union County will make the final determination as to the bidder's ability.

**1.17 VENDOR'S DEFAULT:** Union County reserves the right, in case of vendor default, to procure the articles or services from other sources and hold the defaulting vendor responsible for any excess costs occasioned thereby.

**1.18 DUPLICATE COPIES:** Union County requires that all vendors submit one original and one exact copy of their bids, including brochures; unless additional copies are requested in bid specifications.

**1.19 DRUG-FREE WORKPLACE:** Under the provisions of Tennessee Code Annotated §50-9-113 enacted by the General Assembly effective 2001, all employers with five (5) or more employees who contract with either the state or a local government to provide construction services are required to submit an affidavit stating that they have a drug free workplace program that complies with Title 50, Chapter 9, in effect at the time of submission of a bid at least to the extent required of governmental entities. The statute imposes other requirements on the contractor and contractors should consult private legal counsel if legal questions arise under this section or any other provision of this document. All contractors shall provide a written affidavit signed by the principal officer of a covered employer acknowledging that the contracting entity is in compliance with the Drug Free Workplace laws of State of Tennessee.

**1.20 RESTRICTIVE OR AMBIGUOUS SPECIFICATIONS:** It is the responsibility of the bidder to review the entire Invitation to Bid document and to notify the Finance Department if the Invitation to Bid is formulated in a manner that would unnecessarily restrict competition or if it is ambiguous in what is being requested. The Director of Finance must receive questions regarding the specifications or bid procedures not less than seventy-two (72) hours prior to the time set for the bid opening.

**1.21 SCHOOL CAFETERIA BIDS:** If this bid is for Union County School's Cafeteria Food Service Department, bidders must be in compliance with Section 104(d) of the William F. Goodling Child Nutrition Reauthorization Act of 1998 which requires school and institutions participating in the National School Lunch Program (NSLP) and School Breakfast Program (SBP) to "Buy American" to the maximum extent practicable.

**1.22 TERMINATION:** Union County reserves the right to terminate this contract in whole or in part with thirty (30) days written notification to the contractor. In the event of termination, the County shall not be liable for any costs other than the cost of services performed and materials delivered and accepted prior to termination date.

**1.23 OSHA SAFETY:** The Contractor is responsible for training their employees in Safety and Health Regulations for the job, assuring compliance with Tennessee Occupational Safety and Health regulations and any other Regulatory Agency.

**1.24 PERFORMANCE BOND:** A standard surety or performance bond or an irrevocable letter of credit in favor of Union County Government at a federally insured financial institution will be required to be submitted with bid, if indicated in section four, item six insurance requirement checklist.

**1.25 BACKGROUND CHECKS:** Contractors shall comply with Public Chapter 587 of 2007, as codified in Tennessee Code Annotated Section 49-5-413, which requires all contractors to facilitate a criminal history records check conducted by the Tennessee Bureau of Investigation and the Federal Bureau of Investigation for each employee prior to permitting the employee to have contact with students or enter school grounds when students are present.

**1.26 AWARD RESULTS:** As soon as practicable after proposal or bid evaluations, interested parties may request results by contacting [anndyer@unioncountyttn.org](mailto:anndyer@unioncountyttn.org). Individual notices are normally not mailed or e-mailed except to the successful vendor.

**1.27 PRICE INCREASE/DELIVERY CHARGES:** Request for price or delivery charge increases must be received in writing 30-days prior to implementation. The Union County Director of Finance will review requests and make a determination to continue or cancel services.

**1.28 INDEMNIFICATION/HOLD HARMLESS:** Contractor shall indemnify, defend, save and hold harmless Union County and, its officers, agents and employees from all suits, claims, actions or damages of any nature brought because of, arising out of, or due to breach of the agreement by Contractor, its subcontractors, suppliers, agents, or employees or due to any negligent act or occurrence or any omission or commission of Contractor, its subcontractors, suppliers, agents or employees.

**1.29 DECLARATIVE STATEMENT:** Any statement or words (i.e.: must, shall, will, etc) are declarative statements and the proposer must comply with the condition. Failure to comply with any such condition may result in their bid being non-responsive and disqualified.

**1.30 WAIVING OF INFORMALITIES:** Union County reserves the right to waive minor informalities or technicalities when it is in the best interest of Union County.

**1.31 APPROPRIATION:** In the event no funds are appropriated by Union County for the goods or services in any fiscal year or insufficient funds exist to purchase the goods or services, then the Contract shall expire upon the expenditure of previously appropriated funds or the end of the current fiscal year, whichever occurs first, with no further obligations owed to or by either party.

**1.32 ASSIGNMENT:** Contractor shall not assign or sub-contract this agreement, its obligations or rights hereunder to any party, company, partnership, incorporation or person without the prior written specific consent of Union County.

**1.33 QUANTITIES:** Union County does not guarantee quantities to be purchased off this bid.

**1.34 UNIT PRICE:** Unit price for each unit bid shall be shown and such price shall include packing unless otherwise specified. A total shall be entered in the amount column of the pricing page for each item bid. In case of discrepancy between any unit price and an extended price, the unit price will be presumed to be correct, subject, however, to correction to the same extent and in the same manner as any other mistake.

**1.35 MODIFICATION OR WITHDRAWAL OF BIDS** When it is certain that a mistake has been made in the preparation of the bid, a request will be made to the bidder to confirm the bid. Provisions must be made so that mistakes can be taken care of and the ambiguity resolved satisfactorily. Bids may be modified or withdrawn by written notice received in the Finance Department prior to the time and date set for the bid opening. The changes or withdrawal of the bids should be in writing and signed by an official of the company. The envelope containing the modification should clearly state "modification to bid: Either the entire bid or a particular item may be withdrawn or modified in this manner.

**1.36 PRE-BID CONFERENCES** – Attendance at Pre-bid Conference is strongly encouraged. When deemed necessary a Mandatory Pre-bid Conference will be held. A company representative MUST be in attendance and sign the Pre-bid sign-in sheet in order to be awarded the bid.

**1.37 ADDENDUM** -Union County Government reserves the right to amend this solicitation by addendum. Addendum will be emailed up to 48 hours in advance of the bid/proposals due date and time at [www.unioncountyttn.com](http://www.unioncountyttn.com). It is the bidder's responsibility to check for addendum. If in the County's opinion revisions are of such a magnitude, the deadline for this solicitation may be extended in an addendum. In addition, addendum can change specifications, reply sheets, and times and dates for pre-bid meetings as well as due dates/deadlines for questions and bids/proposals.

**BID NUMBER: 0062**  
**BID TITLE: EMS AMBULANCE**

**SECTION 4. INSURANCE REQUIREMENT CHECKLIST**

The bidder awarded this bid or contract will maintain, at their expense adequate insurance coverage to protect them from claims arising under the Worker's Compensation Act, any and all claims for bodily injury and property damage to the Bidder and to Union County Government while delivery and service are being done. A certificate of insurance must be on file in the Purchasing Department before work may begin and must be maintained until work is completed.

**Only the items marked with an "X" are applicable to this bid and or contract.**

- |    |  |   |
|----|--|---|
| 1. | <input type="checkbox"/> <b>Workers Compensation<br/>Employers Liability</b>   | Statutory limits<br>100,000/100,000/500,000         |
| 2. | <input checked="" type="checkbox"/> <b>Commercial General Liability</b><br><br><input checked="" type="checkbox"/> Occurrence Form Only<br><input checked="" type="checkbox"/> Include Premises Liability<br><input checked="" type="checkbox"/> Include Contractual<br><input checked="" type="checkbox"/> Include XCU<br><input checked="" type="checkbox"/> Include Products and Completed Operations<br><input checked="" type="checkbox"/> Include Personal Injury<br><input checked="" type="checkbox"/> Include Independent Contractors<br><input type="checkbox"/> Include Vendors Liability<br><input type="checkbox"/> Include Professional or E&O Liability | \$1,000,000 per occurrence<br>\$2,000,000 aggregate |
| 3. | <input type="checkbox"/> <b>Business Auto</b><br><input type="checkbox"/> Include Garage Liability<br><input type="checkbox"/> Include Garage Keepers Liability<br><input type="checkbox"/> Copy of Valid Drivers License<br><input type="checkbox"/> Copy of Current Motor Vehicle Record<br><input type="checkbox"/> Copy of Current Auto Liability Declarations Page  | \$1,000,000<br>\$1,000,000                          |
| 4. | <input type="checkbox"/> <b>Crime Coverages</b><br><input type="checkbox"/> Employee Dishonesty<br><input type="checkbox"/> Employee Dishonesty Bond   |   |
| 5. | <input type="checkbox"/> <b>Property Coverages</b><br><input type="checkbox"/> Builders Risk<br><input type="checkbox"/> Inland Marine<br><input type="checkbox"/> Transportation  |   |
| 6. | <input type="checkbox"/> <b>Performance Bond Required</b> — A <u>One Hundred Percent (100%)</u> performance or an irrevocable letter of credit in favor of Union County Government at a federally insured financial institution. <b><u>MUST</u></b> be submitted <b>before</b> a purchase order is issued.   |   |

**Certificate Holder Shall Be:** Union County Government, Maynardville, Tennessee, and shall show the bid number and title. Union County Government shall be named as an additional insured on all policies except worker's compensation and auto. Insurance carrier ratings shall have a Best's rating of A-VII or better, or its equivalent. Cancellation clause on certificate should strike out "endeavor to" and include a 30-day notice of cancellation where applicable. Any deviations from the above requirements must be disclosed to the Union County Purchasing Agent. Any liability deductibles or exclusions must also be disclosed. Exceptions can be granted if applicable.

**Bidders Statement and Certification**

I understand the insurance requirements of these specifications and will comply in full within **21 (twenty-one) calendar days** if awarded this bid and or contract. I agree to furnish the county with proof of insurance for the entire term of the bid and or contract.

\_\_\_\_\_  
Vendor Name

\_\_\_\_\_  
Authorized Signature

\_\_\_\_\_  
Bid Representative Name (Please Print)

\_\_\_\_\_  
Date

**BID NUMBER: 0062**  
**BID TITLE: EMS AMBULANCE**

The following pages should be returned in duplicate as your bid: Entire Bid Package

Delivery will be F.O.B. Destination to: Union County EMS Maynardville, TN

**UNION COUNTY EMS**  
**BID PROPOSAL**

NAME OF BIDDER: \_\_\_\_\_

ADDRESS: \_\_\_\_\_

CITY/STATE/ZIP: \_\_\_\_\_

TELEPHONE: \_\_\_\_\_

PERSON TO CONTACT: \_\_\_\_\_

We herewith submit and bid the bid as follows:

CHASSIS/MAKE: \_\_\_\_\_

MODEL/TYPE: \_\_\_\_\_

F.O.B. POINT: \_\_\_\_\_

DELIVERY - CALENDAR DAYS: \_\_\_\_\_

TERMS: \_\_\_\_\_

NET PRICE COMPLETE, AS SPECIFIED.....\$ \_\_\_\_\_

**Alternate Deductive Proposals**

Alternate No. 1: Ambulance in accordance to specs minus the following miscellaneous items as described in the specs.

Delete Armstrong Medical Broselow Pediatric Resuscitation System (1 each)

Deduct the sum of \_\_\_\_\_ (\$ \_\_\_\_\_)

Alternate No. 2: Ambulance in accordance to specs minus the following miscellaneous items as described in the specs.

Delete Kenwood TK-790/890 or equivalent VHF/UHF Dual Band Mobile Radio (1 each)

Deduct the sum of \_\_\_\_\_ (\$ \_\_\_\_\_)

Alternate No. 3: Ambulance in accordance to specs minus the following miscellaneous items as described in the specs.

Zoll X-Series Cardiac Monitor (1 each)

Deduct the sum of \_\_\_\_\_ (\$ \_\_\_\_\_)

Alternate No. 4: Ambulance in accordance to specs minus the following miscellaneous items as described in the specs.

Delete Stryker Power - Pro XT (1 each)

Deduct the sum of \_\_\_\_\_ (\$ \_\_\_\_\_)

It is our intent to request a three (3) year contract. Please specify the percent of increase above your first year bid, if any, for the second and third year (s).

\_\_\_\_\_ % Second Year                      \_\_\_\_\_ % Third Year

BID IS:                      \_\_\_\_\_ AS PER SPECIFICATION, TAKING NO EXCEPTIONS  
                                 \_\_\_\_\_ TAKING ONLY THOSE SPECIFICFATION EXCEPTIONS LISTED,  
                                 ATTACHED AND REFERENCED TO PARAGRAPH NUMBER SPECIFIED.

It is agreed by the undersigning bidder that the signature and submission of this bid represents the bidders acceptance of all terms, conditions, and requirements of the bid specifications and, if awarded, the bid will represent the agreement between the two parties.

By submission of this bid, each bidder and each person signing on behalf of any bidder certifies, and in the case of a joint bid each party thereto certifies as to its own organization, under penalty of perjury, that to the best of its knowledge and belief that each bidder is not on the list created pursuant to Tennessee Code Annotated § 12-12-106.  
(Sign in blue ink)

SIGNED: \_\_\_\_\_ DATE: \_\_\_\_\_

NAME PRINTED: \_\_\_\_\_ TITLE: \_\_\_\_\_

<p><b>BID NUMBER: 0062</b> <b><u>BID TITLE: EMS AMBULANCE</u></b></p>
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**EXCEPTIONS / CLARIFICATIONS**

Each bidder may copy this form, as necessary to sufficiently list all exceptions and variations from specifications (Please list as shown, by page, item number, and check if vendor chooses not to supply, or is unavailable, or describe deviation or substitution in detail, if furnished). Purchaser will be the sole judge or proposed substitution equivalency.

VENDOR NAME: \_\_\_\_\_

BIDDING: \_\_\_\_\_

EXCEPTION PAGE: \_\_\_\_\_

**FAILURE TO RETURN THE FOLLOWING BID DOCUMENTS WILL RESULT IN BID BEING DEEMED NON-RESPONSIVE AND AUTOMATIC REJECTION:**

1. Failure to use County Bid Proposal Sheet.
2. Failure to return applicable compliance Sheets/Specification sheets.
3. Failure to return applicable addenda.
4. Failure to provide information on alternates or equivalents when allowed.
5. Union County EMS shall be the sole determinant of technicality vs. non-Responsive quotes.
6. Failure to provide required certification/testing (kkk-a-1822-F) documents with bid.
7. Failure to provide \$3,000,000 product liability insurance certificate.
8. Failure to provide signed non-collusion statement.
9. Failure to provide Tennessee Motor Vehicle and Sales Representative License.
10. Failure to provide QVM certificate.



<p><b>BID NUMBER: 0062</b> <b><u>BID TITLE: EMS AMBULANCE</u></b></p>
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**CERTIFICATION OF NON-COLLUSION IN BID PREPARATION (SIGNATURE)**

In compliance with the attached specifications, the undersigned offers and agrees, if this bid is accepted by Union County EMS within sixty (60) days of the date of bid opening, to furnish any or all of the items upon which prices are quoted, at the price set opposite each item, delivered to the designated point(s) within the time specified in the bid schedule.

Company Name: \_\_\_\_\_

Complete Physical Address: \_\_\_\_\_

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

Representative Signature: \_\_\_\_\_

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

Telephone Number: \_\_\_\_\_

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

Print Authorized Representative's Name: \_\_\_\_\_

If Remittance Address is Different, Indicate Here.

\_\_\_\_\_

**UNION COUNTY EMS**

**DEPARTMENT OF EMERGENCY MEDICAL  
SERVICES**

**MINIMUM SPECIFICATION FOR  
TYPE 1-AD, CLASS 1, CONFIGURATION  
"A" AMBULANCE**

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## **A. GENERAL STATEMENT AND CONSTRUCTION**

1. **Background** - Union County EMS is located in Maynardville, Tennessee and has a land area of 465 square miles and a population of 24,000. Union County EMS provides advanced life support emergency medical services, and transport for the entire city/county. The Department currently operates 8 EMS units. We currently have an authorized strength of 42 Paramedics, and support staff. In 2017 the Department responded to approximately 4,000 + incidents. With the addition of one new units & the retiring of 1 older units our fleet size will remain at 8 units in 2018.

2. **Intent** - It is the intent of this specification to describe a Type I ALS ambulance to be built in accordance with the Federal Ambulance Specification KKK-A-1822F or the latest edition available at the time the vehicle is constructed, unless otherwise stated in the following specifications. The modular body is intended to be 150 long X 96" wide X 72" interior height. Union County EMS is concerned with vehicles that provide ease of operation with as high as possible departure angles and fit in existing stations. The body should be mounted on a new 2018 or newer year production model, per the attached specification guideline. The specified chassis selection is based on the OEM providing an engineered, and application specific ambulance preparation package. All bidders shall be bidding their top-of-the-line quality production units.

3. **Design** - Union County EMS is very concerned about purchasing vehicles that are safe, easy to use, dependable, requires a minimum of maintenance, provides top performance, and a long life cycle. When designing this vehicle, bidders shall pay particular attention to these requirements.

The design of the equipment shall be in accordance with the best engineering practices. The equipment design and accessory installation shall permit accessibility for use, maintenance and service. All components and assemblies shall be free of hazardous protrusions, sharp edges, cracks or other elements that may cause injury to personnel or equipment.

All oil, hydraulic and air tubing lines, and electrical wiring shall be located in protective positions properly attached to the frame or body structure and shall have protected loom or grommets at each point where they pass through structural members, except where a through frame connector is necessary.

Parts and components should be located or positioned for rapid and simple inspection and recognition of excessive wear or potential failure. Whenever functional layout of operating components determines that physical or visual interference between items cannot be avoided, the item predicted to require the most maintenance should be located for the best accessibility.

Cover plates, which must be removed for component adjustment or part removal, should be equipped with quick disconnect fasteners or hinged panels.

Drains, filler plugs, grease fittings, hydraulic lines, bleeders and check points for all components should be located so that they are readily accessible and do not require special tools for proper servicing. When practical, drain lines shall be hard plumbed to the underside of the vehicle. Design practices should minimize the number of tools and amount of time required for maintenance.

All components shall be designed, mounted and protected so that heavy rain or other adverse weather conditions will not interfere with normal service and operation.

4. **Letter of Certification** - Anyone responding to this bid invitation shall include a Letter of Certification with the bid. The Letter of Certification shall be written by a bonded independent testing laboratory nationally recognized within the ambulance industry. Certification provided shall match the chassis model & specifications of model requested for bid. Certification by employees of the ambulance manufacturer or

by the manufacturer is not acceptable. The laboratory shall certify that the ambulance required by the bid specification has been examined and tested for compliance to the KKK-A-1822E specification. Certifications should be for ambulances built on the specified chassis. Body dimensions for the certification should be comparable to the size identified in this specification. Bids not providing certificate/letter with bid will not be considered. **(No Exceptions)**

**5. Engineering** - Anyone responding to this bid shall have at least one on-site engineer that has been employed in that position for a minimum of 3 years by the same manufacturer, or has a degree in engineering along with certification. These persons should be devoted to the design process of the vehicle and not utilized as production employees. Copies of the individual's certification papers will be made available upon request.

**6. Vehicle, Ambulance Components, Equipment, and Accessories** - The emergency medical care vehicles; including chassis, ambulance body, equipment, devices, medical accessories, and electronic equipment; shall be standard commercial products, tested and certified to meet or exceed the requirements of this specification. The ambulance shall comply with all Federal Motor Vehicle Safety standards (FMVSS) and federal and state regulations applicable or specified for the year of manufacture. The chassis, components, and optional items shall be as represented in the chassis manufacturer's current technical data. The ambulance body, equipment, and accessories shall be as represented in their respective manufacturer's current technical data. Data shall be limited to specifications and technical materials identical to that furnished to engineering/technical offices of the procuring activity and the supplier's (contractor's) offices prior to acceptance of the ambulance. The supplier shall provide total standardization and interchangeability between similar vehicles, equipment, items, and accessories specified for all ambulance units under each contract. Materials used shall be new and of a quality equal to or exceeding that of current engineering and manufacturing practices. Materials shall be free of defects and suitable for the service intended. No used or rebuilt materials shall be considered.

**7. Recovered Materials** - All equipment, material, and articles required under this specification are to be new or fabricated from new materials produced from recovered materials. The term "recovered materials" means materials, which have been collected or recovered from solid waste and reprocessed to become a source of raw materials, as opposed to virgin raw materials. None of the above shall be interpreted to mean that the use of used or rebuilt products is allowed under this document.

**8. Information and Descriptive Literature** - Bidder must furnish all information requested in the space provided on the bid form. In addition, bidder should supply at least three (2) complete sets of drawings, descriptive literature and complete construction type specifications describing the products offered. Construction specifications shall include specific metal thickness and dimensions on structural members used in body fabrication. Each bidder shall also provide information as to the projected weight per axle, total weight, and payload capacity of the completed vehicles as delivered. Several methods may be utilized to calculate this weight. **The only accepted method is as defined in the Federal Ambulance Specification KKK 3.5.2 (payload allowance) The only available payload accepted by Union County will be considering the equipment and items listed in this specification, and built into this unit as a part of the production process ONLY.** Any exclusion for optional equipment listed in KKK 3.15.3 will not be allowed in calculating the 1,750 pound minimum payload for this vehicle. Only the vehicle with specified equipment and features within this specification shall be utilized in the calculation.

**Union County EMS will only accept the curb weight of the completed vehicle as built according to this specification, subtracted from the total available weight carrying capacity of the vehicle, which will provide the total available payload.**

Provide the values listed below for the chassis, module and equipment as specified in this bid:

Front Axle _____	Rear Axle _____
Total _____	Payload _____

**9. Single Source Supplier** - To avoid divided responsibility, it is required that the body builder assume responsibility as the prime contractor. The prime contractor shall insure that all components used are compatible and suitable for the intended service.

**10. Bidder's Response** - All bidders should insert a check mark (    ) at the COMPLY: YES    NO    space at the numbered specification paragraphs. If the bidder is not going to furnish the item **EXACTLY** as is described in this specification, he must indicate a NO (    ) even though he may feel he is bidding an item that equals or exceeds the requirements of this specification. For each "EXCEPTION" taken, the bidder must include a detailed technical description of what he will furnish as well as a full explanation of why his "EXCEPTION" equals or exceeds the item in the specifications. **All "EXCEPTIONS" shall be listed by specification item number and noted on a separate sheet. All exceptions shall be clarified to provide Union County with the proposed alternative and expected outcome of each exception. All Exceptions will be detailed in explanation to clearly indicate what the bidder is offering.**

**Two (2) COMPLETE BID PACKAGES SHOULD BE SUBMITTED TO ALLOW EMS, AND PURCHASING DEPARTMENTS TO HAVE COPIES.**

**11. Bidder's Responsibility** - Each bidder is required before submitting its bid to be thoroughly familiar with the specifications contained herein. No additional allowances will be made because of lack of knowledge of these conditions. It is the responsibility of the bidder to ascertain if any part of these specifications is unsafe or does not meet the requirements of any federal law, state law, or federal specification KKK-A-1822F. If the bidder feels there are any elements of the specification which are unsafe or do not comply with state or federal law or the requirements of KKK-A-1822F, it should be explained thoroughly in the bid response.

The successful bidder shall agree to provide all parts for warranty repairs to these vehicles locally or by overnight express delivery. The intent of this requirement is to assure that all necessary parts are available without delay and prevent vehicle down time.

**12. Testing and Evaluation** - Union County EMS reserves the right to test and/or evaluate equipment for quality and compliance with the specification. Upon request, a demonstration ambulance shall be made available for examination and evaluation. If a demonstration ambulance is not made available for examination, within 10 calendar days of request, or if the demonstration ambulance fails to meet the basic requirements of this specification (paint colors and equipment variations being excepted), the bid is subject to rejection.

**13. References** - The bidder should furnish as references a minimum of sixteen (16) current owners of this type of ambulance. Reference list should include the department name, address, phone number, current department contact, and date of delivery. Bids will be accepted only from manufacturers who have a proven history of the capability to manufacture this type of ambulance. Bids will be accepted only from manufacturers under the same ownership that have been actively and continuously engaged in manufacture of this type of ambulance for not less than **ten (10) years and have built at least 1000 ambulances**. It is not the intent of these specifications to call for an experimental vehicle, nor is it the intent of this department to accept such a vehicle. (No Prototypes Will Be Considered.)

**14. Questionnaire** - A questionnaire has been provided that details manufacturer's capabilities, specific components, and materials that will be used in the vehicle. Bidders should furnish all information requested in the space provided.

**15. Part Numbers** - The successful contractor shall supply the original manufacturer part cross - over numbers for parts that are not manufactured by the equipment manufacturer at the time of acceptance. A complete apparatus parts list or materials build list shall be provided.

