

City of Hazelwood  
One (1) Type 1, Class One (4x4), Configuration A Ambulance  
Opening Date: Tuesday, November 20, 2018 2:00 p.m.

The City of Hazelwood, Missouri is accepting sealed bid for the purchase of one (1), new Type 1, Class One (4x4) Configuration A Ambulance. Instructions to Bidders, Specifications and Bid Forms will be available on the City's website at [www.hazelwoodmo.org](http://www.hazelwoodmo.org). Sealed bids will be accepted at the office of the Fire Chief, 6800 Howdershell Road, Hazelwood, MO 63042 until 2:00 p.m., Tuesday, November 20, 2018.



**SPECIFICATION AND BID DOCUMENTS**

**FOR THE**

**PURCHASE OF ONE (1) NEW TYPE 1, CLASS ONE (4X4)  
CONFIGURATION A AMBULANCE**

**City of Hazelwood  
Hazelwood Fire Department  
6800 Howdershell Road  
Hazelwood, MO 63042  
Matthew Robinson, Mayor  
Mathew Zimmerman, City Manager  
David Herman, Fire Chief  
Michael Eisenbeis, Battalion Chief/EMS Officer**

**Bid Opening: Tuesday, November 20, 2018 2:00 p.m.**

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## REQUEST FOR BID

Bids for the PURCHASE OF ONE (1) NEW TYPE 1, CLASS ONE (4X4), CONFIGURATION A AMBULANCE for the City Hazelwood, Missouri will be received by the Office of the Fire Chief until 2:00 p.m. on Tuesday, November 20, 2018 at Hazelwood Fire Department located at 6800 Howdershell Road, Hazelwood, MO 63042 and will be thereafter publicly opened and read.

Bid packages are available online at [www.hazelwoodmo.org](http://www.hazelwoodmo.org) or from Hazelwood Fire Department at no cost. Please direct any inquires to Michael Eisenbeis, Battalion Chief/EMS Officer, at [mkeisenbeis@hazelwoodmo.org](mailto:mkeisenbeis@hazelwoodmo.org), Dan Luley, Deputy Fire Chief at [deluley@hazelwoodmo.org](mailto:deluley@hazelwoodmo.org), or Dave Herman, Fire Chief at [drherman@hazelwoodmo.org](mailto:drherman@hazelwoodmo.org) or they all may be reached at 314-731-3424.

The City of Hazelwood reserves the right to reject any and all bids, to waive any informalities and to accept the bid that is most advantageous, beneficial or expeditious to the City of Hazelwood. No bid may be withdrawn for a period of 90 days after bid opening. Bids may be corrected for clerical or typographical errors at the discretion of the City of Hazelwood but not because of an error in judgment.

This invitation is extended to all qualified vendors/manufactures that are specifically in the business of building emergency medical vehicles and/or equipment. The specs herewith in are not intended to exclude any vendor from participating. Please explain how your option meets or exceeds the specs written for the Hazelwood Fire Department.

The Bid Documents must be returned in duplicate in a sealed envelope marked **“TYPE 1, CLASS ONE, CONFIGURATION A AMBULANCE”**.

## SCOPE

The City of Hazelwood is looking to purchase one (1) new Type 1, Class One (4x4), Configuration A Ambulance.

## INSTRUCTION TO BIDDERS

1. The City of Hazelwood (CITY) will receive bids from qualified contractors (BIDDERS) for the purchase of one (1) new Type 1, Class One (4x4), Configuration A Ambulance. Sealed bids will be accepted until 2:00 p.m., Tuesday, November 20, 2018 by the Office of the Fire Chief at Hazelwood Fire Department, 6800 Howdershell Road, Hazelwood, MO 63042.
2. BIDDERS shall submit their bids on the included "BID FORM" and shall fill in all spaces requiring unit prices. Failure to do so may disqualify the bid. Bids are to be sent in a sealed, opaque envelope clearly marked "**TYPE 1, CLASS ONE, CONFIGURATION A AMBULANCE**".
3. BIDDERS shall identify the items that will be furnished by brand or manufacturer's name. BIDDERS shall also furnish specifications and descriptive literature.
4. BIDDERS shall exclude Federal Excise Tax and/or Sales and use taxes in their bid prices, as the City is exempt from these taxes by law. Federal tax exemption certificates will be furnished if required. BIDDERS are to exclude sales tax from vendors and material suppliers in their bid prices. The City will provide the Missouri Project Exemption Certificate authorizing purchasing tax exempt project construction materials.
5. BIDDERS shall include with their bids a signed and notarized NON-COLLUSION AFFIDAVIT, which is part of the bid packet.
6. All changes in specification, as herein set forth will be written addendum only. No oral changes are authorized and any communications shall be acted upon at the sole risk and responsibility of the BIDDER.
7. BIDDERS will acknowledge receipt of any and all addendum on "BID FORM".
8. Bids may be withdrawn prior to bid opening, but once opened, bids are to be binding for ninety (90) days following bid opening.
9. BIDDERS shall submit their bid in duplicate.
10. Any questions or clarifications pertaining to this proposal should be directed to Michael Eisenbeis, Battalion Chief/EMS Officer, at [mkeisenbeis@hazelwoodmo.org](mailto:mkeisenbeis@hazelwoodmo.org), Dan Luley, Deputy Fire Chief at [deluley@hazelwoodmo.org](mailto:deluley@hazelwoodmo.org), or Dave Herman, Fire Chief at [drherman@hazelwoodmo.org](mailto:drherman@hazelwoodmo.org) or they all may be reached at 314-731-3424.
11. The CITY reserves the right to waive any informality in the bidding procedure and the right to refuse any and all bids tendered.

**AMBULANCE SPECIFICATIONS**  
**SPECIFICATIONS FOR A NEW EMERGENCY MEDICAL VEHICLE:**

**BIDDER INSTRUCTIONS:**

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

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

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

**MINIMUM REQUIRED STANDARDS:**

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

The bidder shall state the date of certification for the current

KKK-A-1822: \_\_\_\_\_

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

The current QVM certification is included.

Yes \_\_\_\_\_ No \_\_\_\_\_ Initial: \_\_\_\_\_

**PROPOSAL COMPLETION PROCESS:**

Various areas in the following specifications require a response from the bidder. In order to aid in the evaluation process all responses must be consistent and, most importantly, legible. Typed responses are preferred.

Does the bidder understand this requirement? Yes \_\_\_\_\_ No \_\_\_\_\_ Initial: \_\_\_\_\_

**SINGLE SOURCE MANUFACTURER:**

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

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

Yes \_\_\_\_\_ No \_\_\_\_\_ Initial: \_\_\_\_\_

**QUOTATION:**

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

**WARRANTY:**

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

**MODULAR BODY STRUCTURAL WARRANTY:**

Proposed warranty term: \_\_\_\_\_ years/\_\_\_\_\_ Miles

Note: The structural warranty, as noted in the structural section of this specification, will include the module doors, continued module body door alignment, and all interior cabinet construction.

Does the structural warranty proposed comply with the above-stated terms and conditions? Yes \_\_\_\_\_ No \_\_\_\_\_

**ELECTRICAL WARRANTY:**

Proposed warranty term: \_\_\_\_\_ year(s), \_\_\_\_\_ Miles

**CONVERSION WARRANTY**

Proposed warranty term: \_\_\_\_\_ year(s), \_\_\_\_\_ Miles

**PAINT WARRANTY**

Proposed warranty term: \_\_\_\_\_ year(s), \_\_\_\_\_ Miles

The following schedule shall apply in regard to any claims submitted for paint under this warranty:

Proposed warranty term: \_\_\_\_\_

(No paint vendor warranties will be accepted)

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

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

Warranties shall be transferable for their duration. All warranties shall be from the manufacturer as opposed to a distributor or service center. This is necessary for the protection of the purchaser, and to guarantee a certain known level of service and warranty. If, however, the bidder feels that it is necessary to modify the manufacturer's warranties, then the bidder shall state why this modification is necessary. In addition, the bidder shall provide a full descriptive warranty certificate describing the warranty modification and the fact that it takes specific precedence over the warranty offered by the manufacturer. If no such certificate is provided, then the modified warranty shall be considered invalid and the manufacturer's warranty shall remain in force. If a warranty modification is proposed through either a distributor or service center, then complete financial statements for that business covering the past five (5) years MUST BE SUBMITTED with the bid. If the manufacturer states that no party is permitted to modify its warranty, then any

warranty modification provided by the bidder, despite being in writing, shall automatically be rejected.

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

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

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

If "No" explain.

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

If "Yes" explain.

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

If "No" explain.

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

If no explain.

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

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

**ENGINEERING SUPPORT:**

Due to the complexity of the design of the vehicle, proposals will be accepted only from manufacturers that utilize well-defined engineering techniques. Computer Aided Design (CAD) drawings of both the interior of the patient area and the overall layout of the module body will be mandatory. At a minimum these drawings shall include all exterior elevations, all interior views (4), and a plan view of the roof/ceiling. All options and elements required within these specifications shall be depicted on the prints. The purpose of this requirement is to assure this purchaser that vehicle proposals indeed meet the stated requirements as set forth in these specifications. Generic CAD drawings are not Preferred. The drawings, as submitted, shall accurately depict the exact vehicle that is being proposed.

Are the required drawings included with this bid? Yes\_\_\_\_ No\_\_\_\_



**DRAWINGS:**

The above-referenced drawings shall be furnished in standard 8.5" x 11". Drawings that are "D" size may be required at pre bid

Are the drawings included with this bid? Yes\_\_\_\_\_ No\_\_\_\_\_ Initial: \_\_\_\_\_

**SAFETY CERTIFICATION:**

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

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

Testing Facility Name: \_\_\_\_\_

Date Tested: \_\_\_\_\_/\_\_\_\_\_/\_\_\_\_\_

'G' Force Tested To: \_\_\_\_\_ G's

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

Test Required	Date Tested	Force Applied	Signed By
1. Body to Chassis Mounting	_____	_____	_____
2. Access Door Latching	_____	_____	_____
3. Oxygen Cylinder Mount (Main)	_____	_____	_____
4. Oxygen Cylinder Mount (Portable)	_____	_____	_____
5. Attendant Seat Mount	_____	_____	_____
6. Attendant Seat Belt	_____	_____	_____
7. CPR Seat Belt	_____	_____	_____
8. Squad Bench Seat Belt	_____	_____	_____
9. Retention of Main Cabinet Wall	_____	_____	_____

**Certification of Registered Professional Engineer**

The completed bid must include certification, signed by a Registered Professional Engineer, attesting to compliance with this section.

Documentation Furnished with Proposal: Yes\_\_\_\_\_ No\_\_\_\_\_

**BODY INTEGRITY VERIFICATION:**

In addition to the testing described in the preceding section the bidder must also ensure the integrity of the patient compartment of the vehicle in the event of an accident by performing dynamic testing to demonstrate compliance to International Standard ECE R29 and SAE Standards SAE J2422 and SAE J2420 applied to the rear of the body.

Does the bidder comply with this requirement? Yes\_\_\_\_ No\_\_\_\_ Initial\_\_\_\_\_

Full documentation shall be provided with the bid proposal.

**INTERIOR OCCUPANT PROTECTION:**

For the safety of the EMS providers working in the patient area, it is preferred that the vehicle shall be equipped with an interior occupant protection system incorporating an emergency inflatable airbag system at both the attendant and the CPR seat locations.

The vehicle must have been certified as compliant to standards ECE R29, SAE J2420, and SAE J2422. Such certification shall be attached to the proposal.

Each seating position shall include seat belts as follows:

Attendant seat: Four point seat belt.

CPR seat: Four point seat belt.

Ends of bench: Four point seat belt.

Each seat belt shall have been tested to verify its latching capabilities and performance as well as the extent to which it allows movement by the "spooling effect" within the retractor.

**REFERENCES:**

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

All references shall include owner, address, contact name and phone number, and the model owned. A minimum of five (5) references shall be provided:

1. Owner: \_\_\_\_\_

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

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

Phone #: 1-(\_\_\_\_)-\_\_\_\_-\_\_\_\_\_

2. Owner: \_\_\_\_\_

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

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

Phone #: 1-(\_\_\_\_)-\_\_\_\_-\_\_\_\_\_

3. Owner: \_\_\_\_\_

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

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

Phone #: 1-(\_\_\_\_)-\_\_\_\_-\_\_\_\_\_

4. Owner: \_\_\_\_\_

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

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

Phone #: 1-(\_\_\_\_)-\_\_\_\_-\_\_\_\_\_

5. Owner: \_\_\_\_\_

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

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

Phone #: 1-(\_\_\_\_)-\_\_\_\_-\_\_\_\_\_

**LIABILITY:**

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

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

Certificate of Insurance included with proposal? Yes \_\_\_\_\_ No \_\_\_\_\_

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

Does the bidder understand this requirement? Yes \_\_\_\_\_ No \_\_\_\_\_

**PAYMENT:**

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

Does the bidder comply with this requirement? Yes \_\_\_\_\_ No \_\_\_\_\_

If no explain:

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**DELIVERY PROCESS:**

The vehicle shall be delivered over the road to the purchaser. Delivery shall be stated in number of calendar days after award of contract and receipt of chassis. The purchaser has the right to reject the vehicle if it does not conform to these specifications to the satisfaction of the purchaser.

Does the bidder understand this requirement? Yes \_\_\_\_\_ No \_\_\_\_\_

**PRICE AND TAXES:**

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

F.O.B.: HAZELWOOD, MO

**BID COMPLETION REQUIREMENTS:**

All proposals shall be submitted in a sealed envelope with the following information marked on the outside of the envelope:

"Type 1, Class One (4x4) Configuration A Ambulance "

In order to facilitate evaluation, the binder shall be divided by header into the following minimum sections:

- A. Proposal: Bidders proposal showing product bid, model year, price, and delivery date.
- B. Specification: Purchasers advertised specifications completed as required.
- C. Design: CAD generated drawings of both interior and exterior of the product being proposed.
- D. Warranty: Complete written certificates of Modular, Electrical, Paint, and Conversion warranties.

Bidder's proposal meets all of the requirements listed above. Yes \_\_\_\_\_ No \_\_\_\_\_ Initials: \_\_\_\_\_

**TYPES OF BID TO BE SUBMITTED:**

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

Is this requirement understood and met?

Yes \_\_\_\_\_ No \_\_\_\_\_ Bidder's initials: \_\_\_\_\_

**INFORMATION TO BE SUBMITTED WITH PROPOSAL:**

The information requested within this bid must be furnished in full. Any bidder not completing this proposal or not furnishing any required information will not be considered. If a bidder will not furnish a material or fabrication process exactly as described in this specification, then that difference must be designated in the list of exceptions. If a substitution is being proposed, then the bidder must note the section to which the alternative is being proposed and provide detailed information supporting the fact that the substitute is equal to or better than the item specified. If this information is not submitted with the bid, then the bid shall be rejected as being non-compliant. Bidder added narrative describing a substitution as being a clarification, exceeding, being equal to, etc. will be thoroughly scrutinized by this purchaser. This purchaser reserves the right to require samples of any deviating material to be provided for evaluation.

Does the bidder comply with these requirements?

Yes \_\_\_\_\_ No \_\_\_\_\_ Initial: \_\_\_\_\_

**DIRECTIONS FOR RESPONDING TO EACH SECTION:**

Each individual section of the specification shall be followed by two (2) response lines. The lines shall read as follows:

Bid complies \_\_\_\_\_

Bid does not comply \_\_\_\_\_

On the line to the right of each statement the bidder shall mark an X to signify the appropriate response. If a bidder is offering an alternative to the written section or does not comply with the written section, then an exception must be taken for the section. The exception must be accompanied by data supported by a registered engineer to demonstrate the equivalency of the alternate item.

Does the bidder understand this requirement?

Yes \_\_\_\_\_ No \_\_\_\_\_ Initial: \_\_\_\_\_

**EXCEPTIONS TO SPECIFICATION:**

Exceptions to these specifications shall be noted below. All exceptions taken shall be recorded per the guidelines defined above. Each exception shall be noted by page number and item header. If additional space is required for exceptions, then the bidder shall use additional paper as necessary, however the same format shall be used.

Page #: \_\_\_\_\_ Header: \_\_\_\_\_

Exception: \_\_\_\_\_  
\_\_\_\_\_

Alternative: \_\_\_\_\_

Page #: \_\_\_\_\_ Header: \_\_\_\_\_

Exception: \_\_\_\_\_  
\_\_\_\_\_

Alternative: \_\_\_\_\_

Page #: \_\_\_\_\_ Header: \_\_\_\_\_

Exception: \_\_\_\_\_  
\_\_\_\_\_

Alternative: \_\_\_\_\_

Page #: \_\_\_\_\_ Header: \_\_\_\_\_

Exception: \_\_\_\_\_  
\_\_\_\_\_

Alternative: \_\_\_\_\_

Page #: \_\_\_\_\_ Header: \_\_\_\_\_  
Exception: \_\_\_\_\_  
Alternative: \_\_\_\_\_

Page #: \_\_\_\_\_ Header: \_\_\_\_\_  
Exception: \_\_\_\_\_  
Alternative: \_\_\_\_\_

Page #: \_\_\_\_\_ Header: \_\_\_\_\_  
Exception: \_\_\_\_\_  
Alternative: \_\_\_\_\_

Page #: \_\_\_\_\_ Header: \_\_\_\_\_  
Exception: \_\_\_\_\_  
Alternative: \_\_\_\_\_

**CONSTRUCTION PHOTOGRAPHS**

The bidder shall include the following photographs with the completed proposal. Proposals not including these photographs will be considered incomplete and will, therefore, be rejected. These prints shall be submitted for evaluation purposes. This purchaser shall compare the photos of the different bidders and shall be the sole decision maker as to which design best suits the specific needs to be fulfilled. Commentary on the photos is not desirable. Photographs shall be in color and shall be large enough and clear enough to supply ample detail. The photographs shall be provided in the exact numerical order listed below. The photographs to be submitted shall include:

1. Interior upper corner showing gusset and extrusion detail.
2. Interior side wall including horizontal frame member.
3. Roof section showing 2" x 2" structural supports on 12" centers.
4. Detail of vertical side wall substructure to include gussets.
5. Floor superstructure prior to installation of the aluminum sub floor.
6. Interior of rear door less CG-Tech trim
7. Interior of rear door detailing door latch linkage
8. Electrical distribution panel complete and wired.
9. Backside of front console switch panel complete and wired.
10. Interior cabinet modules prior to installation.
11. Light head attachment point detailing threaded nylon hole insert.
12. Chassis-to-module mounting system.
13. Photographs of dealer's service facility and on-site paint repair facility. If dealer does not provide in-house paint repairs, then photos of the dealer's 3<sup>rd</sup> party paint repair facility may be provided.

