

Shandaken Ambulance

Bid Specifications

New Ambulance Specification

This specification covers a new commercially produced surface emergency medical care vehicle(s), herein referred to as an "ambulance" or "vehicle". This vehicle shall be in accordance with the Ambulance Design Criteria of the National Highway Traffic Safety Administration, United States Department of Transportation, and Washington DC. This specification is based on the current KKK-A-1822F revision encompassing AMD 001 - 025. It is the intent of this agency to purchase vehicle(s) that are professionally engineered and designed. It is paramount to this agency that vehicle(s) presented be built by a reputable manufacturer with considerable experience in the ambulance manufacturing field.

The award of this contract is not based on price alone. Award will be based on the bidder submitting any/all information requested, clarity of bid, adherence to the terms and conditions, compliance with the specifications, delivery time, product performance, references submitted, ability to perform follow up service and any other information this department deems appropriate. The decision of which firm will receive the award will be the sole decision of this department and shall be accepted without hesitation by all bidders.

The vendor/bidder must possess a valid Dealer's License and a copy of the valid Dealers License must be supplied with this bid. The vendor/bidder shall be required to process all State required licensing paperwork. The vendor/bidder dealership shall have an experienced warranty, service and parts department. The dealer's service department must have an experienced road service technician(s) equipped with a full service vehicle available for warranty and service needs of this department within 48 hours of requested service support.

Dealer: _____

Address: _____

City, State & Zip Code: _____

Sales Contact: _____

Sales Phone Number: _____

The successful bidder must have a telephone number for customer service, technical advice and a parts department. This number must be answered from 7:00 A.M. to 5:00 P.M. Eastern Time. In addition there must be an afterhours contact number to reach a representative 24 hours a day seven days a week in the event of an emergency. This number must be a direct number to the manufacturer's representative and not an answering service.

Parts and Service Contact: _____

Parts and Service Phone Number: _____

24 Hour Service Support Line: _____

NO EXCEPTION

Does bid comply with specification exactly as written? Yes No

The purpose of this document is to provide minimum specifications and test parameters for the manufacture of an emergency medical care vehicle that meets the needs and desires of this agency. It establishes essential criteria for the design, performance, equipment and appearance of the vehicle. The object is to provide a vehicle that is in accordance with nationally recognized guidelines. This department requires a state of the art vehicle with sophisticated electronics and a mechanical and structural design that promotes the use of high quality structural materials. Manufacturers, who utilize prototype equipment or manufacturing process that do not meet manufacturing criteria, will not be considered.

The standards of this department require that the configuration and design of this ambulance shall meet or exceed the current KKK-A-1822F Federal Specification. Manufacturers, who are unwilling or unable to meet the requirements herein, will not be considered.

The intent of these specifications is to provide an emergency medical care ambulance that meets the needs and desires of this agency. The bidder is responsible for understanding that this specification establishes the essential criteria for design, performance, equipment and appearance of the ambulance or rescue vehicle. This specification requires an all-aluminum modular exterior with extruded structural aluminum materials utilized as the modular framing material. The compartment and cabinet sizes are critical and changes will not be allowed. While it is not the intent of these specifications to exclude any qualified bidder, it must be clear that any bidder deviating in any substantial manner from these specifications will be rejected as non-compliant. **NO EXCEPTION**

Does bid comply with specification exactly as written? Yes No

This specification requires the manufacturer to provide a new, commercially produced, medical care vehicle, hereinafter referred to as an "ambulance" or "rescue vehicle". This vehicle shall be manufactured in accordance with the ambulance design criteria of the National Highway Traffic Safety Administration, U.S. Department of Transportation in Washington D.C and the GSA - Federal Ambulance Specification KKK-A-1822F. Documentation shall be submitted with the bid that validates the manufacturer's current and full compliance with KKK-A-1822F. The ambulance described herein shall be type and model tested to and in compliance with the National Truck Equipment Association's Ambulance Manufacturing Division, Standards 001 - 025. Certifications must be current to manufacturer's most recent manufacturing/engineering design criteria. NO EXCEPTION

Does bid comply with specification exactly as written? Yes No

This is an engineer, design, construct and deliver type specification and it is not the intention of this agency to write out vendors or manufacturers of similar or equal equipment of the types specified. It should be noted, however, that this specification is written around specific needs of this agency. With the intent to standardize certain components, therefore, in numerous places we have named specific brands of components. This has been done to establish a certain standard of quality. Other brands will be accepted providing the vendor provides documentation in the bid that the particular brand offered meets or exceeds the quality of the actual brand called for in the specification.

Does bid comply with specification exactly as written? Yes No

It is the intent of these specifications that, with the exception of the chassis, the manufacturer of these vehicles has the ability to manufacture a complete ambulance within their plant facility. The modular body must be designed and fabricated "in house" by the manufacturer and not "subcontracted" to another manufacturing company, corporation or production facility. All add-on accessories such as light bars, sirens, etc. are not considered as basic components of the modular body and are expected to be supplied as specified. The ambulance manufacturer must have significant experience in the construction of modular ambulance bodies and shall have manufactured a minimum of 10,000 comparable modular bodies.