**16. Preventive Maintenance** - The successful contractor shall furnish a copy of the manufacturer's preventive maintenance schedule at the time of delivery.

**17. Labels and Nameplates** - All nameplates and instruction plates shall be metal or plastic with the information engraved, stamped or etched thereon. If metal, they shall be of a non-corrosive material. Plastic plates shall not be used in exposed positions where they are subject to weathering.

Nameplates shall show make, model, serial numbers, and other such data necessary to positively identify the item. All plates shall be mounted in a conspicuous place with stainless steel screws, bolts or rivets.

**18. Insurance** - The successful bidder should provide with their bid proof of product liability and general liability insurance in the minimum amount of \$3,000,000.00 with this bid document. Union County EMS should be shown as an additional insured on all certificates provided prior to award. The Insurance Company must have an A.M. Best Rating of A-6 or higher, and authorized to do business in Tennessee.

**19. Late Delivery Penalty** - It is expected that the vehicle be manufactured and delivered within 90 working days of the issuing Purchase Order from Union County. Any delivery dates stated by the manufacturer shall not be defined as "After Receipt of Chassis". Union County Government reserves the right terminate the construction contract after the 90 working day period if vehicle/vehicles have not been delivered. Alternately, Union County Government will penalize the contractor five hundred dollars (\$500.00) per day, per ordered vehicle, each day that the delivery of ordered vehicle/vehicles is beyond the 90 working days. No compensation will be given for early delivery.



**B. PROVIDE SIXTEEN (16) CURRENT OWNERS OF THIS DESIGN OF AMBULANCE**

1  
Name \_\_\_\_\_

Address \_\_\_\_\_  
\_\_\_\_\_

Phone \_\_\_\_\_

Contact Name \_\_\_\_\_

Vehicle In Service Date \_\_\_\_\_

2  
Name \_\_\_\_\_

Address \_\_\_\_\_  
\_\_\_\_\_

Phone \_\_\_\_\_

Contact Name \_\_\_\_\_

Vehicle In Service Date \_\_\_\_\_

3  
Name \_\_\_\_\_

Address \_\_\_\_\_  
\_\_\_\_\_

Phone \_\_\_\_\_

Contact Name \_\_\_\_\_

Vehicle In Service Date \_\_\_\_\_

4  
Name \_\_\_\_\_

Address \_\_\_\_\_  
\_\_\_\_\_

Phone \_\_\_\_\_

Contact Name \_\_\_\_\_

Vehicle In Service Date \_\_\_\_\_

5  
Name \_\_\_\_\_

Address \_\_\_\_\_  
\_\_\_\_\_

Phone \_\_\_\_\_

Contact Name \_\_\_\_\_

Vehicle In Service Date \_\_\_\_\_

6  
Name \_\_\_\_\_

Address \_\_\_\_\_  
\_\_\_\_\_

Phone \_\_\_\_\_

Contact Name \_\_\_\_\_

Vehicle In Service Date \_\_\_\_\_

7  
Name \_\_\_\_\_

Address \_\_\_\_\_  
\_\_\_\_\_

Phone \_\_\_\_\_

Contact Name \_\_\_\_\_

Vehicle In Service Date \_\_\_\_\_

8  
Name \_\_\_\_\_

Address \_\_\_\_\_  
\_\_\_\_\_

Phone \_\_\_\_\_

Contact Name \_\_\_\_\_

Vehicle In Service Date \_\_\_\_\_

9  
Name \_\_\_\_\_

Address \_\_\_\_\_  
\_\_\_\_\_

Phone \_\_\_\_\_

Contact Name \_\_\_\_\_

Vehicle In Service Date \_\_\_\_\_

10  
Name \_\_\_\_\_

Address \_\_\_\_\_  
\_\_\_\_\_

Phone \_\_\_\_\_

Contact Name \_\_\_\_\_

Vehicle In Service Date \_\_\_\_\_

11  
Name \_\_\_\_\_

Address \_\_\_\_\_  
\_\_\_\_\_

Phone \_\_\_\_\_

Contact Name \_\_\_\_\_

Vehicle In Service Date \_\_\_\_\_

12  
Name \_\_\_\_\_

Address \_\_\_\_\_  
\_\_\_\_\_

Phone \_\_\_\_\_

Contact Name \_\_\_\_\_

Vehicle In Service Date \_\_\_\_\_

13  
Name \_\_\_\_\_

Address \_\_\_\_\_  
\_\_\_\_\_

Phone \_\_\_\_\_

Contact Name \_\_\_\_\_

Vehicle In Service Date \_\_\_\_\_

14  
Name \_\_\_\_\_

Address \_\_\_\_\_  
\_\_\_\_\_

Phone \_\_\_\_\_

Contact Name \_\_\_\_\_

Vehicle In Service Date \_\_\_\_\_

15  
Name \_\_\_\_\_

Address \_\_\_\_\_  
\_\_\_\_\_

Phone \_\_\_\_\_

Contact Name \_\_\_\_\_

Vehicle In Service Date \_\_\_\_\_

16  
Name \_\_\_\_\_

Address \_\_\_\_\_  
\_\_\_\_\_

Phone \_\_\_\_\_

Contact Name \_\_\_\_\_

Vehicle In Service Date \_\_\_\_\_

### **C. QUALIFIED VEHICLE MODIFIER**

As additional evidence of the bidder's ability to meet an Original Equipment Manufacturer's minimum manufacturing qualifications; the manufacturer should be approved by as a "QVM" (Qualified Vehicle Modifier). A copy of their certificate should be included with the bid. (No Exceptions)

### **D. TRANSFER OF CONTRACT AND LOCATION OF MANUFACTURER**

To assure ambulance quality and prompt response by the manufacturer on warranty claims and repair requests, the successful bidder may not assign, sell, or otherwise transfer any portion of this contract without written permission from Union County.

Bidder shall state the Company name and exact location where all manufacturing will be performed.

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### **E. PRE - CONSTRUCTION CONFERENCE**

A pre-construction conference shall be held with the successful manufacturer. The pre-conference will allow Union County EMS representatives and the successful manufacturer's representatives to discuss this specification and the proposal document in detail for the purpose of the manufacturer developing an in house shop order for fabrication of this apparatus. It is intended that the pre-construction conference will be held at the manufacturer's facility, however; Union County EMS reserves the right to conduct the pre-construction conference at the Union County's facility if the EMS representatives deem it necessary. Those in attendance at the conference shall include the sales representative, the manufacturer's project manager, and additional engineering staff as may be required. The time spent on the conference shall be of a duration that will allow for complete review of these specifications and understanding of the construction requirements. The manufacturer shall be responsible for all costs incurred for their representatives to attend this conference. Union County EMS will review documentation supplied by the manufacturer prior to and during construction, however; this specification, the manufacturer's proposal, and any clarification documents will be used during final inspections for each apparatus and shall prevail as the official requirement for apparatus construction and performance. Union County will approve manufacturers in house shop orders that may be necessary for apparatus fabrication. The manufacturer shall provide detailed and scaled engineering drawings of the apparatus to include all major features for approval by Union County EMS prior to construction. All transportation cost(including airfare, meals, and lodging) for up to Three County EMS representatives shall be included.

### **F. PROJECT SCHEDULING AND COMPLETION**

It is critical that this project be started as soon as possible following award to the successful bidder. Union County EMS needs to place these vehicles in service at the earliest possible date. It is expected that vehicles be manufactured and delivered within 90 working days of the issuing of the Purchase Order from Union County. Any delivery dates stated by manufacturer shall not be defined as "After Receipt of Chassis". Union County reserves the right to terminate the construction contract after the 90 day working day period. Alternately, Union County will penalize the contractor five hundred dollars (\$500.00) per day, per vehicle, each day that delivery of ordered vehicle/vehicles is beyond the 90 working day term.

State Number of Days until the units will be delivered from receipt of Purchase Order: \_\_\_\_\_

The successful bidder will be required to provide proof of chassis purchase including sales order and chassis option codes within one (1) week of the bid award. Documentation will be returned to Union County EMS.

Union County EMS expects that all vehicles will be ready for shipment at the same time and it is expected that all will be delivered at the same time.

#### **G. SILENCE OF SPECIFICATIONS**

The apparent silence of this specification and any supplemental specifications as to any details or the omission from it of a detailed description concerning any point, shall be regarded as meaning that only the best commercial practices are to prevail. Only materials of first quality and correct type, size and design are to be used. All workmanship is to be first quality. All interpretation of this specification shall be made upon the basis of this statement with Union County EMS interpretation to prevail.

#### **H. VEHICLE INSPECTIONS**

The purchaser shall have the right to inspect the ambulance at all times during its construction and his approval or disapproval of engineering, design, and workmanship shall be binding upon the contractor. In addition, the Director of Union County EMS shall have the right to personally or designate any representative to inspect the equipment.

It is intended that Union County EMS will conduct a mid-term inspection of the new ambulance. It is also intended that a pre-delivery inspection be conducted when any vehicle has completed all construction and quality control inspections and is ready for delivery. Union County EMS will inspect all vehicles, individually, prior to leaving the manufacturing facility. The cost (including airfare, meals, and lodging) for up to 3 representatives per trip shall be included in the bid price. **(No exceptions)**

COMPLY:            YES: \_\_\_\_\_            NO: \_\_\_\_\_

During various stages of manufacturing, it is expected that the manufacturer provide Union County EMS with digital format video and/or e-mail digital photos, weekly, to demonstrate the progress of construction. This type of communication may also be required should it become necessary to make clarifications during the construction process. A video tape or digital pictures of the entire completed vehicle is to be provided to Union County EMS prior to traveling to the manufacturer's facility for the pre-delivery inspection.

Final inspection of the vehicles will be a complete visual inspection of the unit in accordance with this specification. The vehicle shall be complete with all of the manufacturers inspections completed upon arrival of Union County EMS Representatives. All loose equipment, manuals and schematics will be required as present with the vehicle prior to the initiation of the inspection.

#### **I. DELIVERY REQUIREMENTS**

Delivery of the completed vehicles is to be to Maynardville, Tennessee and is to be over the road drive away by the manufacturer or dealer's personnel. The manufacturer's electrical engineer is to assist during acceptance testing and shall provide a minimum of one (1) full day of training for maintenance personnel on preventive maintenance procedures, providing detailed explanation of vehicle electrical system, and wiring schematics.

Prior to delivery, the manufacturer or dealer shall service and adjust each vehicle for operational use to include as a minimum the following. Documentation to confirm pre-delivery inspection shall be provided prior to acceptance.

1. Focusing of lights.
2. Tuning of engine.
3. Adjustment of accessories.
4. Checking of electrical, braking, and suspension system.
5. Charging of battery.
6. Proper alignment of front and rear axles.
7. Inflation of tires to recommended pressures.
8. Balancing of all wheels and tire truing, including spares, if needed.
9. Complete lubrication of engine, transmission, chassis and operating mechanisms.
10. Servicing of cooling system with engine manufacturers Extended Life Coolant for minus -30 degrees Fahrenheit protection.

Ambulances shall be delivered in a ready to place in service condition with Union County EMS needing to only load and mount the loose equipment.

#### **J. ACCEPTANCE, TESTING AND INSPECTION**

Union County EMS reserves the right to test equipment as deemed necessary to verify quality, performance and compliance with the specifications. All performance testing shall be successfully completed without the vehicle demonstrating any signs of overheating, vibrations, or other abnormal conditions.

Documents to be delivered prior to acceptance:

1. Exact as built wiring diagram for the body 12 volt DC system, two (2) sets per vehicle in 11" x 17" formats and three (3) total sets in large blue print size formats. The orientation of the drawings shall match the layout of the components and assemblies as mounted in the vehicle to provide ease of trouble-shooting and tracing wiring.
2. Chassis warranty documents and owners manuals
3. Body structural, general, and paint warranty statements
4. Cross - over part number listing
5. Ambulance owner / operators manuals, two (2) sets per vehicle
6. Technical shop type service manuals for mechanics, two (2) sets total for this specification.
7. Documentation of front and rear axle alignment
8. Completed vehicle weight distribution statement
9. Electrical load analysis report
10. Quality control inspection report
11. Any other specified manuals or documentation required in this specification

#### **K. PAYMENT**

As the bidder has several months to obtain any equipment or other materials that are required as a part of this specification, no shortages are expected at time of vehicle delivery. Any item or items that must be considered as a shortage shall be justified prior to delivery. Union County EMS reserves the right to withhold payment until all shortages are delivered.

Any discrepancies that were noted during inspection visits or discovered upon delivery or during acceptance testing must be satisfactorily corrected, including any noted chassis defects, prior to final acceptance.

All units operated or towed on public highways requiring tags will not be accepted until the Manufacturer's Statement of Origin and any other necessary tag and title documentation and vehicle is received and accepted by the Union County Tag Office. The Mileage Odometer Statement mileage must match exactly the mileage indicated on the MSO. The mileage recorded on the delivery package is to reflect the actual odometer reading at time of delivery.

Upon request, supplier shall provide a sample of the application for title and odometer mileage statement assigned as specified.

Payment shall be net on delivery and acceptance of new ambulance

#### K. WARRANTY REQUIREMENTS

1. The chassis basic vehicle warranty shall be included. All warranties shall be covered at 100% parts and labor. Copy of warranty should be submitted with bid.

COMPLY: YES \_\_\_\_\_ NO \_\_\_\_\_

2. The diesel engine and engine operating computers (ECM) shall be warranted for a minimum of five (5) years, 100,000 miles. All warranties shall be covered at 100% parts and labor. The coverage shall be provided through either standard or included optional warranty programs. A copy of warranty should be submitted with bid.

COMPLY: YES \_\_\_\_\_ NO \_\_\_\_\_

3. The Transmission should be warranted for five (5) years. All warranties should not be pro-rated and will be calculated at 100%. Copy of warranty should be submitted with bid.

COMPLY: YES \_\_\_\_\_ NO \_\_\_\_\_

4. The Chassis electrical system should be covered as a part of the basic vehicle warranty. The specific warranty including parts should be included with this bid.

COMPLY: YES \_\_\_\_\_ NO \_\_\_\_\_

5. Where a chassis or body component manufacturer provides an independent warranty which exceed the standard chassis or body warranty period, the provision of this warranty shall not be allowed to diminish the normal longer warranty period that may be provided by any component manufacturer. Copy of warranty should be submitted with bid.

COMPLY: YES \_\_\_\_\_ NO \_\_\_\_\_

6. The successful bidder shall warranty the structural integrity of the modular body for a minimum of fifteen 15 years from the date the vehicle is placed into front line service at Union County EMS. Warranty shall be re-newed and extended if unit is remounted by the original manufacturer, a notarized statement to this effect shall be included with the bid. All warranties should not be pro-rated and will be calculated at 100%. Copy of warranty should be submitted with bid. **(No exceptions)**

COMPLY: YES \_\_\_\_\_ NO \_\_\_\_\_

7. The vehicle exterior paint finish to include decals and stripping shall be warranted against blistering, peeling, bubbling, lack of adhesion, corrosion, rust, or any other manufacturing or material defects for a period of seven (7) years, unlimited mileage. All warranties should not be pro-rated and will be calculated at 100%. The coverage shall be 100% for materials and labor during this specified warranty period. Copy of warranty should be submitted with bid.

COMPLY: YES \_\_\_\_\_ NO \_\_\_\_\_

8. The warranty period for the ambulance manufacturer's workmanship and materials including all electrical components and wiring shall be for not less than two (2) years, unlimited mileage and unlimited engine operating hours. It is understood that light bulbs will be excluded from this warranty. Copy of warranty should be submitted with bid.

COMPLY: YES \_\_\_\_\_ NO \_\_\_\_\_

9. The manufacturer's representative shall address all requests for warranty repairs within forty-eight (48) hours of notification by Union County EMS. Copies of warranties should be submitted with bid.

COMPLY: YES \_\_\_\_\_ NO \_\_\_\_\_

10. Manufacturer shall provide factory repairs for major structural damage caused if a vehicle is in an accident. Under no circumstance shall the manufacture use a sub-contractor or repair center for repairs.

COMPLY: YES \_\_\_\_\_ NO \_\_\_\_\_

11. The body manufacturer shall ship any parts that may be required to complete repairs to keep vehicle down time to a minimum.

COMPLY: YES \_\_\_\_\_ NO \_\_\_\_\_

12. All warranties shall begin at the time the vehicle is placed in front line service by Union County EMS. Copy of warranty should be submitted with bid.

COMPLY: YES \_\_\_\_\_ NO \_\_\_\_\_

13. The provisions of this warranty shall serve as an attachment to the Original Equipment Manufacturer's warranty.

COMPLY: YES \_\_\_\_\_ NO \_\_\_\_\_

14. Additional warranty or logistical services that the bidder might provide above and beyond the requirements of this specification may be listed below.

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15. Signature of company official authorized to issue and certify the above listed warranty requirements. Authorized Dealer signature is not acceptable.

\_\_\_\_\_  
Signature                      Date

\_\_\_\_\_  
Print Name                      Title

## SECTION 1 CHASSIS SPECIFICATION

1.0 The chassis shall be a new current year model, 2018 Chevrolet or equivalent 3500 or Newer Type I chassis.

COMPLY: YES \_\_\_\_\_ NO \_\_\_\_\_

1.1 Must have Ambulance Prep Package. NO EXCEPTIONS

1.2 Deluxe Trim Level:

COMPLY: YES \_\_\_\_\_ NO \_\_\_\_\_

1.3 CAB: Chevrolet or equivalent 2-door conventional

COMPLY: YES \_\_\_\_\_ NO \_\_\_\_\_

1.4 GVWR TOTAL: 9,600 pounds

COMPLY: YES \_\_\_\_\_ NO \_\_\_\_\_

1.5 WHEELBASE: 138"

COMPLY: YES \_\_\_\_\_ NO \_\_\_\_\_

1.6 CAB TO AXLE: 80"

COMPLY: YES \_\_\_\_\_ NO \_\_\_\_\_

1.7 FRONT BUMPER: Heavy duty chrome plated steel. Provide front bumper guards.

COMPLY: YES \_\_\_\_\_ NO \_\_\_\_\_

1.8 FRONT AXLE: 4,600 pound rating

COMPLY: Yes \_\_\_\_\_ NO \_\_\_\_\_

1.9 REAR AXLE: 6,084 pound rating

COMPLY: YES \_\_\_\_\_ NO \_\_\_\_\_

1.10 AXLE GEAR RATIO: 4.10 to 1 ratio.

COMPLY: YES \_\_\_\_\_ No \_\_\_\_\_

1.11 SHOCKS: Heavy duty gas - front and rear

COMPLY: YES \_\_\_\_\_ NO \_\_\_\_\_

1.12 REAR SUSPENSION: Factory Chevrolet or Equivalent

COMPLY: YES \_\_\_\_\_ NO \_\_\_\_\_

1.13 STEERING: Full Power Steering

1.14 STEERING WHEEL: Tilt

1.15 BRAKES: Power 4-wheel ABS disc

COMPLY: YES \_\_\_\_\_ NO \_\_\_\_\_

1.16 PARKING BRAKE: Cable actuated variable ratio.

COMPLY: YES \_\_\_\_\_ NO \_\_\_\_\_

1.17 ENGINE: Diesel with new emissions.

COMPLY: YES \_\_\_\_\_ NO \_\_\_\_\_

1.18 EXHAUST: Horizontal muffler / exhaust - right hand side exit

COMPLY: YES \_\_\_\_\_ NO \_\_\_\_\_

1.19 TRANSMISSION: 5-speed Torque-shift automatic with auxiliary cooler

COMPLY: YES \_\_\_\_\_ NO \_\_\_\_\_



1.20 DRIVE SHAFT: Heavy duty tubular with heavy duty drop guards installed at the front of each section of the drive shaft.

COMPLY: YES \_\_\_\_\_ NO \_\_\_\_\_

1.21 FUEL TANK: 40 gallon total capacity

Bidder offers: \_\_\_\_\_

1.22 ELECTRICAL SYSTEM: 12 volt, negative ground

COMPLY: YES \_\_\_\_\_ NO \_\_\_\_\_

1.23 ALTERNATOR: Dual 130 Amp

COMPLY: YES \_\_\_\_\_ NO \_\_\_\_\_

1.24 SECURITY GROUP: Remote keyless entry

COMPLY: YES \_\_\_\_\_ NO \_\_\_\_\_

1.25 AM/FM/CD Radio with clock.

COMPLY: YES \_\_\_\_\_ NO \_\_\_\_\_

1.26 DAYTIME RUNNING LAMPS

COMPLY: YES \_\_\_\_\_ NO \_\_\_\_\_

1.27 CIGAR LIGHTER: Dash Mounted

COMPLY: YES \_\_\_\_\_ NO \_\_\_\_\_

1.28 BATTERIES: Dual OEM 750 CCA (LOCATE IN SLIDE OUT TRAY)

COMPLY: YES \_\_\_\_\_ NO \_\_\_\_\_

1.29 HORNS: Dual electric

COMPLY: YES \_\_\_\_\_ NO \_\_\_\_\_

1.30 CAB GLASS: Tinted solar safety glass - all windows

COMPLY: YES \_\_\_\_\_ NO \_\_\_\_\_

1.31 MIRRORS: Telescopic trailer tow style electric mirrors with integral mirrors

**(Factory electric controlled & heated)**

COMPLY: YES \_\_\_\_\_ NO \_\_\_\_\_

1.32 GAUGES: Tachometer; speedometer; odometer; coolant temperature; oil pressure; fuel level; automatic transmission temperature, voltmeter, amp meter, air pressure gauge and indicator lights.

COMPLY: YES \_\_\_\_\_ NO \_\_\_\_\_

1.33 WIPERS: Electric wipers and washers

Intermittent wiper switch

COMPLY: YES \_\_\_\_\_ NO \_\_\_\_\_

1.34 PAINT COLOR: Manufacturer standard white

COMPLY: YES \_\_\_\_\_ NO \_\_\_\_\_

1.35 ENVIRONMENTAL: Cab air conditioning

Heavy duty heater windshield defroster

COMPLY: YES \_\_\_\_\_ NO \_\_\_\_\_

1.36 CAB SEATING: Captain Chairs with arm rests (Grey)

COMPLY: YES \_\_\_\_\_ NO \_\_\_\_\_

1.37 CAB TRIM / COLOR: Gray Premium Interior Grade, with rubber matting on floor.

COMPLY: YES \_\_\_\_\_ NO \_\_\_\_\_

1.38 CAB INSULATION: Optional premium sound deadening / silencer package. Maximum available Cab Insulation, Hood Insulation, and Fire Wall insulation to provide lowest cab noise levels.

COMPLY: YES \_\_\_\_\_ NO \_\_\_\_\_

1.39 GRAB RAILS: Interior over passenger cab door

COMPLY: YES \_\_\_\_\_ NO \_\_\_\_\_

1.40 TIRES: LT235/80R x 17E

Two front; Two rear & Correct spare (Stainless Steel wheel simulators)

COMPLY: YES \_\_\_\_\_ NO \_\_\_\_\_

1.41 COOLANT HOSES: Premium grade nomax or equivalent heater and engine coolant hoses with constant torque clamps

COMPLY: YES \_\_\_\_\_ NO \_\_\_\_\_

## SECTION 2 CHASSIS MODIFICATIONS

2.0 The body builder shall be responsible for making any necessary chassis modifications that may be required prior to mounting the body.

COMPLY: YES \_\_\_\_\_ NO \_\_\_\_\_

2.1 Modifications may include items such as the relocation of the exhaust system piping, air reservoirs, cab entrance steps, and etc.

COMPLY: YES \_\_\_\_\_ NO \_\_\_\_\_

2.2 A detailed list of parts and part numbers along with engineering and wiring diagrams shall be provided for all rear suspension modifications.

COMPLY: YES \_\_\_\_\_ NO \_\_\_\_\_

2.3 The completed vehicle shall sit level, right to left and front to back when fully loaded and in service.

COMPLY: YES \_\_\_\_\_ NO \_\_\_\_\_

2.4 A custom map book storage rack & switch panel console and enclosure shall be constructed and mounted between the two front seats. The storage rack shall be designed to hold loose leaf binders. A three-inch wide open slot shall be provided at the rear of the console for miscellaneous storage. Three (3) adjustable dividers shall be provided in the storage rack. One (1) adjustable shelf shall be located on the front side right corner of the rack for mounting a Department supplied mobile data terminal. A hinged cover with bolt on ¼ inch stainless steel pin piano hinge and Southco or equivalent thumb latches shall be provided. All corners and edges shall be rounded to eliminate sharp edges. See attached drawing

COMPLY: YES \_\_\_\_\_ NO \_\_\_\_\_

2.5 A "DIESEL FUEL ONLY" label shall be installed at the fuel fill.

COMPLY: YES \_\_\_\_\_ NO \_\_\_\_\_

2.6 Provide and install a Transportation Safety Technologies (TST) amp gauge. The complete installation shall be in compliance with TST installation guidelines. The Hall Effect Sensor shall be mounted at the battery bank to measure the amount and direction of current flow. All wire and cable connections shall be high quality and sealed to prevent corrosion.