Bid complies \_\_\_\_\_

Bid does not comply \_\_\_\_\_

**CHASSIS, 2019 FORD F-550 4X4, 193**

**CHASSIS SPECIFICATION:**

The vehicle converter shall supply a 2019 193" wheelbase Ford F-550 4x4 cab/chassis. The chassis shall include Ford's Ambulance Prep Package. The chassis shall be ordered in OEM Agate Black (color code UM)

Bid complies \_\_\_\_\_

Bid does not comply \_\_\_\_\_

**ENGINE AND RELATED EQUIPMENT:**

-6.7 L Power Stroke V-8 Turbo Diesel

-Includes diesel exhaust fluid (DEF)

-Engine Block Heater.

-40 gallon fuel tank mounted between the frame rails aft of the rear axle.

Bid complies \_\_\_\_\_

Bid does not comply \_\_\_\_\_

**TRANSMISSION:**

-Automatic. TorqShift electronic 6-Speed SelectShift with overdrive

-Transmission Oil Cooler

Bid complies \_\_\_\_\_

Bid does not comply \_\_\_\_\_

**REAR AXLE:**

-Ratio: 4.10:1 limited slip

Bid complies \_\_\_\_\_

Bid does not comply \_\_\_\_\_

**OVERALL WEIGHT RATINGS:**

-GVW: 18,000 lbs.

-Front Springs: 7,000 lbs.

-Rear Springs: 12,000 lbs.

-Stabilizer Bar: Front and rear

Bid complies \_\_\_\_\_

Bid does not comply \_\_\_\_\_

**TIRES:**

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

Bid complies \_\_\_\_\_

Bid does not comply \_\_\_\_\_

**BRAKES:**

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

Bid complies \_\_\_\_\_

Bid does not comply \_\_\_\_\_

**INTERIOR APPOINTMENT STANDARDS:**

- Power steering
- Tilt/telescoping steering with factory speed control
- Dual padded sun visors
- Power door locks
- Power windows
- Power Scope trailer tow mirrors, includes utility lighting system
- 12V power points
- Adjustable gas and brake pedals
- Heat/Air conditioning
- O.E.M. cloth-covered seats
- Rubber floor covering
- Driver and passenger frontal and side curtain airbags
- An AM/FM stereo/MP3 player with Sync 3 (913) system
- Factory gauges for oil pressure, fuel capacity, and water temperature. The converter-added digital display shall provide both ammeter and voltmeter readings.

Bid complies \_\_\_\_\_

Bid does not comply \_\_\_\_\_

**ADDITIONAL APPOINTMENT STANDARDS:**

- XLT trim package
- Chrome front bumper and grille surround
- 8" productivity screen in IP cluster (included with SYNC 3)
- Manual regeneration switch
- Interval wipers
- LED ICC lights
- Halogen jewel effect headlights



- Daytime running lights
- Sound reduction package
- Integrated auxiliary idle control
- Auxiliary heat/AC connections
- Front license plate bracket
- Under hood service light
- Two front tow hooks
- SOS Post Crash Alert System
- Perimeter Anti-theft alarm
- Remote keyless entry
- Voice activated navigation system (21N)
- Shift-on-the-Fly 4WD system
- Front mud flaps
- Inside rear view mirror

Bid complies \_\_\_\_\_

Bid does not comply \_\_\_\_\_

**BATTERIES:**

The vehicle shall be equipped with at least two (2) 750 CCA batteries located in the OEM location under the chassis hood. An additional OEM style battery shall be located in a vented box in the crash barrier compartment. The additional battery shall include a solenoid and an isolator to allow the battery to be used separately from the standard batteries. A switch shall be provided on the side of the console to select the isolated battery for "Emergency Start" purposes. The battery shall be charged along with the (2) OEM batteries but will not be used in conjunction with them for standard operations. No additional charger is required for the third battery.

Bid complies \_\_\_\_\_

Bid does not comply \_\_\_\_\_

**ALTERNATORS:**

Dual O.E.M. Motorcraft alternators shall be installed by the chassis manufacturer. These alternators shall be internally regulated and shall provide a total of 377 amps.

Bid complies \_\_\_\_\_

Bid does not comply \_\_\_\_\_

**WARRANTY:**

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

Bid complies \_\_\_\_\_

Bid does not comply \_\_\_\_\_

**CHASSIS ORDER SPECIAL COLOR – Agate Black**

The selected chassis is to be ordered a special color from the chassis OEM.

Bid complies \_\_\_\_\_

Bid does not comply \_\_\_\_\_

**CHASSIS ORDERED WITH ALUMINUM WHEELS (64D)**

The chassis shall be ordered equipped with OEM aluminum outer wheels in lieu of steel.

Bid complies \_\_\_\_\_

Bid does not comply \_\_\_\_\_

**PASS THROUGH CAB/MODULE, F SERIES**

There shall be pass-through access between the cab and the patient compartment. A flexible weather-tight bellows shall be installed around the perimeter of the opening between the back of the cab and the front of the module body.

Bid complies \_\_\_\_\_

Bid does not comply \_\_\_\_\_

**DIESEL EXHAUST FLUID FILL, F SERIES**

The fill for the DEF tank will be located in the driver's side of the body forward of the rear wheels. A label differentiating the DEF fill from the fuel fill will be installed next to the fill inlet.

Bid complies \_\_\_\_\_

Bid does not comply \_\_\_\_\_

**STANDARD CAB HEIGHT**

The body design and placement of components mounted either to the chassis or to the front of the body must take into account the cab height for the chassis selected.

Bid Complies \_\_\_\_\_

Bid does not comply \_\_\_\_\_

**MUD FLAPS, REAR, LARGE W/LOGO**

Install individual rear mud flaps behind each set of rear wheels. Mud flaps to be made of a durable heavy duty rubber and are to be securely attached to the vehicle. Mud flaps are to be sized appropriately for the chassis selected so as not to drag the.

Bid complies \_\_\_\_\_

Bid does not comply \_\_\_\_\_

**REAR DOCK BUMPERS, WIDE**

The rear step end caps shall include two heavy duty black rubber dock bumpers installed on the outer face of the diamond plate. These bumpers shall serve to protect the diamond plate from damage due to minor contact. Each bumper shall be approximately 6" wide.

Bid complies \_\_\_\_\_

Bid does not comply \_\_\_\_\_

**REINFORCE REAR BUMPER END CAPS**

The rear bumper end caps shall be reinforced so as to improve impact resistance.

Bid complies \_\_\_\_\_

Bid does not comply \_\_\_\_\_

**RUNNING BOARDS: EMBOSSED W/STAR PUNCH, F SERIES**

Embossed diamond plate running boards shall be installed on each side of the cab at the cab entry points. The running boards shall be constructed with .125" thick 3003-H14 alloy polished aluminum diamond tread plate. The running boards shall include splash shields at the forward end to protect the vehicle from spray and road debris and shall include perforations along the stepping surface to enhance foot gripping and drainage.

Bid complies \_\_\_\_\_

Bid does not comply \_\_\_\_\_

**REAR STEP/ BUMPER ASSEMBLY, F SERIES**

The rear of the vehicle shall be equipped with a step/bumper assembly to be fabricated from .125" polished aluminum diamond tread plate. The assembly shall be spaced out from the rear kick plate a minimum of 1.5". The center section of the assembly shall pivot up and over center on two (2) .5" bolts to stay in the 'up' position. This section shall be a minimum of 9.5" deep and shall be constructed with grip-strut on the stepping surface to provide for better footing. The ends of the assembly shall be fixed diamond tread plate. The distance between the top of the step and the ground shall not be less than 16". The fold-up portion of the step shall be firmly held down with two (2) pin and socket holders to prevent rattling while the vehicle is in motion. All steel components of the bumper assembly shall be rustproofed for enhanced durability.

Bid complies \_\_\_\_\_

Bid does not comply \_\_\_\_\_

**BUCKSTOP BUMPER**

The vehicle shall include a Buckstop bumper replacing the OEM bumper. The bumper shall feature a black finish, 6" round mounts to accommodate a pair of Whelen SA315 siren speakers, and (2) additional air inlet holes. The air inlet holes shall be relocated toward the center of the bumper. There shall be no winch mount capabilities. The vehicle shall have a mechanical siren in the center of the bumper as described elsewhere in this specification. Protective bumpers shall be provided on each side of the siren's rotor housing. A pair of Buell air horns shall also be integrated into the outer ends of the bumper assembly.

Bid complies \_\_\_\_\_

Bid does not comply \_\_\_\_\_

## **LIQUID SPRING SUSPENSION, F 550**

The vehicle shall include a Liquid Spring hydraulic rear suspension. The system shall include a dump feature, wired through the left rear entry door magnetic switch, to lower the cot loading height. Manual controls for this system shall be installed in the cab near the driver.

Bid complies \_\_\_\_\_

Bid does not comply \_\_\_\_\_

## **BODY**

### **AMBULANCE BODY**

The completed vehicle shall have the following minimum dimensions:

(Exterior)

-Height: 91"

-Width: 96.25"

-Length: 173"

(Interior)

-Height: 74"

-Aisle: 48"

-Length: 169"

OVERALL DIMENSIONS (Including Chassis, Module and Step):

-Height: 117"

-Width: 100"

-Length: 311"

Bid complies \_\_\_\_\_

Bid does not comply \_\_\_\_\_

### **DESIGN REQUIREMENTS:**

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

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

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

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

Bid complies \_\_\_\_\_

Bid does not comply \_\_\_\_\_

**BODY CONSTRUCTION:**

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

Bid complies \_\_\_\_\_

Bid does not comply \_\_\_\_\_

**PAYLOAD REQUIREMENTS:**

The vehicle payload shall meet or exceed that called for in the current KKK-A-1822 specification. The vehicle manufacturer shall, upon notice by this purchaser, provide a written statement from an independent engineer that the model being offered has met this set of criteria. Before delivery of the completed unit the manufacturer shall weigh the vehicle. A written statement of those weights shall be affixed to the inside of the street side front #1 compartment door. This purchaser reserves the right to have the finished vehicle weighed independently upon delivery. If it is found that the written statement of weight provided by the manufacturer is inaccurate beyond what may be reasonably explained as a slight difference in the calibration of the scales, then the vehicle will be rejected. It should be noted that this purchaser, while interested in attaining the greatest possible payload, is unwilling to compromise on the structural requirements of a strong, durable, and safe body. All bidders must understand these factors supersede concern over payload, and that the lightest body (greatest payload) will not necessarily be deemed sufficient to meet the stringent quality and safety requirements set forth herein.

Bid complies \_\_\_\_\_

Bid does not comply \_\_\_\_\_

**MODULE BODY CONSTRUCTION AND WARRANTY:**

The module body shall be constructed per the following detailed specifications. Generally speaking the body shall be of all-aluminum construction. Aluminum is shown to reduce weight over several other materials. It also possesses anti-corrosion properties that are essential for a vehicle of this type. The exact aluminum material requirements are explained in further detail below. The choice of materials and the design shall allow the manufacturer to warrant the materials and workmanship of the module body for a period of twenty (20) years as set forth in the warranty section of this specification. The manufacturers structural warranty shall specifically cover:

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

The warranty shall be fully transferable to a new owner should the vehicle ever be sold. In addition, should the manufacturer bidding this proposal re-chassis the vehicle within the period of the initial structural warranty.

Bid complies \_\_\_\_\_

Bid does not comply \_\_\_\_\_

**CORNER POST SUPPORTS:**

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

Bid complies \_\_\_\_\_

Bid does not comply \_\_\_\_\_

**CORNER POST STRENGTH:**

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

Bid complies \_\_\_\_\_

Bid does not comply \_\_\_\_\_

**ROOF EXTRUSIONS:**

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

Bid complies \_\_\_\_\_

Bid does not comply \_\_\_\_\_

**WALL AND ROOF SKIN SUPPORTS:**

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

Bid complies \_\_\_\_\_

Bid does not comply \_\_\_\_\_

**HORIZONTAL WALL SUPPORTS:**

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

Bid complies \_\_\_\_\_

Bid does not comply \_\_\_\_\_

**GUSSET ENHANCEMENT:**

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

**EXTERIOR BODY PANELS:**

The materials selected for the body skin have been chosen because of this vehicles expected heavy-duty cycle and the good wear characteristics that this material has shown in the field. The material shall be a minimum 5052-H34 alloy with an ultimate tensile strength of 33,000 psi. This material has been chosen because it is less prone to fail due to stress than other weaker materials such as 5052-H32 alloy. Other materials with equal or more strength will be considered.

Bid complies \_\_\_\_\_

Bid does not comply \_\_\_\_\_

**EXTERIOR BODY PANEL MATERIAL:**

The thickness required for exterior body panels is:

-Side, front, and rear walls: .125"

-Ceiling panels: .090" and floor panels .06"

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

Bid complies \_\_\_\_\_

Bid does not comply \_\_\_\_\_

**FLOOR CONSTRUCTION:**

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

The body subfloor shall be constructed aluminum. The floor, from the front to the rear and from curbside to street side shall be supported by a minimum 2" x 3" tubular beams with a .25" wall. The floor just behind the axle shall be supported by a minimum 1.5" x 3" tubular beam with a .25" wall. All beams shall be strategically located at the load bearing points of the floor and welded into place. The interior of this vehicle shall contain no wood or wood products of any kind. The subfloor, above the aluminum sheet shall be specially constructed to provide both acoustic and thermal protection for the patient interior. It shall consist of the .060" aluminum with tubular understructure as noted above. The underside of this area is to be sprayed with a sound reduction coating. In addition, a .125" damping pad, a .125" sound barrier sheet, and a minimum of .625" aluminum composite floor panel shall be installed prior to installation of the vinyl floor covering. The purchaser reserves the right to inspect the process proposed by the bidder and to make

determinations regarding the acceptability of that process. The resultant subfloor shall have no organic, wood, or wood products and shall be guaranteed against rotting or water absorption for a minimum of fifteen years. It shall not support or attract mold or fungus.

The subfloor shall be designed to accommodate the installation of a Stryker Power Load system or similar cot fastening device.

Bid complies \_\_\_\_\_

Bid does not comply \_\_\_\_\_

**SKIN TO SUPPORT ATTACHMENT:**

All exterior aluminum body panels shall be attached to the underlying structural supports via high performance polyurethane two sided tape. The tape shall have a polyurethane foam core for environmental resistance and an acrylic adhesive for a durable bond. The tape will be used as an insulating agent to hold the panels tightly against the structural supports, thus eliminating vibration and oil-canning. In addition to the tape attachment system, all panels shall be welded to structural members at the perimeters only. Welding in the center of the panels is not desired as the process will cause heat distortion of the body panels and lessen the overall quality of the finished appearance. Use of the tape, as described here, will eliminate heat distortion without damaging the structural integrity of the module body.

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

Bid complies \_\_\_\_\_

Bid does not comply \_\_\_\_\_

**STRUCTURAL INTEGRITY VERIFICATION:**

Structural integrity, as stated elsewhere in this specification, is of extreme importance to this purchaser. As such, it is required that the manufacturer maintain a program of simulated crash tests that meets or exceeds the KKK-122 & CAAS standards.

Bid complies \_\_\_\_\_

Bid does not comply \_\_\_\_\_

**MODULAR DOOR DESIGN:**

Door panel separation, dirt accumulation at seams, paint imperfections, misalignment, and even malfunctions whereupon the door cannot be operated have been observed in many styles of door construction. These problems, along with the expected rugged use of the vehicle doors, shall be eliminated with a good overall design and construction process. With these thoughts in mind the modular doors shall be constructed as follows:



**OUTER DOOR SKIN:**

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

Bid complies \_\_\_\_\_

Bid does not comply \_\_\_\_\_

**INNER DOOR REINFORCEMENT:**

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

Bid complies \_\_\_\_\_

Bid does not comply \_\_\_\_\_

**INNER DOOR PAN:**

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

Bid complies \_\_\_\_\_

Bid does not comply \_\_\_\_\_

**DOOR SEAL:**

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

Bid complies \_\_\_\_\_

Bid does not comply \_\_\_\_\_

**DOOR JAMB:**

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

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

Bid complies \_\_\_\_\_

Bid does not comply \_\_\_\_\_

**HINGING:**

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

All hinges shall have un-slotted mounting holes for an exact and permanent installation.

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

Bid complies \_\_\_\_\_

Bid does not comply \_\_\_\_\_

**HOLD-OPEN DEVICES:**

The following door hold-open devices shall be installed:

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

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

Bid complies \_\_\_\_\_

Bid does not comply \_\_\_\_\_

**DOOR HANDLES AND LATCHING:**

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

- All door handles shall be rugged automotive style handles that are near flush with the outer door panel. Each handle shall actuate a Nader rotary safety latch.
- The handle and latching system shall be designed by their manufacturer to accommodate electromagnetic activation. Paddle style or D ring style handles that must be retrofitted for this application are unacceptable.
- The entire exterior handle assembly shall be Tri/Mark Series -1875 cast metal that is chrome plated and buffed to a high luster.
- All doors shall have an exterior key lock.
- All three patient area access doors shall include both interior and exterior latch activators. The rear doors shall have an

activator installed on the outside of each door. The interior activators shall be located in a recessed pan on the door. A manual lock/unlock device shall be located within the pan. This pan shall be powder coated cast aluminum for extra durability and for ease of decontamination. No plastic products shall be used for this application.

- Exterior double door compartments shall include two exterior latching devices, one on each door.
- The entry doors shall incorporate emergency release levers located at each rotary latch. The emergency release handle shall allow emergency exit if a latch failure would occur.

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

Bid complies \_\_\_\_\_

Bid does not comply \_\_\_\_\_

**PATIENT AREA DOOR OPENINGS:**

**REAR DOORS:**

Two (2) doors shall be provided at the rear of the module body. The overall opening of the access to be a minimum of 54.3" in height x 46.75" in width. Both inside and outside door handles shall be installed on each rear door. Left rear doors that can only be activated from the inside are not preferred. These doors are to incorporate emergency release levers as described above.

**SIDE DOOR:**

One (1) side door shall be provided on the curb side of the module body. The opening shall have minimum overall dimensions of 71.1" in height x 30" in width.