It is not the intent of these specifications to call for an unusual or experimental vehicle(s). The primary manufacturer shall have a minimum of 20 years of uninterrupted manufacturing of similar or identical vehicles to the specifications set forth in this bid.

This department requires that the manufacturer of the ambulance be a 100% American owned company. American owned defines the manufacturer as well as the majority equity owners of the manufacturer as US companies, individuals and/or stockholders. NO EXCEPTION

Does bid comply with specification exactly as written? Yes No

The ambulance body and all related equipment required by this specification shall be the manufacturer's current commercial ambulance model of the type and class specified. The ambulance shall be complete with the required options and accessories as specified herein. Items will be furnished with such modifications as may be necessary and specified to enable the ambulance to function reliably and efficiently in a strenuous, sustained operation. The design of the vehicle and the specified options shall permit accessibility for servicing, replacement and adjustment of components and accessories with minimum disturbance to other components and systems. The term "heavy-duty" as used, shall describe equipment or items that are in excess of the usual quality or capacity that is normally supplied with standard production vehicles or components.

There shall be no plastics or PVC type materials used in any structural fabrication process including cabinet, compartment or wall construction. The entire modular structure and all integral body parts and pieces shall be manufactured from aluminum. NO EXCEPTION.

Does bid comply with specification exactly as written? Yes No

Any exceptions to these specifications indicated must be clearly pointed out. Otherwise, it will be considered that items offered are in strict compliance with these specifications and the successful bidder will be held responsible for delivering a vehicle meeting these specifications. Any exceptions must reference by Paragraph Number and Line and be explained in detail on a separate sheet marked "Exceptions". Any bidder not complying shall not be considered as responsive and shall be rejected. NO EXCEPTION

Does bid comply with specification exactly as written? Yes No

It is not the intent of these specifications to call for an unusual or experimental vehicle(s). The primary manufacturer shall have a minimum of 20 years of uninterrupted manufacturing of similar or identical vehicles to the specifications set forth in this bid.

If requested by the purchaser, the primary manufacturer shall supply upon request a list of fifteen (15) agencies that have purchased similar or identical vehicles within the past year from date of bid. The list will have contact names and phone numbers.

For the purpose of this section, if the bidder of record and the primary manufacturer are separate business entities, then each shall be required to submit financial, insurance, and/or licenser to conduct business within this jurisdiction. Failure to provide proper documentation with the bid response may result in any bid being deemed non-responsive.

The primary manufacturer shall be ISO 9001:2000 certified. No Exceptions.

Does bid comply with specification exactly as written? Yes No

The primary manufacturer shall employ full time a Quality Control Manager whose primary function is to monitor quality. No Exceptions.

This agency also recognizes Ford Motor Company's Qualified Vehicle Modifiers (QVM) accreditation. Therefore, regardless of chassis specifications the primary manufacturer must include with this proposal their current QVM certification. The QVM certificate supplied with this proposal must be dated within eighteen (18) months of the bid due date.

Does bid comply with specification exactly as written? Yes No

The primary manufacturer shall submit proof that it is a 'member in good standing' with the Ambulance Manufacturers Division (AMD) of the National Truck Equipment Association (NTEA). NO EXCEPTION.

Does bid comply with specification exactly as written? Yes No

All bid prices shall be complete and include warranty and delivery of the completed vehicle to this agency.

Payment shall be made in accordance with these specifications and the Bid Proposal submitted by the Bidder. Payment will be made upon acceptance of the vehicle(s) and equipment specified under these specifications.

All bid prices and conditions must be specified on the Bid Proposal Form. Bid prices shall be valid for at least 30 days from the date of the Bid Opening, or as otherwise specified on the Bid Proposal form.

Full payment will be made as each unit is received, inspected and found to comply with procurement specifications, free of damage and properly invoiced.

Does bid comply with specification exactly as written? Yes No

By submission of this signed bid response, the bidder certifies under penalty of perjury, that to the best of his/her knowledge that the pricing in this bid response has been prepared independently without collusion, consultation, communication, or agreement for the purpose of restricting competition, as to any matter relating to such pricing with any other bidder or competitor.

Does bid comply with specification exactly as written? Yes No

The bidder's proposal packet shall include a copy of the ambulance manufacturer's current insurance certificate. The manufacturer shall provide proof of \$11 Million dollars of product liability insurance coverage. NO EXCEPTION.

Does bid comply with specification exactly as written? Yes No

The manufacturer shall provide a complete set of final sales drawings for the proposed ambulance.

Does bid comply with specification exactly as written? Yes No

The successful bidder shall provide manufacturer's warranty coverage for the ambulance or rescue vehicle conversion, which coverage shall, at a minimum include:

- A. A Limited Warranty on the ambulance conversion: Twelve (12) months or 12,000 miles from date of original purchase.
- B. Paint: Limited Lifetime Materials/Prorated Labor from date of original Delivery
- C. Electrical: Limited Lifetime from date of original delivery.
- D. Modular Body Structural Integrity: Fifteen (15) years from date of original purchase.
- E. Chassis: warranty on the chassis portion of the completed ambulance or rescue vehicle shall be the responsibility of the chassis manufacturer.