COMPLY: YES \_\_\_\_\_ NO \_\_\_\_\_

2.7 The front tires shall have a set diamond mud flaps mounted behind the front chassis wheels, which are a part of the diamond plate running boards.

COMPLY: YES \_\_\_\_\_ NO \_\_\_\_\_

2.8 The rear tires shall have a set of black rubber mud flaps mounted behind the rear chassis wheels.

COMPLY: YES \_\_\_\_\_ NO \_\_\_\_\_

2.9 Diamond plate interior lower cab door panels & install a led light to each door to be activated when the door is open.

COMPLY: YES \_\_\_\_\_ NO \_\_\_\_\_

2.10 Diamond plate running boards with recessed grip strut inserts under each of the chassis doors.

COMPLY: YES \_\_\_\_\_ NO \_\_\_\_\_

2.11 The exhaust pipe shall be extended as necessary and be provided with a turn down to prevent exhaust smoke from staining the body paint.

COMPLY: YES \_\_\_\_\_ NO \_\_\_\_\_

2.12 The cab shall be modified and reinforced as necessary to allow installation of rocker switches and gauges as specified and one (1) recess mounted electronic siren. The manufacturer shall provide blue prints of the panel layout that will be approved by Union County prior to construction.

COMPLY: YES \_\_\_\_\_ NO \_\_\_\_\_

2.13 The chassis frame shall not be spliced, shortened or altered.

COMPLY: YES \_\_\_\_\_ NO \_\_\_\_\_

2.14 Two Jumbo size cup holders shall be installed in the cab console. See attached drawings

COMPLY: YES \_\_\_\_\_ NO \_\_\_\_\_

2.15 Heat shields shall be installed where necessary to prevent the potential for heat damage.

COMPLY: YES \_\_\_\_\_ NO \_\_\_\_\_

2.16 The body builder shall install two (2) rear tow hooks. The tow hooks shall be integrated into the rear bumper sub-structure. The bumper sub-structure shall be designed to provide skid plates that prevent the bumper from dragging due to low departure angles.

COMPLY: YES \_\_\_\_\_ NO \_\_\_\_\_

2.17 Switches, gauges, indicator lights and other features that may be installed by the ambulance manufacturer shall closely mirror existing Union County EMS vehicles. The manufacturer shall provide blue prints of these layouts that will be approved by Union County EMS prior to construction.

COMPLY: YES \_\_\_\_\_ NO \_\_\_\_\_

2.18 An Optronics Blue - Eye #KB-2003, or equivalent, hand held 200,000 candlepower spotlight shall be provided in the cab of the ambulance. The spotlight shall be equipped with a momentary switch, which will automatically turn the light off when the operator lets go of it, thereby eliminating the possibility of laying the spotlight on something while it is on and causing damage. It shall be permanently wired to the ambulance and mounted as determined prior to construction.

COMPLY: YES \_\_\_\_\_ NO \_\_\_\_\_

### **SECTION 3 DESIGN**

3.0 The ambulance and allied equipment furnished under this specification shall be the manufacturer's current commercial vehicle of the Type, Class, and Configuration specified. The ambulance shall be complete with the operating accessories, as specified herein, and furnished with such modifications and attachments as may be necessary to enable the vehicle to function reliably and efficiently in sustained

operation. The design of the vehicle and the specified equipment shall permit accessibility for servicing, replacement and adjustment of component parts and accessories with minimum disturbance to other components and systems. The term "heavy duty", as used to describe an item, shall mean in excess of the standard quantity, quality or capacity and represents the best, most durable, strongest, etc., part, component, system, etc., that is commercially available on the OEM chassis.

COMPLY: YES \_\_\_\_\_ NO \_\_\_\_\_

3.1 The ambulance interior configuration should be as shown in the attached figures with approved dimension changes to accommodate the differences in module length. The attached figures are based on a 150" long X 92" wide X 72" high module.

COMPLY: YES \_\_\_\_\_ NO \_\_\_\_\_

3.2 The ambulance shall be configured for Advanced Life Support (ALS) applications, with one primary patient on a wheeled elevating cot and a secondary patient lying on a folding stretcher or combination stretcher chair on the squad bench, or, one primary patient and three secondary seated patients on the squad bench and one seated EMT / Paramedic.

COMPLY: YES \_\_\_\_\_ NO \_\_\_\_\_

3.3 The retention system for the ambulance stretcher shall be Stryker Performance Load with battery charging system.

COMPLY: YES \_\_\_\_\_ NO \_\_\_\_\_

#### **SECTION 4 OPERATION AND PERFORMANCE**

4.0 The exterior noise level of the ambulance, except siren, shall not exceed federal, state or municipal regulations.

COMPLY: YES \_\_\_\_\_ NO \_\_\_\_\_

4.1 The ambulance shall provide a smooth, stable ride with minimum noise and vibration when tested per the following paragraphs and carrying a minimum payload of 1,750 pounds.

COMPLY: YES \_\_\_\_\_ NO \_\_\_\_\_

4.2 The vehicle overall length should not exceed 23'

COMPLY: YES \_\_\_\_\_ NO \_\_\_\_\_

4.3 Overall body width should not exceed 96 inches (8ft. 4in.), excluding lights and mirrors.

COMPLY: YES \_\_\_\_\_ NO \_\_\_\_\_

4.4 Overall height of the ambulance at curb weight should not exceed 105" (8ft. 9in.) inches including roof mounted equipment but excluding two-way radio antenna(s).

COMPLY: YES \_\_\_\_\_ NO \_\_\_\_\_

4.5 The lowest part of the ambulance, when loaded to gross vehicle weight rating, shall have a minimum of six (6) inches ground clearance.

COMPLY: YES \_\_\_\_\_ NO \_\_\_\_\_

4.6 The ambulance, loaded to the GVWR (including payload) with bumpers and rear step down, shall provide a proper angle of departure.

COMPLY: YES \_\_\_\_\_ NO \_\_\_\_\_

4.7 Ambulance shall be capable of carrying a minimum payload of 1,750 pounds without exceeding the gross vehicle weight rating of the chassis or the allowable weight ratings of the front or rear axles.

COMPLY: YES \_\_\_\_\_ NO \_\_\_\_\_

4.8 In order to prevent overloading of any axles, the suspension system, tires, or brakes; and assure the ambulance will drive properly under emergency conditions and maintain the safety of patients and paramedic; the gross weight ratings of the axles and the ambulance shall remain as provided by the chassis manufacturer and as stated on the decal on the driver's door pillar. The ambulance manufacturer or any other party shall not alter these ratings.

COMPLY: YES \_\_\_\_\_ NO \_\_\_\_\_

4.9 With the ambulance at curb weight and on a level surface, the load on the left and right front wheels shall be within 5% when calculated in accordance with paragraph 3.5.4 and 4.4.3.1 of the KKK-A-1822F federal specification.

COMPLY: YES \_\_\_\_\_ NO \_\_\_\_\_

4.10 The ambulance manufacturer shall locate the center of gravity of the ambulance / ambulance body to determine and assure the purchaser that the center of gravity of the completed ambulance does not exceed the maximum limits set by the chassis manufacturer.

COMPLY: YES \_\_\_\_\_ NO \_\_\_\_\_

4.11 Clearance shall be maintained at the rear wheels to permit off road operation with the ambulance loaded to maximum payload.

COMPLY: YES \_\_\_\_\_ NO \_\_\_\_\_

4.12 Clearance shall be maintained at the rear wheels to permit the installation of tire chains for winter driving conditions. Each rear wheel well area shall have a polished diamond plate sheet installed to protect the area from fuel stains & rock chips, over each diamond plate scuff plate a polished cast fenderette shall be installed

COMPLY: YES \_\_\_\_\_ NO \_\_\_\_\_

## **SECTION 5 ELECTRICAL SYSTEM**

5.0 The body electrical specification is written around the use of manual switching, relays, circuit breakers and connecting wiring. A multiplex wiring system is not acceptable. Any electrical system that may require computer programming or interface by the body builder for system set up or diagnostics is also not acceptable.

COMPLY: YES \_\_\_\_\_ NO \_\_\_\_\_

5.1 The ambulance electrical system shall be equipped with, but not limited to, the following: two (2) identical 12 volt batteries; starting, lighting, visual, and audible warning systems; specified equipment and devices (including control consoles located in the driver and patient compartments); and other specified accessory wiring.

COMPLY: YES \_\_\_\_\_ NO \_\_\_\_\_

5.2 The electrical systems and equipment shall comply with all applicable FMVSS, Federal Motor Carrier Safety Regulations (FMCSR), and shall also conform to all applicable SAE recommended standards and practices, whether or not specifically referenced in this document while complying with the sub-paragraphs herein.

COMPLY: YES \_\_\_\_\_ NO \_\_\_\_\_

5.3 All electrical components shall be selected to minimize electrical loads, thereby not exceeding the generating system capacity of the ambulance.

COMPLY: YES \_\_\_\_\_ NO \_\_\_\_\_

5.4 Illuminated rocker style switches should be used to control electrical loads and shall include permanently engraved back lighted function legends. Backlighting shall be controlled by the headlight switch. The module disconnect switch shall be a white paddle style switch with a red "on" indicator in the tip. The exact layout of switches, switch colors and their functions shall be determined prior to

construction. The design and layout shall mirror existing Union County vehicles. The manufacturer shall provide blue prints of the switch panel layout that will be approved by Union County prior to construction.

COMPLY: YES \_\_\_\_\_ NO \_\_\_\_\_

5.5 Backlighting for these switches and indicators shall be on when the headlight switch is "on". All applicable switches shall have an internal pilot light to indicate when the switch is on. There shall be one blank switch position for future use (minimum).

COMPLY: YES \_\_\_\_\_ NO \_\_\_\_\_

5.6 All standard 12-volt electrical components (circuit breakers, solid state electronics, relays, solenoids, alternating flasher, etc.) shall be located in the Power Control Center (PCC). The Power Control Center should be enclosed inside a dedicated left side exterior compartment #EL to provide easy access for servicing and protection of the electrical controls. **(No Exceptions)**

COMPLY: YES \_\_\_\_\_ NO \_\_\_\_\_

5.7 All electrical equipment and devices installed, which produce radio frequency interference, shall include filters, suppressors and/or shielding to prevent electromagnetic radiation and the resultant interference to radios and other electronic equipment.

COMPLY: YES \_\_\_\_\_ NO \_\_\_\_\_

5.8 Rear stereo speakers shall be installed in the upholstery over the rear doors & have a volume control switch in the action area switch panel.

COMPLY: YES \_\_\_\_\_ NO \_\_\_\_\_

5.9 The switch panel shall include "door open" warning lights and a battery indicator light. The "door open" warning lights shall be red flashing lights, and shall be operational whenever the Battery Disconnect Switch and the ignition switch are on. One shall be labeled "DOOR OPEN" and flash when an entry door is open. The other shall be labeled "COMPARTMENT DOOR OPEN" and shall flash whenever a compartment door is open. Truck - Lite brand LED #35080R, or equivalent, red lamp kits with back lighted labels shall be provided for these warning lights. These lights may be relocated to the dash panel for better visibility if space permits. The exact mounting location shall be determined prior to construction.

COMPLY: YES \_\_\_\_\_ NO \_\_\_\_\_

5.10 The Battery "ON" indicator light shall be a 24-volt green light.

COMPLY: YES \_\_\_\_\_ NO \_\_\_\_\_

5.11 All switching installed by body builder shall be low amperage negative switching to activate or deactivate relays.

COMPLY: YES \_\_\_\_\_ NO \_\_\_\_\_

5.12 The ambulance body and accessory electrical equipment shall be served by circuits separate and distinct from vehicle chassis circuits. All wiring provided by the ambulance manufacturer shall be copper; conform to SAE J1292 requirements; and have SXL or GXL high temperature, cross-linked polyethylene insulation, or better, conforming to SAE J1127 and J1128.

COMPLY: YES \_\_\_\_\_ NO \_\_\_\_\_

5.13 The ambulance body and accessory electrical equipment shall be served by separate wiring harnesses as necessary to supply specific locations on the vehicle. Examples are as follows:

Master Control Panel harness

Attendant Control Panel harness

Chassis harness

Power Control Center power harness

Patient area left front harness

Patient area right front harness  
Patient area main harness  
Patient area left rear harness  
Patient area right rear harness  
Each harness shall be clearly identified at each end.  
COMPLY: YES \_\_\_\_\_ NO \_\_\_\_\_

5.14 Barrier style terminal strips shall be provided for termination of the wiring harnesses at service point locations throughout the vehicle. Such as, under-hood; at the front of the patient compartment; and at the rear of the patient compartment.  
COMPLY: YES \_\_\_\_\_ NO \_\_\_\_\_

5.15 The terminal strips shall be provided with nuts/screws and lock washers to secure each wire. Each terminal on each terminal strip shall be clearly labeled, showing the function of each terminal.  
COMPLY: YES \_\_\_\_\_ NO \_\_\_\_\_

5.16 All wiring harnesses installed by the ambulance manufacturer shall be color coded and have wire function permanently stamped in the wire every four (4) inches for easy identification, throughout the ambulance.  
COMPLY: YES \_\_\_\_\_ NO \_\_\_\_\_

5.17 The manufacturer must be able to quickly and accurately reproduce and provide replacement wiring harnesses if so requested to service these vehicles. All harnesses are to be professionally built and of the highest available quality.  
COMPLY: YES \_\_\_\_\_ NO \_\_\_\_\_

5.18 All wiring harnesses installed by the ambulance manufacturer shall be totally encased in protective thermoplastic looms rated for 300 F service.  
COMPLY: YES \_\_\_\_\_ NO \_\_\_\_\_

5.19 All wiring installed by the ambulance manufacturer shall be located in accessible, enclosed, protected locations. Wiring shall not be within six (6) inches of any exhaust system components or located in any wheel well.  
COMPLY: YES \_\_\_\_\_ NO \_\_\_\_\_

5.20 No wires shall pass through the oxygen compartment.  
COMPLY: YES \_\_\_\_\_ NO \_\_\_\_\_

5.21 All looms and wiring installed by the ambulance manufacturer shall be secured to the body or frame with insulated metal cable straps every twelve (12) inches where possible. Stick on tie strap holders are not acceptable for securing wiring or any other components in the ambulance body construction.  
COMPLY: YES \_\_\_\_\_ NO \_\_\_\_\_

5.22 All apertures on the ambulance through which wires pass shall be properly grommited for passing wiring and conform to SAE 1292.  
COMPLY: YES \_\_\_\_\_ NO \_\_\_\_\_

5.23 The use of "Scotch-Lok" or equivalent type connectors is not acceptable.  
COMPLY: YES \_\_\_\_\_ NO \_\_\_\_\_

5.24 No splices shall be allowed in wiring harnesses. All wire runs shall be full lengths unless terminated at fully accessible terminal strips.  
COMPLY: YES \_\_\_\_\_ NO \_\_\_\_\_

5.25 All solenoids, relays, circuit breakers, and terminals in the power control center (interior front compartment) & shall be permanently labeled for function.  
COMPLY: YES \_\_\_\_\_ NO \_\_\_\_\_

5.26 All wiring, devices, switches, outlets, etc., except circuit breakers, shall be rated to carry at least 125 percent of the maximum ampere load for which the circuit is protected.

COMPLY: YES \_\_\_\_\_ NO \_\_\_\_\_

5.27 All wiring installed by the ambulance manufacturer shall be protected by circuit breakers as required by the KKK-A-1822F specification, paragraph 3.7.2.1.

COMPLY: YES \_\_\_\_\_ NO \_\_\_\_\_

5.28 All terminals should be crimped to the wires by automatic crimping machines.

COMPLY: YES \_\_\_\_\_ NO \_\_\_\_\_

5.29 To minimize the potential for wiring shorts and voltage drops, all wiring terminals shall be tin plated, annealed, ETP copper with nylon high temperature insulation. The terminals shall be a closed brazed multi-grooved wire barrel with a funnel wire insulation grip. This is to insure uniform compression of the conductor wire and to provide a strain relief for the conductor.

COMPLY: YES \_\_\_\_\_ NO \_\_\_\_\_

5.30 All cables larger than 10 AWG shall have terminals, which are machine crimped and hot soldered. Hand crimping of terminals is not acceptable. "Solder dipping" of terminals is not acceptable due to the high possibility of getting "cold" solder joints and poor electrical connections.

COMPLY: YES \_\_\_\_\_ NO \_\_\_\_\_

5.31 A minimum six inches service loop of wire off the harness shall be provided at all lights, motors and other similar terminal equipment that may need servicing.

COMPLY: YES \_\_\_\_\_ NO \_\_\_\_\_

5.32 All 12-volt circuit breakers shall be auto reset type and comply with SAE J553.

COMPLY: YES \_\_\_\_\_ NO \_\_\_\_\_

5.33 The main wiring harness for warning lights and the patient compartment should be installed in a wiring race within the patient compartment headliner. This race should extend the full length of the patient compartment. To prevent head injuries, this race should be flush in the headliner and not extend below the surface of the headliner. It should be covered with a foam padded, vinyl cover of no more than 1/2" thickness. This cover should be easily removable, but should be smooth and free of sharp surfaces or extending screws, which could cause injury.

COMPLY: YES \_\_\_\_\_ NO \_\_\_\_\_

5.34 An electrical load switching sequencer and load management controller shall be provided. Circuits connected to sequencer and load manager and shedding priority shall be determined prior to construction. This system should be a Kusmaul, or equivalent, brand.

COMPLY: YES \_\_\_\_\_ NO \_\_\_\_\_

5.35 The load manager shall shed warning light loads when vehicle is in a non-charging state.

COMPLY: YES \_\_\_\_\_ NO \_\_\_\_\_

5.36 The auto throttle, when activated, will automatically increase the engine speed to the lowest speed at which the charging system can sustain 13.8 to 14.2 volts under the following conditions: headlights on, windshield wipers on low speed, cab air conditioner and patient compartment air conditioner on at maximum blower speed and coldest settings, patient compartment dome lights on high, emergency warning lights on (primary mode), and 25 ampere medical and miscellaneous electrical loads.

COMPLY: YES \_\_\_\_\_ NO \_\_\_\_\_

5.37 The automatic high idle speed control shall be designed so that it will be activated should the electrical load exceed the alternator output and is causing the



batteries to be discharged. The auto throttle control box will be mounted in an approved location.

COMPLY: YES \_\_\_\_\_ NO \_\_\_\_\_

5.38 The automatic high idle speed control shall be designed with safety interlocks so that it can be activated only when the transmission is in Park or Neutral and the parking brake is applied. It shall automatically disengage when the transmission is placed into gear or the parking brake is released or the service brake pedal is depressed. It shall automatically re-engage when the transmission is returned to neutral and the parking brake is applied and the service brake pedal is released.

COMPLY: YES \_\_\_\_\_ NO \_\_\_\_\_

5.39 The automatic high idle speed control shall not be affected by radio transmissions.

COMPLY: YES \_\_\_\_\_ NO \_\_\_\_\_

5.40 A federal little lite map light shall be mounted on the passenger side of the cab console.

COMPLY: YES \_\_\_\_\_ NO \_\_\_\_\_

5.41 The successful bidder shall provide an itemized print out of the total amperage draw of the entire vehicle DC electrical system including the chassis. Print out shall provide data for "responding" and "on scene" modes.

COMPLY: YES \_\_\_\_\_ NO \_\_\_\_\_

5.42 The patient compartment shall be furnished with two (2) 12 volt DC, 20 ampere DC lighter type, separately protected circuits. One mounted in left wall action area & one mounted in front interior ALS cabinet. All circuits shall also include a low voltage drop "Schottky" or equivalent diode to isolate the batteries of any medical equipment connected to the outlets from any electrical loads that the remainder of the ambulance electrical system may impose. The "Schottky" or equivalent diode shall be heat sink mounted; have an inverse voltage rating of at least 45 volts; and be rated to carry the short circuit current until the circuit breaker opens. The circuits shall provide 12-volt DC power when the battery master switch is ON. In addition, the circuits shall be provided with 12 volt DC power from the Progressive charger / converter anytime the 115 volt shoreline is connected to the vehicle. Circuits will operate off the converter when the shoreline is active and off the Chassis when in operation.

COMPLY: YES \_\_\_\_\_ NO \_\_\_\_\_

5.43 Ignition security system shall be wired to chassis to allow operator to leave the vehicle running and the unit not be able to be driven without deactivating the system.

COMPLY: YES \_\_\_\_\_ NO \_\_\_\_\_

5.44 The ambulance shall be furnished with two (2) two-wire plus a ground, 115 volt AC, wiring systems that is separate and distinct from the vehicle's 12-volt DC system. The wiring and systems shall comply with Ambulance Manufacturing Division (AMD) Standard 009.

COMPLY: YES \_\_\_\_\_ NO \_\_\_\_\_

5.45 The patient compartment shall be furnished with four (4), 2-wire plus ground, duplex 115-volt AC receptacles. Receptacles shall be a near flush mounted, with one located near the Attendant's Control Panel, one at rear on left wall inside interior cabinet, one at the rear of ALS cabinet, one at the & the other located on the vertical wall over the squad bench. Outlets shall be at least 12 inches from any oxygen outlet. Outlets will be hospital grade with internal indicator lights, which are illuminated, whenever the outlets have power applied. The outlets shall be labeled, "115-VOLT AC". Outlets shall operate when the shoreline is connected or when the vehicle is running and the inverter is switched on. This system should operate off the primary shoreline system.

COMPLY: YES \_\_\_\_\_ NO \_\_\_\_\_

5.46 A Tripe lite 1200-watt inverter, or equivalent, shall be provided and mounted in exterior compartment #2. The unit shall receive 115-volt AC input power from a 20 amp rated duplex receptacle that is powered by the 20 amp shoreline connection with a blue face cover. The inverter shall be wired to provide an inverter lockout feature through the vehicles ignition circuit to prevent the inverter from operating unless the engine is running. The charger shall be set to operate at the high output level. The unit should operate as the chassis battery charger whenever the shoreline is applied. This system should operate off the primary shoreline system.

COMPLY: YES \_\_\_\_\_ NO \_\_\_\_\_

5.47 The 115 volt AC wiring systems shall incorporate a ground fault interrupters (GFI) and a 20 ampere circuit breakers, which can be used as a master, disconnect switch for the systems. The systems should use braided 12 gauge "type SO" flexible cable rated at 600 volts and 194 degrees F, covered with a fire retardant loom rated for 300 degrees F. The GFI circuit breaker boxes should be located in the exterior electrical compartment in a fully accessible location. It is anticipated that two (2) separate GFI systems will be provided. Each GFI box, shoreline connections and wiring should be permanently labeled with the function and specify if it is connected to the Tripe lite inverter or the Progressive Power Converter.

COMPLY: YES \_\_\_\_\_ NO \_\_\_\_\_

5.48 One (1) 115-volt AC 20 amp Hubbell rated at 20 amperes with a spring loaded cover assembly, suitable for wet locations, shall be located on the module exterior street side. A permanent label shall be placed near the connector as follows: "THIS CONNECTION IS FOR 115 VOLT AC, 60 HZ, 20 AMP SUPPLY."

COMPLY: YES \_\_\_\_\_ NO \_\_\_\_\_

5.49 An 30 amp Progressive battery charger/converter, will be provided and mounted in electrical compartment. The battery charger / converter should receive 115 volt AC input power from the 20 amp rated receptacle that is powered by the 20 amp shoreline connection. Converter shall be wired to operate interior patient compartment lights.

COMPLY: YES \_\_\_\_\_ NO \_\_\_\_\_

5.50 The Shoreline system should be labeled.

COMPLY: YES \_\_\_\_\_ NO \_\_\_\_\_

5.51 All switches, indicators and control devices provided by the ambulance manufacturer shall be clearly visible to ambulance personnel. They shall be perceptively and permanently identified. The controls shall be grouped according to function.

COMPLY: YES \_\_\_\_\_ NO \_\_\_\_\_

5.52 All electrical equipment installed by the ambulance manufacturer (alternators, air conditioning, warning light systems, siren, medical equipment, etc.) shall be electromagnetic radiant suppressed, filtered, or shielded to prevent interference to radios and telemetry equipment aboard the ambulance and surrounding area and shall not exceed the limits set forth in SAE J551. Certification by manufacturers of the equipment is acceptable.