Bid complies \_\_\_\_\_

Bid does not comply \_\_\_\_\_

**INSULATION:**

The patient area, including the doors, shall be insulated with 2" insulation for both thermal and acoustic insulation. The headliner area of the vehicle shall also include barrier insulation for increased protection. Bidder should note additional insulation requirements specified elsewhere within this document.

Bid complies \_\_\_\_\_

Bid does not comply \_\_\_\_\_

**CRASH BARRIER SAFETY CONFIGURATION**

In order to provide a fully welded stable crash barrier at the head of the squad bench, the vehicle shall be built with the side access door located at the forward most part of the curbside of the vehicle. The cabinet normally located in that position shall be relocated to the head of the squad bench. The compartment is to include LED strip lighting meeting the requirements for all exterior compartments. The crash barrier compartment shall include (2) adjustable shelves, with the bottom shelf located at the bottom of the inside/outside access opening. A sweep-out floor with a D/A finish shall be provided. It is preferred that one additional vehicle battery shall be housed in a separate vented storage box located on the floor in the lower right corner of this compartment as noted in the "Batteries" section of this specification.

Size: 35.50"W x 60.56"H x 20.36 (ALL I.D. DIMENSIONS)  
32.87"W x 49.44"H (CLEAR OPENING DIMENSIONS)

Bid complies \_\_\_\_\_

Bid does not comply \_\_\_\_\_

**HEADROOM, 74" or more**

The interior headroom of the finished patient area shall be 74" or more.

Bid complies \_\_\_\_\_

Bid does not comply \_\_\_\_\_

**ALUMINUM DIAMONDPLATE AT SIDE STEPWELL**

The side door stepwell is to be fabricated from .125" 3003-H14 polished aluminum diamond tread plate.

Bid complies \_\_\_\_\_

Bid does not comply \_\_\_\_\_

**DOUBLE STEP CURBSIDE ENTRY, 6" DROP SKIRT**

The curbside body skirt, forward of the rear wheel well, shall be dropped six (6) inches. Two integral aluminum diamond plate steps shall be installed within the side access door step well for improved accessibility to the patient compartment. Under no circumstances shall this be accomplished by bolting an additional step to the step well. The design must be such that all steps are integral. The use of bolts, rivets, or any other type of fastener is prohibited.

Bid complies \_\_\_\_\_

Bid does not comply \_\_\_\_\_

**STREETSIDE 6" DROP SKIRT**

The StreetSide body skirt, forward of the rear wheel well, shall be dropped six (6) inches. The extra 6" is to be added to the applicable compartments in this area. .

Bid complies \_\_\_\_\_

Bid does not comply \_\_\_\_\_

**SOUND PROOFING/ACOUSTIC ENHANCEMENT**

To insure good working conditions and to create a stable patient environment, the vehicle shall be manufactured with particular attention paid to sound control. Maximum sound proofing must be performed throughout the manufacturing cycle of the vehicle. It must be explained how this is achieved in each of the following areas:

1. Underbody
2. Body Interior walls, roofs and interior compartment walls
3. The interiors of all access doors
4. The backs of all aluminum interior cabinets
5. Door interiors
6. The body structure
7. Side stepwell areas

8. All walls shall be insulated

9. Headliners shall be double insulated with.

10. Floor: A sound barrier shall be installed prior to installation of the vinyl floor covering.

11. A chassis tuned mounting system shall be used to provide vibration reduction and structure borne noise attenuation.

Bid complies \_\_\_\_\_

Bid does not comply \_\_\_\_\_

**ROOF POCKET, AUXILIARY CONDENSER**

If a rooftop condenser is used, the roof of the body shall be designed with an integral recessed pocket to allow for the specified recessed rooftop condenser. The pocket is to be sealed off except for a drain line to the ground to prevent build-up of water inside the pocket.

Bid complies \_\_\_\_\_

Bid does not comply \_\_\_\_\_

**ELECTRONIC PRIVACY WINDOWS For Rear Entry Doors**

The patient area rear access doors shall include a fixed windows with privacy control. When privacy is needed, a switch shall be activated to turn the windows solid so they cannot be seen through even at a very close distance. The windows shall return to clear with a second touch of the switch. Additional programming settings shall default the window settings to opaque with the battery switch off, and transparent when the battery switch is turned on. The switch shall be labeled "PRIVACY" and shall be the same type of switch as described in the electrical section of this specification.

Bid complies \_\_\_\_\_

Bid does not comply \_\_\_\_\_

**PRIVACY GLASS For Side Entry Door**

The side entry door shall have a sliding privacy window. The window shall measure at least 16.5"H x 17"W and shall be glazed and tinted in accordance with FMVSS. The window shall have dark privacy glass. No films are to be used. The windows shall be encased in extruded aluminum frames. Under no circumstances will RV style windows, windows that rely on rubber gaskets, windows that do not feature extruded aluminum frames, or windows that do not meet the above stated minimum dimensions be acceptable. Privacy control of this window will be considered that is similar to the rear windows.

Bid complies \_\_\_\_\_

Bid does not comply \_\_\_\_\_

**EMERGENCY RELEASE, REAR DOORS**

The manufacturer shall install emergency release latches at the top and bottom of the interior of the rear entry doors. These will allow egress in the event of a door latch failure. The release knobs are to activate the rotary at the top and bottom of the door. Doors without this feature will not be considered.

Bid complies \_\_\_\_\_

Bid does not comply \_\_\_\_\_

**EMERGENCY RELEASE, SIDE ACCESS DOOR**

The manufacturer shall install emergency release latches at the top and bottom of the interior of the side entry door. These will allow egress in the event of a door latch failure. The release knobs are to activate the rotary at the top and bottom of the door. Doors without this feature will not be considered.

Bid complies \_\_\_\_\_

Bid does not comply \_\_\_\_\_

**VI-TECH MOUNTING, F SERIES**

This purchaser requires a mounting system that provides a stable and durable attachment of the module body to the chassis frame. To accomplish this requirement the following body attachment method shall be used:

A minimum of (5) five mounting platforms shall be attached along the outside of each chassis frame rail for a total of (10) ten. Each platform shall consist of (1) top plate of .375" thick steel and (2) side reinforcement plates made of .25" steel. There shall be a .375" full backing plate where the mount attaches to the frame rail. The plates shall be welded along all seams with a heavy continuous weld. The body substructure shall include a 1" by 3" solid aluminum tie down bar welded to each sub structure cross member. To complete the body to chassis attachment, a tuned mounting system shall be used. The elastomer mount shall be custom-tuned to the specific chassis type for vibration reduction, structure borne noise attenuation and to provide low profile, low frequency isolation necessary for ideal patient compartment conditions. Standard chassis furnished mounting donuts will not meet the requirements of this specification. The mount shall be attached to each platform by (2) .625" Grade 8 bolts with washers and locking nuts. The platform shall be attached to the chassis frame rail with a minimum of (3) .625" diameter Grade 8 bolts with washers and locking nuts. The fail-safe elastomer isolation mount shall then attach to the aluminum body tie down bar with a .75" diameter Grade 8 bolt, a washer, and a locking nut.

The mounting system must have been subjected to a documented Hygee dynamic frontal impact test of at least 30 G's to verify the integrity of the mounting system in the event of a serious accident.

Bid complies \_\_\_\_\_

Bid does not comply \_\_\_\_\_

**MIRROR STAINLESS STEEL SPLASH SHIELDS**

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

Bid complies \_\_\_\_\_

Bid does not comply \_\_\_\_\_

**FENDERS, STAINLESS, STD, CS 6" DROP SKIRT**

A polished stainless steel fender flare shall be installed above the curbside (passenger's side) rear wheel well opening. The mounting of the flare shall provide for no contact between the stainless steel fender, fasteners, and the aluminum body skin. This is done to eliminate any contact between dissimilar metals and the electrolysis that may result. The fender shall be designed specifically for the specified 6" drop skirt. Designs requiring multiple pieces, or that do not adequately cover the drop skirt portion of the body is not preferred.

Bid complies \_\_\_\_\_

Bid does not comply \_\_\_\_\_

**FENDERS, STAINLESS, STD, SS 6" DROP SKIRT**

A polished stainless steel fender flare shall be installed above the StreetSide (driver's side) rear wheel well opening. The mounting of the flare shall provide for no contact between the stainless steel fender, fasteners, and the aluminum body skin. This is done to eliminate any contact between dissimilar metals and the electrolysis that may result. The fender shall be designed specifically for the specified 6" drop skirt. Designs requiring multiple pieces, or that do not adequately cover the drop skirt portion of the body, are not preferred.

Bid complies \_\_\_\_\_

Bid does not comply \_\_\_\_\_

**ABS STYLE RUB RAILS:**

The lower skirt of the body shall be protected by Black ABS rub rails. The rub rails shall be spaced away from the body with rubber spacers and through bolted to the body.

Bid complies \_\_\_\_\_

Bid does not comply \_\_\_\_\_

**REAR DOOR HOLD OPENS, GRABBER**

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

Bid complies \_\_\_\_\_

Bid does not comply \_\_\_\_\_

**REAR RISER ADP**

Install a polished aluminum diamond tread plate riser between the bottom of the rear entry door opening and the bottom of the body. The manufacturer shall include any necessary holes to accommodate other items installed in this area.

Bid complies \_\_\_\_\_

Bid does not comply \_\_\_\_\_

**LICENSE PLATE BRACKET, CENTER OF RISER**

A recessed rear license plate bracket shall be provided at the location described above. An LED license plate light is to be included.

Bid complies \_\_\_\_\_

Bid does not comply \_\_\_\_\_

**COMPARTMENTATION**

**STREETSIDE FORWARD COMPARTMENT**

The compartments described above shall be accessed through two single hinged doors meeting the standards for door construction, hinging, and latching outlined within this specification. A smaller (21"H) upper electrical compartment shall sit above the primary compartment and is to house electrical equipment items as detailed within this document. The compartments shall be vented to the outside in such a way as to prevent moisture from entering the compartments.

Under no circumstances shall vents be installed within the compartment doors. The compartments themselves shall be constructed as individual boxes and welded into the body structural framing. The compartments shall include two strips of LED lights, one to either side of the compartment doors, to provide lighting inside the compartments. Compartment dimensions are detailed on the drawings provided with this document.

Size: 24.25"W X 66.13"H X 20.36"D (ALL I.D. DIMENSIONS)  
18.75"W X 65.16"H (CLEAR OPENING)

Bid complies \_\_\_\_\_

Bid does not comply \_\_\_\_\_

**SS FORWARD COMPARTMENT DIAMOND PLATE**

The StreetSide forward compartment is to be fabricated from .125" polished aluminum diamond plate that is continuously welded at all seams.

Bid complies \_\_\_\_\_

Bid does not comply \_\_\_\_\_

**FIXED VERTICAL DIVIDER, STREETSIDE FRONT - 11.5" from Right-Hand Wall**

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

Bid complies \_\_\_\_\_

Bid does not comply \_\_\_\_\_

**SWEEP OUT COMPARTMENT FLOOR, SS FRONT**

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

Bid complies \_\_\_\_\_

Bid does not comply \_\_\_\_\_

**SILL PLATES, STREETSIDE FRONT**

A stainless steel sill plate shall be installed on the StreetSide forward compartment for protection against scuffs and scratches.

Bid complies \_\_\_\_\_

Bid does not comply \_\_\_\_\_

**STREETSIDE INTERMEDIATE COMPARTMENT, NOTCHED**

The compartment described above shall be accessed through double hinged doors meeting the standards for door construction, hinging, and latching outlined within this specification. The compartment shall be vented to the outside in such a way as to prevent moisture from entering the compartment. Under no circumstances shall vents be installed within the compartment door. The compartment itself shall be constructed as an individual box and welded into the



body structural framing. The compartment shall include two strips of LED lights, one to either side of the compartment door, to provide lighting inside the compartment. The compartment is to be full available height to the bottom of the interior countertop. Compartment dimensions are detailed on the drawings provided with this document. The compartment must be notched to allow for the specified interior cabinet layout.

Size: 55.50"W X 47.50"H X 20.36"H (ALL I.D. DIMENSIONS)

51.80"W X 46.37"H (CLEAR OPENING)

Bid complies \_\_\_\_\_

Bid does not comply \_\_\_\_\_

**SS INTERMEDIATE COMPARTMENT DIAMOND PLATE**

The StreetSide intermediate compartment is to be fabricated from .125" polished aluminum diamond plate that is continuously welded at all seams.

Bid complies \_\_\_\_\_

Bid does not comply \_\_\_\_\_

**PULL-OUT TOOL BOARD**

A pull-out tool board shall be provided near the center of the StreetSide intermediate compartment. The tool board shall be mounted with (2) heavy-duty slides mounted on hat sections attached to the floor and ceiling of the compartment. The design shall provide adequate clearance between the outer edge of the plate and the interior door panel so as to minimize the potential for injury to the operator. Dealer to supply/install (1) SCBA bracket on each side of the tool plate. The exact model of the bracket is to be determined at a pre-build conference.

Bid complies \_\_\_\_\_

Bid does not comply \_\_\_\_\_

**SWEEP OUT COMPARTMENT FLOOR SS INTERMEDIATE COMPT**

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

Bid complies \_\_\_\_\_

Bid does not comply \_\_\_\_\_

**SILL PLATES, STREETSIDE INTERMEDIATE**

A stainless steel sill plate shall be installed on the StreetSide intermediate compartment for protection against scuffs and scratches.

Bid complies \_\_\_\_\_

Bid does not comply \_\_\_\_\_

**STREETSIDE REAR COMPARTMENT**

The compartment described above shall be accessed through a single hinged door meeting the standards for door construction, hinging, and latching outlined within this specification. The compartment shall be vented to the outside in such a way as to prevent moisture from entering the compartment. Under no circumstances shall vents be installed within the compartment door. The compartment itself shall be constructed as an individual box and welded into the

body structural framing. The compartment shall include two strips of LED lights, one to either side of the compartment door, to provide lighting inside the compartment. Compartment dimensions are detailed on the drawings provided with this document.

Size: 36.65"W X 27.5"H X 20.36"D (ALL I.D. DIMENSIONS)  
32.09"W X 26.37"H (CLEAR OPENING)

Bid complies \_\_\_\_\_

Bid does not comply \_\_\_\_\_

**SS REAR COMPT. DIAMOND PLATE**

The StreetSide rear compartment is to be fabricated from .125" polished aluminum diamond plate that is continuously welded at all seams.

Bid complies \_\_\_\_\_

Bid does not comply \_\_\_\_\_

**ADJUSTABLE SHELF STREETSIDE REAR COMPARTMENT - Centered**

Shelving shall be installed as noted and as depicted in the drawings. All shelving is to be fabricated from 3003-H14 aluminum diamond plate. This material shall be .125" thick. All shelving is to include a 2" integral lip to prevent equipment from sliding off of the shelf. The compartment light shall meet the lighting criteria as described elsewhere within this specification. Shelving is to be secured using four (4) 'C' channels, two (2) on each the right and left hand wall, allowing the shelving to be infinitely adjustable within the compartment.

Bid complies \_\_\_\_\_

Bid does not comply \_\_\_\_\_

**SWEEP OUT COMPARTMENT FLOOR SS REAR COMPT**

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

Bid complies \_\_\_\_\_

Bid does not comply \_\_\_\_\_

**SILL PLATES, STREETSIDE REAR**

A stainless steel sill plate shall be installed on the StreetSide rear compartment for protection against scuffs and scratches.

Bid complies \_\_\_\_\_

Bid does not comply \_\_\_\_\_

**CURBSIDE REAR COMPARTMENT**

The compartment described above shall be accessed through a single hinged door meeting the standards for door construction, hinging, and latching outlined within this specification. The compartment shall be vented to the outside in such a way as to prevent moisture from entering the compartment. Under no circumstances shall vents be installed

within the compartment door. The compartment itself shall be constructed as an individual box and welded into the body structural framing. The compartment shall include two strips of LED lights, one to either side of the compartment door, to provide lighting inside the compartment. Compartment dimensions are detailed on the drawings provided with this document.

Size: 22.70"W X 82.13"H X 20.36"D (ALL I.D. DIMENSIONS)  
18.09"W X 81.16"H (CLEAR OPENING)

Bid complies \_\_\_\_\_

Bid does not comply \_\_\_\_\_

**CS REAR COMPT. FLAT ALUMINUM**

The curbside rear compartment is to be fabricated from .125" flat aluminum material that is continuously welded at all seams.

Bid complies \_\_\_\_\_

Bid does not comply \_\_\_\_\_

**FIXED SHELF CURBSIDE REAR - 40" Above Floor - Right-Hand Side of Divider**

Shelving shall be installed as noted and as depicted in the drawings. All shelving is to be fabricated from 3003-H14 aluminum diamond plate. This material shall be .125" thick. All shelving is to include a 2" integral lip to prevent equipment from sliding off of the shelf. The compartment light shall meet the lighting criteria as described elsewhere within this specification. Shelving is to be secured using four (4) cast brackets, two (2) on each the right and left hand wall, allowing the shelving to remain in a fixed position within the compartment.

Bid complies \_\_\_\_\_

Bid does not comply \_\_\_\_\_

**ADJUSTABLE SHELF CURBSIDE REAR - Spaced Evenly Above Fixed Shelf**

Shelving shall be installed as noted and as depicted in the drawings. All shelving is to be fabricated from 3003-H14 aluminum diamond plate. This material shall be .125" thick. All shelving is to include a 2" integral lip to prevent equipment from sliding off of the shelf. The compartment light shall meet the lighting criteria as described elsewhere within this specification. Shelving is to be secured using four (4) 'C' channels, two (2) on each the right and left hand wall, allowing the shelving to be infinitely adjustable within the compartment.

Bid complies \_\_\_\_\_

Bid does not comply \_\_\_\_\_

**FIXED VERTICAL DIVIDER, CURBSIDE REAR - 12" from Right-Hand Wall**

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

Bid complies \_\_\_\_\_

Bid does not comply \_\_\_\_\_

**SWEEP OUT COMPARTMENT FLOOR CS REAR COMPT**

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

Bid complies \_\_\_\_\_

Bid does not comply \_\_\_\_\_

**STAIR CHAIR POCKET, CURBSIDE REAR**

A pocket shall be recessed into the inner compartment door panel in the curbside rear compartment for stair chair storage. The pocket shall be installed as close to the bottom and hinged side of door as possible.