The manufacturer shall warrant to the original retail purchaser that, for the warranty period that the ambulance or rescue vehicle shall be free of substantial defects in materials and workmanship, which are attributable to Warrantor and which, arise during the course of normal use and service. There shall be copies of the Warranty statements included with the bid documents.

The manufacturer shall provide a "15 Year" Limited Modular Structural warranty. The "15 Year Limited Warranty" shall be specific to and mean for the time period that the original purchaser shall own and operate the vehicle. Terms and condition of the Limited Modular warranty shall be per the manufacturer's published warranty documentation.

Does bid comply with specification exactly as written? Yes No

The manufacturer shall provide a Limited Lifetime "Electrical" warranty. The Limited Lifetime "Electrical" Warranty shall be to the original purchaser from date of original delivery to the original purchaser. Terms and condition of the Limited Lifetime Electrical warranty shall be per the manufacturer's published warranty documentation.

Does bid comply with specification exactly as written? Yes No

The manufacturer shall provide a Limited "Paint" warranty. The Limited "Paint" Warranty shall be per the terms and condition of the Limited Paint Coating warranty per the manufacturer's published warranty documentation.

Does bid comply with specification exactly as written? Yes No

The manufacturer shall provide a Limited "Conversion" warranty. The "Conversion" Warranty shall be for a period of 1 year or 12,000 miles and must be supplied in writing from manufacturer. Terms and condition of the Limited Conversion warranty shall be per the manufacturer's published warranty documentation.

Does bid comply with specification exactly as written? Yes No

QUALITY AND SAFETY DOCUMENTATION

The ambulance manufacturer responding to this vehicle specification shall demonstrate to this Agency that the ambulance being proposed offers the highest possible quality and safety standards.

In order to comply with this Agency's requirements for quality the Bidder shall provide documentation that the ambulance manufacturer has in place a quality management system that meets the requirements of the International Organization for Standardization (ISO). A copy of the ISO Registration Certificate shall be included in the bid response. To meet this Agency's requirements for safety standards the Bidder shall provide documentation that the ambulance manufacturer has conducted "dynamic" testing to validate the design, manufacturing processes, materials and workmanship used in the production of the ambulance proposed in response to this specification.

To validate the materials, manufacturing processes, quality management system and workmanship utilized in the installation of seats, seat belts, secondary restraining devices, cabinet construction, oxygen cylinder retention and module to chassis attachment a Hygee sled test shall be performed. This test shall simulate a frontal impact to the ambulance module at a minimal impact force of 20 g. A test report from a third party testing agency independent of the ambulance manufacturer shall be submitted with the bid response proving compliance to this requirement.

To validate the materials, manufacturing processes, quality management system and workmanship utilized in the construction of the modular body the Bidder shall provide documentation that the ambulance manufacturer has conducted a side impact crash test. The Institute for Highway Safety (IIHS) Crash Test Protocol Version 5 shall be used as a guideline for this testing requirement. The "target" vehicle (Ambulance) shall be struck by the "bullet" (SUV / Pickup Truck) vehicle at the fore and aft center of gravity of the target vehicle. To comply with the requirements of this specification the bullet vehicle shall be an SUV or pickup truck with a minimum gross vehicle weight (GVW) of at least 4,000 lbs. To provide this Agency accurate data in a "real world" environment the use of a Moving Deformable Barrier (MDB) and cart as the "bullet" vehicle is not permissible.

The "target" vehicle (Ambulance) shall contain instrumented Anthropomorphic Test Devices (crash test dummy) meeting the following requirements and seating locations.

1. Squad Bench – Hybrid 3 ATD instrumented with head, chest, and pelvic accelerometers, upper neck load cell, chest potentiometer, and femur load cells.
2. Ambulance Cot - Hybrid 3 ATD instrumented with head, chest, and pelvic accelerometers, upper neck load cell, chest potentiometer, and femur load cells.
3. Street Side CPR Seat - Hybrid 3 ATD instrumented with head, chest, and pelvic accelerometers, upper neck load cell, chest potentiometer, lumbar load cell, and femur load cells.
4. Attendant Seat – EuroSID – 2 ATD instrumented with head accelerometers, upper neck, abdomen, and pubic load cells, and rib potentiometers.

For the purpose of determining PASS – FAIL results the Injury Assessment Reference Values (IARV's) from FMVSS 208, FMVSS 214 and the Insurance Institute for Highway Safety (IIHS) shall be used. A test report from a third party testing agency independent of the ambulance manufacturer shall be submitted with the bid response proving compliance to this requirement.

The above requirements are in addition to the current minimum requirements for testing as outlined in KKK-A-1822.