COMPLY: YES \_\_\_\_\_ NO \_\_\_\_\_

5.53 There shall be two (2) 12 volt (+) positive DC threaded insulated terminal studs or terminal blocks installed in the exterior electrical compartment #2 for connection of radios and accessories. One (1) switched on with the module disconnect switch, and one (1) constant hot. Also provide one (1) threaded insulated terminal stud or terminal block for (-) negative grounding. The terminals shall be properly labeled for function and a protective cover installed to prevent the possibility of shorting from loose equipment. Wiring to terminal studs or terminal blocks shall be a minimum of 4 gauge.

COMPLY: YES \_\_\_\_\_ NO \_\_\_\_\_

5.54 One TST #030-0753 or equivalent paddle style rocker switch with red indicator light rated at 20 amps shall be mounted in the console and derive its power from the constant hot buss operating the module disconnect switch as defined in 5.51. This switch shall be labeled "master".

COMPLY: YES \_\_\_\_\_ NO \_\_\_\_\_

5.55 The front center console switch panel will have a dual USB charging adapter in the panel. Each USB attachment should be a minimum of two amps. The USB charging adapter should be wired to 12 volt DC constant power and have a light indicating power.

COMPLY: YES \_\_\_\_\_ NO \_\_\_\_\_

5.56 A Federal Signal dual channel camera system, or equivalent, is to be installed with one outside rear module box mounted back up camera head (part number for camera heads CAMCCD-REARNTSC) or equivalent and one camera head mounted to the top rear patient compartment interior wall. Camera head to be rear wall or ceiling mounted and just below the ceiling panel. The camera shall be positioned or be side/height adjustable to view patient care actions including a view of both patient and attendant. The camera monitor is to be Federal Signal rear view mirror (part number CAMLCD-INT-MIR) or equivalent with capability of switching between the rear view camera, the patient compartment camera and camera off positions. The monitor/mirror will replace the OEM rear view mirror and should be set to activate and continuously show the rear view camera when the vehicle gear selector is in reverse.

COMPLY: YES \_\_\_\_\_ NO \_\_\_\_\_

## **SECTION 6 AMBULANCE WARNING & EXTERIOR LIGHTING**

6.0 The basic exterior ambulance lighting shall comply with Federal Motor Vehicle Safety Standard No. 108.

COMPLY: YES \_\_\_\_\_ NO \_\_\_\_\_

6.1 The left and right side rear combination marker light / turn signal shall be a Truck - Lite light #44092R or equivalent red led STT kit with #94706 or equivalent adapter plug and #40700 or equivalent black grommet mount.

COMPLY: YES \_\_\_\_\_ NO \_\_\_\_\_

6.2 All module marker lights shall be Truck - Lite brand model #35 led or equivalent item #35080R or equivalent red lamp kits and #35080Y or equivalent amber lamp kits, body marker and clearance lights. Truck - Lite #35720 or equivalent armored mounting brackets and #97038 or equivalent mounting gaskets and #97035 or equivalent sealing gaskets shall also be provided.

COMPLY: YES \_\_\_\_\_ NO \_\_\_\_\_

6.3 The stop / taillights shall be Whelen light #600 series or equivalent led, or equivalent, mounted in chrome cast triple housing per drawings.

COMPLY: YES \_\_\_\_\_ NO \_\_\_\_\_

6.4 The rear turn signals lights shall be Whelen amber #600 series or equivalent led, or equivalent, mounted in chrome cast triple housing per drawings.

COMPLY: YES \_\_\_\_\_ NO \_\_\_\_\_

6.5 The back up lights shall be Whelen clear #600 series LED, or equivalent, mounted in chrome cast triple housing per drawings.

COMPLY: YES \_\_\_\_\_ NO \_\_\_\_\_

6.6 The Ambulance shall be equipped with a Whelen, or equivalent, certified power supplies. The power supplies shall power All Whelen or equivalent light heads as indicated below. The lighting system is intended to meet or exceed the performance and flash pattern of the proposed KKK-1822E specification. The system shall be wired to provide both Primary Mode "Clear the Right-of-Way" and Secondary Mode "Hazard,

Vehicle Stopped in Right-of-Way" modes of operation. Light Heads shall be wired as to provide a Basic KKK package and additional light heads should operate off the same power supply with a different sequence.

COMPLY: YES \_\_\_\_\_ NO \_\_\_\_\_

6.7 Eight (8) Whelen #900 or equivalent red (clear lens) led light heads with #90FLANGEC or equivalent chrome flange, or equivalent, shall be mounted on the exterior of the module. Two (2) lights shall be mounted on the upper outboard sides on the rear of the module. Two (2) lights shall be mounted on rear at window level. Four (4) lights shall be mounted on the upper side corners of the module. Two (2) at the forward end on each side and two (2) at the rear on each side. All lights shall be mounted just below the roofline of the module. The light heads shall be powered by the a Whelen or equivalent power supply.

COMPLY: YES \_\_\_\_\_ NO \_\_\_\_\_

6.8 Two (2) Whelen 900 or equivalent red led lights with flanges, or equivalent, on rear at center window level.

COMPLY: YES \_\_\_\_\_ NO \_\_\_\_\_

6.9 One (1) Whelen 900 series or equivalent amber (clear lens) led light head with chrome flange shall, or equivalent, be mounted on the rear. One over the center of the module above the patient loading doors.

COMPLY: YES \_\_\_\_\_ NO \_\_\_\_\_

6.10 Two (2) Whelen #700 or equivalent red/clear led light heads with #7EFLANGE or equivalent chrome flange, or equivalent, shall be mounted on the outboard corners of the cab bumper.

COMPLY: YES \_\_\_\_\_ NO \_\_\_\_\_

6.11 Two (2) Whelen #700 or equivalent red/clear led light heads with 7EFLANGE chrome flanges, or equivalent, shall be mounted on the front fender corners to serve as intersection lights. They shall be mounted on an angled chrome cast housing.

COMPLY: YES \_\_\_\_\_ NO \_\_\_\_\_

6.12 Five (5)Whelen 900 series or equivalent led lights, or equivalent, shall be mounted on the front of the module. Four (4) shall be red with clear lens and One (1) shall be white with clear lens. The white shall be placed in the center. (Refer to drawings)

COMPLY: YES \_\_\_\_\_ NO \_\_\_\_\_

6.13 Wig Wag head light flasher

COMPLY: YES \_\_\_\_\_ NO \_\_\_\_\_

6.14 Two (2) Whelen #700 or equivalent red and clear led light heads with 7EFLANGE chrome flanges, or equivalent, shall be mounted above the rear tires. One(1) on each side. (Refer to drawings)

COMPLY: YES \_\_\_\_\_ NO \_\_\_\_\_

6.15 All Whelen Engineering Company or equivalent lighting components shall be installed per the manufacturer's guidelines.

COMPLY: YES \_\_\_\_\_ NO \_\_\_\_\_

6.16 The KKK-1822 warning light system shall have two modes of operation - a Primary mode (in which all lights are flashing)and a Secondary Mode (in which only mandatory lights flash).

COMPLY: YES \_\_\_\_\_ NO \_\_\_\_\_

6.17 When the primary / secondary switch is in the secondary mode, grille lights and intersection lights will not flash. A single two position rocker switch shall control the two modes and be provided with integral red primary and amber secondary indicator lights on the Master Control Panel.

COMPLY: YES \_\_\_\_\_ NO \_\_\_\_\_

6.18 Whelen flasher, or equivalent, for led lights on the module body and in light bar.

COMPLY: YES \_\_\_\_\_ NO \_\_\_\_\_

6.19 The emergency lighting system shall be comprised of components and devices that comply with the general requirements and tests of SAE J575G, J576D, J578 and J551, as applicable. The warning lights shall be firmly fastened to the modular body and reinforced chassis fenders and mounted so they project light horizontally. All switches, connectors and wiring shall be rated to carry at least 125% of the maximum ampere load imposed upon them in the ambulance. Duty cycle for each light shall not exceed 50%.

COMPLY: YES \_\_\_\_\_ NO \_\_\_\_\_

6.20 Six (6) Whelen 900 Series LED, or equivalent, - Scene Lights with internal 26 degree optics and #9EFLANGE chrome flange shall be provided, Two (2) each side and Two (2) on rear above the patient loading doors.

COMPLY: YES \_\_\_\_\_ NO \_\_\_\_\_

6.21 Left and right sides Scene Lights shall be controlled by separate rocker switches on the switch panel. The rearward scene light on the left and right side shall activate when the vehicle is placed into the reverse gear.

COMPLY: YES \_\_\_\_\_ NO \_\_\_\_\_

6.22 Rear loading lights shall be controlled by an individual rocker switch, and shall be automatically activated when the rear doors are opened or the transmission is put into reverse.

COMPLY: YES \_\_\_\_\_ NO \_\_\_\_\_

6.23 A cast recessed license plate mounting bracket and lamp shall be mounted on the rear of vehicle.

COMPLY: YES \_\_\_\_\_ NO \_\_\_\_\_

6.24 Body clearance and marker lights shall be activated by chassis headlamp switch. A relay shall be used to prevent premature burnout of chassis switch due to overload.

COMPLY: YES \_\_\_\_\_ NO \_\_\_\_\_

## **SECTION 7 AMBULANCE INTERIOR LIGHTING**

7.0 The ambulance interior lighting shall include: a driver's compartment dome and dual map lights; instrument panel lights; a green light mounted to center of cab roof ; Master Control Panel lights; Attendant's Control Panel lights; fluorescent 12VDC light located on the action wall; and patient compartment dome lights. Lighting shall be designed so that no glare is reflected into the driver's eyes or line of vision.

COMPLY: YES \_\_\_\_\_ NO \_\_\_\_\_

7.1 The patient compartment shall be illuminated by eight (12) led recessed dome lights assemblies, four over cot side, four over squad bench side and 4 down the middle.

COMPLY: YES \_\_\_\_\_ NO \_\_\_\_\_

7.2 The lights shall be installed near flush in the patient compartment headliner, and located to provide good light intensity across the primary and secondary patients without causing high intensity spots or shadows. The number of lights required will be determined by the light performance identified in KKK-1822F paragraph 3.8.5.1.

COMPLY: YES \_\_\_\_\_ NO \_\_\_\_\_

7.3 Dome lights over the primary patient, squad bench shall be controlled separately. The dome lights shall be controlled by switches on the Attendant's Control Panel. Dome lights shall automatically light when the patient compartment side entry doors or rear entry doors are opened. The left side dome lights shall also be capable of being switched on from the cab mounted switch panel Fluorescent Lights shall be controlled by a separate switch.

COMPLY: YES \_\_\_\_\_ NO \_\_\_\_\_

7.4 Check out timer wired to interior lights, mounted on curbside squad bench wall, per drawing.

COMPLY: YES \_\_\_\_\_ NO \_\_\_\_\_

7.5 Automatic step well lights shall be provided at curbside door.

COMPLY: YES \_\_\_\_\_ NO \_\_\_\_\_

7.6 One (1) led Light shall be mounted, in action area and switched with a rear console switch labeled individually as action area. The light will operate off the chassis 12VDC electrical system only.

COMPLY: YES \_\_\_\_\_ NO \_\_\_\_\_

## **SECTION 8 BUMPERS, STEPS, AND TRIM**

8.0 A rear step/bumper approximately 96" wide by 10" deep shall be provided. Step/bumper shall be capable of supporting a 500 pound load without flexing.

Bumper shall be constructed with a flip up design so the entire bumper will hinge up it it strikes the ground or object from under the bumper.

COMPLY: YES \_\_\_\_\_ NO \_\_\_\_\_

8.1 The rear bumper and step assembly shall be a single unit constructed of 4" steel "C" structural channel and .100 inch thick polished aluminum diamond plate. The steel shall be painted to prevent rusting prior to the aluminum diamond plate covers being installed. There shall be "I" beam constructed skid plates with rear recessed tow-eyes in cast housings with chrome tow eyes. Two large dock bumpers with cast trim rings shall be installed on each bumper end.

COMPLY: YES \_\_\_\_\_ NO \_\_\_\_\_

8.2 The center step of the bumper assembly shall be designed to allow it to flip up out of the way for easier loading of the patient. This step shall be of open grate material to meet the requirements of KKK-A-1822F. The hinge provided for this step shall be stainless steel piano hinge with a center pin diameter of at least .250 inch. This bumper assembly shall be bolted to the chassis frame.

COMPLY: YES \_\_\_\_\_ NO \_\_\_\_\_

8.3 To minimize the possibility of modular body damage in the event of a rear collision, the rear bumper/step shall be separated from the modular body by 1"; shall not be attached to the modular body in any way; shall be attached only to the chassis frame.

COMPLY: YES \_\_\_\_\_ NO \_\_\_\_\_

8.4 The bumper shall be mounted and designed to provide maximum departure angle clearance.

COMPLY: YES \_\_\_\_\_ NO \_\_\_\_\_

8.5 Above the bumper assembly and below the rear doors, there shall be full length riser of aluminum diamond plate for a protective kick panel. The kick panel shall be securely fastened and run the full rear width of the module.

COMPLY: YES \_\_\_\_\_ NO \_\_\_\_\_

8.6 The modular body shall be provided with heavy gauge polished aluminum fenders and diamond plate over each wheel well.

COMPLY: YES \_\_\_\_\_ NO \_\_\_\_\_

8.7 Mud/stone guards shall be provided at each corner of the modular body. The guards shall be constructed of bright diamond plate aluminum and be at least 12 3/4" high and .080" thick.

COMPLY: YES \_\_\_\_\_ NO \_\_\_\_\_

8.8 Rub rails shall be provided on each side of the modular body for the full length of the body. The rub rails should be 2" diamond plate style and should extend past the widest point of the body.

COMPLY: YES \_\_\_\_\_ NO \_\_\_\_\_

8.9 A cast recessed license plate bracket shall be installed on rear of unit, per drawings.

COMPLY: YES \_\_\_\_\_ NO \_\_\_\_\_

8.10 Two steel drive shaft guards shall be installed under the two sections of drive lines under the vehicle.

COMPLY: YES \_\_\_\_\_ NO \_\_\_\_\_

#### **SECTION 9 EMERGENCY MEDICAL TECHNICIAN SEATING**

9.0 The EMT seat shall be a premium quality grey high back chair equipped with a recessed child seat in the backrest, with headrest and a 3 point safety belt. The seat shall have four (4) inches of travel adjustment, and be at least 18 inches deep, 18 inches wide, and 18 inches high, measured from the floor to the top of the seat cushion. The seat shall have foam padding with at least 3.0 inches foam thickness. The back and headrest shall have foam padding with at least 2.0 inches foam thickness. The seat shall be mounted on a storage cabinet.

COMPLY: YES \_\_\_\_\_ NO \_\_\_\_\_

9.1 The seat, safety belt and anchorages shall be tested and comply with Federal Motor Vehicle Safety Standards 207, 208, 209 and 210.

COMPLY: YES \_\_\_\_\_ NO \_\_\_\_\_

#### **SECTION 10 PATIENT COMPARTMENT INTERIOR DIMENSIONAL PARAMETERS**

10.0 The ambulance module shall be 146" long X 88" wide X 72" interior ceiling height.

COMPLY: YES \_\_\_\_\_ NO \_\_\_\_\_

10.1 The patient compartment design and equipment shall comply with the following specifications and shall be grey vacuum formed upholstery & grey formica.

COMPLY: YES \_\_\_\_\_ NO \_\_\_\_\_

10.2 The attached drawings reflect Union County's current vehicle layout with a 150" long exterior X 96" exterior wide X 72" height interior module. Each bidder shall provide to Union County a complete set of drawings matching the specifications.

COMPLY: YES \_\_\_\_\_ NO \_\_\_\_\_

10.3 The left wall cabinets shall be as shown in the attached drawing and have a CPR seat. A six point seat belt system shall be furnished.

COMPLY: YES \_\_\_\_\_ NO \_\_\_\_\_

10.4 The right wall shall be as shown in the attached drawing.

COMPLY: YES \_\_\_\_\_ NO \_\_\_\_\_

10.5 The bulkhead shall be as shown in the attached drawing.

COMPLY: YES \_\_\_\_\_ NO \_\_\_\_\_

10.6 The floor plan shall be as shown in the attached drawings.

COMPLY: YES \_\_\_\_\_ NO \_\_\_\_\_

10.7 There shall be at approximately 40 inches of clear space between the base of the squad bench and the left wall.

COMPLY: YES \_\_\_\_\_ NO \_\_\_\_\_

10.8 The retention system for the ambulance stretcher shall be Stryker Performance Load with battery charging system for Stryker Power Pro XT.

COMPLY: YES \_\_\_\_\_ NO \_\_\_\_\_

## **SECTION 11 AMBULANCE BODY STRUCTURE**

11.0 It is the intention of these specifications to require the modular body to be all aluminum and fully welded. Screws, bolts, rivets or other fasteners shall not be used for the attachment of any structural member or panel.

COMPLY: YES \_\_\_\_\_ NO \_\_\_\_\_

11.1 All exterior body panels shall be .125 inches thick 5052-H34 marine grade aluminum sheet for superior strength, weld-ability and corrosion resistance.

COMPLY: YES \_\_\_\_\_ NO \_\_\_\_\_

11.2 The exterior body panels shall be one piece for each side and the roof of the modular body.

COMPLY: YES \_\_\_\_\_ NO \_\_\_\_\_

11.3 The exterior body panels shall be welded to the roof and wall beams, and also bonded to the beams with a 3m VHB two sided tape.

COMPLY: YES \_\_\_\_\_ NO \_\_\_\_\_

11.4 Body frame members shall have alloy and temper strengths of 6063-T6 and tubular aluminum material, minimum of 2" X 2" and 2" x 3" X .125" thick, and mounted on 12" centers. All beams shall be welded on four sides of all joints.

The exterior side of the frame that the aluminum exterior skin is applied to will be ground smooth. All critical structural points shall be reinforced with gussets. Heavier gauge and larger dimension structural members shall be used where necessary to provide a safe and durable ambulance construction. The front And rear wall frames will have 6" x .225" structural flat sheet welded between the frame members at the locations where the light bars and door hold opens are attached to the exterior sheet.

COMPLY: YES \_\_\_\_\_ NO \_\_\_\_\_

11.5 The roof substructure assembly shall consist of four (4) perimeter roof rail extrusions, lateral roof bows and interconnecting corner caps. The roof rail extrusion shall be specifically designed for an emergency response vehicle.

COMPLY: YES \_\_\_\_\_ NO \_\_\_\_\_

11.6 The corner caps shall be designed to interlock with the roof perimeter, vertical corner extrusions, and roof sheet. The corner caps shall be cast aluminum made from matched metal dies to insure a smooth and pleasing appearance. The corner caps shall act as a stress relief device designed to minimize damage to adjoining structural extrusions in the event of extreme torsional stress resulting from a collision.

COMPLY: YES \_\_\_\_\_ NO \_\_\_\_\_

11.7 The corners of the modular body shall be constructed of extruded aluminum shapes specifically designed for applications with emergency response vehicles. 90 degree corner extrusions are not acceptable.

COMPLY: YES \_\_\_\_\_ NO \_\_\_\_\_

11.8 Metal tapping plates shall be welded to the body or framing to secure the installation of equipment such as; cabinets, benches, partitions, cylinders, cot



holders'(s), etc. Self-tapping (wood/metal) screws or nails shall not be used in the attachment of these components in the ambulance body.

COMPLY: YES \_\_\_\_\_ NO \_\_\_\_\_

11.9 The body, and panel joints shall be watertight and all openings between the chassis and occupant compartment shall be sealed.

COMPLY: YES \_\_\_\_\_ NO \_\_\_\_\_

11.10 In addition to the drip rail found in the roof extrusion, there shall be a polished aluminum drip rail over each exterior compartment door. These drip rails shall be attached with a 3M VHB tape, to allow easy replacement.

COMPLY: YES \_\_\_\_\_ NO \_\_\_\_\_

11.11 Roof frame shall be constructed of a 2" x 2" and 1" x 2" x .125" structural tubing, the 2" x 2" tubing shall run side to side on 12" centers, the 1" x 2" shall run from front to back, forming a grid structure and allowing the center wire harnesses to be routed without cutting the frame members.

COMPLY: YES \_\_\_\_\_ NO \_\_\_\_\_

11.12 Welds shall be made only by welders who have been certified by an independent testing and certifying agency.

COMPLY: YES \_\_\_\_\_ NO \_\_\_\_\_

11.13 The ambulance body shall be designed and built to provide impact and patient compartment penetration resistance and shall be of sufficient strength to support the entire weight of the fully loaded vehicle on its top or side, if overturned, without separation of joints or permanently deforming roof beams or reinforcements, walls or wall beams, doors, floor, inner linings, outer panels, and other reinforcements. As evidence that the ambulance body meets the above criteria, the ambulance body shall be tested per AMD Standard 001, "Static Load Test For Ambulance Body Structure" and shall satisfy the requirements of this test. The static load test shall be performed on both the roof as required by

the AMD Standard 001 and also on the exterior side wall of the unit, to demonstrate the side walls will support the complete unit in the event it is turned over on it's side. In addition, all exterior exit doors shall be capable of opening during full application of 2.5 times the curb weight to the roof and after release of this load. The safety of the crews operating the ambulances are critical, **(No Exceptions)** will be allowed to this requirement.

COMPLY: YES \_\_\_\_\_ NO \_\_\_\_\_

11.14 As proof that the ambulance body meets the above criteria, the bidder shall furnish along with his bid certification from a bonded independent testing laboratory that the body being bid meets the requirements of AMD Standard 001, "Static Load Test for Ambulance Body structure."

COMPLY: YES \_\_\_\_\_ NO \_\_\_\_\_

## **SECTION 12 EXTERIOR STORAGE**

12.0 The ambulance module shall include five (5) exterior compartments, per the following measurements:

Compartment #1: 62.75" high x 13.5" wide x 16" deep, 02 storage.

Compartment #2: 36.25" high x 26.25" wide x 16" deep, storage.

Compartment #3: 76" high x 22" wide x 10.75" deep, back board storage, per drawings, provide three seat belt straps to secure boards.

Compartment #DR: 70" high x 32" wide, side entry door.

Compartment #4: 44" high x 19" wide, als, interior/exterior access.

Compartment #5: 15" high x 19" wide x 16" deep, battery storage.

Compartment #6: 29" high x 36 ¾" wide x 16" deep, storage.

COMPLY: YES \_\_\_\_\_ NO \_\_\_\_\_

12.1 Each exterior compartment shall be provided with a recessed light, which is automatically activated when the compartment door is opened. The light shall be mounted flush in the compartment to prevent breakage when removing or installing equipment. Only the light in the compartment opened shall illuminate.

COMPLY: YES \_\_\_\_\_ NO \_\_\_\_\_

12.2 Exterior compartment dimensions and locations shall be as shown in the attached drawings.

COMPLY: YES \_\_\_\_\_ NO \_\_\_\_\_

12.3 Exterior compartment floors are to have sweep out floor design and covered with black turtle tiles floor matting.

COMPLY: YES \_\_\_\_\_ NO \_\_\_\_\_

12.4 Exterior compartments having shelves, per drawings and shall have black turtle tiles placed on the shelves.

COMPLY: YES \_\_\_\_\_ NO \_\_\_\_\_

12.5 The interior of all exterior compartments shall be constructed of .125 aluminum diamond plate. All interior seams shall be full length welded and completely watertight. The compartment floors shall be reinforced with 2" X 2" X .125 aluminum tubing on an average of 16" centers to provide a minimum floor weight rating capacity of 250 pounds.

COMPLY: YES \_\_\_\_\_ NO \_\_\_\_\_

12.6 All exterior compartments shall be vented with pressed louvered vents above the floor line to prevent entrance of dust or water spray from the exterior.

COMPLY: YES \_\_\_\_\_ NO \_\_\_\_\_

12.7 The backboard compartments shall have turtle tiles matting installed on the side walls to eliminate noise caused from hammering on the wall during road travel. Restraint straps shall also be provided in the street side front compartment to prevent back boards from falling out when the compartment door is opened. The curb side rear back board compartment shall be constructed so that the back board must be raised from the floor and tilted out at the bottom to remove. The height of the compartment door opening shall prevent the back board from falling out when the door is opened.

COMPLY: YES \_\_\_\_\_ NO \_\_\_\_\_

12.8 The side & rear entry door panels shall be constructed of a swirled aluminum panel with a clear coat over them.

COMPLY: YES \_\_\_\_\_ NO \_\_\_\_\_

12.9 Exterior compartment #1 shall have a zimatic or equivalent O2 holder for the main O2 cylinder & an electric winch to lift the O2 tank in & out of the compartment.