Bid complies \_\_\_\_\_

Bid does not comply \_\_\_\_\_

**SILL PLATES, CURBSIDE REAR**

A stainless steel sill plate shall be installed on the curbside rear compartment for protection against scuffs and scratches.

Bid complies \_\_\_\_\_

Bid does not comply \_\_\_\_\_

**DRI DECK, BLACK**

Black Dri-Deck material shall be cut to size and installed on the bottoms of all exterior compartments and shelves. This shall include tapered edge trim pieces where applicable.

Bid complies \_\_\_\_\_

Bid does not comply \_\_\_\_\_

**RUBBER WALLS IN BACKBOARD COMPARTMENT, BLACK**

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

Bid complies \_\_\_\_\_

Bid does not comply \_\_\_\_\_

**PAINT AND GRAPHICS**

A custom two-tone Black over Red paint scheme shall be provided on the cab and module as described below:

- !!! CHASSIS TO ARRIVE IN OEM AGATE BLACK - DO NOT REPAINT.
- !!! HOOD, ROOF, AND PILLARS TO REMAIN BLACK.
- !!! PAINT ALL OTHER AREAS VERMILLION RED.
- !!! BODY TO BE BLACK OVER RED.
- !!! PAINT RED UP TO BOTTOM OF M9 LIGHTS.
- !!! ALL FLAT AREAS OF ROOF TO BE WHITE, INBOARD OF CORNER ROUNDS.
- !!! NO WHITE PAINT SHALL BE VISIBLE FROM GROUND.

Bid complies \_\_\_\_\_

Bid does not comply \_\_\_\_\_

**MODULE PAINT – Black over Red**

A paint process is required that provides the highest possible gloss as well as superior color and luster retention characteristics. In addition, the paint process must provide a high resistance to chemical sprays, salt sprays, humidity, and temperature changes. Lastly, this process, given the expected life of the vehicle and its heavy-duty cycle, must resist chipping. The final paint application shall be free of material application imperfections such as orange peel, streaking, or a dull finish. Once painted, the vehicle shall be inspected under a black light to bring any small imperfections, not seen with the naked eye, to attention. Any such imperfections shall be repaired prior to the conclusion of the paint inspection process. The final application shall provide a high gloss finish.

Bid complies \_\_\_\_\_

Bid does not comply \_\_\_\_\_

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

All body doors and hardware must be removed prior to any wash, prime, or final paint application. All material impurities and oils must be removed from the bare aluminum body. The entire module body, excluding the underside, will have all visible welds ground down and all material imperfections filled. The entire body, including the compartment doors, must be finished with a DA. It is also required that all door jamb areas be sanded to insure that no areas are missed with the DA process mentioned above. All holes (e.g. for hinge mounting, etc.) shall be plugged at this stage to prevent any cleaning agents from entering the module body framework. The body shall be prepared for paint by spraying with a high strength detergent followed by a water rinse. Next the body and compartment doors are to be sprayed with a phosphoric acid-based cleaner to remove dirt and oil and to etch the body for superior paint adhesion. The application of the acid-based cleaner shall be followed with a water rinse. Next, a conversion coating shall be applied to the body to enhance paint adhesion and to prevent corrosion. The body shall be rinsed with de-ionized water to prevent salts from accumulating on the surface. The body will, then, be baked dry prior to the application of sealer/primer. Again, all module doors, though handled separately from the body, shall undergo the same process as described above.

Bid complies \_\_\_\_\_

Bid does not comply \_\_\_\_\_

Immediately after application of the sealer/primer the manufacturer shall apply a finish color coat of Sikkens BTLV 650 paint. The color coat is to be immediately followed by a clear coat. Once all coats are applied the unit is to be baked dry. This base coat/clear coat 'wet on wet' process is required over any other proposed process. Processes not meeting these specific requirements must be explained thoroughly within the bid.

Bid complies \_\_\_\_\_

Bid does not comply \_\_\_\_\_

Following the drying of all paint coats the unit is to be thoroughly inspected as noted above. The unit is to be polished and any blemishes repaired. All paint lines must be sanded and cleaned.

Bid complies \_\_\_\_\_

Bid does not comply \_\_\_\_\_

The manufacturer shall maintain an outside paint audit system. As part of that audit the paint manufacturer shall regularly receive and test sample paint panels that are painted along with module bodies. The paint manufacturer shall

also provide regular onsite inspections of the vehicle manufacturers paint process to assure a consistent level of quality. Audit reports from these inspections shall be provided to management.

Bid complies \_\_\_\_\_

Bid does not comply \_\_\_\_\_

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

Bid complies \_\_\_\_\_

Bid does not comply \_\_\_\_\_

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

Bid complies \_\_\_\_\_

Bid does not comply \_\_\_\_\_

The paint warranty provided by the converter must meet all warranty standards as set forth elsewhere within this specification. Bidder must submit a manufacturer's paint warranty certificate with the bid. Failure to do so will result in automatic rejection of the bidder's proposal.

Bid complies \_\_\_\_\_

Bid does not comply \_\_\_\_\_

The paint color and code are noted above.

Bid complies \_\_\_\_\_

Bid does not comply \_\_\_\_\_

**PAINT PANEL: SAMPLE - Red - Match Ford Vermilion Red (DBHS74013 FLNA30534)**

The successful bidder shall provide a painted test panel, prepared with the specified paint color and number. This process shall confirm correct paint selection, and acceptable color match with the purchaser's requirements.

Bid complies \_\_\_\_\_

Bid does not comply \_\_\_\_\_

**PAINT PANEL: SAMPLE - Black - Match Ford Agate Black (DBHS9000 FLNA4123)**

The successful bidder shall provide a painted test panel, prepared with the specified paint color and number. This process shall confirm correct paint selection, and acceptable color match with the purchaser's requirements. This panel shall be specific to the OEM paint supplied on the chassis.

Bid complies \_\_\_\_\_

Bid does not comply \_\_\_\_\_

**DIAMONDGRADE CHEVRON, FULL REAR - Fluorescent Yellow Green and Red**

Diamond grade chevron striping shall be installed on the rear body face inboard of the body corner posts and below the upper drip rail. Striping to cover the access doors as well. Install a Black non-reflective 0.25" vinyl pinstripe between all Chevrons. Outline the entire border with a Red non-reflective .50" vinyl pinstripe which matches the Red Chevron material as closely as possible.

Bid complies \_\_\_\_\_

Bid does not comply \_\_\_\_\_

**DIAMONDGRADE CHEVRON, ACCESS DOOR PANELS - Fluorescent Yellow Green and Red**

Diamondgrade Chevron striping shall be installed in a "V" pattern on the middle interior door panels of all (3) entry doors. Install a Black non-reflective 0.25" vinyl pinstripe between all Chevrons. Outline the entire border with a Red non-reflective .50" vinyl pinstripe which matches the Red Chevron material as closely as possible.

Bid complies \_\_\_\_\_

Bid does not comply \_\_\_\_\_

**STAR OF LIFE, 36"**

The bidder shall provide a 'Star of Life' emblem on the module body roof. The emblem shall be 36" blue Scotchlite with black shade and outline. A Mylar laminate shall be applied to the emblem's surface in order to protect against scuffing, and to provide added longevity. Emblems that do not have this protective covering are not acceptable.

Bid complies \_\_\_\_\_

Bid does not comply \_\_\_\_\_

**INTERIOR FEATURES**

**ACRYLIC COLOR: LIGHT TINT**

All acrylic cabinet door material is to be the manufacturer's 'light tint'.

Bid complies \_\_\_\_\_

Bid does not comply \_\_\_\_\_

**COUNTERTOP, GRAY GRANITE - Inhalation Area and Crash Barrier Compartment**

The patient area countertop material shall be solid surface. The countertop material shall incorporate a 1" radiused retention lip around the perimeter. This radiused corner shall also be tapered to avoid any sharps edges. A radius cove molding shall be installed at either end of the countertops where the material meets the cabinet wall. The rear edge of the material, adjoining the side wall of the vehicle, shall be sealed with silicone. In addition, any and all areas that require seams due to manufacturing processes shall be sealed with silicone. This material shall be uniform throughout so that scratches can be buffed out without causing adverse effects on the appearance of the material. The material color is to be Gray Granite. Locate as noted above.

The rear portion of the main wall countertop and the entire crash barrier countertop shall be reinforced to accommodate the installation of a NCE LifePak 15 cardiac monitor mount.

Bid complies \_\_\_\_\_

Bid does not comply \_\_\_\_\_

**INHALATION PANEL, CG TECH COVERED**

To prevent contamination of the inhalation panel the panel shall be fabricated using no wood or wood based products. The material used shall be an aluminum composite material covered with CG-Tech material. This material shall not absorb liquids and shall not attract bacteria, molds or fungi.

Bid complies \_\_\_\_\_

Bid does not comply \_\_\_\_\_

**SILVER METALLIC CG-TECH INTERIOR COLOR**

The interior walls and door panels in the patient area are to be finished with a non-laminate material possessing the following properties:

- Finger print resistant
- Resistant to yellowing
- Resistant to oils, greases, weak acids and salts
- No wood or wood-based products are to be used within the specified material.

The material shall be **Silver Metallic** in color.

Bid complies \_\_\_\_\_

Bid does not comply \_\_\_\_\_

**LONSEAL LONDECK RIDGELINE SMOKEY BLACK #801 - No Top Seal**

The patient area floor is to be covered in Lonseal Londeck Ridgeline Smokey Black #801.

Bid complies \_\_\_\_\_

Bid does not comply \_\_\_\_\_

**STAINLESS STEEL RISERS**

The interior risers shall be covered with a single sheet of brushed stainless steel. The stainless material shall be installed flush with the riser and trimmed at the top and both sides so as to cover the edges. The bottom of the material shall be formed at a 90 degree angle so that, upon installation, the 4" rolled floor will seal against the stainless steel. Designs that do not include this stainless steel riser will not be considered as they will not be capable of protecting the riser from damage due to cot movement, etc. In addition, stainless steel risers that have exposed edges, or that are more than one piece, will not be acceptable. Drawer and tip-out faces within the risers will be constructed with brushed aluminum laminate to mimic the appearance of the stainless and to provide aesthetic continuity.

Bid complies \_\_\_\_\_

Bid does not comply \_\_\_\_\_

**CARBON FIBER DOOR PANELS - Black High Gloss**

The upper and lower portions of the interior patient area door panels are to feature carbon fiber material for strength, durability and appearance. The center door panels shall be a separate stainless steel panel covered with Chevron striping.

Bid complies \_\_\_\_\_

Bid does not comply \_\_\_\_\_



**FASHION GREY CABINET COLOR**

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

Bid complies \_\_\_\_\_

Bid does not comply \_\_\_\_\_

**CABINET PAINT TO BE SMOOTH**

The specified cabinet paint is to have a smooth finish.

Bid complies \_\_\_\_\_

Bid does not comply \_\_\_\_\_

**GUNMETAL VACU-FORM VINYL COLOR**

The patient area upholstery, including seat cushions, backrests and vinyl closeouts, is to be Gunmetal in color.

Bid complies \_\_\_\_\_

Bid does not comply \_\_\_\_\_

**VACU-FORMED UPHOLSTERY**

All seat cushions, including head and back cushions, are to be formed style with a .5" overhang. The primary attendant seat shall also be vacu-formed. Cushions are to be installed with Velcro around the full perimeter of the cushion for ease of removal and cleaning. All closeouts and upholstered trim pieces are to be covered with matching material. Head and backrest cushions do not require Velcro attachment.

Bid complies \_\_\_\_\_

Bid does not comply \_\_\_\_\_

**USSC CHILD, BLACK 4-POINT, GUNMETAL WITH BLACK SEAT BELTS**

Install a vacu-formed Gunmetal USSC high back bucket seat with integral child safety seat and black 4-point seatbelts and safety vest. The seat shall be adjustable front to rear and is to be mounted at the head of the cot.

Bid complies \_\_\_\_\_

Bid does not comply \_\_\_\_\_

**4-POINT SEAT BELT FOOT OF BENCH, BLACK**

A 4-point seatbelt, black in color, shall be provided and installed at the foot bench position. The belt shall include a 4 retractor system to allow all four belts to be fully retractable. The belt shall also include quick one click design for ease of use. The belt is to be outfitted with a removable vest designed to guide the belt into the proper position, prevent the buckle from moving up or down and side to side, and offer better support and comfort to the seat occupant. Installation hardware and wall anchorages are to have been tested and certified to meet all applicable requirements relative to occupant restraints.

Bid complies \_\_\_\_\_

Bid does not comply \_\_\_\_\_

**4-POINT SEAT BELT HEAD OF BENCH, BLACK**

A 4-point seatbelt, black in color, shall be provided and installed at the head bench position. The belt shall include a 4 retractor system to allow all four belts to be fully retractable. The belt shall also include quick one click design for ease of use. The belt is to be outfitted with a removable vest designed to guide the belt into the proper position, prevent the buckle from moving up or down and side to side, and offer better support and comfort to the seat occupant. Installation hardware and wall anchorages are to have been tested and certified to meet all applicable requirements relative to occupant restraints.

Bid complies \_\_\_\_\_

Bid does not comply \_\_\_\_\_

**ALUMINUM INTERIOR CABINETS**

This specification requires an all-aluminum modular cabinet design. Aluminum, a minimum of .063" thickness, is required over wooden cabinetry due to its lighter weight, greater durability, and the ease with which it can be decontaminated. The main cabinet wall shall be of modular construction. All individual cabinets shall be of welded construction. Each modular cabinet shall then be bolted/welded together to comprise the main wall of cabinets inside the vehicle. All cabinets, including the main cabinet wall, shall be thoroughly insulated against noise and temperature. Each cabinet is to be wrapped on the back side in an insulating layer. Cabinets that are joined together shall also be insulated with expandable spray foam in between each cabinet. The face of all cabinets is to be trimmed in an aesthetically pleasing manner to match the patient compartment interior colors.

Bid complies \_\_\_\_\_

Bid does not comply \_\_\_\_\_

To insure the safety of patients and attendants in the rear of the vehicle, the main cabinet wall installation shall have been tested to a minimum frontal impact of 30 G's. Aluminum will remain stable and securely mounted over many years and miles of continuous service.

Bid complies \_\_\_\_\_

Bid does not comply \_\_\_\_\_

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

Bid complies \_\_\_\_\_

Bid does not comply \_\_\_\_\_

The all-aluminum cabinet construction, as described within this section, shall be warranted against any structural defects for a period of time not less than 20 years. This warranty shall be stated within the manufacturer's structural warranty document, and shall not be subject to any mileage limitations.

Bid complies \_\_\_\_\_

Bid does not comply \_\_\_\_\_

**CABINET TRIM RADIUSED**

The interior of the ambulance module shall have radius corner extrusions, wherever possible, to round off cabinet corners. The radius shall be a minimum of one and a half inches. The radius trim shall also include a removable cap that can be field replaced if damage occurs.

Bid complies \_\_\_\_\_

Bid does not comply \_\_\_\_\_

**IV HANGER, CP WITH RUBBER ARM COT CHEST**

A Cast Products recessed swing-down IV hanger shall be installed above the primary cot position near the patient's chest area. This hanger is to be near flush mounted into the patient area ceiling to reduce interference with the walkway when not in use. The arms of the hanger shall be rubberized so as to reduce the possibility of injury that may occur if contact is made with them. This style IV hanger shall be sufficient to meet Federal KKK-1822-F.

Bid complies \_\_\_\_\_

Bid does not comply \_\_\_\_\_

**IV HANGER, CP WITH RUBBER ARM BENCH CHEST**

A Cast Products recessed swing-down IV hanger shall be installed above the squad bench position near the patient's chest area. This hanger is to be near flush mounted into the patient area ceiling to reduce interference with the walkway when not in use. The arms of the hanger shall be rubberized so as to reduce the possibility of injury that may occur if contact is made with them. This style IV hanger shall be sufficient to meet Federal KKK-1822-F.

Bid complies \_\_\_\_\_

Bid does not comply \_\_\_\_\_

**GRAB RAIL: 7-8 FT. YELLOW ANTI-MICROBIAL - CENTER CEILING**

An 7-8' long grab rail shall be installed centered in the patient area ceiling. This rail is to be constructed of stainless steel. Integral stanchions shall be welded into place at fixed points along the length of the rail for attachment to the ceiling. The rail shall attach through aluminum mounting plates that are welded to the module roof structure for strength and durability. Because contamination occurs most often as a result of contact, this feature must be treated with an anti-microbial agent consisting of an inorganic ceramic coating embedded with silver ions. This coating shall be yellow in color and shall be effective against a broad range of microbes including bacteria, molds, algae and fungi. The coating shall be integral and shall not consist of an agent that will need to be reapplied over time.

Bid complies \_\_\_\_\_

Bid does not comply \_\_\_\_\_

**VERTICAL GRAB RAIL: 2 FT. YELLOW ANTI-MICROBIAL - STEPWELL**

Install a 2' long grab on the left side of the side entry door on the crash barrier compartment. Install at an angle to assist entry and exit through the side access door. This rail is to be constructed of stainless steel. Integral stanchions shall be welded into place at either end of the rail for attachment to the bolster. The rail shall attach through aluminum substructure inside the bolster for strength and durability. This coating shall be yellow in color and shall be effective against a broad range of microbes including bacteria, molds, algae and fungi. The coating shall be integral and shall not consist of an agent that will need to be reapplied over time.

Bid complies \_\_\_\_\_

Bid does not comply \_\_\_\_\_

**VERTICAL GRAB RAIL: 2 FT. YELLOW ANTI-MICROBIAL – CURBSIDE REAR RISER**

Install a 2' long grab rail just inside and to the right of the rear entry doors. Install vertically to assist entry and exit through the rear access doors. This rail is to be constructed of stainless steel. Integral stanchions shall be welded into place at either end of the rail for attachment to the cabinets and riser. The rail shall attach through aluminum substructure at the attachment point for strength and durability. This coating shall be yellow in color and shall be effective against a broad range of microbes including bacteria, molds, algae and fungi. The coating shall be integral and shall not consist of an agent that will need to be reapplied over time.

Bid complies \_\_\_\_\_

Bid does not comply \_\_\_\_\_

**PATIENT DOOR GRAB RAILS: YELLOW ANTI-MICROBIAL**

Angled door handles shall be installed on the interior door panels of each access door. The handles shall be one-piece and shall be constructed of stainless steel. The overall design shall incorporate a smooth radius to form a 'V' shape, but shall otherwise mimic the design and appearance of other grab rails specified to be installed on this vehicle. The handles shall feature smooth radius corners and flange mounts at each of three (3) attachment points per rail. Because contamination occurs most often as a result of contact, this feature must be treated with an anti-microbial agent consisting of an inorganic ceramic coating embedded with silver ions. This coating shall be yellow in color and shall be effective against a broad range of microbes including bacteria, molds, algae and fungi. The coating shall be integral and shall not consist of an agent that will need to be reapplied over time.