Does bid comply with specification exactly as written? Yes No

The purchaser does not have to award the contract to the lowest responsive bidder. This Department reserves the right to award or to reject any and all bids based on the best interest of the agency and to re-bid as it deems in the best interests of the agency.

TECHNICAL REQUIREMENTS - CHASSIS

1.1 CHASSIS

The chassis shall be a 2014 or newer Ford E350 Super duty dual wheel 4x2. It shall have 80 in. cab to axle and 138 in. wheel base.

Does bid comply with specification as written? Yes No

1.2 GROSS VEHICLE WEIGHT

The Ford E350 chassis shall provide an 11,500 GVW rating.

Does bid comply with specification as written? Yes No

1.3 ENGINE

The chassis shall include a 6.8L V10 EFI Gas engine.

Does bid comply with specification as written? Yes No

The chassis shall include a factory installed cruise control.

Does bid comply with specification as written? Yes No

1.4 TRANSMISSION - DIFFERENTIAL

The chassis rear axle shall be equipped with limited slip rear differential.

Does bid comply with specification as written? Yes No

The chassis shall be equipped with an OEM wide track rear axle.

Does bid comply with specification as written? Yes No

The chassis shall include a 4.10:1 Rear Axle Ratio.

Does bid comply with specification as written? Yes No

1.5 AXLE RATINGS

The chassis front axle rating shall be 5,000 pounds.

Does bid comply with specification as written? Yes No

The chassis wide track rear axle rating shall be 8,500 pounds.

Does bid comply with specification as written? Yes No

1.7 SUSPENSION

The front suspension shall include heavy-duty gas shocks and computer selected coil springs rated at 5000 pounds. The front suspension will include a 1" OEM stabilizer bar.

Does bid comply with specification as written? Yes No

The chassis rear suspension shall be a multi-leaf, single stage spring assembly rated at 7,810 pounds.

Does bid comply with specification as written? Yes No

1.8 STEERING

The chassis shall include power steering with tilt wheel and cruise control.

Does bid comply with specification as written? Yes No

1.9 BRAKES

The chassis will be equipped with OEM heavy duty; power assisted front and rear disc brakes with four wheel ABS and a manually activated park brake.

Does bid comply with specification as written? Yes No

1.10 FUEL CAPACITY

The chassis shall be equipped with an OEM single fuel tank with a 40 gallon capacity mounted between the frame rails.

Does bid comply with specification as written? Yes No

The chassis shall be equipped with fuel fill protection: Material shall be a high impact shroud to prevent damage to the fuel fill hose.

Does bid comply with specification as written? Yes No

In order to reduce heat transfer into the module and to meet Ford QVM requirements, the manufacturer shall install a galvanized steel heat shield. This shield shall be securely mounted between the chassis exhaust and the module. The heat shield shall be a minimum of 12 inches wide and run from the bulkhead wall/cab intersection point to the rear axle area of the exhaust system.

Does bid comply with specification as written? Yes No

1.11 ALTERNATORS

The alternators shall include one OEM supplied 225 amp and one 105amp alternators, total of 2, with internal voltage regulators and rectifiers.

Does bid comply with specification as written? Yes No

1.12 GAUGES AND METERS

The OEM dash cluster will include speedometer, odometer, fuel gauge, oil pressure, "Wait-To-Start" indicator, "Water-In-Fuel", "Water Temperature", "Fuel Filter", "Transmission Temperature", Tachometer and battery indicator.

Does bid comply with specification as written? Yes No

1.13 AUTOMATIC THROTTLE

The chassis shall include a Ford OEM Auxiliary Power Control module. The APC module shall be factory set to function as an electronic throttle control that is automatically activated when the vehicle is placed in park and the emergency brake has been engaged. The auto-

throttle shall be deactivated by releasing the emergency brake or by depressing the brake pedal.

Does bid comply with specification as written? Yes No

The chassis shall include an OEM cruise control that has a manual push button control mounted on the steering column or steering wheel.

Does bid comply with specification as written? Yes No

1.14 CAB WINDOWS

The Ford chassis shall include solar tinted safety glass on all exterior windows. The driver and passenger windows shall be OEM installed, power assisted windows.

Does bid comply with specification as written? Yes No

1.15 CAB RADIOS

The chassis shall be equipped with an AM/FM Stereo Radio/Clock/CD Player.

Does bid comply with specification as written? Yes No

1.16 CAB SEATS

The chassis shall be equipped with OEM cloth captain's chairs with armrests, tilting backrest and combination shoulder and lap harness.

Does bid comply with specification as written? Yes No

CAB DASH LIGHT

Bidder shall supply a "Gooseneck" style dash light.

1.17 HEATER AND AIR CONDITIONING

The chassis shall be equipped with an OEM heavy-duty hi-output A/C-Heater system.

Does bid comply with specification as written? Yes No

1.18 ENGINE COOLING SYSTEM

The chassis shall be equipped with a heavy duty liquid cooled type cooling system that is protected with a 50/50 solution of permanent type anti-freeze to -40 degrees F.