COMPLY: YES \_\_\_\_\_ NO \_\_\_\_\_

12.10 Exterior compartment #2 & #7 shall have a full width Unistrut adjustable shelf track & aluminum shelves, per drawings.

COMPLY: YES \_\_\_\_\_ NO \_\_\_\_\_

## SECTION 13 DOORS

13.0 All patient compartment entry doors and exterior compartment doors shall be of all aluminum, box & pan formed, fully welded construction. Each door should be surrounded by a fully welded interior extrusion with an integral box beam to provide strength and rigidity to each door, the door seal shall attach to an interior provided attachment point, which is part of the interior door extrusion. No exterior frame or extrusion shall be used around the exterior of the door jambs. Exterior of the body shall of a seal-less type construction. **NO Exceptions**

COMPLY: YES \_\_\_\_\_ NO \_\_\_\_\_

13.1 Gussets shall be welded in the corners of all doors to provide superior strength and durability.

COMPLY: YES \_\_\_\_\_ NO \_\_\_\_\_

13.2 All door panels shall be .125" thick marine grade 5052-H32 aluminum material.

COMPLY: YES \_\_\_\_\_ NO \_\_\_\_\_

13.3 Door frames shall be welded in place, and sealed to make them water tight and free of rattles. Interior door panels shall be removable diamond plate. The interior surface of the patient compartment doors (rear and curbside) shall be finished in a safe and attractive manner that harmonizes with the interior appointments. The door panels shall be designed to allow removal without disturbing the door latching hardware.

COMPLY: YES \_\_\_\_\_ NO \_\_\_\_\_

13.4 Two (2) rotary two position latches per door shall secure all patient entry and all exterior compartment doors. Each latch shall engage an adjustable (Nader) latching pin installed in the door opening, threaded through to a steel nut on the back of the door opening extrusion. All nader pins shall be adjustable.

COMPLY: YES \_\_\_\_\_ NO \_\_\_\_\_

13.5 The patient compartment side entry door shall have one (1) sliding window. Each rear door shall have one (1) fixed rear window. No lower level windows are desired. All windows shall be tinted and comply with FMVSS 205.

COMPLY: YES \_\_\_\_\_ NO \_\_\_\_\_

13.6 Rear entry doors shall provide a clear opening, excluding head bumper, of approximately 57.25" width and 57" height.

COMPLY: YES \_\_\_\_\_ NO \_\_\_\_\_

13.7 Side entry door shall provide a clear opening, excluding head bumper, of approximately 32" width and 70" in height.

COMPLY: YES \_\_\_\_\_ NO \_\_\_\_\_

13.8 Each door shall have an effective compression seal to prevent leakage of exhaust fumes, dust, water and air into the patient compartment.

COMPLY: YES \_\_\_\_\_ NO \_\_\_\_\_

13.9 A three inch diameter red reflector shall be provided on the inside of each module entry door, and positioned to provide maximum visibility when the doors are open.

COMPLY: YES \_\_\_\_\_ NO \_\_\_\_\_

13.10 Head cushions shall be provided at the upper interior areas of all door frames to prevent injury to patients or crew.

COMPLY: YES \_\_\_\_\_ NO \_\_\_\_\_

13.11 The curbside entry door head cushion shall be modified to incorporate 4 glove butlers for the storage of non-sterile medical gloves.

COMPLY: YES \_\_\_\_\_ NO \_\_\_\_\_

13.12 All module exterior doors shall have full length, slotted, piano type stainless steel hinges with a 1/4 inch diameter polished stainless steel pin, bolted to each door and the modular body every four (4) inches with stainless steel bolts. Self tapping or sheet metal screws are not acceptable.  
COMPLY: YES \_\_\_\_\_ NO \_\_\_\_\_

13.13 All doors shall be equipped with Large Eberhard automotive type locking paddle handles secured in the doors with stainless steel screws. Each entry door shall have an interior and exterior paddle handle. All paddle handles shall have no-slip material inside the handle to prevent slippage of wet fingers when opening the door. The locking system shall be actuated by metal push rods. Locks on all vehicles shall be keyed to match existing Union County EMS vehicles. All exterior entry & compartment doors shall have power door locks installed, all shall be interfaced to the chassis power door locks.  
COMPLY: YES \_\_\_\_\_ NO \_\_\_\_\_

13.14 Cleveland style spring loaded door holders and closers shall be provided on all doors except the rear patient loading doors. The door holder attachment bolts should have thread locker applied to not allow the bolts to retract. Any door that design will not allow use of the Cleveland door holder shall be provided with a nylon webbed seat belt type material that prevent excessive door swing.  
COMPLY: YES \_\_\_\_\_ NO \_\_\_\_\_

13.15 Door latches, hinges and hardware shall comply with Federal Motor Vehicle safety Standard 206.  
COMPLY: YES \_\_\_\_\_ NO \_\_\_\_\_

13.16 All entry doors, latches and hardware shall be tested to ensure installation meets or exceeds the requirements of AMD Standard 002 - Body and Door Retention Components Tests. Bidder shall submit with his bid certification from a bonded independent testing laboratory that the entry doors, latches and hardware have been tested and comply with this standard.  
COMPLY: YES \_\_\_\_\_ NO \_\_\_\_\_

13.17 To facilitate entry and exit from the ambulance, a grab handle shall be provided on the inside of each patient compartment entry door and also adjacent to each entrance door. The grab handle should be approximately 1 1/4" inches diameter polished aluminum, with a modified closed "v" shaped configuration, to allow access across the middle of the door and downward and back to an approximate 60 degree angle.  
COMPLY: YES \_\_\_\_\_ NO \_\_\_\_\_

13.18 The exterior compartment doors for the oxygen compartment shall be louvered for additional ventilation.  
COMPLY: YES \_\_\_\_\_ NO \_\_\_\_\_

13.19 The rear patient doors shall have one (1) Cast Products Grabber 4 1/2" door holders on each door near the edge to allow for maximum opening and clear un-obstructed view of the Whelen or equivalent Lights mounted on the rear of the body. These holders should be mounted as far outward as possible to allow the maximum opening of the doors when opened and visibility of the warning light on the rear of the unit.  
COMPLY: YES \_\_\_\_\_ NO \_\_\_\_\_

13.20 All doors, compartment and entry should provide a water tight seal that is also dust resistant without exception.  
COMPLY: YES \_\_\_\_\_ NO \_\_\_\_\_

13.21 The two rear and one side patient compartment entry/exit doors will be equipped with a manual release lever at the top and bottom nader pin areas of each door to facilitate emergency exit. Labeled at each point with "emergency door release".

COMPLY: YES \_\_\_\_\_ NO \_\_\_\_\_

#### SECTION 14 BODY MOUNTING

14.0 To minimize stress on the modular body and to minimize noise and vibration, the modular body shall be mounted on a minimum of ten (10) full floating, automotive style, rubber body mounts. Mounting devices shall be locked units to minimize loosening, but which may be re-tightened if necessary and removable to allow changing of the module to a new chassis. There shall be adequate clearance between floor structure of the module and the chassis frame rails to prevent contact of the body and chassis during all operational and loading conditions, and after wear and normal settling of body mounts.

COMPLY: YES \_\_\_\_\_ NO \_\_\_\_\_

14.1 One (1) minimum 5/8 inch diameter grade 8 bolt shall fasten the modular body to each rubber body mount and outrigger mounting bracket.

COMPLY: YES \_\_\_\_\_ NO \_\_\_\_\_

14.2 Two (2) minimum 1/2 inch diameter grade 8 bolts shall fasten the outrigger mounting bracket for each modular body mount to the chassis frame.

COMPLY: YES \_\_\_\_\_ NO \_\_\_\_\_

14.3 The modular body shall be mountable on to a new chassis of the same or other chassis manufacturer with the same cab to axle dimension.

COMPLY: YES \_\_\_\_\_ NO \_\_\_\_\_

14.4 The mounting system shall not cause any chassis frame deformation. Any method of mounting the body, which could void the chassis warranty, is not acceptable.

COMPLY: YES \_\_\_\_\_ NO \_\_\_\_\_

#### SECTION 15 FLOOR

15.0 The modular body shall be provided with a 2" x 2" x .225" tubing and 2" x 4" x .225 structural channel floor frame. A .050" thick sub-floor of 5052-H32 marine grade aluminum to act as a heat shield and moisture barrier, shall be applied to the under side of the module frame. The floor design shall include an enhanced acoustical and insulating barrier, 2 x 2 high density high insulating sprayed in expandable foam. The sub-floor shall be sealed and be moisture and air tight. An additional .050" aluminum sub-floor as listed above shall be installed on top of the frame before the plywood is applied.

COMPLY: YES \_\_\_\_\_ NO \_\_\_\_\_

15.1 Floor shall be 3/4 inch thick exterior grade plywood, one piece full length and width, securely fastened to the module sub-floor and frame, and filled and sanded to provide a flat floor free of defects and ripples.

COMPLY: YES \_\_\_\_\_ NO \_\_\_\_\_

15.2 The floor covering shall be LONSEAL LONCOIN II or equivalent premium grade product. A sample color chart shall be provided to allow selection of desired color. Floor vinyl shall be one piece, shall extend up the side walls approximately five inches and under the edge of the side cabinets, squad bench and front wall. This installation method eliminates the visible floor trim that can collect contaminants and allow body fluids to seep behind trim pieces. A polished extruded aluminum threshold shall be provided at the rear loading doors. The threshold shall be completed sealed with pliable silicone to eliminate trapping of contaminants.

COMPLY: YES \_\_\_\_\_ NO \_\_\_\_\_

15.3 Wheel housings in the module shall be provided for the dual rear wheels with clearance for tire chains, as specified by SAE Standard J683A. Wheel housings shall be aluminum, welded in place and sealed to be watertight.

COMPLY: YES \_\_\_\_\_ NO \_\_\_\_\_

15.4 Wheel-housings shall be full radius, and shall be undercoated to protect the wheel housings and to minimize noise.

COMPLY: YES \_\_\_\_\_ NO \_\_\_\_\_

15.5 Cove molding should be provided on the bottom of all cabinets to eliminate the possibility of flooring cracking at the cabinet/floor intersection. The exact radius will be determined by the manufacturer, however; the manufacturer is expected to have the flooring tucked into the cove molding completely to detour the flooring cracking without exception.

COMPLY: YES \_\_\_\_\_ NO \_\_\_\_\_

## SECTION 16 INSULATION

16.0 The entire modular ambulance body; sides, ends, roof, doors and floor; shall be insulated to enhance the environmental criteria specified in paragraphs 3.4.2 and 3.13 of Federal Specification KKK-A-1822F.

COMPLY: YES \_\_\_\_\_ NO \_\_\_\_\_

16.1 The "second stage" manufacturer shall supply an insulating material that is non-flammable with a Class A, Class 1 fire rating. It shall be certified to meet the smoke and flammability requirements of FMVSS 302. Upon request, certification from the insulation manufacturer that the insulation material meets these requirements shall be furnished.

COMPLY: YES \_\_\_\_\_ NO \_\_\_\_\_

16.2 The insulating material used shall be of a non-settling type as required by paragraph 3.10.16 of Federal Specification KKK-A-1822F. It shall be resistant to fungi and bacterial growth. To eliminate health hazards associated with airborne fibers a composite material such as fiberglass shall not be used.

COMPLY: YES \_\_\_\_\_ NO \_\_\_\_\_

16.3 The insulation material used shall be installed so as to create an unbroken thermal, acoustical and vapor barrier throughout the walls, ceiling and floor. All exterior doors, compartments or access shall be similarly insulated. Insulation is to be non-flammable, aluminum polyethylene composite with 5/16 inch airspace and highly reflective foil on sides. This barrier shall have a minimum insulation R-value of 14. A digital picture of this application may be required prior to the installation of any cabinets. The picture shall include all 4 exterior walls ceiling and floor.

COMPLY: YES \_\_\_\_\_ NO \_\_\_\_\_

16.4 In addition 2 inch thick of full depth spray in expandable foam insulation shall also be provided in walls, roof and floor and covered with a reflectix type material to provide a double layer of insulation.

COMPLY: YES \_\_\_\_\_ NO \_\_\_\_\_

16.5 All under body hollow corner extrusions shall be sealed with expansion foam.

COMPLY: YES \_\_\_\_\_ NO \_\_\_\_\_

## SECTION 17 INTERIOR

17.0 The interior shall be free of all sharp projections. All hangers or supports for equipment and devices shall be mounted as flush as possible with the surrounding surface. Color coordinated vinyl covered padding shall be placed at all head area obstructions which could prove dangerous to persons in the patient compartment or the cab. Exposed edges shall be broken with a radius on exposed corners. All cabinet corners shall have a 4" rounded radius, an aluminum extrusion shall be a structural part of the construction of the cabinet and the formica shall be installed around the exterior with out the use of any trim molding. No Exceptions

COMPLY: YES \_\_\_\_\_ NO \_\_\_\_\_

17.1 Color to be gray Formica. No two-tone. Exact color to be selected after bid award. The finish of the entire patient compartment, including interiors of storage cabinets, and cabinet fronts shall be: impervious to soap and water; disinfectants; mildew; fire resistant; comply with FMVSS 302; and be easily cleaned and disinfected (carpet, cloth and fabrics are not acceptable).

COMPLY: YES \_\_\_\_\_ NO \_\_\_\_\_

17.2 The lower sidewalls of the street side cabinets and the curbside squad bench shall be provided with a stainless steel overlay to provide scuff protection and prevent chipping of plastic laminate.

COMPLY: YES \_\_\_\_\_ NO \_\_\_\_\_

17.3 The interior patient compartment headliner (ceiling) should be constructed of fiberglass with no visible seams or an approved equivalent durable design. The headliner shall contain the main wiring harness service race, IV holders, overhead grab rails and overhead lighting. The headliner shall be smooth and white in color.

COMPLY: YES \_\_\_\_\_ NO \_\_\_\_\_

17.4 The action wall area shall be fabricated in a manner to eliminate areas where contaminated fluids can collect. The bottom area of both action areas shall have no joints, sharp corners, fasteners or crevices to provide a highly durable, easily cleaned area.

COMPLY: YES \_\_\_\_\_ NO \_\_\_\_\_

17.5 Upholstery in the patient compartment shall be grey. Cushions shall be fabricated in a manner to eliminate exposed welting and seams, thus eliminating areas where contaminated fluids can collect. Cushions with welting or beaded seams will not be accepted due to increased risk of body fluid penetration. All foam used in seating surfaces shall be approximately 3" thick and very high density material that is designed for high usage.

COMPLY: YES \_\_\_\_\_ NO \_\_\_\_\_

17.6 Two (2) overhead grab rails, one approximately 80 inches long, located over the cot side of the ceiling & one 60" over the squad bench side. Grab rails shall be constructed of 1 1/4" inch diameter polished aluminum, supported by four stations, and capable of supporting a 300 pound test load in any direction without loosening when tested in accordance with AMD Standard 008 (Ambulance Patient Compartment Grab rail Load Test). The grab rail shall be recessed in the ceiling for head protection.

COMPLY: YES \_\_\_\_\_ NO \_\_\_\_\_

## **SECTION 18 STORAGE CABINET DESIGN**

18.0 The storage cabinets shall be easily opened but shall not come open in transit. For rapid identification of contents, the medical supply cabinets shall have clear Plexiglas doors at least 3/16" inch thick. All medical supply cabinets shall have sliding doors with full perimeter track and extrusion trim, and full height aluminum "L" shaped finger grips.

COMPLY: YES \_\_\_\_\_ NO \_\_\_\_\_

18.1 All cabinets shall have restocking style top or side hinged doorframes. The hinge shall allow the entire face of the compartment to swing upward or outward for full access into the compartment. The compartment face shall have a holding device to keep the compartment open as well as a holding device to keep it closed unless manually opened. The door should have a 1 1/2" hole in each Plexiglas door, placed in the center end of each door to allow for placement of a medical seal

COMPLY: YES \_\_\_\_\_ NO \_\_\_\_\_

18.2 All exterior corners of the cabinets shall be capped with heavy gauge aluminum extrusions with an exterior radius or an approved equivalent design to protect the occupants from sharp corners and protect the corners from damage.

COMPLY: YES \_\_\_\_\_ NO \_\_\_\_\_

18.3 Adjustable shelves shall be provided in the cabinets as specified in the attached drawings.

COMPLY: YES \_\_\_\_\_ NO \_\_\_\_\_

18.4 The cabinets shall be constructed of exterior grade plywood and covered on all surfaces and edges with a high grade plastic laminate (interior color white).

COMPLY: YES \_\_\_\_\_ NO \_\_\_\_\_

18.5 The right front bulkhead storage compartment that has access to outside will have an opening with two doors. Two (2) adjustable shelves with Uni-strut tracks shall be provided.

COMPLY: YES \_\_\_\_\_ NO \_\_\_\_\_

18.6 All cabinets shall be bolted to tapping plates in the walls, floor and ceiling.

COMPLY: YES \_\_\_\_\_ NO \_\_\_\_\_

18.7 The front of the cabinets shall be covered with high pressure plastic laminate.

COMPLY: YES \_\_\_\_\_ NO \_\_\_\_\_

18.8 The drug box cabinet shall have a Standard South Co Key Lock.

COMPLY: YES \_\_\_\_\_ NO \_\_\_\_\_

18.9 The left wall with a CPR seat to match attached drawings.

COMPLY: YES \_\_\_\_\_ NO \_\_\_\_\_

18.10 Front wall cabinets per drawings.

COMPLY: YES \_\_\_\_\_ NO \_\_\_\_\_

18.11 A cabinet shall be provided over the squad bench per drawings.

COMPLY: YES \_\_\_\_\_ NO \_\_\_\_\_

18.12 Interior cabinet shall match attached drawings.

COMPLY: YES \_\_\_\_\_ NO \_\_\_\_\_

18.13 Seat belt type straps shall be mounted to the front of the interior ALS cabinet, per drawings.

COMPLY: YES \_\_\_\_\_ NO \_\_\_\_\_

## **SECTION 19 SQUAD BENCH, SEATS AND BACKRESTS**

19.0 The squad bench shall be constructed of exterior grade plywood or aluminum and covered with high pressure plastic laminate. Bright edging shall be provided to protect laminate edges of bench and cover from damage and chipping.

COMPLY: YES \_\_\_\_\_ NO \_\_\_\_\_

19.1 The squad bench cover shall be made in one section with a hold-open device to provide access under the squad bench.

COMPLY: YES \_\_\_\_\_ NO \_\_\_\_\_

19.2 Squad bench cover shall be approximately 18" to 22" wide X 76" long, and padded with at least three inches of dense foam. The top of the cover shall be 17 to 20 inches above the floor.

COMPLY: YES \_\_\_\_\_ NO \_\_\_\_\_



19.3 A slam action paddle latch shall be used to both open and secure the squad bench cover. The interior portion of the latch shall be covered to prevent personal injury or equipment damage.

COMPLY: YES \_\_\_\_\_ NO \_\_\_\_\_

19.4 Specific dimensions and provisions of the squad bench shall be as shown in the attached drawings.

COMPLY: YES \_\_\_\_\_ NO \_\_\_\_\_

19.5 A dense padded backrest/headrest approximately 3" thick and 17" wide, shall extend the full length of the squad bench.

COMPLY: YES \_\_\_\_\_ NO \_\_\_\_\_

19.6 The squad bench cover, back rest and head pad shall be covered with heavy duty color-coordinated vinyl, and shall comply with Federal Motor Vehicle Safety Standard No. 302. All foam used shall be approximately 3" thick and designed for severe service use. The cushion should be vacuum formed type or seamless in nature

COMPLY: YES \_\_\_\_\_ NO \_\_\_\_\_

19.7 The squad bench shall be equipped with three (3) sets of seat belts for seated occupants, and to restrain a stretcher patient when positioned on the squad bench. Seat belts shall comply with Federal Motor Vehicle Safety Standard (FMVSS) No. 209.

COMPLY: YES \_\_\_\_\_ NO \_\_\_\_\_

19.8 The squad bench seat belts and anchorages shall be tested by an independent testing laboratory to 2,500 pounds load per FMVSS 210-S5.2, and shall verify the seat belts and anchorages comply with the requirements. Bidder shall include a copy of this test with their bid.

COMPLY: YES \_\_\_\_\_ NO \_\_\_\_\_

19.9 All seatbelts on the squad bench and attendant seat shall be equipped with automatic locking retractors to provide additional safety to occupants.

COMPLY: YES \_\_\_\_\_ NO \_\_\_\_\_

19.10 A Brey-Krause MFG. V-7202-SS or equivalent A-Rail with sharps & waste storage shall be installed at the end of the squad bench to match attached drawings.

COMPLY: YES \_\_\_\_\_ NO \_\_\_\_\_

19.11 A locking slide out draw shall be provided at the end of the squad bench to match drawings.

COMPLY: YES \_\_\_\_\_ NO \_\_\_\_\_

## **SECTION 20 LITTER FASTENERS AND ANCHORAGES**

20.0 The retention system for the ambulance stretcher shall be Stryker Performance Load with battery charging system for Stryker Power-Pro XT cot.

COMPLY: YES \_\_\_\_\_ NO \_\_\_\_\_

20.1 The cot mount system shall comply with KKK-A-1822F and AMD Standard 004 (Litter Retention System test). Bidder should include a copy of the certification test on the litter retention system by an independent testing laboratory with bid.

COMPLY: YES \_\_\_\_\_ NO \_\_\_\_\_

## **SECTION 21 IV HOLDERS**

21.0 Four (4) Cast Products #IV2008 or equivalent near flush ceiling style, fold down type IV holders with Velcro strapping devices to tie and control the IV bags shall be provided. Ceiling holders shall not protrude more than one inch from the ceiling.

Two (2) shall be provided at the waistline & feet of the primary and secondary patients next to the sidewalls.

COMPLY: YES \_\_\_\_\_ NO \_\_\_\_\_

## **SECTION 22 BIO-WASTE AND SHARPS DISPOSAL**

22.0 A Brey-Krause MFG. V-7202-SS or equivalent A-Rail with sharps & waste storage shall be installed at the end of the squad bench to match attached drawings.

COMPLY: YES \_\_\_\_\_ NO \_\_\_\_\_

## **SECTION 23 OXYGEN, MAIN SUPPLY**

23.0 The ambulance shall have a hospital type piped oxygen system capable of storing and supplying one (1) "M" cylinder of medical oxygen. The cylinder controls shall be accessible from inside the patient compartment. The pressure gauge shall be visible from the attendant's seat.

COMPLY: YES \_\_\_\_\_ NO \_\_\_\_\_

23.1 Oxygen tank storage shall be as shown in the attached drawings, providing access for installing and removing the tank from outside the ambulance. The oxygen tank compartment shall be all-aluminum construction, and shall be provided with a vent system of at least nine (9) square inches ventilation area to outside the patient compartment to allow dissipation of oxygen in the event of an oxygen leak. The compartment should have the manufacturers' standard oxygen retention system. As verification of the crashworthiness of the oxygen tank restraint system, the system shall be tested by a bonded independent testing laboratory in accordance with AMD Standard 003, "Oxygen Tank Retention System Test", and shall meet the requirements of AMD Standard 003. Bidder should include a copy of this test with the bid.

COMPLY: YES \_\_\_\_\_ NO \_\_\_\_\_

23.2 Oxygen shall be piped to two (2) self-sealing Ohio type outlets on the action wall. One (1) additional outlet shall be provided on the curbside wall at forward end of squad bench.

COMPLY: YES \_\_\_\_\_ NO \_\_\_\_\_

23.3 The oxygen lines shall be non-ferrous, electrically conductive, 1/4 inch inside diameter hose, suitable and approved for use with medical oxygen.

COMPLY: YES \_\_\_\_\_ NO \_\_\_\_\_

23.4 The oxygen system shall be leak tested with dry air, nitrogen or oxygen at 150 PSI pressure for four hours. Pressure shall not drop more than five (5) PSI during the test. After testing, system shall be sealed and maintained clean. System shall be tagged with date and name of person performing the test.

COMPLY: YES \_\_\_\_\_ NO \_\_\_\_\_

23.5 A cylinder changing wrench shall be furnished, chained, and clipped within the oxygen cylinder compartment.

COMPLY: YES \_\_\_\_\_ NO \_\_\_\_\_

23.6 Cast dual Portable O2 tank holder wall & floor mounts.

COMPLY: YES \_\_\_\_\_ NO \_\_\_\_\_

## **SECTION 24 SUCTION ASPIRATOR PRIMARY PATIENT**

24.0 A vacuum aspirator shall be built into the ambulance. The system shall include a Thomas model suction pump Model 907-CDC-18-868, and an Ohio type self-sealing vacuum outlet mounted on the action wall with the oxygen outlets. All connections and hoses required for connections to the vacuum outlet shall be provided. No canister or wall mount is required.