Bid complies \_\_\_\_\_

Bid does not comply \_\_\_\_\_

**CEILING MATERIAL: PLATINUM WHITE COMPOSITE**

The patient area ceiling shall be constructed of a bright white aluminum composite material. The headliner shall be smooth, impervious to moisture, easy to clean and durable. It shall have the same rate of expansion and contraction as the aluminum body. Headliner that is padded or upholstered in any way will not be considered, nor will any headliner made of wood or wood products. Plastic, fiberglass or ABS headliner materials are not acceptable due to the cracking commonly caused by the differing rates of expansion. Lastly, the headliner material shall be treated with an antimicrobial agent.

Bid complies \_\_\_\_\_

Bid does not comply \_\_\_\_\_

**FIRE EXTINGUISHERS: 5LB ABC SHIP LOOSE**

A new 5# ABC fire extinguisher, with mounting brackets, shall be supplied on the completed vehicle. Unit is to be shipped loose to be installed at a later date.

Bid complies \_\_\_\_\_

Bid does not comply \_\_\_\_\_

**FIRE EXTINGUISHERS: 5LB ABC SHIP LOOSE**

A second new 5# ABC fire extinguisher, with mounting brackets, shall be supplied on the completed vehicle. Unit is to be on the forward facing (LH) wall at the base of the linen closet.

Bid complies \_\_\_\_\_

Bid does not comply \_\_\_\_\_

**STREETSIDE CABINETRY**

**LINEN CABINET**

A vertical storage cabinet shall be located behind the attendant seat. The upper storage area shall house the primary electrical distribution area. The lower section shall be used for miscellaneous storage or provisions as described elsewhere. Each area shall be accessed through hinged doors. The entire cabinet shall be fabricated from aluminum. The interior of the cabinet shall be painted and trimmed as described in the cabinet construction section of the specification.

Bid complies \_\_\_\_\_

Bid does not comply \_\_\_\_\_

**FIXED SHELF, UPPER LINEN CLOSET**

The upper section of the linen cabinet shall include a fixed aluminum shelf with 1" integral retaining lips around its perimeter. The shelf is to be painted to match the interior of the cabinet.

Bid complies \_\_\_\_\_

Bid does not comply \_\_\_\_\_

**FIXED SHELF, LINEN CLOSET, CENTER SECTION**

The middle section of the linen cabinet shall include a fixed aluminum shelf with 1" integral retaining lips around its perimeter. The shelf is to attach to the side walls of the cabinet at a minimum of two (2) locations per side. The shelf is to be painted to match the interior of the cabinet.

Bid complies \_\_\_\_\_

Bid does not comply \_\_\_\_\_

**SOLID CG-TECH COVERED LINEN CLOSET DOOR**

The linen cabinet is to include solid vertically hinged doors. The door construction is to utilize aluminum composite material that is covered with a color coordinating outer layer on its face. Doors constructed of wood or any other type of organic material will not suffice to comply with this requirement due to the danger of contamination, rotting, compression at the attachment points which could lead to loosening and rattling, and the weaker structural characteristics inherent in such materials.

Bid complies \_\_\_\_\_

Bid does not comply \_\_\_\_\_

**PIANO HINGE FOR LINEN CLOSET TOP DOOR**

The upper section of the linen cabinet shall include piano style hinge.

Bid complies \_\_\_\_\_

Bid does not comply \_\_\_\_\_

**PIANO HINGE FOR LINEN CLOSET LOWER DOOR**

The lower section of the linen cabinet shall include piano style hinge.

Bid complies \_\_\_\_\_

Bid does not comply \_\_\_\_\_

**LATCHES, LEVER TYPE - Electronics Cabinet**

The specified cabinet door is to include spring-loaded lever style door latches.

Bid complies \_\_\_\_\_

Bid does not comply \_\_\_\_\_

**LATCHES, LEVER TYPE - Lower Linen Closet**

The specified cabinet door is to include spring-loaded lever style door latches.

Bid complies \_\_\_\_\_

Bid does not comply \_\_\_\_\_

**MAIN WALL DESIGN**

A custom main wall configuration shall be provided as described below:

Install a stationary bench cushion with (2) seating positions that extends from the inhalation area to the rear of the module. The bench must be a minimum of 74" between the forward hip cushion and the rear wall. A drop-in sharps/waste location described elsewhere shall be provided adjacent to the rear wall. No storage shall be available beneath the cushion.

The normally painted vertical main wall surfaces shall be covered with CG-Tech material.

**UPPER INHALATION CABINET - 47.5"W x 18.75"H x 14.375"D (ALL I.D. DIMENSIONS)**

The cabinet located above the main inhalation/action area is to meet all applicable specifications regarding cabinet materials and construction listed throughout this document. The cabinet dimensions are to be as noted above. Note that these dimensions represent the measurements on the inside of the cabinet and do not include any trim required for doors or cabinet faces.

Bid complies \_\_\_\_\_

Bid does not comply \_\_\_\_\_

**ACRYLIC SLIDING DOORS, UPPER INHALATION CABINET**

The cabinet notated above is to include sliding 3/8" acrylic or lexan doors. The door frame is to be designed with an integral groove that incorporates a Nylon/felt insert that allows for smooth and rattle-free operation.

Bid complies \_\_\_\_\_

Bid does not comply \_\_\_\_\_

**FIXED VERTICAL DIVIDER, UPPER INHALATION CABINET - Centered in Upper Inhalation Cabinet**

A fixed position cabinet divider shall be installed as noted above. The divider is to be fabricated out of aluminum and painted to match the cabinet interior. A fixed horizontal shelf, centered in the opening, shall be provided on each side of the divider.

Bid complies \_\_\_\_\_

Bid does not comply \_\_\_\_\_

**TRACK, DIVIDERS, UPPER INHALATION CABINET - Below Fixed Shelves - (4) Each Side of Center Divider**

Adjustable tracks are to be installed in the cabinet noted above. The tracks are to be routed acrylic material on the bottom and back wall of the cabinet. The outer edge of the lower track is to be rounded to avoid any sharp edges. These will be used in conjunction with the specified adjustable dividers.

Bid complies \_\_\_\_\_

Bid does not comply \_\_\_\_\_

**VERTICAL DIVIDERS, UPPER INHALATION CABINET**

Adjustable acrylic dividers shall be fabricated and installed vertically into the specified tracks inside the upper inhalation cabinet. The dividers shall be adjustable within the track.

Bid complies \_\_\_\_\_

Bid does not comply \_\_\_\_\_

**DRAWER INSTALLATION IN MAIN WALL, DA FINISH**

The main cabinet wall shall incorporate (2) aluminum drawers per the attached drawings. The drawers shall be non-painted with a D/A finish, and shall include a recessed drawer face that fits near flush into the cabinet wall. The face shall be trimmed and shall be finished in a material to match the wall color. The drawer and drawer face are to be free of wood or other organic materials.

Bid complies \_\_\_\_\_

Bid does not comply \_\_\_\_\_

**SHARPS/WASTE DISPOSAL AT REAR OF MAIN WALL BENCH**

An aluminum sharps/waste cabinet shall be provided at the rear of the main wall bench area. The cabinet shall have red laminate covered aluminum doors in a lift-up frame for access to the containers. The top of the cabinet shall be even with the top of the bench cushion. The lid shall be hinged on the left-hand side to open toward the rear module wall. The cabinet shall be set-up to house (2) Sage #8970 containers, one with the lid removed for use as a waste container.

Bid complies \_\_\_\_\_

Bid does not comply \_\_\_\_\_

**CURBSIDE CABINETS**

**CARGO NET, I/O OPENING CRASH BARRIER:**

The cargo net covering the interior access to the crash barrier compartment shall be secured with (3) Ferno seat belt style buckles at the top of the net. The standard Ancra fasteners shall be retained at the bottom.

Bid complies \_\_\_\_\_

Bid does not comply \_\_\_\_\_

**ANGLED CEILING CABINET ABOVE CRASH BARRIER:**

An angled ceiling cabinet with a solid left-hinged door and a lever latch shall be provided above the forward portion of the crash barrier area. A dealer-supplied Comp-X electronic lock shall be installed prior to delivery.

Size: APPROXIMATELY 12"W X 16"H X 16"D ON FORWARD EDGE (O.D. DIMENSIONS)

Bid complies \_\_\_\_\_

Bid does not comply \_\_\_\_\_

**SQUAD BENCH WITH NO CUPS OR WELLS**

A storage area, fabricated from .125" 5052-H34 aluminum, shall be installed beneath the squad bench cushion(s). This storage area shall be painted and trimmed per the cabinet construction section of this specification. Access to this area shall be gained by raising the bench cushion. This area shall be as large as possible given the presence of the wheelhouse directly beneath this area. The bench shall meet all applicable testing for crashworthiness. This testing shall have been performed by an independent accredited outside testing facility.

Bid complies \_\_\_\_\_

Bid does not comply \_\_\_\_\_

**SINGLE CUSHION SQUAD BENCH**

The squad bench lid is to be a single piece with a vacuum-formed cushioned seating surface.

Bid complies \_\_\_\_\_

Bid does not comply \_\_\_\_\_

**BENCH HOLD OPENS: GAS**

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

Bid complies \_\_\_\_\_

Bid does not comply \_\_\_\_\_



**BENCH HOLD-DOWN: PADDLE LATCHES (SINGLE)**

A paddle style latch shall be installed on the flip-up bench cushion to hold the cushion in the 'closed' position. The operation of this latch shall be passive and shall require intentional unlatching in order to raise the squad bench cushion. The latch is to be flush mounted in the face of the squad bench riser.

Bid complies \_\_\_\_\_

Bid does not comply \_\_\_\_\_

**BENCH BACK CUSHION: FULL SIZE**

A full backrest cushion shall be installed on the wall over the squad bench. The cushion is to extend the full width of the squad bench and shall be trimmed to match the interior of the vehicle. The upholstery shall be as described in the upholstery section of this document.

Bid complies \_\_\_\_\_

Bid does not comply \_\_\_\_\_

**SHARPS/WASTE DISPOSAL AT HEAD OF BENCH**

An aluminum sharps/waste cabinet shall be provided at the forward end of the curbside bench area. The cabinet shall have red laminate covered aluminum doors in a lift-up frame for access to the containers. The top of the cabinet shall be even with the top of the bench cushion. The lid shall be hinged on the left-hand side to open toward the crash barrier compartment. The cabinet shall be set-up to house (2) Sage #8970 containers, one with the lid removed for use as a waste container.

Bid complies \_\_\_\_\_

Bid does not comply \_\_\_\_\_

**BENCH CABINET, HINGED DOORS**

A cabinet shall be installed at ceiling level over the full length of the squad bench. This cabinet is to be fabricated from .063" 5052-H32 welded aluminum. The interior of the cabinet shall be painted per the cabinet construction description listed elsewhere within this specification. The cabinet is to be accessed through (3) hinged 3/8" acrylic doors that are held in the 'open' position by gas piston hold-open devices. This cabinet is to be a maximum of 9" H (with 72" headroom) to allow enough clearance between the bottom of the cabinet and the top of the seat below to meet KKK-F requirements.

Note: Cabinet to be 9"H x 10"D (outside dimensions)

Bid complies \_\_\_\_\_

Bid does not comply \_\_\_\_\_

**SOUTHCO LATCH OVERHEAD BENCH CABINET**

The hinged doors on the bench ceiling cabinet are to utilize Southco Stainless Steel flush-style latches. These latches shall feature recessed pull ring style handles. The latches shall be both positive (mechanical latching) and passive (latches automatically).

Bid complies \_\_\_\_\_

Bid does not comply \_\_\_\_\_

**SELF CLOSING HINGES FOR OVERHEAD BENCH CABINET**

The cabinet above the squad bench/curbside seating area shall include self-closing style hinges.

Bid complies \_\_\_\_\_

Bid does not comply \_\_\_\_\_

**FIXED DIVIDERS, BENCH CEILING CABINET - To Divide Cabinet Equally into 3rds.**

Two fixed position cabinet dividers shall be installed as noted above. The dividers shall be fabricated out of aluminum and painted to match the cabinet interior.

Bid complies \_\_\_\_\_

Bid does not comply \_\_\_\_\_

**CUSTOM CABINET CONFIGURATION AT REAR OF BENCH**

The following cabinetry and drawer arrangement shall be provided at the rear of the curbside bench area:

Immediately below the bench ceiling cabinet, install a storage cabinet with a left-hinged polycarbonate door. Include self-closing hinges, a flush pull ring latch, and (1) adjustable shelf. Include a Smithworks IV warmer and a 12v outlet on the floor of this cabinet.

Size: Provide maximum width x maximum height. Depth to match drawers described below. Drawer height will influence the since of this cabinet.

Below the above cabinet, (3) drawers shall be provided. Each drawer shall have side-mounted slides, lever latches, and non-painted D/A finished interior tray surfaces.

Size: 12.5"W X 7"H X 15"D (ALL I.D. DIMENSIONS)

Bid complies \_\_\_\_\_

Bid does not comply \_\_\_\_\_

**CRASH BARRIER DRAWERS**

The specified crash barrier compartment is to include (1) aisle-facing & (1) rear-facing drawer at top.

Aisle Facing Drawer:

Size: 15.25"W X 5.5"H X 16"D (ALL I.D. DIMENSIONS)

Rear Facing Drawer:

Size: 12.50"W X 5.5"H X 15.5"D (ALL I.D. DIMENSIONS)

Note: Both drawers shall have side-mounted slides, lever latches, and non-painted D/A finished interior tray surfaces.

Bid complies \_\_\_\_\_

Bid does not comply \_\_\_\_\_

**FRONT WALL CABINERY**

**RECESSED GLOVE STORAGE IN FRONT WALL**

Install a partially recessed cabinet in the lower right portion of the front wall to provide storage for (3) glove boxes. The glove boxes shall be stacked on their narrow end and shall be accessed via oval cutouts in a left-hinged polycarbonate door with a Southco flush pull ring latch. The glove storage shall be as close to the curbside entry door as possible and to the right of the Auto Pulse storage location.

Bid complies \_\_\_\_\_

Bid does not comply \_\_\_\_\_

**RECESSED AUTO PULSE STORAGE IN FRONT WALL**

Install a partially recessed open faced pocket in the lower right portion of the front wall to provide storage for a customer-supplied Auto Pulse unit. Include (2) Velcro straps. All exposed edges shall be padded.

Size: 18.625"W X 33.5"H X 4"D (ALL I.D. DIMENSIONS)

Bid complies \_\_\_\_\_

Bid does not comply \_\_\_\_\_

**CAB TO MODULE PASSTHROUGH WINDOW**

A sliding pass-through window shall be provided between the cab and the patient compartment. The window shall include a latch to secure the window in the 'closed' position.

Bid complies \_\_\_\_\_

Bid does not comply \_\_\_\_\_

**VISUAL WARNING**

**UNLESS OTHERWISE NOTED, ALL WHELEN LIGHTHEADS SHALL HAVE A BLACK FLANGE IN LIEU OF CHROME.**

**WHELEN TAL85, EIGHT HEAD LED TRAFFIC ADVISOR**

The bidder shall install a Whelen TAL85, eight LED, 46.82" traffic advisor on the rear face of the ambulance body. The lightbar is to be wired through operation through the converter-added onboard electrical system. The Whelen control head shall be located in the front console. A Whelen ICC light cluster (single unit) shall be mounted on the top of the Traffic Advisor. The ICC light cluster shall also serve as a third brake light.

Bid complies \_\_\_\_\_

Bid does not comply \_\_\_\_\_

**LIGHT BAR MOUNT: REAR FACE OF BODY**

The specified rear light bar is to be installed on the rear face of the body above the rear access doors.

Bid complies \_\_\_\_\_

Bid does not comply \_\_\_\_\_

**M9, RED/RED LENS - (2) Rear of Body at Window Level**

Whelen M9 series LED lighting shall be installed as noted. Lighting is to be red with red lens and is to include the black flange. The lighting shall mount using threaded nylon inserts providing separation between the mounting hardware and the vehicle body. A switch shall be provided in the front control panel to change flash patterns on the specified lighting.

Bid complies \_\_\_\_\_

Bid does not comply \_\_\_\_\_

**M7 AMBER/CLEAR LENS - (1) Each Side Above Rear Wheelwells**

Whelen M7 series LED lighting shall be installed as noted. Lighting is to be amber with clear lens and is to include the black flange. The lighting shall mount using threaded nylon inserts providing separation between the mounting hardware and the vehicle body. A switch shall be provided in the front control panel to change flash patterns on the specified lighting.

Bid complies \_\_\_\_\_

Bid does not comply \_\_\_\_\_

**M7 AMBER/CLEAR LENS - Rear Center KKK**

A Whelen M7 series LED light shall be installed centered on the upper rear face of the body above the rear doors. The light is to be amber with a clear lens and is to include the black flange. The light shall mount using threaded nylon inserts providing separation between the mounting hardware and the vehicle body. A switch shall be provided in the front control panel to change flash patterns on the specified lighting.

Bid complies \_\_\_\_\_

Bid does not comply \_\_\_\_\_

**M9 R/B SPLIT/CLEAR LENS - Front Face - [R/B] [R/B] [R/B] [PIONEER] [B/R] [B/R] [B/R]**

Whelen M9 series LED lighting shall be installed as noted. Lighting is to be red/blue split with clear lens and is to include the black flange. The lighting shall mount using threaded nylon inserts providing separation between the mounting hardware and the vehicle body. A switch shall be provided in the front control panel to change flash patterns on the specified lighting.

Bid complies \_\_\_\_\_

Bid does not comply \_\_\_\_\_

**M9 R/B SPLIT/CLEAR LENS - StreetSide Upper Corners - [R/B] Front - [B/R] Rear**

Whelen M9 series LED lighting shall be installed as noted. Lighting is to be red/blue split with clear lens and is to include the black flange. The lighting shall mount using threaded nylon inserts providing separation between the mounting hardware and the vehicle body. A switch shall be provided in the front control panel to change flash patterns on the specified lighting.