Does bid comply with specification as written? Yes No

1.19 CAB EXTERIOR OPTIONS

The chassis shall be equipped with the 18A exterior upgrade package including, chrome front bumper, chrome grille and aerodynamic headlamps.

Does bid comply with specification as written? Yes No

The chassis shall be equipped with a full width (Including headlight extensions) chromed grille guard.

Does bid comply with specification as written? Yes No

The chassis shall be equipped with a GO-Light brand, remote operated spotlight, mounted on the cab roof. The light is to be white in color to match the rest of the cab paint.

Does bid comply with specification as written? Yes No

1.20 OUTSIDE REAR VIEW MIRRORS

The chassis shall be equipped with OEM telescoping mirrors with integrated turn signal clearance lamp and remote control electronic adjustment control located on the driver's side door. Convex mirrors shall be provided as an integral part of the door mirrors.

Does bid comply with specification as written? Yes No

1.21 CAB INTERIOR OPTIONS

The chassis will be equipped with the XLT trim level, 18C interior upgrade package including, front acoustical headliner, padded sun visors and dash absorber, day-night rear view mirror, door pockets, dome light, tilt wheel, cruise control, rubber floor mats with additional insulation package.

Does bid comply with specification as written? Yes No

1.22 SAFETY OPTIONS

The chassis shall be equipped with daytime running lights.

Does bid comply with specification as written? Yes No

The cab shall be equipped with the standard OEM passive restraint/air bag system.

Does bid comply with specification as written? Yes No

The chassis shall be equipped with OEM power door locks.

Does bid comply with specification as written? Yes No

The chassis shall be equipped with an ETI-ISSO Ignition Security System shall be installed in the vehicle with a 3 position switch located on the dash to the right of the steering column. The first position shall allow for key removal with the vehicle running. The second position shall be the off position. The third position shall allow for key removal with the vehicle running and activate the OEM horn if there is an attempt to put the vehicle in gear.

Does bid comply with specification as written? Yes No

1.23 TIRES

The chassis shall be equipped with LT225/75R16E, All Season Steel Belted Radial includes spare tire.

Does bid comply with specification as written? Yes No

The chassis shall include a jack and tire changing tools.

Does bid comply with specification as written? Yes No

The spare tire shall not be a mounted in the exterior compartment for storage. The spare tire is to be shipped loose.

Does bid comply with specification as written? Yes No

1.24 WHEEL COVERS

Stainless steel wheel inserts and lug covers. The liners will be Phoenix brand with a stainless steel valve extension kit.

Does bid comply with specification as written? Yes No

MODULE MATERIAL REQUIREMENTS

Bidder to install any miscellaneous mounting of customer supplied equipment and necessary strapping .

Module

The manufacturer shall provide a Type III ambulance that includes a module that shall be a 146"L x 90"W x 68"HR walk-through conversion.

The manufacturer will provide a recessed bulkhead on the cab side of the module to insure that the driver and passenger seat travel is optimized and that the incline adjustment on the seats is capable of providing the driver and passenger with a comfortable seating position.

Does bid comply with specification exactly as written? Yes No

Overall Vehicle Dimensions:

Length = 243"

Width = 102"

Height = 104" +/-1"

Does bid comply with specification exactly as written?

Yes No

Exterior Module Dimensions (inches):

Length = 146

Width = 90

Height = 87

Does bid comply with specification exactly as written?

Yes No

Interior Module Dimensions:

Length = 138"

Width = 84"

Height = 68"

Does bid comply with specification exactly as written?

Yes No

The aisle in the patient compartment shall provide 48 inches of working space between the squad bench and the street side cabinet wall.

Does bid comply with specification exactly as written?

Yes No

Structural Materials

Materials used in the construction shall be new and meet the quality conforming to this specification. Materials shall be free of defects.

Structural Tubing Sizes

Size = 2" X 2" X .125" Structural Tubing

Alloy = 6061-T6

Size = 2" x 2" x .250" Structural Tubing

Alloy = 6061-T6

Does bid comply with specification exactly as written?

Yes No

Module Exterior Wall:

Wall Thickness = .090"

Alloy = 5052-H32

One-piece Roof Sheet:

Wall Thickness = .090"

Alloy = 5052-H32

Exterior Compartment Floors:

Wall Thickness = .125"

Alloy = 5052-H32

Exterior Compartment Walls:

Wall Thickness = .090"

Alloy = 5052-H32

Module and Exterior Compartment Doors:

Door Skin Thickness = .090"

Internal Bracing Thickness = .125"

Alloy = 5052-H32

Liner = .100 Polished Diamond Plate

Does bid comply with specification exactly as written?

Yes No

Module Floor Structure:

Primary Structural Material: 2" x 2"

Wall Thickness = .250"

Secondary Structural Materials: 2" x 2"

Wall Thickness = .125"

Alloy = 6061-T6

Mounting Plates = .5" Aluminum Plate

Gussets:

.250" - 6" x 3" x 3" 5052-H32

2" x 2" x .125" 6061-T6

One-piece Vapor Barrier:

Wall Thickness = .063"

Alloy = 5052-H32

Does bid comply with specification exactly as written?