COMPLY: YES \_\_\_\_\_ NO \_\_\_\_\_

24.1 A Rico RS4X or equivalent Suction Unit with disposable canister shall be provided and mounted in the action area.

COMPLY: YES \_\_\_\_\_ NO \_\_\_\_\_

## **SECTION 25 PATIENT COMPARTMENT ENVIRONMENTAL EQUIPMENT**

25.0 The ambulance shall be equipped with a complete climate environmental system to supply and maintain clean air conditions and specified level of inside temperature in the patient compartment. The various systems for heating, ventilating, and air conditioning systems may be separate or combination systems which shall permit independent control of the environment within each compartment. The system should mounted in the bulkhead over the ALS cabinet. **(NO EXCEPTIONS)**

COMPLY: YES \_\_\_\_\_ NO \_\_\_\_\_

25.1 The system shall provide a quiet, draft-free, continuous fresh air supply and good circulation in the patient compartment.

COMPLY: YES \_\_\_\_\_ NO \_\_\_\_\_

25.2 To assure good air conditioner performance and durability, a 134a receiver/dryer shall be installed integral with patient compartment air conditioner.

COMPLY: YES \_\_\_\_\_ NO \_\_\_\_\_

25.3 The patient compartment heater/air conditioner shall be provided with controls on the action wall next to the attendant's seat. The controls shall include:

1. On/Off switch
2. Three-speed blower switch
3. Thermostat control, which will automatically maintain the patient compartment at the temperature selected by the attendant.

COMPLY: YES \_\_\_\_\_ NO \_\_\_\_\_

25.4 The ambulance should be equipped with heating, ventilating, and air conditioning systems that can be made to collectively operate using re-circulated air and outside ambient air and shall be capable of maintaining interior temperature of 68° - 78°F when operated between 0° - 95°F outside ambient temperature.

COMPLY: YES \_\_\_\_\_ NO \_\_\_\_\_

25.5 The ventilation systems for the driver and patient compartments should provide a complete air change within each compartment in two minutes or less with the ambulance stationary. Ventilation shall be separately controlled within each compartment.

COMPLY: YES \_\_\_\_\_ NO \_\_\_\_\_

25.6 Separate, automatic shutoff valves shall be installed in the patient compartment heater water supply and return lines.

COMPLY: YES \_\_\_\_\_ NO \_\_\_\_\_

25.7 The patient compartment decibel level shall not exceed 80 db and shall be tested in accordance with AMD Standard 006, Sound Level Test.

COMPLY: YES \_\_\_\_\_ NO \_\_\_\_\_

25.8 The patient compartment should have Two exhaust fans, one that will exhaust air to the outside & one that will pull fresh air in.

COMPLY: YES \_\_\_\_\_ NO \_\_\_\_\_

25.9 All heater hose used by the body builder should be premium grade nomax. all lines and hoses shall be continuous runs without splices.

COMPLY: YES \_\_\_\_\_ NO \_\_\_\_\_

## **SECTION 26 IV FLUID ENVIROMNENTAL REQUIREMENTS**

## **SECTION 27 ANTENNA, CABLE AND MOUNTING**

27.0 Total of two (2) antenna pre-wires and antenna bases shall be provided. Access to the pre-wires shall be through the ceiling wiring race. Pre-wires shall be appropriately spaced the length of modular body. The cable shall be type RG/58U and have a 36" service loop in ceiling wiring race. One (1) pre-wire shall terminate in the rear action wall behind the fold down door, with a 36" service loop. One (1) pre-wire shall terminate under the console in the cab between driver and passenger seats with a 36" service loop.

COMPLY: YES \_\_\_\_\_ NO \_\_\_\_\_

27.1 Radio pre-wiring with proper power, ground & circuit breakers shall be provided, final location shall be determined at the pre-construction.

COMPLY: YES \_\_\_\_\_ NO \_\_\_\_\_

27.2 One four inch conduit shall be routed from cab to front radio compartment to upper front corner of the action area wall for routing of cables to the radio heads. The conduit shall also provide a path of travel from the from the cab conduit to the radio / electrical compartment. Two pull wires shall be placed in the conduit with 12" service loop on each end.

COMPLY: YES \_\_\_\_\_ NO \_\_\_\_\_

## **SECTION 28 AUDIBLE WARNING DEVICES**

28.0 One (1) SVP SA-441, or equivalent, 200 watt siren should be recess mounted in the console. The siren should be wired to two (2) cast products recessed 100 watt polished siren speakers.

COMPLY: YES \_\_\_\_\_ NO \_\_\_\_\_

28.2 Install an Ecco #SA-907 or equivalent smart Alarm electronic back up alarm, or equivalent. The Smart Alarm shall provide a variable sound output level dependent upon the ambient noise level. Backup alarm is to be automatically activated when ambulance is put into reverse.

COMPLY: YES \_\_\_\_\_ NO \_\_\_\_\_

## **SECTION 29 UNDERCOATING**

29.0 The entire underside of the ambulance shall be rust proofed for sound deadening, corrosion, and stone damage protection. A commercial, sand-less, petroleum base undercoating shall be applied to the underbody and under chassis sheet metal surfaces to a thickness 1/16 to 1/8 inches. The following areas shall be free of undercoating material: drive shaft; drain holes; lubrication points; engine and transmission oil pans; fuel tank; heavy castings; suspension components; heat shields; exhaust system, and areas within 12 inches of it. The areas not requiring coverage are: chassis frame; underside of hood; underbody parts more than 1/8 inch thickness; areas not accessible without removal of the fuel tank or other components. Undercoating shall be professionally applied. Undercoating application by hand held spray cans are unacceptable, undercoating should be done after the inspection of the vehicle.

COMPLY: YES \_\_\_\_\_ NO \_\_\_\_\_

## **SECTION 30 COLOR, PAINT AND FINISH**

30.0 The exterior of the Ambulance shall be painted white to match the selected cab. The cab and module shall have a 10" band of Omaha Orange Reflective Stripe. The band shall extend 360 degrees horizontally around the vehicle.

COMPLY: YES \_\_\_\_\_ NO \_\_\_\_\_

30.1 A four inch star of life and four inch reverse ambulance shall be applied to front of hood, all decals shall be a reflective material.

COMPLY: YES \_\_\_\_\_ NO \_\_\_\_\_

30.2 The stripe shall be edged with 3M 1/4" pin stripe tape borders.

COMPLY: YES \_\_\_\_\_ NO \_\_\_\_\_

30.3 The stripe and blue edging shall be professionally applied and will be tucked into all crevices and wrapped around all door openings.

COMPLY: YES \_\_\_\_\_ NO \_\_\_\_\_

30.4 The paint scheme and design shall match existing Union County Ambulances.

COMPLY: YES \_\_\_\_\_ NO \_\_\_\_\_

30.5 The paint manufacturer and the numbers of the colors shall be stated on the Ambulance data plate in the driver's door pillar.

COMPLY: YES \_\_\_\_\_ NO \_\_\_\_\_

#### **SECTION 31 EMBLEMS AND MARKINGS**

31.0 "No Smoking, Oxygen Equipped" signs in cab and patient compartment.

COMPLY: YES \_\_\_\_\_ NO \_\_\_\_\_

31.1 "Fasten Seat Belts" signs in cab and patient compartment.

COMPLY: YES \_\_\_\_\_ NO \_\_\_\_\_

31.2 Exterior vehicle lettering layout shall match existing Union County ambulances.

COMPLY: YES \_\_\_\_\_ NO \_\_\_\_\_

31.3 Two (2) 17 inch "Star of Life Symbols" and 6" ambulance shall be applied on sides of Ambulance and Two 13" and 6" ambulance on the rear of ambulance as directed.

COMPLY: YES \_\_\_\_\_ NO \_\_\_\_\_

31.4 Rear loading doors shall be lettered with reflective, 3M Scotchlite letters: "Union County EMS" and two unit numbers (to be provided at pre-construction).

COMPLY: YES \_\_\_\_\_ NO \_\_\_\_\_

31.5 Left side of module shall be lettered with reflective, 3M Scotchlite letters: "Union County EMS" and custom county door seal to match current units.

COMPLY: YES \_\_\_\_\_ NO \_\_\_\_\_

31.6 Right side of module shall be lettered with reflective, 3M Scotchlite letters: "Union County EMS" and custom city door seal to match current units.

COMPLY: YES \_\_\_\_\_ NO \_\_\_\_\_

31.7 Front of module shall be lettered with reflective #680 series, 3M Scotchlite letters: "Union County EMS"

COMPLY: YES \_\_\_\_\_ NO \_\_\_\_\_

31.8 The successful bidder shall provide a sketch of the vehicle stripping and lettering layout for approval prior to construction.

COMPLY: YES \_\_\_\_\_ NO \_\_\_\_\_

31.9 An engraved plate shall be provided inside the cab in view of the driver that will indicate; Gross Vehicle Weight Rating, Overall Height, and Overall Width. A proof document shall be provided for approval prior to the plate being made. The exact mounting location shall be determined prior to construction.

COMPLY: YES \_\_\_\_\_ NO \_\_\_\_\_

31.10 A permanent type identification plate shall be mounted at an approved location to list all chassis fluid capacities and grades. A complete list of all OEM replacement filter numbers and accessory drive belts shall also be provided at this location. The data plate shall also indicate the recommended tire inflation pressures for front and rear tires. To provide a softer ride for a loaded ambulance, the data plate shall reflect the tire manufacturers' cold inflation air pressure absolutely necessary to support the load on each tire with the vehicle loaded to actual in service weights.

COMPLY: YES \_\_\_\_\_ NO \_\_\_\_\_

## **SECTION 32 MISCELLANEOUS EQUIPMENT**

32.0 The ambulance shall be equipped with the following miscellaneous equipment.

COMPLY: YES \_\_\_\_\_ NO \_\_\_\_\_

32.1 One 02 wrench on chain.

COMPLY: YES \_\_\_\_\_ NO \_\_\_\_\_

32.2 One Cast dual portable 02 holder, wall & floor mount.

COMPLY: YES \_\_\_\_\_ NO \_\_\_\_\_

32.4 Two 5lb fire extinguishers.

COMPLY: YES \_\_\_\_\_ NO \_\_\_\_\_

32.5 One (1) Stryker Power Pro XT 6506 or greater cot with knee gatch, two-stage IV Pole, dual wheel locks, and Performance Load Upgrade Option.

COMPLY: YES \_\_\_\_\_ NO \_\_\_\_\_

32.6 One (1) Stryker Performance Load Retention System with Charging Plate installed.

COMPLY: YES \_\_\_\_\_ NO \_\_\_\_\_

32.7 Federal Signal dual channel camera system. See section 5 page 35 for specifications.

COMPLY: YES \_\_\_\_\_ NO \_\_\_\_\_

32.8 White window film shall be applied to side & rear entry door windows.

COMPLY: YES \_\_\_\_\_ NO \_\_\_\_\_

32.9 Zoll X series mounting bracket shall be provided & installed in the left wall action area.

COMPLY: YES \_\_\_\_\_ NO \_\_\_\_\_

32.10 Havis CF-19 or equivalent Computer Mount Part # DS-PAN-212 with appropriate passenger side mounting package for chassis.

COMPLY: YES \_\_\_\_\_ NO \_\_\_\_\_

32.11 Three 02 flow meters with quick connects shall be provided.

COMPLY: YES \_\_\_\_\_ NO \_\_\_\_\_

32.12 One main oxygen valve with connections that attach directly to M style cylinder and vehicle main oxygen tubing supplying oxygen systems throughout ambulance at proper operating pressure. Valve should have attached gauge that displays contents of cylinder psi. Turn style handle on top of valve for opening and closing.

COMPLY: YES \_\_\_\_\_ NO \_\_\_\_\_

32.13 One (1) Kenwood TK-790/890 VHF/UHF or equivalent 35 Watt Dual Band / Dual Head Mobile Radio. (Union County Specifications on Attachment 10)

COMPLY: YES \_\_\_\_\_ NO \_\_\_\_\_

32.14 One (1) Zoll X Series Monitor/Defibrillator to Union County EMS Specifications (Union County EMS Specifications on attachment 11)

Comply: YES \_\_\_\_\_ NO \_\_\_\_\_

32.15 One (1) O2 Winch installed in the top of O2 compartment.

COMPLY: YES \_\_\_\_\_ NO \_\_\_\_\_

32.16 Power Locks installed on all compartment and entry doors wired to chasis.

COMPLY: YES \_\_\_\_\_ NO \_\_\_\_\_

32.17 One (1) Armstrong Medical Broselow Pediatric Resuscitation System Part number AE-4700.

COMPLY: YES \_\_\_\_\_ NO \_\_\_\_\_

### **SECTION 33 AMBULANCE WEIGHTS**

33.0 The ambulance shall be weighed to determine curb weight and distribution of curb weight on the front and rear axles. The imposed loading on front and rear axles will be computed using the curb weight and payload as specified in this specification. The computed imposed loads on the front and rear axles shall be less than the suspension, axle and tire ratings for the chassis to assure that overloading will not occur when the ambulance is put into service.

COMPLY: YES \_\_\_\_\_ NO \_\_\_\_\_

33.1 Bidder shall supply with the bid a computed load analysis sheet, showing the chassis manufacturer's load ratings for the axles, the imposed loads on the axles at curb weight, and the computed imposed loads on the axles with the rated payload on board.

COMPLY: YES \_\_\_\_\_ NO \_\_\_\_\_

### **SECTION 34 MANUALS**

34.0 All manuals furnished shall be fully comprehensive shop type overhaul and troubleshooting service manuals. Two (2) complete sets of the manuals specified below shall be provided unless otherwise specified.

COMPLY: YES \_\_\_\_\_ NO \_\_\_\_\_

34.1 Two (2) sets of operators, shop type service, and manuals.

COMPLY: YES \_\_\_\_\_ NO \_\_\_\_\_

34.2 Two (2) sets of operator's, service and parts manuals shall be provided for the body modifications - per each vehicle. Manuals shall include all installation instructions, specification data sheets and other literature that is provided with all new equipment installed by the body builder. The following information shall also be included.

A. Copy of manufacturer's invoice for the ambulance.

B. Copy of manufacturer's specifications for the ambulance.

C. Copy of manufacturer's illustrative, pictorial literature and all vehicle line drawings.

D. Copy of pre-delivery inspection/test form signed by the inspector.

E. Copy of specified chassis manufacturer's warranty and owner's manual.  
F. Ambulance manufacturer's component and equipment information, data, and specified warranties.  
G. Complete exact wiring diagrams and schematics.  
H. Ambulance manufacturer's operating and service instructions for the entire ambulance, electrical systems, components, and equipment.  
COMPLY: YES \_\_\_\_\_ NO \_\_\_\_\_

34.3 Two (2) sets per each vehicle, of EXACT AS INSTALLED wiring diagrams in 11" X 17" format for body and all interfaces with the chassis.  
COMPLY: YES \_\_\_\_\_ NO \_\_\_\_\_

34.4 Three (3) sets of EXACT AS INSTALLED wiring diagrams in large blue print size format shall be provided.  
COMPLY: YES \_\_\_\_\_ NO \_\_\_\_\_

### **SECTION 35 SPECIFICATION SKETCH INFORMATION**

35.0 Attached are sketches that should be used to provide bidders with information about the Ambulance interior and exterior layout and dimensional requirements. A complete set of engineering drawings and layouts shall be provided to Union County EMS with the bid.  
COMPLY: YES \_\_\_\_\_ NO \_\_\_\_\_

### **SECTION 36 DOCUMENTS TO BE RETURNED WITH BID**

36.0 Certification of AMD 001 standard, "Static Load Test for Ambulance Body Structure", test shall also include the test being performed on the side of the unit also.  
COMPLY: YES \_\_\_\_\_ NO \_\_\_\_\_

36.1 Certification of AMD 002 standard, "Body Door Retention Components Test"  
COMPLY: YES \_\_\_\_\_ NO \_\_\_\_\_

36.2 Certification of AMD 003 standard, "Oxygen Tank Retention System".  
COMPLY: YES \_\_\_\_\_ NO \_\_\_\_\_

36.3 Certification of AMD 004 standard, "Litter Retention System".  
COMPLY: YES \_\_\_\_\_ NO \_\_\_\_\_

36.4 Letter of KKK-1822F certification by a nationally recognized independent testing laboratory.  
COMPLY: YES \_\_\_\_\_ NO \_\_\_\_\_

36.5 Ford QVM certificate (must be current).  
COMPLY: YES \_\_\_\_\_ NO \_\_\_\_\_

36.6 Certificate of proof for \$3,000,000 general and product liability insurance.  
COMPLY: YES \_\_\_\_\_ NO \_\_\_\_\_

36.7 Chassis manufacturer brochures and technical data.  
COMPLY: YES \_\_\_\_\_ NO \_\_\_\_\_

36.8 Ambulance manufacturer brochures and technical data to include detailed construction specifications to include metal grades and thickness.  
COMPLY: YES \_\_\_\_\_ NO \_\_\_\_\_

36.9 Deleted

36.10 Description of ambulance manufacturers' facility, vehicles, technicians, and capabilities and history of company.



COMPLY: YES \_\_\_\_\_ NO \_\_\_\_\_

36.11 Two complete bid packages.

COMPLY: YES \_\_\_\_\_ NO \_\_\_\_\_

36.12 Ambulance weight calculations as requested in the information and descriptive literature section at the beginning of this bid document.

COMPLY: YES \_\_\_\_\_ NO \_\_\_\_\_

### **SECTION 37 QUESTIONNAIRE**

37.0 State the number of years that the manufacturer has been in continuous operations under the current business name. \_\_\_\_\_

37.1 If represented by a local dealer, state the number of years continuously representing this manufacturer. \_\_\_\_\_

37.2 How many ambulances did the manufacturer build on the proposed chassis in 2010 \_\_\_\_\_

37.3 How many ambulances has the manufacturer built on the proposed Chassis? \_\_\_\_\_

37.4 List the number of full time employees employed by the manufacturer. \_\_\_\_\_

37.5 Is the manufacturer design work done by CAD? \_\_\_\_\_

37.6 Does the manufacturer have certified aluminum welders on staff for body fabrication? \_\_\_\_\_

37.7 Does the manufacturer have in house capability to handle fabrication of upholstery? \_\_\_\_\_

37.8 Does the manufacturer have in house capability to handle all electrical harness fabrication and final assembly? \_\_\_\_\_

37.9 Does the manufacturer have in house capability to handle all cabinetry and Formica work? \_\_\_\_\_

37.10 Does the manufacturer have in house capability to handle all paint work? \_\_\_\_\_

37.11 Name of the paint manufacturer and the paint system to be used on these vehicles? \_\_\_\_\_

37.12 Does the manufacturer have in house capability to handle collision damage to these vehicles should it become necessary during their service life in Union County? \_\_\_\_\_

37.13 What are the dimensions of the ambulance body that you are bidding? \_\_\_\_\_

37.14 What is the thickness of the ambulance exterior body panels? \_\_\_\_\_

37.15 What is the tensile strength of the ambulance aluminum exterior body panels? \_\_\_\_\_

37.16 What are the aluminum thickness and dimensions of the structural frame members of the ambulance body?

37.17 What is the tensile strength of the aluminum structural frame members of the ambulance body? \_\_\_\_\_

37.18 What is the aluminum thickness of the exterior compartments?

37.19 What is the tensile strength of the aluminum exterior compartments?

37.20 What is the aluminum thickness of the exterior compartment doors?

37.21 What is the tensile strength of the aluminum exterior compartment doors?

37.22 What is the DB rating for the cab and module when the siren is activated, air-horns are in operation, engine running with fan engaged, for the chassis presented for the bid.

Cab \_\_\_\_\_ Module \_\_\_\_\_

37.23 What is the wall to wall turning radius of the chassis presented for bid with specified wheelbase?

Right ? \_\_\_\_\_

Left ? \_\_\_\_\_

37.24 What is the wheelbase of the proposed chassis?

37.25 What is the cab to axle measurement of the proposed chassis?

37.26 What is the overall length of the proposed unit?

37.27 What is the actual payload of the vehicle presented for bid equipped as specified? Anticipated equipment and personnel are not to be used in this calculation.

37.28 What is the stretcher loading height of the floor?

Measured from the rear doors? \_\_\_\_\_

Measured from the curb side doors? \_\_\_\_\_

37.29 What is the loading height of the floor?

Measured from the rear doors? \_\_\_\_\_

Measured from the curb side doors? \_\_\_\_\_

37.30 How do you access and program the fast idle of the chassis presented for bid?

37.31 What is the weight per oz. of the vinyl used for the seat coverings?

FAILURE TO RETURN THIS PAGE MAY RESULT IN REMOVAL OF YOUR COMPANY FROM COMMODITY LISTING.

BID#**062-EMS**-Ambulance

Buyer Initials:

IF YOU DESIRE TO SUBMIT A "NO BID" IN RESPONSE TO THIS PACKAGE, PLEASE INDICATE BY CHECKING ONE OR MORE OF THE REASONS LISTED BELOW AND EXPLAIN.

Do not offer this product or service; remove us from your bidder's list for this item only \_\_\_\_\_

Specifications too "tight"; geared toward one brand or manufacturer only \_\_\_\_\_

Specifications are unclear \_\_\_\_\_

Unable to meet specifications \_\_\_\_\_

Unable to meet bond requirements \_\_\_\_\_

Unable to meet insurance requirements \_\_\_\_\_

Our schedule would not permit us to perform \_\_\_\_\_

Insufficient time to respond \_\_\_\_\_

Other \_\_\_\_\_

Company Name \_\_\_\_\_

AUTHORIZED REPRESENTATIVE SIGNATURE \_\_\_\_\_

\*\*\*ATTENTION\*\*\*

FAILURE TO RETURN THE FOLLOWING DOCUMENTS MAY RESULT IN BID BEING DEEMED NON-RESPONSIVE AND AUTOMATIC REJECTION:

1. FAILURE TO USE Union County EMS BID SCHEDULE.
2. FAILURE TO RETURN APPLICABLE COMPLIANCE SHEETS/SPECIFICATION SHEETS.
3. FAILURE TO RETURN APPLICABLE ADDENDA.
4. FAILURE TO PROVIDE INFORMATION ON ALTERNATES OR EQUIVALENTS.
5. Union County EMS SHALL BE THE SOLE DETERMINANT OF TECHNICALITY VS. NON-RESPONSIVE BID.
6. FAILURE TO PROVIDE BID BOND, WHEN REQUIRED, WILL RESULT IN BID BEING DEEMED NON-RESPONSIVE AND AUTOMATIC REJECTION. BID BONDS ARE NOT REQUIRED ON ALL BIDS. BOND REQUIREMENTS ARE CLEARLY STATED ON THE INVITATION TO BID. IF YOU NEED CLARIFICATION, CONTACT THE PURCHASING ASSOCIATE.

**Union County EMS**  
**GENERAL INSTRUCTIONS FOR BIDDERS, TERMS AND CONDITIONS**

**I. PREPARATION OF BIDS:**

A. Each bidder shall examine the drawings, specifications, schedule and all instructions. Failure to do so will be at the bidder's risk, as the bidder will be held accountable for their bid response.

B. Each bidder shall furnish all information required by the bid form or document. Each bidder shall sign the bid and print or type his or her name on the schedule. Erasures or other changes must be initialed by the person signing the bid. Bids must be signed by an authorized agent of the company.

**II. DELIVERY:**

A. Each bidder should state time of proposed delivery of goods or services.

B. Words such as "immediate," "as soon as possible," etc. shall not be used. The known earliest date or the minimum number of calendar days required after receipt of order (delivery A.R.O.) shall be stated (if calendar days are used, include Saturday, Sunday and holidays in the number).

**III. EXPLANATION TO BIDDERS:**

Any explanation desired by a bidder regarding the meaning or interpretation of the invitation for bids, drawings, specifications, etc. must be requested five (5) working days prior to bid opening in order for a reply to reach all bidders before the close of bid. Any information given to a prospective bidder concerning an invitation for bid will be furnished to all prospective bidders as an addendum to the invitation if such information is necessary or if the lack of such information would be prejudicial to uninformed bidders. The written bid documents supersede any verbal or written communications between parties. Receipt of addendum should be acknowledged in the bid. Although Union County Finance will take effort to send any addendum to known bidders, it is the bidder's ultimate responsibility to ensure that they have all applicable addenda prior to bid submittal. This may be accomplished via email to **[purchasing@unioncountyttn.org](mailto:purchasing@unioncountyttn.org)** prior to bid submittal.