Bid complies \_\_\_\_\_

Bid does not comply \_\_\_\_\_

**M9 R/B SPLIT/CLEAR LENS - Curbside Upper Corners - [B/R] Front - [R/B] Rear**

Whelen M9 series LED lighting shall be installed as noted. Lighting is to be red/blue split with clear lens and is to include the black flange. The lighting shall mount using threaded nylon inserts providing separation between the mounting hardware and the vehicle body. A switch shall be provided in the front control panel to change flash patterns on the specified lighting.

Bid complies \_\_\_\_\_

Bid does not comply \_\_\_\_\_

**M9 R/B SPLIT/CLEAR LENS - Rear Face Upper Corners - [R/B] Streetside - [B/R] Curbside**

Whelen M9 series LED lighting shall be installed as noted. Lighting is to be red/blue split with clear lens and is to include the chrome flange. The lighting shall mount using threaded nylon inserts providing separation between the mounting hardware and the vehicle body. A switch shall be provided in the front control panel to change flash patterns on the specified lighting.

Bid complies \_\_\_\_\_

Bid does not comply \_\_\_\_\_

**FLASH PATTERN, VARIABLE A,B**

The emergency lighting flash pattern is to be programmed to a variable A/B pattern.

Bid complies \_\_\_\_\_

Bid does not comply \_\_\_\_\_

**WHELEN ION RED/RED LENS, GRILLE, TOP BAR**

A pair of Whelen ION series LED lights shall be installed in the upper portion of the chassis grille. Lights are to be red with red lenses and a chrome flange. A switch shall be provided in the front control panel to change flash patterns on the specified lighting.

Note: These lights are not available with a black flange.

Bid complies \_\_\_\_\_

Bid does not comply \_\_\_\_\_

**ADDITIONAL GRILLE AREA LIGHTING**

A Whelen Dominator Plus LINZ6 (30.36") Super-LED light bar shall be provided to serve as additional grille area lighting. The bar shall be mounted on the lower bar of the Buckstop bumper.

Colors: R/B/R/B/R/B/R/B

Bid complies \_\_\_\_\_

Bid does not comply \_\_\_\_\_

**M4 SPLIT RED/WHITE LED INTERSECTION LIGHTS**

Whelen M4 series LED lights shall be installed as intersection lights on each side of the chassis. Lights are to be split red/white with clear lenses and are to include black flanges. A switch shall be provided in the front control panel to change flash patterns on the specified lighting. Light is to be installed with white section forward.

Bid complies \_\_\_\_\_

Bid does not comply \_\_\_\_\_

**AUDIBLE WARNING**

**AIR HORNS IN BUCKSTOP BUMPER**

Two (2) Buell #1061 (10") trumpets shall be installed in the outboard ends of the Buckstop bumper. The air horn system is to include a Buell #1602-2 (2.4cfm) heavy-duty compressor and a Velvac #035105 remote reservoir tank. The system shall be configured so that the air horns can only be activated when the vehicle is in gear. Activation is to be through a chrome push button(s) on the console or through a foot switch as specified elsewhere within this document. The compressor shall be located in the streetside upper electrical compartment.

Bid complies \_\_\_\_\_

Bid does not comply \_\_\_\_\_

**SIREN: WHELEN 295HFSC9**

The vehicle is to be equipped with a Whelen #295HFSC9 dual full function electronic siren installed in the front console. The siren shall have a removable microphone.

Bid complies \_\_\_\_\_

Bid does not comply \_\_\_\_\_

**SIREN, FEDERAL Q2B (MECHANICAL)**

The vehicle is to be equipped with a Federal Q2B (mechanical) siren installed in the center of the Buckstop bumper. The siren rotor is to be exposed on the face of the bumper. Protective bumpers shall be provided on each side of the rotor housing. Wire to activate with a driver's side foot switch. Dealer to mount.

Bid complies \_\_\_\_\_

Bid does not comply \_\_\_\_\_

**SIREN SPEAKERS, WHELEN SA315 SERIES**

Install SA315 siren speakers in the outboard cutouts in the Buckstop front bumper.

Bid complies \_\_\_\_\_

Bid does not comply \_\_\_\_\_

**NON-EMERGENCY LIGHTING**

**KKK SIDE BODY MARKER LIGHTS, M6 SERIES LED (PAIR)**

One Whelen red M6 Series LED light with a red lens and a black flange shall be installed on each side of the vehicle towards the rear of the body. These lights shall function as both running lights and turn signals.

Bid complies \_\_\_\_\_

Bid does not comply \_\_\_\_\_

**LED EXTERIOR COMPARTMENT LIGHTING**

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

Bid complies \_\_\_\_\_

Bid does not comply \_\_\_\_\_

**WHELEN OS SERIES MARKER LIGHTS**

Whelen OS series LED ICC marker lights are to be installed on the vehicle, front and rear, to meet DOT requirements. The lights shall have black flanges.

Bid complies \_\_\_\_\_

Bid does not comply \_\_\_\_\_

**WHELEN PFH1B SINGLE PANEL - FRONT FACE**

A Whelen PFH1B single panel super LED floodlight shall be installed on the curbside of the module body in the center position. The installation is to include a PBH103BB semi-recessed black housing and black flange. This light is to operate from switches located in the front control panel as well as any other additional functionality as may be described elsewhere within this document. Light functionality is to be based on programming in the converter-added electrical system.

Bid complies \_\_\_\_\_

Bid does not comply \_\_\_\_\_

**M9 SERIES LED SCENE LIGHT - STREETSIDE FRONT**

A Whelen M9 LED scene light with black flange shall be installed on the streetside of the module body in the forward position. This light shall be activated by right and left side switches located within the front electrical control panel. Additional means of activation, if any, are listed in the electrical section of these specifications.

Bid complies \_\_\_\_\_

Bid does not comply \_\_\_\_\_

**WHELEN PFH1B SINGLE PANEL - STREETSIDE CENTER**

A Whelen PFH1B single panel super LED floodlight shall be installed on the streetside of the module body in the center position. The installation is to include a PBH103BB semi-recessed black housing and black flange. This light is to operate from switches located in the front control panel as well as any other additional functionality as may be described elsewhere within this document. Light functionality is to be based on programming in the converter-added electrical system.

Bid complies \_\_\_\_\_

Bid does not comply \_\_\_\_\_

**M9 SERIES LED SCENE LIGHT – STREETSIDE REAR**

A Whelen M9 LED scene light with black flange shall be installed on the streetside of the module body in the rear position. This light shall be activated by right and left side switches located within the front electrical control panel. Additional means of activation, if any, are listed in the electrical section of these specifications.

Bid complies \_\_\_\_\_

Bid does not comply \_\_\_\_\_

**M9 SERIES LED SCENE LIGHT – CURBSIDE FRONT**

A Whelen M9 LED scene light with black flange shall be installed on the curbside of the module body in the forward position. This light shall be activated by right and left side switches located within the front electrical control panel. Additional means of activation, if any, are listed in the electrical section of these specifications.

Bid complies \_\_\_\_\_

Bid does not comply \_\_\_\_\_

**WHELEN PFH1B SINGLE PANEL – CURBSIDE CENTER**

A Whelen PFH1B single panel super LED floodlight shall be installed on the curbside of the module body in the center position. The installation is to include a PBH103BB semi-recessed black housing and black flange. This light is to operate from switches located in the front control panel as well as any other additional functionality as may be described elsewhere within this document. Light functionality is to be based on programming in the converter-added electrical system.

Bid complies \_\_\_\_\_

Bid does not comply \_\_\_\_\_

**M9 SERIES LED SCENE LIGHT, CURBSIDE REAR**

A Whelen M9 LED scene light with black flange shall be installed on the curbside of the module body in the rear position. This light shall be activated by right and left side switches located within the front electrical control panel. Additional means of activation, if any, are listed in the electrical section of these specifications.

Bid complies \_\_\_\_\_

Bid does not comply \_\_\_\_\_

**LOAD LIGHTS, M7 SERIES LED**

Whelen M7 LED load lights (2) with black flanges shall be installed on the rear of the module body above the entry doors. These lights shall be activated by a switch located within the front electrical control panel or by opening of the right rear entry door. Additional means of activation, if any, are listed in the electrical section of these specifications.

Bid complies \_\_\_\_\_

Bid does not comply \_\_\_\_\_

**RED/AMBER WARNING, TOP, SIDE ACCESS DOOR**

A 12" LED light strip shall be installed on the upper portion of the curbside access door inner door panel. The light strip shall be red/amber split in color. The light shall have optics integral to the lens for maximum light disbursement. When mounted the lens shall be near flush with the door panel. The light strip shall alternate flash when the access door is open, and the emergency lighting is activated. The lens shall be designed to provide a bright and intense light from a



distance. As distance is decreased the light shall become less intense, preserving night time visibility for people working near the vehicle. LED lamps shall be used due to their "cold" operating temperature, low amp requirement, and long life expectancy. The lighting is intended to provide additional warning to traffic and pedestrians of open access doors, and to provide additional safety for the crew.

Bid complies \_\_\_\_\_

Bid does not comply \_\_\_\_\_

**RED/AMBER WARNING, TOP, REAR ACCESS DOORS**

12" LED light strips shall be installed on the upper portion of the rear module access door inner door panels, one (1) per door. The light strips shall be red/amber split in color. The lights shall have optics integral to the lenses for maximum light disbursement. When mounted the lenses shall be near flush with the door panels. The light strips shall alternate flash when the access doors are open, and the emergency lighting is activated. The lenses shall be designed to provide a bright and intense light from a distance. As distance is decreased the light shall become less intense, preserving night time visibility for people working near the vehicle. LED lamps shall be used due to their "cold" operating temperature, low amp requirement, and long life expectancy. The lighting is intended to provide additional warning to traffic and pedestrians of open access doors, and to provide additional safety for the crew.

Bid complies \_\_\_\_\_

Bid does not comply \_\_\_\_\_

**TAIL LIGHTS, M6 SERIES, VERTICAL MOUNT**

Whelen M6 series LED stop/tail, turn, and reverse lights are to be installed on the rear of the vehicle. The lights are to be located vertically in the rear body panels, above the rear riser, to either side of the rear access doors. All lights are to include black flanges. Stack top to bottom – Turn Arrow, Brake Tail, and Reverse.

Bid complies \_\_\_\_\_

Bid does not comply \_\_\_\_\_

**STEPWELL LIGHT**

Install a Tecniq #E06-WS00-1 4" round LED light with a stainless steel trim ring on the crash barrier side of the stepwell. Wire to activate with the curbside entry door open.

Bid complies \_\_\_\_\_

Bid does not comply \_\_\_\_\_

**ELECTRICAL**

**ELECTRIC DOOR LOCKS COMPARTMENT EXTERIOR**

Power activated door locks shall be installed on compartment doors. Locks shall be activated by switches located at each patient area access door, or via other means as may be specified within this document. Locks may be overridden by the door key.

Bid complies \_\_\_\_\_

Bid does not comply \_\_\_\_\_

**ELECTRIC DOOR LOCKS ACCESS DOORS INTERIOR**

Power activated door locks shall be installed on patient area access doors. Locks shall be activated by switches located at each patient area access door. Locks may be overridden by a manual slide lever or by the door key.

Bid complies \_\_\_\_\_

Bid does not comply \_\_\_\_\_

**ELECTRIC DOOR LOCKS WIRED TO OEM SWITCHES**

The converter-added power door locks are to be wired through the OEM chassis door lock switches.

Bid complies \_\_\_\_\_

Bid does not comply \_\_\_\_\_

**ELECTRIC DOOR LOCKS CONCEALED LICENSE PLATE**

A concealed weatherproof switch shall be installed in the specified license plate bracket to operate the specified power door locks. The switch shall be wired to unlock only.

Bid complies \_\_\_\_\_

Bid does not comply \_\_\_\_\_

**ELECTRIC DOOR SWITCH, TOUCH PAD, SIDE ACCESS**

The specified power door locks shall be operable from an exterior programmable touch pad system located near the side access door. The touchpad shall be backlighted.

Bid complies \_\_\_\_\_

Bid does not comply \_\_\_\_\_

**IV WARMER, SMITHWORKS - Forward facing rear bench wall cabinet**

A Smithworks IV warmer will be installed as noted. The warmer will be wired to 12V ignition activated power, and be shoreline activated. Requires (1) 12v outlet selected separately.

Bid complies \_\_\_\_\_

Bid does not comply \_\_\_\_\_

**ELECTRICAL SYSTEM**

The electrical control system must meet all current ambulance design standards to include, KKK 1822, NFPA 1917, CAAS and AMD. A system is desired that is easy to use, simple in design and allows electrical problem diagnosis and repair time to be minimized. The system must be designed so that the probability of experiencing dead batteries, shorted electrical components and engaging in lengthy troubleshooting procedures will be reduced. In some cases the electrical output provided by the chassis charging system can be marginal and under certain circumstances the electrical load can exceed the alternator output. In addition, some electrical systems have not provided proper circuit protection and at times have not provided adequate wiring for the load. To address the above objectives, the following minimum electrical system design is required:

Chassis Charging Enhancement

The basic design for the chassis electrical output system must include equipment that provides adequate electrical

needs to operate the vehicle's electrical components. In addition, a system is desired that continually monitors the chassis voltage and amperage outputs.

Bid complies \_\_\_\_\_

Bid does not comply \_\_\_\_\_

#### Battery Activation

Switching for battery power to the ambulance systems, either On or Off, shall be furnished as outlined elsewhere within this document. The battery switch shall not disconnect power to the OEM chassis systems.

#### Automatic Throttle Advance

The controls shall require that the chassis be placed in Park or Neutral with the Module Disconnect switch in the On position and the Park Brake engaged before activation of the throttle advance. A digital display warning on the driver console, accompanied by an audible tone, must instruct the driver to Set Park Brake or Release Park Brake to engage or disengage the automatic throttle control.

Bid complies \_\_\_\_\_

Bid does not comply \_\_\_\_\_

#### Automatic Load Management

The bidder must provide a system that continually monitors the vehicles charging system while it is sitting on scene. The system design shall have the ability to automatically shut down not less than ten pre-programmed electrical circuits to prevent a deficit charging condition while the vehicle is sitting at idle. The system shall be programmed to constantly scan the electrical system. If a deficit charging condition continues for more than one minute, a pre-programmed circuit shall shut down, correspondingly reducing the electrical draw. If the deficit condition continues, a second circuit shall automatically shut down. This process shall continue to repeat at one-minute intervals until at least ten circuits are shut down with corresponding load reductions.

Bid complies \_\_\_\_\_

Bid does not comply \_\_\_\_\_

In the event any circuits are being controlled (disabled) by the load management system, the driver must be informed. A digital display warning shall appear on the driver information panel indicating Load Management Active.

Bid complies \_\_\_\_\_

Bid does not comply \_\_\_\_\_

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

Bid complies \_\_\_\_\_

Bid does not comply \_\_\_\_\_

The bidder is required to furnish a system that permits the end user to determine, prior to production, the order of priority for shedding loads. Although the entire system must function automatically, it must also be designed so that it can be set by the end user to a mode for restocking, training, or maintenance convenience. The System Off setting shall default to 'on' with system power rest.

Bid complies \_\_\_\_\_

Bid does not comply \_\_\_\_\_

#### Low Amperage Switching

Electrical devices that are not activated automatically shall be controlled from either the cab or patient area control panels through the use of manual low amperage switches in conjunction with a programmed touch screen. Switches that are rocker style will not be acceptable due to their tendency to degrade and fail in continued field use. To eliminate loose or poor contacts, it is unacceptable to have soldered or terminal type connections for the switches.

Bid complies \_\_\_\_\_

Bid does not comply \_\_\_\_\_

#### Switch Indicators

All manually activated switches on the panels described below shall be programmed to change color when the circuit is active. The switch lighting must be LED.

Bid complies \_\_\_\_\_

Bid does not comply \_\_\_\_\_

#### Switch Panel Design

Both the driver and the patient area switch panels must be designed so they can be easily decontaminated. The panels must be sealed so as to prevent contaminants from leaching into crevices, underneath switches, etc. There shall be no printing or labeling on the face of the overlay material. The panels must be cleanable using any commercially available spray type cleaner or disinfectant commonly used by EMS systems with no damage created by fluids leaking through openings onto the circuit boards or switch contacts.

Bid complies \_\_\_\_\_

Bid does not comply \_\_\_\_\_

#### Switch Panel Backlighting

The switch panels shall include, on each panel, an individual intensity control as well as a backlighting color selection feature. Switch panel lighting that operates at the same level as the cab instrument panel or that illuminates both the front and rear panels at the same intensity will not be considered. The bidder must provide totally independent control for each panel. The panel perimeter lighting must have multiple color selections available with front and rear panels separately controlled.

Bid complies \_\_\_\_\_

Bid does not comply \_\_\_\_\_

## Cab Control Switching and Display

### Switch Activation:

The cab control center shall include 8 critical buttons installed in protective enclosure with proper ventilation to maintain temperature. The following minimum circuits shall be provided on the switch panel:

- Module Disconnect
- Emergency Master
- Emergency
- Interior Lights
- Exterior Lights
- Home
- Apps
- Options

The following displays will appear on the Home screen of the cab console:

- Voltage (to the nearest 0.10 volt)
- Amperage (to the nearest amp)
- Outside Temperature
- Inside Patient Area Temperature
- Access or Compartment Door Open Warning Message and Display
- Electrical System Diagnostics
- 24 Hour Clock
- HVAC
- Emergency Brake Warning
- Accent Lighting and Backlighting Controls
- Patient Warning

Bid complies \_\_\_\_\_

Bid does not comply \_\_\_\_\_

### Door Open Indicator

The front panel shall include a door open warning indicator. This shall consist of a graphical diagram of the vehicle on the touch screen. A door open will appear on the screen allowing the operator to pinpoint which door is open. An audible alarm must sound if a door is left open and the vehicle is placed into gear. Under no circumstances will flashing lights or stand-alone audible indicators suffice to meet this requirement.