Yes No

The interior cabinet construction shall be plywood and will include the following:

Wall Thickness = 3/4" Featherply

Material = Cabinet Laminate (White Interior - Color Selected Exterior) on Plywood

Interior Module Wall Panels

Wall Thickness = 1/4"

Material = Color Coordinated Commercial Laminate on Featherply substrate

Interior Cabinet Shelves

Shelf Thickness = 3/4"

Material - White Laminate on Therma-Lite Tough substrate with anodized aluminum retaining lip.

Does bid comply with specification exactly as written?

Yes No

MODULE EXTERIOR REQUIREMENTS

Structural Framing

All framing will be a minimum of 2" x 2" square tubing with a wall thickness of .125" and an alloy rating of 6061-T6. Tubing members will be spaced on minimum 12-inch centers for optimum load and structural support and will have full 360 degree welds (8" Minimum) at every contact point. Manufacturers who provide less than 8" continuous weld will not be considered. Gussets shall be added at all stress points. Gussets will be either .250" plate or 2" square tubing welded to the adjacent structural members at 45-degree angles for diagonal strength.

Roof framing shall be 2" x 2" square tubing with a wall thickness of .125" and an alloy rating of 6061-T6. These structural tubing members will be set on 12 inch centers. The roof members shall be pre-stressed and arched to provide a 3/4" roof radius. The roof sheeting shall not be required as integral part of the roof structure; however, the roof skin shall be welded to the outer extrusions using a full perimeter, continuous weld on all four sides. The roof structure itself shall be designed to enhance the safety and structural integrity of the modular body and to meet or exceed the load requirements of AMD Standard No. 001

Does bid comply with specification exactly as written?

Yes No

UNDERCOATING

The entire underbody (excluding drive shaft, wheels, gas tank and 12 inches either side of exhaust system) shall be sprayed with a petroleum based undercoating for rust prevention, corrosion protection and added sound deadening. The material used shall be a low VOC product that meets MIL Spec MIL-C-62218A and will remain flexible but tack-free.

Does bid comply with specification exactly as written?

Yes No

EXTERIOR MODULE CONSTRUCTION

The exterior of the body shall be constructed utilizing a full six sided box framework with a combination of high strength 6061-T1 and 6063-T6 alloy aluminum and having an outer surface of aluminum sheet with a temper and alloy of 5052-H32 for strength, weld integrity and corrosion resistance. The front, sides, and rear of the modular shall be configured from

single sheets of .090" aluminum. The one piece sheets shall be used to maximize integrity against dust, toxic fumes, cracking, and moisture penetration. The openings for doors, warning lights and exterior compartments shall be cut on a horizontal plane with a computer controlled plasma cutter for accuracy and to support downstream manufacturing efficiencies. The roof and side skins shall be installed utilizing a 3M VHB double sided adhesive to allow absorption of vibration and to eliminate "panning". The skins shall be welded to the interlocking corner and roof rail extrusion framework at the outer perimeter of the sheets using a MIG welding process.

Does bid comply with specification exactly as written? Yes No

The exterior wall skin of the module shall be .090" x 5052-H32, corrosion resistant aluminum. The module side wall, front and rear wall panels shall each be constructed from CNC cut machine formed single sheet materials. They shall be independent structural components assembled to form an interlocking, integral structure that is welded along the full length of the component junctions and at alternating intervals along the full length of each internal flange. The construction process shall produce a clean, unbroken surface that provides seamless sidewalls with transition seams at the front and rear of the streetside and curbside walls providing an environment that is designed to eliminate unnecessary exposure prevent oxidation and corrosion and promote the long term integrity of the ambulance body and finish.

Each sidewall shall be manufactured in an environment designed to prevent the waviness that can occur during the assembly process. The formed module side, front and rear wall panels shall be securely welded to the 2" structural framing at the top and bottom where each individual framing member comes in contact.

NO EXCEPTIONS

Does bid comply with specification exactly as written? Yes No

Prior to application of the bonding tape all aluminum surfaces must be thoroughly etched and cleaned. Each of the side, front and rear walls shall be assembled and compression applied per the requirements of the adhesive manufacturer to provide proper adhesion and to produce a smooth, flat exterior surface eliminating side wall waves on the finished product.

Does bid comply with specification exactly as written? Yes No

The lateral roof bows shall be two inch by two inch by .125 square extrusions of 6061-T6 alloy aluminum. The structural members shall be located to support the roof skin with twelve inches between roof bows. The roof bows shall interconnect with the roof rails and be continuously welded at all contact points. The finished roof shall incorporate a machine rolled crown of not less than three quarter inch in height to provide additional strength and allow water runoff. The roof structure itself shall be designed to enhance the safety and

structural integrity of the modular body and to meet or exceed the load requirements of AMD Standard No. 001.