**IV. SUBMISSION OF BIDS:**

A. Bids shall be enclosed in sealed envelopes, addressed to the Union County Finance Office with the name of the bidder, the date and hour of opening and the invitation to bid number on the face of the envelope. Telegraphic/faxed bids will not be considered. Any addenda should be enclosed in the sealed envelopes as well.

B. Samples of items, when required, must be submitted within the time specified and, unless otherwise specified by Union County EMS, at no expense to the County. Unless otherwise specified, samples will be returned at the bidder's request and expense if items are not destroyed by testing.

C. Items offered must meet required specifications and must be of a quality which will adequately serve the use and purpose for which intended.

D. Full identification of each item bid upon, including brand name, model, catalog number, etc. must be furnished to identify exactly what the bidder is offering. Manufacturer's literature may be furnished.

E. The bidder must certify that items to be furnished are new and that the quality has not deteriorated so as to impair its usefulness.

F. Unsigned bids will not be considered except in cases where bid is enclosed with other documents which have been signed. Union County EMS will determine this.

G. Union County EMS is exempt from federal excise tax and sales tax with regard to goods and services purchased directly by Union County EMS. Suppliers and contractors are responsible for federal excise tax and sales tax, including taxes for materials incorporated in city construction projects. Suppliers and contractors should contact the State of Tennessee Sales Tax Division for additional information.

H. Information submitted by a bidder in the bidding process shall be subject to disclosure after the public opening in accordance with the Tennessee Open Records Act. Each page of proprietary information must be identified. Entire bid may not be deemed proprietary.

#### **V. WITHDRAWAL OF BID DUE TO ERRORS:**

The bidder shall give notice via email to [purchasing@unioncountyttn.org](mailto:purchasing@unioncountyttn.org) of his claim of right to withdraw his bid without penalty due to an error within two (2) business days after the conclusion of the bid opening procedure. Bids may be withdrawn from consideration if the price was substantially lower than the other bids due solely to a mistake therein, provided the bid was submitted in good faith, and the mistake was a clerical mistake as opposed to a judgement mistake, and was actually due to an unintentional arithmetic error or an unintentional omission of a quantity of work, labor or material made directly in the compilation of the bid, which unintentional arithmetic error or unintentional omission can be clearly shown by objective evidence drawn from inspection of original work papers, documents and material used in the preparation of the bid sought to be withdrawn. The bidder's original work papers shall be the sole acceptable evidence of error and mistake if he elects to withdraw his bid. If a bid is withdrawn under the authority of this provision, the lowest remaining responsive bid shall be deemed to be low bid.

No bidder who is permitted to withdraw a bid shall, for compensation, supply any material or labor or perform any subcontract or other work agreement for the person or firm to whom the contract is awarded or otherwise benefit, directly or indirectly, from the performance of the project for which the withdrawn bid was submitted.

Supplier has up to forty-eight (48) hours to notify the Union County Purchasing of an obvious clerical error made in calculation of bid in order to withdraw a bid after bid opening. Withdrawal of bid for this reason must be done in writing within the forty-eight (48) hour period. Suppliers who fail to request withdrawal of bid by the required forty-eight (48) hours shall automatically forfeit bid bond. Bid may not be withdrawn otherwise.

Bid withdrawal is not automatically granted and will be allowed solely at Union County's discretion.

**VI. TESTING AND INSPECTION:**

Since tests may require several days for completion, Union County EMS reserves the right to use a portion of any supplies before the results of the tests are determined. Cost of inspections and tests of any item which fails to meet the specifications shall be borne by the bidder.

**VII. F.O.B. POINT:**

Unless otherwise stated in the invitation to bid and any resulting contract, or unless qualified by the bidder, items shall be shipped F.O.B. Destination. The seller shall retain title for the risk of transportation, including the filing for loss or damages. The invoice covering the items is not payable until items are delivered and the contract of carriage has been completed. Unless the F.O.B. clause states otherwise, the seller assumes transportation and related charges either by payment or allowance.

**VIII. PATENT INDEMNITY:**

The contractor guarantees to hold Union County, its agents, officers or employees harmless from liability of any nature or kind for use of any copyrighted or uncopyrighted composition, secret process, patented or un-patented invention, articles or appliances furnished or used in the performance of the contract, for which the contractor is not the patentee, assignee or licensee.

**IX. BID BONDS AND PAYMENT AND PERFORMANCE BONDS:**

Not required with this bid.

**X. DISCOUNTS:**

A. Time payment discounts will be considered in arriving at net prices and in award of bids. Offers of discounts for payment within ten (10) days following the end of the month are preferred.

B. In connection with any discount offered, time will be computed from the date of delivery and acceptance at destination or from the date correct invoice or voucher is received, whichever is the later date. Payment is deemed to be made for the purpose of earning the discount, on the date of the County check.

**XI. AWARD:**

A. Award will be made to the lowest responsive and responsible bidder. The quality of the articles to be supplied, their conformity with the specifications, their suitability to the requirements of Union County EMS, and the delivery terms will be taken into consideration in making the award. Union County EMS may make such

investigations as it deems necessary to determine the ability of the bidder to perform, and the bidder shall furnish to Union County EMS all such information and data for this purpose as Union County EMS may request. Union County EMS reserves the right to reject any bid if the evidence submitted by, or investigation of such bidder fails to satisfy Union County EMS that such bidder is properly qualified to carry out the obligations of the contract.

B. Union County EMS reserves the right to reject or accept any or all bids and to waive technicalities, informalities and minor irregularities in bids received.

C. Union County EMS reserves the right to make an award as deemed in its best interest, which may include awarding a bid to a single bidder or multiple bidders; or to award the whole bid, only part of the bid, or none of the bid to single or multiple bidders, based on its sole discretion of its best interest.

**XII. DELIVERY FAILURES:**

Failure of a contractor to deliver within the time specified or within reasonable time as interpreted by the EMS director, or failure to make replacement of rejected articles/services when so requested, immediately or as directed by the EMS director, shall constitute authority for the EMS director to purchase in the open market articles/services of comparable grade to replace the articles/services rejected or not delivered. On all such purchases, the contractor shall reimburse Union County EMS within a reasonable time specified by the EMS director for any expense incurred in excess of contract prices, or Union County EMS shall have the right to deduct such amount from monies owed the defaulting contractor. Alternatively, Union County EMS may penalize the contractor one percent (1%) per day for a period of up to ten (10) days for each day that delivery or replacement is late. Should public necessity demand it, Union County EMS reserves the right to use or consume articles delivered which are substandard in quality, subject to an adjustment in price to be determined by the EMS director.

**XIII. COUNTY FURNISHED PROPERTY:**

Union County EMS will furnish no material, labor or facilities unless so provided in the invitation to bid.

**XIV. REJECTION AND WITHDRAWAL OF BIDS:**

Failure to observe any of the instructions or conditions in this invitation to bid may constitute grounds for rejection of bid.

**XV. CONTRACT:**

Each bid is received with the understanding that the acceptance in writing by Union County EMS of the offer to furnish any or all of the commodities or services described therein shall constitute a contract between the bidder and Union County EMS which shall bind the bidder on his part to furnish and deliver the articles quoted at the prices stated in accordance with the conditions of said accepted bid. Union County EMS, on its part, may order from such contractor, except for cause beyond reasonable control, and to pay for, at the agreed prices, all articles specified and delivered.



Upon receipt of a bid package containing an Union County EMS "Sample Contract" as part of the requirements, it is understood that the bidder has reviewed the documents with the understanding that Union County requires that all agreements between the parties must be entered into via this document. If any exceptions are taken to any part, each must be stated in detail and submitted as part of the bid. If no exceptions are stated, it is assumed that the bidder fully agrees to the provisions contained in the "Sample Contract" in its entirety.

When the contractor has performed in accordance with the provisions of this agreement, Union County EMS shall pay to the contractor, within thirty (30) days of receipt of any payment request based upon work completed or service provided pursuant to the contract, the sum so requested, less the retainage stated in this agreement, if any. In the event that Union County EMS fails to pay the contractor within sixty (60) days of receipt, Union County EMS shall pay the contractor interest at the rate of  $\frac{1}{2}\%$  per month or pro rata fraction thereof, beginning the sixty-first (61st) day following receipt of pay requests. The contractor's acceptance of progress payments or final payment shall release all claims for interest on said payment.

**XVI. NON-COLLUSION:**

Bidder declares that the bid is not made in connection with any other bidder submitting a bid for the same commodity or commodities, and that the bid is bona fide and is in all respects fair and without collusion or fraud. Each bidder shall execute an affidavit of non-collusion. Collusion and fraud in bid preparation shall be reported to the State of Tennessee Attorney General and the United States Justice Department.

**XVII. DEFAULT:**

The contract may be canceled or annulled by Union County EMS in whole or in part by written notice of default to the contractor upon non-performance or violation of contract terms. An award may be made to the next low responsive and responsible bidder, or articles specified may be purchased on the open market similar to those so terminated. In either event, the defaulting contractor (or his surety) shall be liable to Union County EMS for costs to Union County EMS in excess of the defaulted contract prices; provided, however, that the contractor shall continue the performance of this contract to the extent not terminated under the provisions of this clause. Failure of the contractor to deliver materials or services within the time stipulated on his bid, unless extended in writing by the EMS director, shall constitute contract default.

**XVIII. DISPUTES:**

Except as otherwise provided in the contract documents, any dispute concerning a question of fact arising under the contract which is not disposed of shall be decided after a hearing by Union County EMS, who shall reduce his/her decision to writing and mail or otherwise furnish a copy thereof to the contractor. The decision of the procurement agent shall be final and binding; however, the contractor shall have the right to appeal said decision to a court of competent jurisdiction.

**XIX. SUBSTITUTIONS:**

Bidders offering and quoting on substitutions or who are deviating from the attached specifications shall list such deviations on a separate sheet to be submitted with their bid. The absence of such a substitution list shall indicate that the bidder has taken no exception to the specifications contained herein.

**XX. INELIGIBLE BIDDERS:**

Union County EMS may choose not to accept the bid of a bidder who is in default on the payment of taxes, licenses or other monies due to the County. Failure to respond to three (3) consecutive times for any given commodity/service may result in removal from the supplier list under that commodity/service.

**XXI. OCCUPATION TAX CERTIFICATE:**

Each successful bidder shall provide evidence of a valid Union County occupation tax certificate if the bidder maintains an office within the unincorporated area of Union County. Incorporated, out of City, and out of State bidders are required to provide evidence of a certificate to do business in any town, City or municipality in the State of Tennessee, or as otherwise required by City ordinance or resolution.

**XXII. PURCHASING POLICY AND REVIEW COMMITTEE:**

The Purchasing Policy and Review Committee has been established to review purchasing procedures and make recommendations for changes; resolve problems regarding the purchasing process; make recommendations for standardization of commodities, schedule buying, qualified products list, annual contracts, supplier performance (Ineligible Source List), and other problems or requirements related to Purchasing.

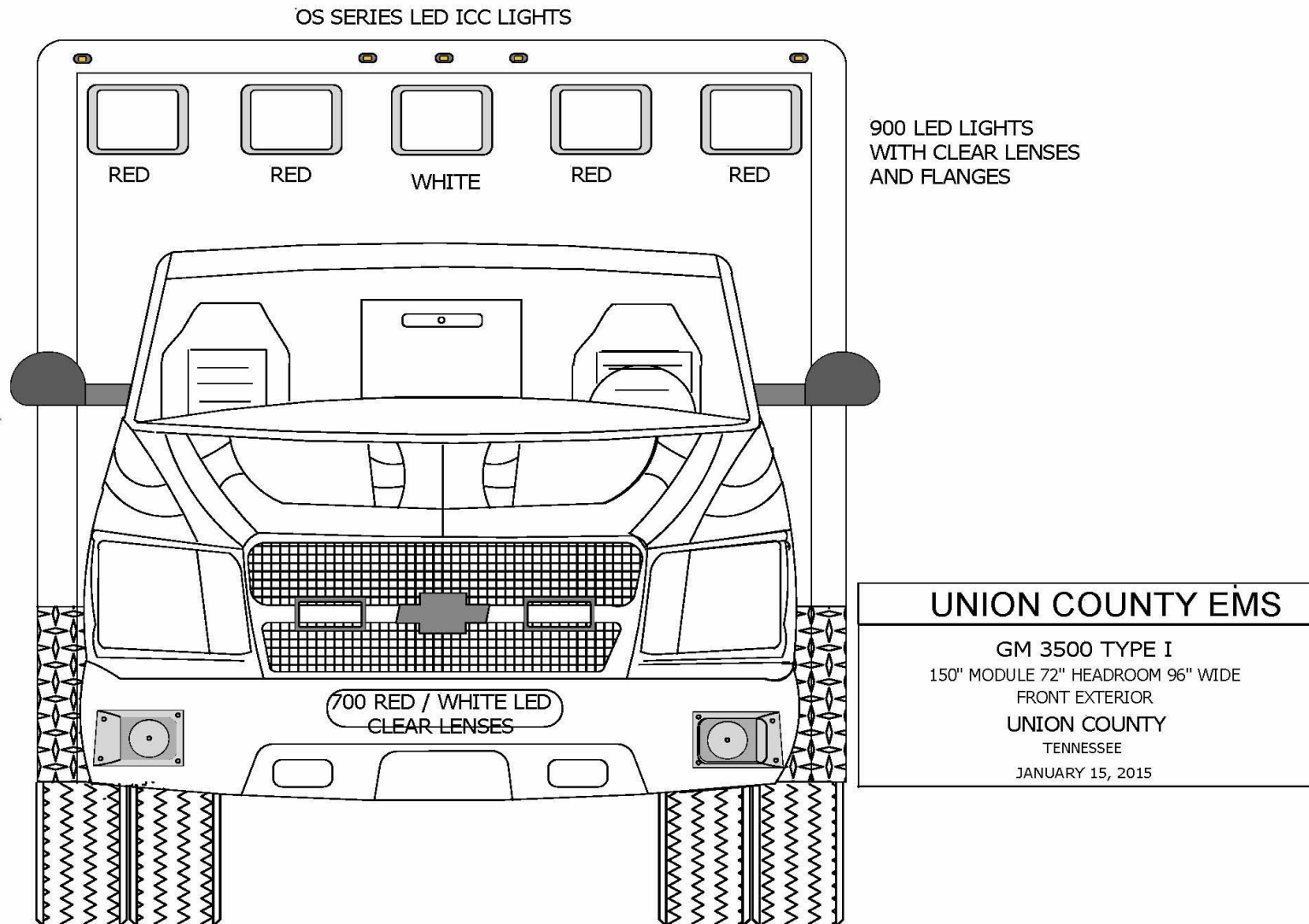
**XXIII. AMERICANS WITH DISABILITIES ACT:**

All contractors for Union County are required to comply with all applicable sections of the Americans with Disabilities Act (ADA) as an equal opportunity employer. In compliance with the Americans with Disabilities Act (ADA), Union County EMS provides reasonable accommodations to permit a qualified applicant with a disability to enjoy the privileges of employment equal to those employees with disabilities. Disabled individuals must satisfy job requirements for education background, employment experience, and must be able to perform those tasks that are essential to the job with or without reasonable accommodations.

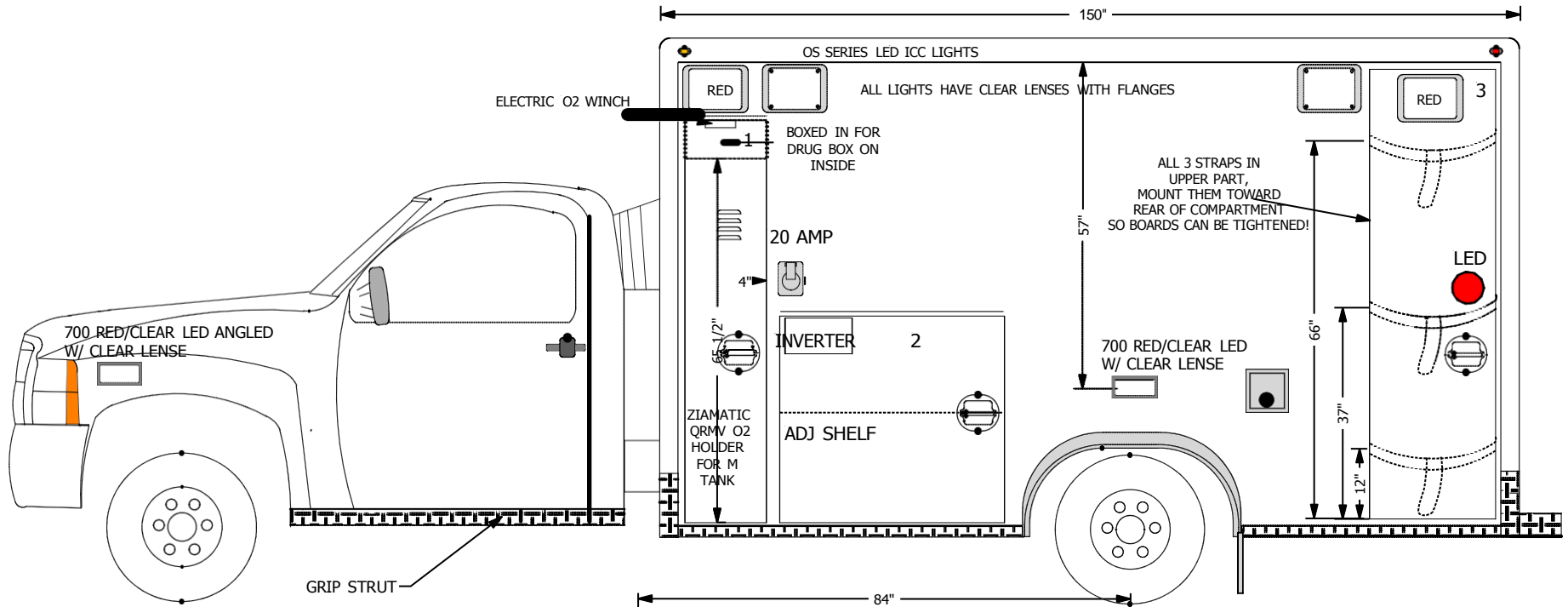
**XXIV. ALTERATIONS OF SOLICITATION AND ASSOCIATED DOCUMENTS**

Alterations Union County documents are strictly prohibited and will result in automatic disqualification of the firm's solicitation response. If there are "exceptions" or comments to any of the solicitation requirements or other language, then the firm may make notes to those areas, but may not materially alter any document language.

ATTACHMENT 1

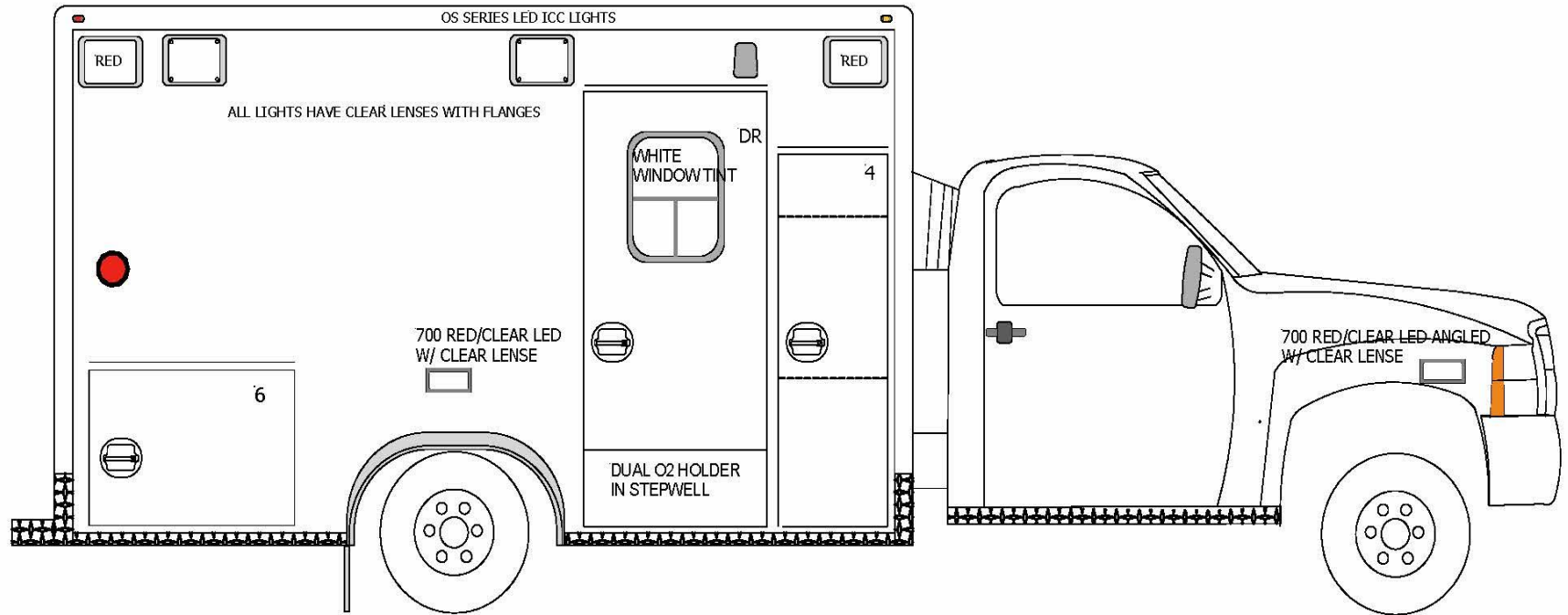


## ATTACHMENT 2



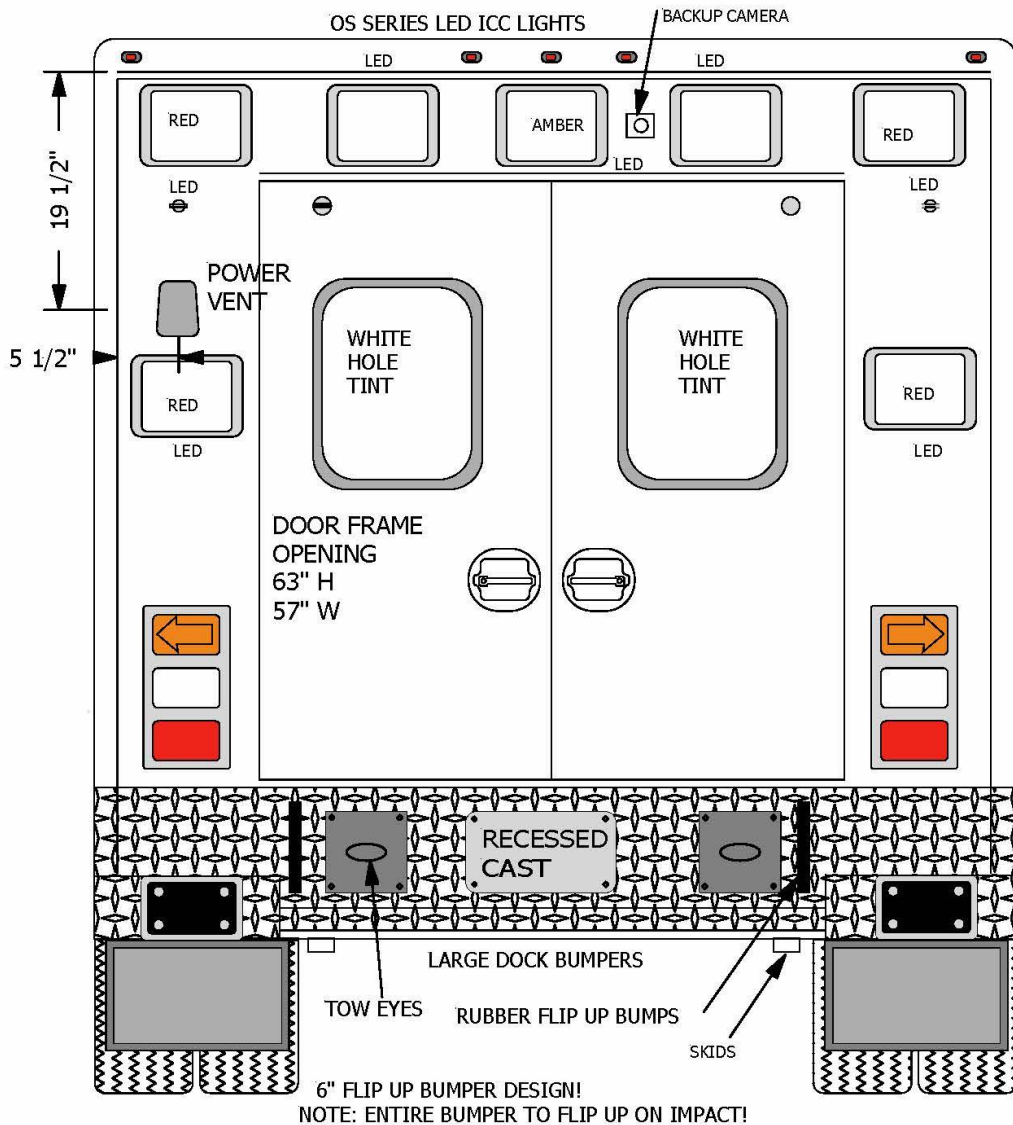
UNION COUNTY EMS				NOTES
INSIDE FRAME DIMENSIONS				GM 3500 TYPE I 150" MODULE 72" HEADROOM 96" WIDE STREETSIDE EXTERIOR UNION COUNTY TENNESSEE REVISED JANUARY 20, 2015
#	HEIGHT	WIDTH	DEPTH	
1	74"	15.5"	18"	
2	31.5"	35.75"	18"	
3	84"	22"	10.75"	