Bid complies \_\_\_\_\_

Bid does not comply \_\_\_\_\_

### Patient Area Control Switching and Display

The patient area control center shall match the front control panel specified above in all but function. The rear panel is to specifically control patient care functions and shall include 8 mission critical buttons installed in a backlight aluminum control panel. The panel shall be located on the curbside of the vehicle in the specified angled panel over the bench area. The following circuits shall be controlled through these switches:

- Oxygen
- Vacuum
- Interior lighting
- Climate Control
- Scene/Load lights
- Ventilation
- “Home”

Additional functionality shall be available via the graphical touch screen. At a minimum the following information must be available and controllable through the rear panel in addition to functionality listed above:

- Patient Status
- Stop Clock
- Oxygen Line Pressure
- Oxygen Cylinder Pressure
- Patient Area Temperature
- Thermostat Setting
- Oxygen Tank Pressure
- Oxygen Line pressure
- Oxygen Warning

Bid complies \_\_\_\_\_

Bid does not comply \_\_\_\_\_

#### Compartment and Entry Door Switches

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

Bid complies \_\_\_\_\_

Bid does not comply \_\_\_\_\_

#### 'Door Open' Indicator

A vehicle graphic door open warning indicator, with accompanying audible chime shall be installed in both the cab and patient area. A digital display shall appear on both consoles indicating which specific door has been left ajar.

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

#### Central Electrical Distribution

The electrical system smart modules shall be independent and include their own logic. They must include RAM memory to execute commands without having to rely on a central CPU. The system must not be centered around the use of a logic-controlled microprocessor built into a single circuit board. This logic control system is required to maximize reliability of the electrical system and to minimize downtime. It must be provided in order to match the type of control system used in the chassis and to prevent communication problems caused when dissimilar systems are employed. The

design of the system must totally separate chassis operation from converter feature installations. In the unlikely event of converter component failure, the chassis must still remain operable.

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

Bid complies \_\_\_\_\_

Bid does not comply \_\_\_\_\_

#### Multiplexed Electrical Communications System

Because most chassis manufacturers have chosen multiplex electrical communication technology to operate the chassis system, this purchaser requires the same technology for the converter-added systems. A standardized electrical control and wiring system is required. Standard systems controlled by outside vendors and modified for a specific vehicle or manufacturer will not be acceptable due to the unpredictability for future parts or service. Switch panels or modules that are not standard in design and are not interchangeable from one unit to another will not be considered. Since solid state logic-controlled technology is commonly available and not proprietary to any one manufacturer and has been proven to be more reliable with greater benefits, a blanket exception or clarification regarding the electrical specification is may not be accepted.

Bid complies \_\_\_\_\_

Bid does not comply \_\_\_\_\_

In addition, the system will consist of a series of input / output control modules to manage and feed information and to control the various circuits required by this specification. Each smart module must have 32 power and 2 ground outputs and 12 inputs. The smart modules shall have a chassis gateway interface with a 120 amp max output. Universal Mate-N-Lock connectors shall be used for all load connections. Mini-Universal Mate-N-Lock connectors shall be used for data transmission lines. Under no circumstances will systems be acceptable that utilize screw type terminals or card connectors due to their susceptibility to working loose due to vibration normally encountered on a vehicle.

Bid complies \_\_\_\_\_

Bid does not comply \_\_\_\_\_

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

Bid complies \_\_\_\_\_

Bid does not comply \_\_\_\_\_

#### Unit Function

The electrical control system shall be fully programmable and shall control a number of functions. The minimum functions to be controlled are as follows:

- Load Management
- Sequenced Start Circuit Activation
- Electrical System Diagnostics
- Climate Control Heat/AC operation
- Intensity Controls for Patient Dome Lights

- Oxygen Warning System (high and low pressure)
- All Warning Light Flashers and Flash Patterns
- Patient Status System
- Electrical Diagnostics

Bid complies \_\_\_\_\_

Bid does not comply \_\_\_\_\_

#### Unit Function Options

The electrical control system shall be capable of adding the following options:

- Up to four cameras
- Emergency GPS
- Pulse width Modulation
- USB port for field upgradability
- Seat belt monitor display
- Remote system activation from a mobile device
- Record ambulance PM schedule

The electrical control system shall include the ability to manage user defined maintenance issues. It shall also allow for the notification of critical issues such as oil changes and tire rotations.

Bid complies \_\_\_\_\_

Bid does not comply \_\_\_\_\_

#### Circuit Protection

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

Bid complies \_\_\_\_\_

Bid does not comply \_\_\_\_\_

#### No Prototype Systems

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

Bid complies \_\_\_\_\_

Bid does not comply \_\_\_\_\_



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

Bid complies \_\_\_\_\_

Bid does not comply \_\_\_\_\_

#### Wiring

The following minimum wiring standards are required:

##### Identification:

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

##### Size:

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

##### Protection of Wiring:

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

Bid complies \_\_\_\_\_

Bid does not comply \_\_\_\_\_

#### Diagnostics

The electrical system must have built-in capability to self-check each converter-added circuit and identify a short or open circuit automatically. The system must be designed to continuously monitor all outputs and to notify the operator of any faults via a message on the front control screen.

Bid complies \_\_\_\_\_

Bid does not comply \_\_\_\_\_

#### Support Data

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

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

Bid complies \_\_\_\_\_

Bid does not comply \_\_\_\_\_

**INPOWER BATTERY SWITCH, WITH WAKE BUTTON - 5 MINUTES**

Install an In power electronic battery switch. Switch is to activate battery power through the vehicle ignition and is to include an automatic shutdown timer to deactivate battery power after the ignition is turned off. The initial timed interval shall be (5) minutes.

Bid complies \_\_\_\_\_

Bid does not comply \_\_\_\_\_

**VANNER CHARGER/STATUS PANEL**

A Vanner battery charger and inverter status panel shall be provided and installed as noted below:

Locate: Battery Status Panel on Rear Below the Shoreline Inlets

Locate: Inverter Status Panel on Inhalation Area Wall

Bid complies \_\_\_\_\_

Bid does not comply \_\_\_\_\_

**INVERTER 20-1050CUL, AUTO SWITCHED**

The vehicle converter shall furnish and install a Vanner 20-1050CUL inverter/charger. The inverter shall be located the vehicle's designated electrical compartment, and shall power each onboard electrical outlet. The unit is to activate automatically anytime the engine is running. The "Charger" portion of this unit shall be wired to the vehicle shoreline circuit.

Bid complies \_\_\_\_\_

Bid does not comply \_\_\_\_\_

**110V INTERIOR OUTLET - (2) In Inhalation Area, (1) Above Crash Barrier, (1) Inside Crash Barrier**

110V lighted interior outlets are to be installed as noted.

Bid complies \_\_\_\_\_

Bid does not comply \_\_\_\_\_

**INTERIOR 12VDC OUTLETS: CL TYPE/USB - (1) In Inhalation Area, (1) Above Crash Barrier, (1) Inside Crash Barrier, (1) In Forward Facing Cabinet at Rear of Bench for use with Smithworks IV warmer.**

12V combination cigarette/USB style outlets are to be installed as noted. Unless otherwise noted, all outlets shall be wired for continuous 12-volt operation. The Smithworks IV warmer outlet shall be wired for ignition hot/shoreline activation.

Bid complies \_\_\_\_\_

Bid does not comply \_\_\_\_\_

**SHORELINE 1, 20A SUPER AUTO EJECT, YELLOW**

A Kussmaul 20A Super Auto Eject shoreline inlet shall be installed on the curbside rear body panel. The inlet shall be protected from the elements with a hinged cover. The shoreline system shall include a 20 amp inline GFI breaker. The shoreline cover shall be yellow.

Bid complies \_\_\_\_\_

Bid does not comply \_\_\_\_\_

**SHORELINE 2, 20A SUPER AUTO EJECT, BLUE**

A secondary Kussmaul 20A Super Auto Eject shoreline inlet shall be installed on curbside rear body panel. The inlet shall be protected from the elements with a hinged cover. The shoreline system shall include a 20 amp inline GFI breaker. The shoreline cover shall be blue. This inlet shall be dedicated to the auxiliary Danhard Heat/AC system.

Bid complies \_\_\_\_\_

Bid does not comply \_\_\_\_\_

**PD BOX LOCATION, LEFT HAND SIDE, SS INT. COMPARTMENT**

The onboard power distribution panel is to be located on the left wall of the streetside (driver's side) intermediate compartment. The panel is to be covered with an aluminum closeout to match the finish in that compartment. Access to the panel shall be provided by removing the closeout.

Bid complies \_\_\_\_\_

Bid does not comply \_\_\_\_\_

**SHORELINE INDICATOR 1:**

An LED indicator light, showing power to the A.C. circuits and presence of activated primary shoreline shall be installed above the shoreline inlet.

Bid complies \_\_\_\_\_

Bid does not comply \_\_\_\_\_

**SHORELINE INDICATOR 2:**

An LED indicator light, showing power to the A.C. circuits and presence of activated secondary shoreline shall be installed above the shoreline inlet.

Bid complies \_\_\_\_\_

Bid does not comply \_\_\_\_\_

**EXTRA 12VDC CIRCUIT BREAKER: INTERMEDIATE COMPT**

An extra circuit breaker shall be installed.

Bid complies \_\_\_\_\_

Bid does not comply \_\_\_\_\_

**REPORT LIGHT LED, PAIR, E13 RED/WHITE**

Install a Tecniq #E13-WS0R-01 Red/White split LED light in the locations described below. Each light shall function independently of the other and be controlled via its respective control panel.

Locate: (1) Above the Inhalation Area

(1) Below the Angled Panel Above the Rear Portion of the Crash Barrier

Bid complies \_\_\_\_\_

Bid does not comply \_\_\_\_\_

**CLOCK, DIGITAL W/SECONDS: OVER REAR DOORS**

Install a large face digital 12/24 hour clock with seconds display in the header panel above the rear doors.

Bid complies \_\_\_\_\_

Bid does not comply \_\_\_\_\_

**ROM DUROLUMEN LED - ABOVE HEAD IN CEILING**

A ROM Durolumen light fixture shall be provided and installed as noted above. Fixture is to be operable from the rear switch panel as well as through other means as noted within this document.

Bit complies \_\_\_\_\_

Bid does not comply \_\_\_\_\_

**ROM DUROLUMEN LED - ABOVE MID-BODY IN CEILING**

A ROM Durolumen light fixture shall be provided and installed as noted above. Fixture is to be operable from the rear switch panel as well as through other means as noted within this document.

Bit complies \_\_\_\_\_

Bid does not comply \_\_\_\_\_

**PATIENT CEILING DOME LIGHTS WHELEN LED - (6)**

Six (6) Whelen #80C0EHCR LED dome lights shall be installed in the patient area ceiling. Patient area lighting is to meet applicable standards for patient area illumination. The lights will have a high/low feature with the switch in the rear control panel or other activation locations if specified. Any lighting that meets or exceeds the illumination level of the above lights will be considered.

Bid complies \_\_\_\_\_

Bid does not comply \_\_\_\_\_

**3-SWITCH PANEL - (2) ON INHALATION PANEL**

The manufacturer shall install (2) auxiliary 3-switch electrical control panels. The panels are to match the style of switches used on the main control panels.

Bid complies \_\_\_\_\_

Bid does not comply \_\_\_\_\_

**SWITCH, O2, INHALATION PANEL**

An electronic momentary switch shall be installed in the specified 3-switch panel on the inhalation panel. The switch will activate the onboard electronic oxygen system. A second depression of this switch shall deactivate the system.

Bid complies \_\_\_\_\_

Bid does not comply \_\_\_\_\_

**SWITCH, SUCTION, INHALATION PANEL**

An electronic momentary switch shall be installed in the specified 3-switch panel on the inhalation panel. The switch will activate the onboard aspirator system. A second depression of this switch shall deactivate the system.

Bid complies \_\_\_\_\_

Bid does not comply \_\_\_\_\_

**SWITCH, REPORT LIGHT, INHALATION PANEL**

An electronic momentary switch shall be installed in the specified 3-switch panel on the inhalation panel. The switch will activate the Red/White split LED light above the inhalation area. The panel shall allow for independent operation of the LED colors.

Bid complies \_\_\_\_\_

Bid does not comply \_\_\_\_\_

**SWITCH, DOME TIMER, DOME LIGHTS, VENT, INHALATION PANEL #2**

The following functions shall be provided in the second auxiliary switch panel located on the inhalation panel.

**TIMER, DOME LIGHTS, INHALATION PANEL**

Install an electronic momentary touch timer switch in the specified switch panel on the Inhalation panel. The switch will enable time limited operation of the specified dome lights with the battery switch in the 'off' position. Set timer to 15 minutes.

Bid complies \_\_\_\_\_

Bid does not comply \_\_\_\_\_

**SWITCH, DOME LIGHTS, INHALATION PANEL**

Install an electronic momentary switch in the specified style switch panel on the Inhalation panel. The dome light switch is to activate all (6) dome lights with the vehicle running. First depression to activate all dome lights at "HI" intensity, 2nd depression to change all dome lights to "LOW" intensity, and third depression off.

Bid complies \_\_\_\_\_

Bid does not comply \_\_\_\_\_

**SWITCH, VENT, INHALATION PANEL**

Install an electronic momentary switch in the specified switch panel on the inhalation panel. The switch will activate the exhaust vent. A second depression shall turn the vent off.

Bid complies \_\_\_\_\_

Bid does not comply \_\_\_\_\_

**3-SWITCH PANEL, REAR DOOR PANEL**

The manufacturer shall install a 3-switch electrical control panel as noted above. The panel is to match the style of switches used on the main control panels.

Bid complies \_\_\_\_\_

Bid does not comply \_\_\_\_\_

**TIMER, DOME LIGHTS, REAR DOOR PANEL**

An electronic momentary touch timer switch shall be installed in the specified switch panel on the right rear door panel. The switch will enable time limited operation of the specified dome lights with the battery switch in the 'off' position. Set timer to 15 minutes. Mechanical timers are strictly prohibited.

Bid complies \_\_\_\_\_

Bid does not comply \_\_\_\_\_

**DUMP OVERRIDE, REAR DOOR PANEL**

A switch shall be programmed into the specified switch panel on the interior panel of the right rear entry door to override the automatic dump feature for the rear suspension. Activation of this switch will prevent the automatic raising and lowering of the rear suspension that occurs with the opening of the left rear entry door.

Bid complies \_\_\_\_\_

Bid does not comply \_\_\_\_\_

**3-SWITCH PANEL - ON SIDE OF CRASH BARRIER COMPARTMENT FACING STEP WELL**

The manufacturer shall install an auxiliary 3-switch electrical control panel. The panel is to match the style of switches used on the main control panels.

Bid complies \_\_\_\_\_

Bid does not comply \_\_\_\_\_

**TIMER, DOME LIGHTS, STEPWELL**

An electronic momentary touch timer switch shall be installed in the specified switch panel on the side of the crash barrier facing the side stepwell. The switch will enable time limited operation of the specified dome lights with the battery switch in the 'off' position. Set timer to 15 minutes. Mechanical timers are strictly prohibited.

Bid complies \_\_\_\_\_

Bid does not comply \_\_\_\_\_

**SWITCH, PRIVACY WINDOWS, STEPWELL**

An electronic momentary switch shall be installed in the specified switch panel on the side of the crash barrier facing the side stepwell. The switch will activate the specified electronic privacy windows causing the windows to become opaque. The windows shall clear when the switch is pressed again.

Bid complies \_\_\_\_\_

Bid does not comply \_\_\_\_\_

**SCENE LIGHT SWITCH, STEPWELL**

An electronic momentary switch shall be installed in the specified switch panel on the side of the crash barrier facing the side stepwell. The switches shall control the scene lights on either side of the vehicle. This control switch is in addition to the switches in the cab control console. The switch shall operate in the following manner:

-If the light is 'On', then the switch will turn it 'Off'.

-If the light is 'Off', the switch will turn it 'On'.

-If the lights are 'Off' because the front console light switches are 'Off', then the switch will turn the lights 'On'.

Bid complies \_\_\_\_\_

Bid does not comply \_\_\_\_\_

**LED LIGHTING, INTERIOR MAIN WALL CABINETS**

All main wall interior cabinets shall be equipped with LED cabinet lights. Lights shall include a snap-in 45 degree clip for light dispersion and ease of replacement. LED's shall be spaced a minimum of 1" apart. The lights shall be controlled through a switch in the rear control panel.

Bid complies \_\_\_\_\_

Bid does not comply \_\_\_\_\_

**BACKUP ALARM RESET, MOMENTARY**

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

Bid complies \_\_\_\_\_

Bid does not comply \_\_\_\_\_

**CAMERA SYSTEM**

Install a Brigade (4) camera system with #VBV-770FM 7" windshield mounted monitor. Install a reverse camera on rear above rear doors, an interior camera in header above rear doors, and (1) bullet style camera on each chassis fender that will activate with the respective turn signal circuit. The rear view camera shall automatically be displayed when the vehicle is placed into reverse.

Bid complies \_\_\_\_\_

Bid does not comply \_\_\_\_\_

**STREAMLIGHT PRE-WIRES**

Install (1) pre-wire on each side of the streetside intermediate compartment to allow for the future installation of a Streamlight flashlight or similar device. Terminate a power/ground wire at mid-height of the compartment. Both pre-wires shall be configured for ignition hot/shoreline activation.

Bid complies \_\_\_\_\_

Bid does not comply \_\_\_\_\_

**PROGRAMMING**

**LIGHT PROGRAMMING: SIDE REAR SCENE**

The rear scene lights on either side of the vehicle shall be programmed to be activated when the vehicle is placed into reverse gear. This is in addition to the other modes of operation as described elsewhere within this document. This feature shall be attained through the programming of the onboard electrical system. Systems that require additional wiring in order to provide this feature are not acceptable.

Bid complies \_\_\_\_\_

Bid does not comply \_\_\_\_\_

**LIGHT PROGRAMMING: RIGHT SIDE SCENE**

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

Bid complies \_\_\_\_\_

Bid does not comply \_\_\_\_\_

**LIGHT PROGRAMMING: LOAD LIGHT**

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

Bid complies \_\_\_\_\_

Bid does not comply \_\_\_\_\_

**PROGRAMMING: AUDIBLE LOW VOLTAGE ALARM**

An audible alarm shall be programmed to warn the operator should the vehicle's voltage drop below 11.8 volts for 120 seconds. This function is to operate through the onboard converter-install electrical system.

Bid complies \_\_\_\_\_

Bid does not comply \_\_\_\_\_



**LIGHT PROGRAMMING: PARK BRAKE**

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

Bid complies \_\_\_\_\_

Bid does not comply \_\_\_\_\_

**LIGHT PROGRAMMING: BRAKE LIGHT, BRAKE OVERRIDE**

The lower red flashing lights on the rear of the vehicle are to operate as supplemental brake lights. When in emergency response mode this programming is to allow the lights to flash as warning lights until the brake pedal is depressed. They will continue to operate as brake lights until the brake is released at which point they will return to flashing.