Does bid comply with specification exactly as written? Yes No

The roof substructure assembly shall consist of four perimeter roof rail extrusions, lateral roof bows and interconnecting corner caps. The roof rail extrusions shall be engineered and designed by the primary manufacturer and shall be double hollow of 6063-T6 .125 aluminum. An integrated roof recess shall be incorporated to create a smooth transition from the one piece roof sheet to the full perimeter roof rail. The rip rail shall be an integral component of the roof rail and shall be extruded as a design feature of the roof rail extrusion. The roof rail extrusion shall overlay the side skin by one half inch.

Does bid comply with specification exactly as written? Yes No

The corner caps shall be designed to interlock with the roof perimeter, vertical corner extrusions and roof sheet. The corner caps shall be cast aluminum made from matched metal dies to insure a smooth and pleasing appearance. The caps shall act as a stress relief device to absorb energy and disperse the force along the roof extrusions in the event of a collision. The outer edge DOT lights shall be installed as described in another section.

Does bid comply with specification exactly as written? Yes No

The module roof shall include a single sheet of .090" x 5052-H32 aluminum. This roof sheet shall be attached to the welded roof structure with 3M VHB tape and shall include a continuous, full perimeter weld to the roof radius extrusion to provide a full permanent weather proof seal and to enhance the structural design of the modular structure. The weld around the perimeter of the roof skin shall be ground to provide a uniform transition around the perimeter of the roof material.

Does bid comply with specification exactly as written? Yes No

The ambulance body as a unit shall be designed and built to provide impact resistance. The body shall be of sufficient strength to support a minimum of 2.5 times the weight of the "fully" loaded vehicle on its top and side, without crushing, separation of joints, or excessive deformation of roof bows, reinforcements, body parts, doors, floor members, inner linings, outer panels, rub rails or any other structure in accordance with AMD Standard No. 001.

Does bid comply with specification exactly as written? Yes No

To enhance the structural integrity of the modular structure, the manufacturer shall provide additional interior gussets at strategic locations where the walls, floor and ceiling structures intersect. These gussets shall be at a minimum, 1/4" x 3" x 3" place in pairs in strategic locations. There will be a minimum of (4) sets welded in place on each side of the module

where the floor structure is welded to the wall structure. There shall be 2" x 2" x 8" - .125" tubing mitered and welded at 45 degrees at each upper corner location.

Does bid comply with specification exactly as written? Yes No

The floor shall be at lowest level permitted by clearances, but not more than thirty three inches from the ground. The floor structure shall consist of 2" by 2" by .250" structural box section with 6061-T6 alloy aluminum. The floor structure shall be welded with eight inches of weld at every joint. The openings created for the placement of exterior compartments shall have six inches of weld to insure a smooth surface to fit the compartment in the structure. Tapping plates of one quarter inch and one half inch of 6061-T6 aluminum shall be completely welded both sides to the floor assembly. The finished floor assembly shall be securely welded to the wall structures with eight inches of weld and skipped welded every four inches to the exterior compartments. All critical load points shall be reinforced with one quarter inch by three inch by six inch gusset plates. Above the floor channels there shall be an aluminum moisture shield .063 inches thick. The entire underside of the modular shall be sealed with a waterproof sealant. All hollow structural shapes or cavities shall be sealed utilizing approved expandable foam.

Does bid comply with specification exactly as written? Yes No

SUB-FLOOR SYSTEM

The sub floor shall consist of 2" x 2" x .250" 6061-T6 structural tubing spaced transversely completely welded to the longitudinal members with a minimum 8 inches of weld at every intersection. This shall create a 2 inch thick floor substructure that provides enhanced structural strength from the transverse weaving of the structural tubing. The manufacturer shall utilize 6061-T6 structural tubing. Architectural tubing or material that does not meet or exceed an alloy rating of 6061-T6 shall not be acceptable.

The sub floor shall also consist of 2" x 2" x .250" 6061-T6 structural tubing equally spaced longitudinally inboard of the chassis wheel wells to provide optimum structural support to the body/chassis mounting system and shall be completely welded to the transverse members with a minimum 8 inches of weld at every intersection.

The floor super structure shall be welded to the front and rear walls, shall consist of a minimum of 4 locations where the transverse structural members run full width from body side structure to body sides structure with a minimum of 8" of weld at each location and two 1/4" x 3" x 3" gussets welded to the floor and wall members along with the offset lateral supports that are welded front and rear of the entry step well, the wheel wells and the exterior compartments. Additionally, there will be 1/2" support plates fully welded into the floor structure for mounting the cot hardware, the tech seat and any additional equipment that would be mounted to the floor.

Does bid comply with specification exactly as written? Yes No

The sub floor of module body shall include a .063 inch - 5052-H32 alloy rated aluminum vapor barrier securely welded to the wall structures and exterior compartment and completely sealed to prevent contamination from outside elements.

Does bid comply with specification exactly as written? Yes No

Access

Electric door & exterior compartment locks:

There shall be electric locks on all entrance doors and all exterior compartment doors.