# ATTACHMENT 3



UNION COUNTY EMS				NOTES
INSIDE FRAME DIMENSIONS				GM 3500 TYPE I 150" MODULE 72" HEADROOM 96" WIDE CURBSIDE EXTERIOR UNION COUNTY TENNESSEE REVISED JANUARY 22, 2015
#	HEIGHT	WIDTH	DEPTH	
6	31"	37.5"	18"	
DR	74"	32"	STEPWELL	
4	66"	18"	ALS	

**ATTACHMENT 4**



ALL LIGHTS ARE LED  
W/ CLEAR LENSES

# UNION COUNTY EMS

GM 3500 TYPE I

150" MODULE 72" HEADROOM 96" WIDE

REAR EXTERIOR

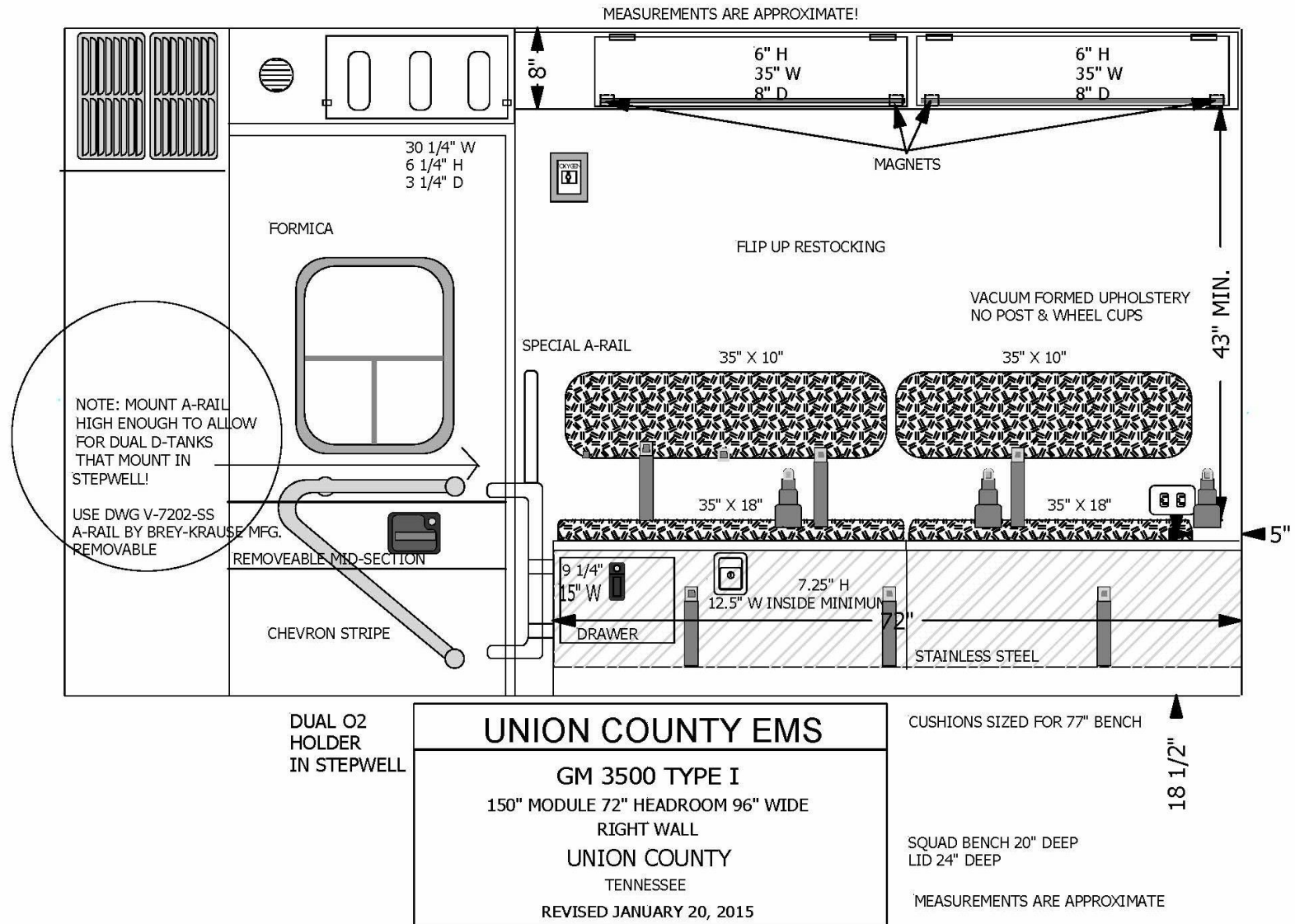
UNION COUNTY

TENNESSEE

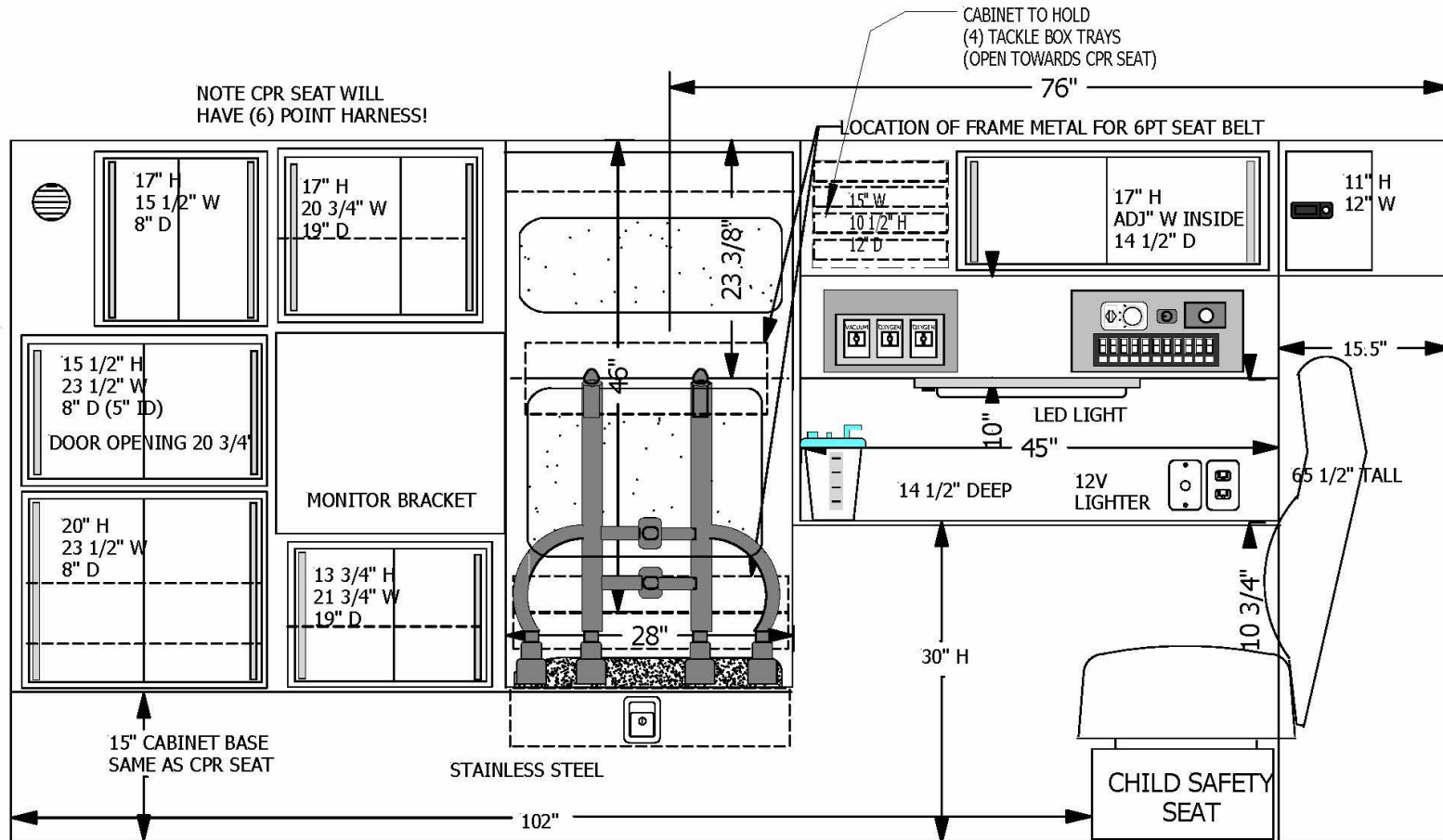
REVISÉ JANUARY 22, 2015

MEASUREMENTS ARE APPROXIMATE

# ATTACHMENT 5



# ATTACHMENT 6



FLIP UP RESTOCKING

WOOD SHELVES ON ALUMINUM  
UNI-STRUT SHELF TRACK

UNION COUNTY EMS

GM 3500 TYPE I

150" MODULE 72" HEADROOM 96" WIDE

LEFT WALL

UNION COUNTY

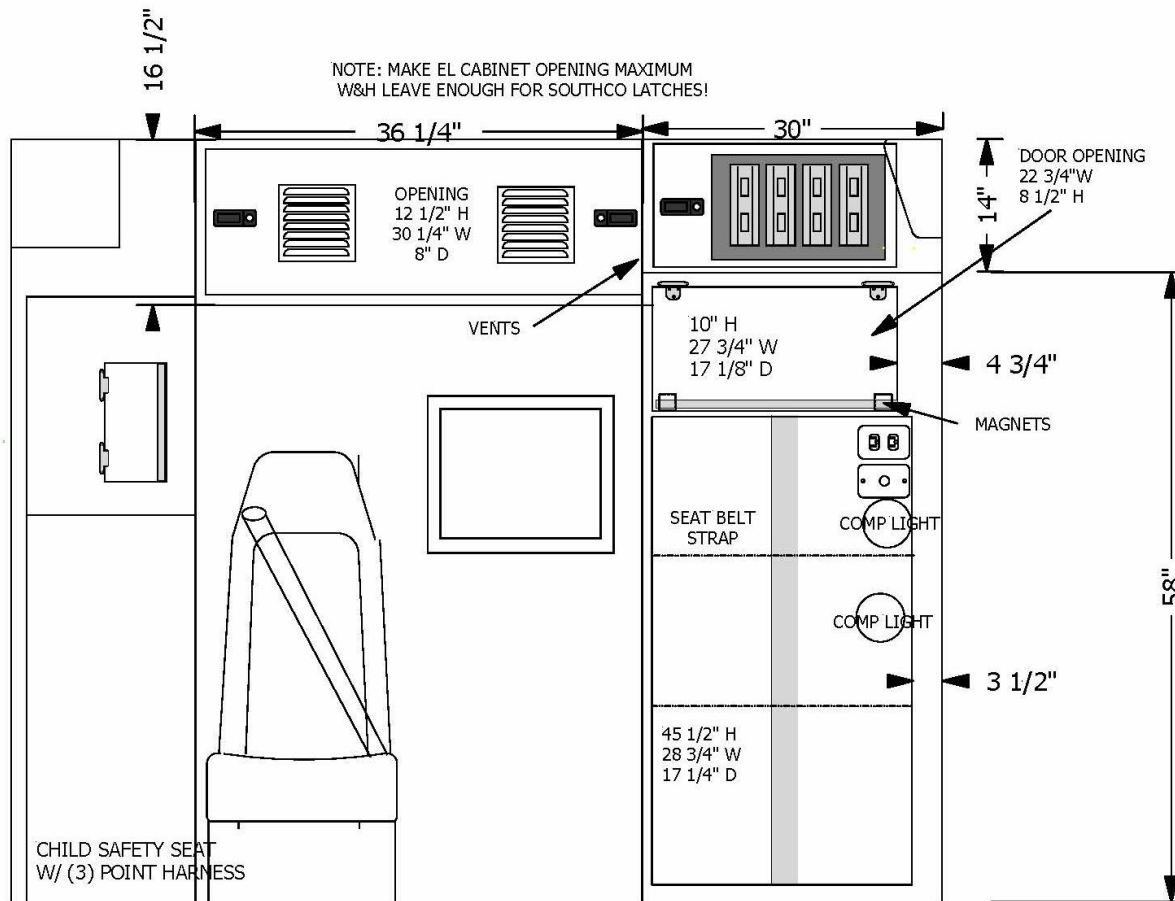
TENNESSEE

REVISED JANUARY 25, 2015

TO BACK SIDE OF FRONT TUBING  
138 1/2" FROM BACK DOOR



# ATTACHMENT 7



## UNION COUNTY EMS

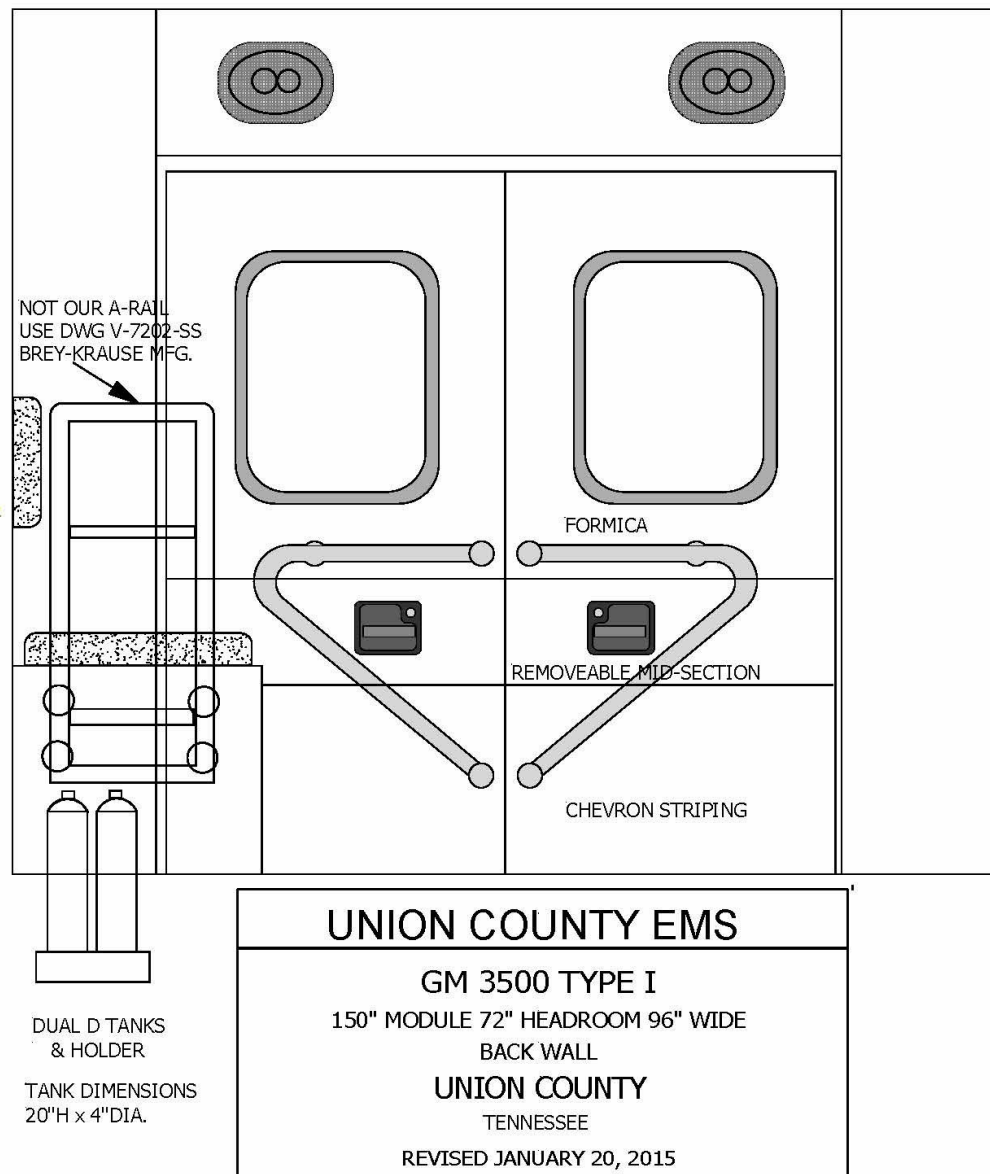
### GM 3500 TYPE I

150" MODULE 72" HEADROOM 96" WIDE  
FRONT WALL

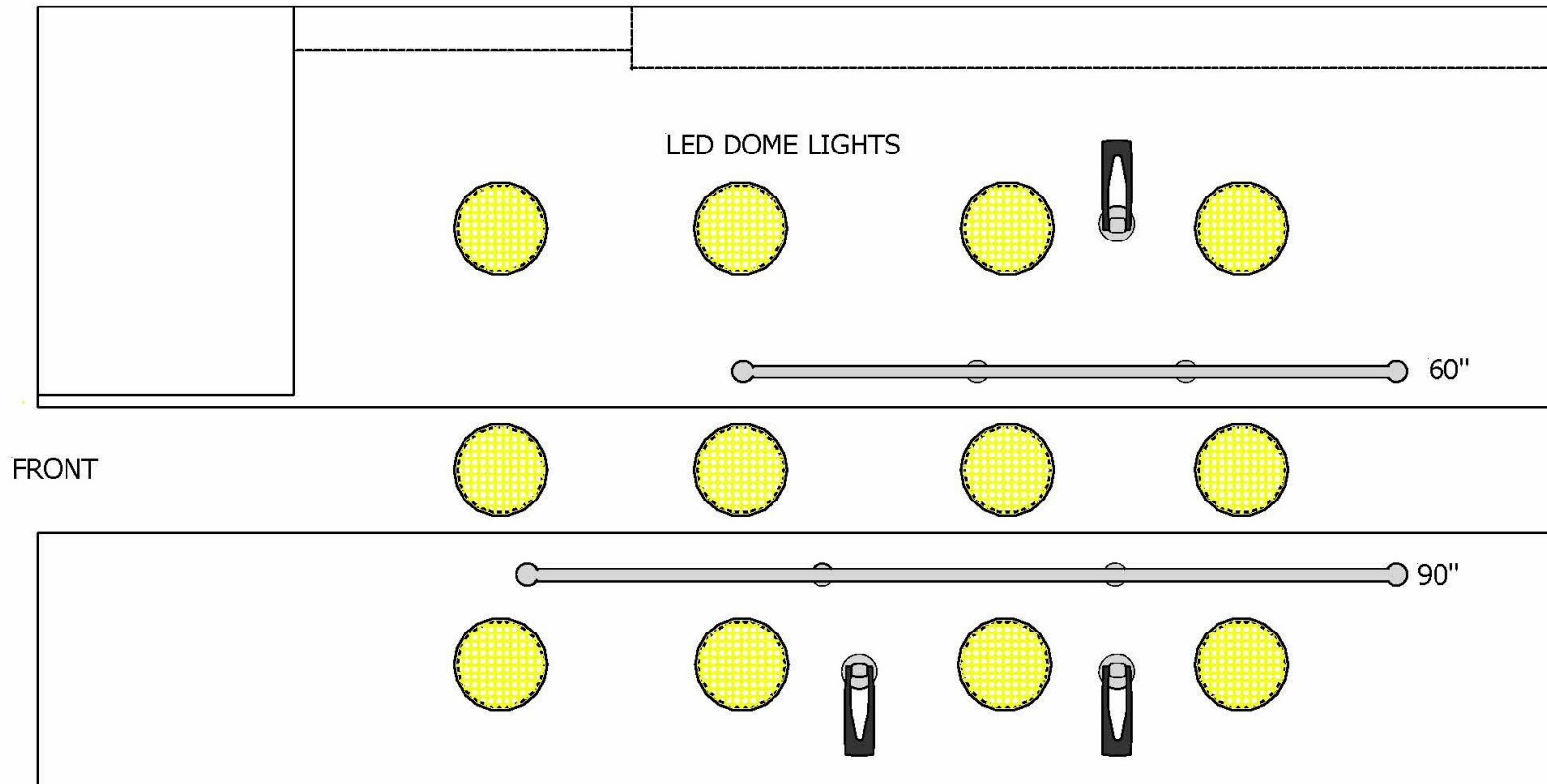
UNION COUNTY

TENNESSEE

REVISED JANUARY 20, 2015



ATTACHMENT 9



**UNION COUNTY EMS**

GM 3500 TYPE I  
150" MODULE 72" HEADROOM 96" WIDE  
CEILING LAYOUT  
UNION COUNTY  
TENNESSEE  
REVISED JANUARY 22, 2015

**ATTACHMENT 10**

Kenwood TK-790/TK-890 VHF/UHF Dual Band Radio Part Number TK-7/890-FDH

Specifications:

- 1) Dual Band Mobile VHF 45 Watt and UHF 40 Watt 160 Channel, Dual Head System.
- 2) Full-Featured Alphanumeric Remote Control Heads allowing simultaneous control of both remote heads.
- 3) One (1) Remote head to be mounted in front cab area and One (1) Head to be mounted in Patient Compartment area,
- 4) Radios are to be mounted to match all other Union County EMS Ambulance Radio installations.
- 5) Radios will be programmed by Union County EMS.

**ATTACHMENT 11**

Zoll Refurbished X Series Manual Monitor/Defibrillator Model Number 601-2221011-01-66

**Specifications:**

- 1) Refurbished X Series Manual Monitor/Defibrillator with 4 trace tri-mode display monitor/defibrillator/printer, comes with Real CPR Help, advisory algorithm, advanced communications package (Wi-Fi, Bluetooth, USB Cellular modem capable) USB Data Transfer capable and large 6.5" diagonal screen, full 12 ECG lead view with both dynamic and static 12-lead mode display.
- 2) Accessories Included: MFC Cable, MFC CPR connector, A/C power adapter/battery charger, A/C power cord, One (1) roll printer paper, 6.6 Ah Li-ion battery, Carry Case, Declaration of Conformity, Operator' Manual, Quick Reference Guide, Six (6) Month Warranty.
- 3) Advanced Options Included: CPR Dashboard quantitative depth and rate in real time, release indicator, interruption timer, perfusion performance indicator (PPI), See-Thru CPR artifact filtering
- 4) Zoll Noninvasive Pacing Technology
- 5) Masimo Pulse Oximetry: SPO2 - Single Extraction Technology (SET); Rainbow SET
- 6) NIBP: Smartcuff 10 foot dual lumen hose; SureBP Reusable Adult Medium Cuff
- 7) End Tidal Carbon Dioxide monitoring (ETCO2): Oridion Microstream Technology
- 8) Interpretative 12-Lead ECG: 12-Lead one step ECG cable - including 4-Lead limb lead cable and removable precordial 6-Lead set
- 9) SpO2 Rainbow Reusable Patient Cable: Connects to LNCS Single Use and Reusable Sensors (4Ft)
- 10) SpO2 LNCS Adult Reusable Sensor (1 each)
- 11) SpO2 LNCS Pediatric Reusable Sensor (1 each)
- 12) Cable Sleeve/X Series, Zoll Blue (1 each)
- 13) Cuff Kit with Welch Allyn Small Adult, Large Adult and Thigh Cuffs (1 each)
- 14) Six Hour rechargeable Smart Battery (2 total)
- 15) Single Bay Charger for the SurePower and SurePower II batteries (2 total)
- 16) Filterline Set Adult/Pediatric, Case of 25 (1 each)
- 17) Smart Capnoline Plus O2 Adult (O2 Tubing), Case of 25 (1 each)
- 18) CPR stat-pads HVP Multi-Function CPR Electrodes (8 Pair)
- 19) ECG plain White paper- 80mm (pack of 6 rolls)