Bid complies \_\_\_\_\_

Bid does not comply \_\_\_\_\_

**MODULE DISCONNECT, DEFAULT TO "ON"**

The 'Module Disconnect' function, or the activation of the converter-added electrical system, shall automatically engage with the activation of the vehicle battery switch.

Bid complies \_\_\_\_\_

Bid does not comply \_\_\_\_\_

**HVAC**

**COOLTECH I, F SERIES**

The 12V heat/AC system shall be installed per the instructions listed above. The system provided shall include an evaporator, OEM compressor, and may be a top-mount condenser designed for use with the selected engine.

If the condenser is rooftop, it shall be recessed into the roof in a position to not interfere with the front wall lighting or the height of the vehicle. Underbody condenser design is not acceptable.

The condenser shall have a minimum of four flat mounted smart fans with a minimum flat surface area of 825 square inches. The smart condenser system shall activate fans one at a time based on system demand. The system shall reduce and optimize condenser AMP draw while reducing wear and tear on alternators and batteries. The 100,000 Btu's of added capacity will also reduce high head load on compressors while ensuring best performance in high temp and high humidity climates. This will ultimately increase the life of the unit.

The Condenser design shall offer protection in harsh climates from salt and other chemicals used to melt snow and ice. The unit shall have consistent performance due to reduced impact from mud, dirt, rocks, tar and other road debris. The unit shall have easy access for maintenance and service. The condenser mount shall be easily accessible and allow for easy cleaning.

Bid complies \_\_\_\_\_

Bid does not comply \_\_\_\_\_

**12V HVAC, ATTENDANT'S SEAT**

A ProAir 12V heat/AC system with brushless motor may be installed beneath the attendant's seat. If the unit is mounted below the seat, it shall be housed in a crash tested vented seat base. Air intake shall be through the seat base with output located over the head of the attendant's seat to create a circular uniform airflow throughout the patient compartment. The mounting plate for the attendant's seat shall be hinged with two bolts securing it in place. Access to the unit for maintenance shall be attained by flipping the attendant's seat up.

The BTU and CFM ratings on the evaporator shall be as follows:

Heat: 65,000BTU

A/C: 32,000BTU

CFM: 650 CFM

Units providing for lower ratings will not be accepted.

Bid complies \_\_\_\_\_

Bid does not comply \_\_\_\_\_

**DANHARD 110V A/C SYSTEM, IN MAIN WALL RISER**

Install a Danhard 50-2000 110V heat/AC unit inside the streetside riser under the bench seating area portion. The controls for this system shall be located on the inhalation panel.

Bid complies \_\_\_\_\_

Bid does not comply \_\_\_\_\_

**VENT CAST PAINTED NFPA STYLE**

An NFPA compliant venting system, to include a 400cfm exhaust vent along with a static vent, is to be installed. Install 9.5" square cast covers on both vents per drawings. Covers to be painted body color. Activation of the venting system is to be through the rear control panel. Systems providing less than 400cfm venting will not be accepted.

Bid complies \_\_\_\_\_

Bid does not comply \_\_\_\_\_

**ANTENNA COAX 1 - Start: Cab Console, End: Front Center of Mod Roof**

An RG 58U coax shall be installed so that the ambulance conversion need not be disassembled for installation at a later date. The termination points are noted above.

Bid complies \_\_\_\_\_

Bid does not comply \_\_\_\_\_

**ANTENNA COAX 2 - Start: Behind Passenger Seat, End: Center of Mod Roof**

A second RG 58U coax shall be installed so that the ambulance conversion need not be disassembled for installation at a later date. The termination points are noted above.

Bid complies \_\_\_\_\_

Bid does not comply \_\_\_\_\_

**ANTENNA COAX 3 - Start: Head of Curbside Bench, End: Rear Center of Mod Roof**

A third RG 58U coax shall be installed so that the ambulance conversion need not be disassembled for installation at a later date. The termination points are noted above.

Bid complies \_\_\_\_\_

Bid does not comply \_\_\_\_\_

**3/8" NMO MOUNT COAX 1**

Bidder shall provide and install a 3/8" NMO antenna mount in conjunction with the coax specified as 'Coax #1'.

Bid complies \_\_\_\_\_

Bid does not comply \_\_\_\_\_

**3/8" NMO MOUNT COAX 2**

Bidder shall provide and install a 3/8" NMO antenna mount in conjunction with the coax specified as 'Coax #2'.

Bid complies \_\_\_\_\_

Bid does not comply \_\_\_\_\_

**3/8" NMO MOUNT COAX 3**

Bidder shall provide and install a 3/8" NMO antenna mount in conjunction with the coax specified as 'Coax #3'.

Bid complies \_\_\_\_\_

Bid does not comply \_\_\_\_\_

**RADIO CABLE INSTALL: customer supplied**

The purchaser shall supply radio cables for installation by the successful bidder. This will aid in the final radio installation, which is to be done after the purchaser has taken delivery of the completed unit. The cables shall be supplied upon request by the manufacturer during vehicle construction. The number of cables and the exact installation location are as follows:

Quantity: (2)

Locate: TO BE DETERMINED.

Termination: TO BE DETERMINED.

Bid complies \_\_\_\_\_

Bid does not comply \_\_\_\_\_

**PULL WIRE 1 - Start: Behind Passenger Seat, End: Head of Curbside Bench**

A pull wire shall be installed to aid radio cable installation and prevent removal of interior panels once the vehicle has been completed. Wire shall terminate as noted above.

Bid complies \_\_\_\_\_

Bid does not comply \_\_\_\_\_

**RADIO PULL WIRE CONDUIT**

A conduit shall be installed for the specified radio cable pull wire.

Bid complies \_\_\_\_\_

Bid does not comply \_\_\_\_\_

**REAR RADIO HEAD PANEL :**

A blank radio head panel shall be installed in the angled panel at the head of the curbside bench. This panel shall serve as the location for the future installation of a flush mounted radio head. The panel shall be removable and shall expose another opening that will allow for the radio head and the mounting brackets.

Bid complies \_\_\_\_\_

Bid does not comply \_\_\_\_\_

**FRONT CONSOLE, F SERIES**

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

Bid complies \_\_\_\_\_

Bid does not comply \_\_\_\_\_

**CUP HOLDERS, 2-TIER**

Two (2) dual tier style cup holders shall be installed in the front console with easy access from both the driver's and the passenger's seats.

Bid complies \_\_\_\_\_

Bid does not comply \_\_\_\_\_

**POWER TERMINAL, DUAL, CURBSIDE HEAD OF BENCH**

Install (3) 10 gauge 30-amp cables to positive and ground studs for radio power. Wire one constant hot, one battery switched, and the third as a ground.

Bid complies \_\_\_\_\_

Bid does not comply \_\_\_\_\_

**POWER TERMINAL, DUAL, BEHIND PASSENGER SEAT**

Install (3) 10 gauge 30-amp cables to positive and ground studs for radio power. Wire one constant hot, one battery switched, and the third as a ground.

Bid complies \_\_\_\_\_

Bid does not comply \_\_\_\_\_

**POWER TERMINAL, HOT, INSIDE CONSOLE**

Install (2) 10 gauge 30-amp cables to positive and ground studs for radio power. Wire one constant hot and the other as a ground.

Bid complies \_\_\_\_\_

Bid does not comply \_\_\_\_\_

**OXYGEN**

**O2 MOUNT, VERT TRACK FOR QRM-V**

Vertical track for mounting of the specified QRM-V O2 bottle mount shall be welded on the back wall of the streetside forward compartment in the right hand corner. The bracket is to be set up for an 'M' sized cylinder. Methods of attachment other than welding will not be accepted. Method of bottle bracket installation must meet all applicable standards.

Bid complies \_\_\_\_\_

Bid does not comply \_\_\_\_\_

**O2 BOTTLE, BRACKET QRM-V**

A Zico QRM-V oxygen cylinder bracket shall be installed in the StreetSide forward compartment and set up for an 'M' bottle.

Bid complies \_\_\_\_\_

Bid does not comply \_\_\_\_\_

**OXYGEN ACCESS DOOR, HINGED INWARD**

Access to the oxygen cylinder valve through the wall from the vehicle interior is required. The door shall be hinged so that it swings into the patient compartment. Door material is to match other specified cabinet doors. The door shall include a flush mount Southco stainless steel flush pull ring latch. The opening shall be 7" wide x 11" high and trimmed with anodized aluminum.

Bid complies \_\_\_\_\_

Bid does not comply \_\_\_\_\_

**O2 OUTLET, OHIO MEDICAL - (1) In Inhalation Panel, (1) In Ceiling, (1) In Angled Panel Above Crash Barrier**

Install O2 outlets per instructions above. Outlets to be Ohio Medical style.

Bid complies \_\_\_\_\_

Bid does not comply \_\_\_\_\_

**OXYGEN WRENCH**

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

Bid complies \_\_\_\_\_

Bid does not comply \_\_\_\_\_

**VACUUM OUTLET, OHIO MEDICAL – PULL-OUT IN RISER**

A single vacuum panel shall be installed in the inhalation area, in conjunction with the pull-out drawer in StreetSide riser. The outlet shall be Ohio Medical style and shall be connected to the onboard vacuum pump.

Bid complies \_\_\_\_\_

Bid does not comply \_\_\_\_\_

**ASPIRATOR, SSCOR, PULL-OUT, BELOW INHALATION AREA COUNTERTOP**

The manufacturer shall furnish and install an SSCOR suction system. The system shall include a regulator and a canister holder. The aspirator shall be installed in a pull-out tray in the StreetSide riser per the attached prints and plumbed to the specified pump.

Bid complies \_\_\_\_\_

Bid does not comply \_\_\_\_\_

**VACUUM PUMP CFP #107CDC20**

The aspirator system shall be operated through a CFP #107CDC20 12V vacuum pump that is located inside the StreetSide upper electrical compartment. The pump shall be activated by a switch on the inhalation area electrical control panel.

Bid complies \_\_\_\_\_

Bid does not comply \_\_\_\_\_

**ZICO QR-D-2 CYLINDER BRACKET, STRAPLESS, (2) LINEN CLOSET**

Install (2) Zico QR-D-2 brackets on the forward (RH) wall at the base of the linen closet.

Bid complies \_\_\_\_\_

Bid does not comply \_\_\_\_\_

**CERTIFICATIONS**

**KKK-A-1822F CERTIFICATION LABEL**

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

Bid complies \_\_\_\_\_

Bid does not comply \_\_\_\_\_

**DEALER INFORMATION AND DOCUMENTATION**

Dealer Name: \_\_\_\_\_

Number of years in business: \_\_\_\_\_

Number of employees: \_\_\_\_\_

Primary nature of business: \_\_\_\_\_

Does the dealer maintain a paint/collision repair facility on the site of the primary service facility?

Yes \_\_\_\_\_ No \_\_\_\_\_

If "No", please indicate the business name, address, and name of primary contact for the facility where warranty paint repairs will occur:

Facility Name: \_\_\_\_\_

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

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

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

Note:

Photos of the primary service facility, including photos of the on-site collision/paint repair facility must be provided. If the primary service facility does not offer on-site collision/paint repair, then photos of the facility where those repairs will occur must be provided.

NO EXCEPTIONS.

Facility photos have been included. Yes \_\_\_\_\_ No \_\_\_\_\_

Additional Information:

The dealer shall provide a current copy of their Dealer's License or Certificate of Authority for the State in which the unit is being bid.

A copy of the Dealer's License or Certificate of Authority has been included. Yes \_\_\_\_\_ No \_\_\_\_\_

Is the **dealer** Ford QVM approved? Yes \_\_\_\_\_ No \_\_\_\_\_

A copy of the dealer's Ford QVM certificate has been included. Yes \_\_\_\_\_ No \_\_\_\_\_

The dealer shall provide a copy of the dealer's Certificate of Liability insurance coverage.

A copy of the dealer's Certificate of Liability insurance coverage has been included. Yes \_\_\_\_\_ No \_\_\_\_\_

Does the dealer provide loaner vehicles "free of charge" for repairs covered under warranty? Yes \_\_\_\_\_ No \_\_\_\_\_

#### **MISCELLANEOUS EQUIPMENT**

The following equipment and/or services shall be provided and/or installed by the selling dealer or the ambulance manufacturer:

- 1) Lettering and graphics to match department's current unit. Contact department to schedule an on-site inspection. Striping to include a Sign Gold band covering the upper body paint break line and a Black reflective

main body stripe with a mid-body "Z" pattern. All lettering and Stars-of-Life shall be RealGold material. Rear windows to include perforated Star-of-Life decals.

- 2) (2) Streamlight Fire Vulcan flash lights with LED tail lights. Wired to manufacturer provided pre-wires in the StreetSide intermediate compartment.
- 3) (4) PAC Mounts - (2) each for Axe and (2) each for Halligan bar.
- 4) (1) Kochek Hydrant Wrench Set with (1) K45-3 Triple Holder Mount, (1) K07 Hydrant Wrench and (2) K01 Spanner Wrenches.
- 5) (2) Zico SCBA brackets (exact model to be determined) and (2) coat hooks.
- 6) (1) Dial type and (1) ball type oxygen flowmeter with Ohio adapters.
- 7) Install (1) CompX Regulator lock on angled cabinet near curbside entry door.
- 8) Install (1) NCE cardiac monitor bracket. Exact model to be determined.

Note: The location of any mounted after-market equipment shall be reviewed at a pre-build conference.

Bid complies \_\_\_\_\_

Bid does not comply \_\_\_\_\_



**PLEASE PRICE INDIVIDUALLY FOR FUTURE CONSIDERATION**

**STAIR CHAIR MODEL, STRYKER #6252**

A Stryker #6252 stair chair will be stored in the designated location. This information is for sizing and placement purposes only. The bidder is to supply a Stryker stair chair Model # 6252 with the completed unit.

\$ \_\_\_\_\_

**RADIO**

**PRE-WIRE FOR A FIRECOM 5100D DEALER-SUPPLIED INTERCOM SYSTEM**

Install (3) HM-10 headset jacks in the locations described below. Wire each jack using the supplied 150 ft. spool of 6C cable. Each cable to terminate in front console. Dealer to complete installation of system, which shall include an MR-52X interface cable for Motorola XLT-5000 radio and (3) yellow NFPA headset hooks.

Locate: (1) above each cab seating position.

(1) on wall above rear portion of crash barrier compartment.

Note: Exact locations to be determined at pre-build conference.

\$ \_\_\_\_\_

Stryker Power Pro Cot with all standard features and warranty, plus the following optional items: XPS Option, No Runner/HE O2, Equipment, Equipment Hook, Power Load Compatible Option, Knee-Gatch/Trendelenburg, Retractable Head Section O2, Pocketed Back Rest Pouch, Head End Storage Flat, 120v AC SMRT Charging Kit, J Hook, XPS Knee Gatch Bolster Mattress, Steer Lock Option, 3-Stage IV Pole Patient Right, X-Restraint Package.

\$ \_\_\_\_\_

Provide and install a Stryker Power Load system in center position. System to have standard Stryker warranty.

\$ \_\_\_\_\_

The following components shall be covered with a Black Durabak coating:

Rear wheel fenderettes, running boards, front stone shields, front/rear corner guards, all surfaces of the rear bumper assembly, rear riser panel, rub rails. All attachment screws shall be black oxide stainless steel.

\$ \_\_\_\_\_

BID FORM

The undersigned hereby certifies that he has received and reviewed all pages pertaining to the bid One (1) Type 1, Class One (4x4), Configuration A Ambulance, as listed in the "INSTRUCTIONS TO BIDDERS AND SPECIFICATIONS".

NOTE TO BIDDERS:

The CITY intends to hold successful BIDDER to the letter of the specifications and contract. It is recommended that bidders review these documents and resolved any conflict or ambiguity as to intent PRIOR to signing this bid form.

Name of Bidder: \_\_\_\_\_

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

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

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

E-Mail Address: \_\_\_\_\_

**TRADE-IN ALLOWANCE**  
**2009 AEV Chevy 450 Ambulance** \$  
**(Available for inspections prior to bid)**

**TOTAL COST:** \$ \_\_\_\_\_

\_\_\_\_\_  
Signature

Corporate Seal

Attest to Seal

\_\_\_\_\_  
Title

Subscribed and sworn to before me this \_\_\_\_ day \_\_\_\_\_, 2018

\_\_\_\_\_  
Notary Public

Checklist of items to be included with bid:

- Non-Collusion Affidavit
- Indicate here acknowledgement of all addendums received
- Bid Form completed with all unit prices filled in



CITY OF HAZELWOOD
NON-COLLUSION AFFIDAVIT

STATE OF MISSOURI )
) SS
County of St. Louis)

\_\_\_\_\_ being first duly sworn on oath deposes and states:

I. That in connection with this procurement:

- a. the prices in this bid have been arrived at independently, without consultation, communication, or agreement, for the purpose of restricting competition, as to any matter relating to such prices with any other bidder or with any competitor;
b. the prices which have been quoted in this bid have not been knowingly disclosed by the bidder and will not knowingly be disclosed by the bidder prior to opening, directly or indirectly, to any bidder or to any competitor; and
c. no attempt has been made or will be made by the bidder to induce any other person or firm to submit or not submit a bid for the purpose of restricting competition.

II. The undersigned further states:

- a. he is the person in the bidder's organization responsible within that organization for the decision as to the prices being bid herein and that he has not participated, and will not participate, in any action contrary to (I)(a) through (I)(c) above; or
b. he is not the person on the bidder's organization responsible within that organization for the decision as to the prices being bid herein but that he has been authorized in writing to act as agent for the person responsible for such decision in certifying that such persons have not participated, and will not participate, in any action contrary to (I)(a) through (I)(c) above.

III. It is expressly understood that the foregoing statements, representations, and promises are made as a condition to the right of the bidder to receive payment under any award made hereunder.

FOR CORPORATIONS:

(Corporate Seals)

Name of Firm \_\_\_\_\_

- Please check:
() Corporation
() Partnership or
() Sole Proprietor
() Limited Liability Company

ATTEST TO SEAL:

\_\_\_\_\_

Signature and Title of Bidder

\_\_\_\_\_
\_\_\_\_\_

SUBSCRIBED AND SWORN TO before me this

\_\_\_\_\_ day of \_\_\_\_\_, 2018

\_\_\_\_\_ Notary Public

City of Hazelwood Contract: TYPE 1, CLASS ONE, CONFIGURATION A AMBULANCE