Does bid comply with specification exactly as written? Yes No

The module shall include one side entry door on the curb side of the module, and one set of double entry doors on the rear of the module. The curb side door shall provide a clear opening that is approximately 32" W x 72"H. The rear doors shall provide a clear opening that is approximately 48"W x 60"H.

Does bid comply with specification exactly as written? Yes No

Entrance Doors

The exterior door skin panel shall be .090" thickness; 5052-H32 alloy rated aluminum, with the formed corners welded and finished to provide a smooth, unbroken appearance. The door shall include a full perimeter internal extrusion designed to create a solid, square support structure for each door. This extrusion shall be designed in such a way that when the door is finished, there is no visible extrusion showing, thus creating a smoothly finished edge that will not allow dirt, salt, or other foreign matter to be trapped around the extrusion. Door extrusions will be mitered at each corner, fitted with an extruded, saw-toothed key seated in specifically designed to insert into the door extrusion and welded to promote a square fit and to prevent frame members to separate. The doors will be chemically welded around the inside seam of the formed door skin and the extruded internal support. Doors that are purely pan-formed or having visible extrusions will not be considered. NO EXCEPTION

Does bid comply with specification exactly as written? Yes No

The interior of the doors shall be fitted with formed .090" x 5052-H32 aluminum interior bracing. This bracing shall be welded to the door structure at perimeter locations where the weld penetration marks will not be visible. In all other areas the bracing shall be attached to the door skin with a self-etching, two part high performance adhesive. Installed inside each door brace shall be 1.875" polystyrene insulation or spray-in-place high density foam for

acoustical/thermal insulation. The manufacturer's structural warranty shall include the entrance doors. NO EXCEPTIONS

Does bid comply with specification exactly as written? Yes No

The rear entry shall include double doors. Each exterior door skin shall consist of a single .090" aluminum sheet that is machine cut and formed to provide a smooth and unbroken finish. The double doors shall include a full perimeter internal extrusion designed to create a solid, square support structure for both doors. This extrusion shall be designed in such a way that when the door is finished, there is no visible door extrusion showing, thus creating a smoothly finished edge that will not allow dirt, salt, or other foreign matter to be trapped around the extrusion. Door extrusions will be mitered at each corner, fitted with an extruded, saw-toothed key seated in specifically designed to insert into the door extrusion and welded to promote a square fit and to prevent frame members to separate. The doors will be chemically welded around the inside seam of the formed door skin and the extruded internal support. There shall be a full height extruded aluminum mullion mounted on the left rear door to form a weather tight seal between the two rear doors. Doors that are purely pan-formed or having visible extrusions will not be considered. NO EXCEPTION

Does bid comply with specification exactly as written? Yes No

The doorjamb of all module doors will consist of a custom extrusion fitted with an extruded, saw-toothed key seat specifically designed to insert into the door extrusion and welded to promote a square fit and to prevent frame member separation. The doorjamb will be attached at the body door opening with an industrial, self-etching epoxy material in such a manner that the extrusion is behind the body side skin creating a smooth, unbroken finish. The interior of the extrusion shall be interval welded around the full perimeter of the 2" x 2" door framing. The perimeter of the door opening will be turned with a router and sanded smooth to provide a consistent, rounded surface for paint adhesion. This process eliminates any joint between the jamb and the body side skin eliminating the need for seam sealing and the potential for seam seal cracks. With the exception of the corner extrusions, there will be no visible extrusion around the perimeter of the module providing a smooth unbroken finish that eliminating the potential for contamination, oxidation and corrosion around exposed extruded door components. Bolting, taping or screwing the casing to body is not acceptable. NO EXCEPTION

Does bid comply with specification exactly as written? Yes No

Both patient compartment and exterior compartment doors shall be provided with extruded rubber seal system consisting of a hollow cell bulb gasket. The gasket shall insert into an appropriately designed groove in the inner door extrusion. This will provide the best seal possible. Glued on seals or seals that are mounted to the compartment openings are unacceptable as they will easily be torn by loading or unloading of equipment stored in the compartment. Seals that are glued on or mounted to the compartment doorjamb will be

unacceptable due to their tendency to be torn by loading or unloading onboard equipment.
NO EXCEPTION

Does bid comply with specification exactly as written? Yes No

The area between the stainless steel hinge and the painted door and jamb surfaces shall be treated with anti-corrosion, electrolysis prevention material ECK or the equivalent. The product must be commonly available to any and all manufacturers and have proven itself in the emergency and fire industries. The material must be applied per the manufacturer's application guidelines. NO EXCEPTIONS

Does bid comply with specification exactly as written? Yes No

Rear access doors shall be held open by a 4.5" Cast Grabber. The U shaped piece shall be attached to the door. It shall enter into a rubber insert when the door is in the open position. An ECK corrosion inhibitor shall be applied to the mounting holes prior to installation.

Does bid comply with specification exactly as written? Yes No

The curbside entrance door shall be equipped with a heavy-duty gas charged strut restraint device capable of holding the door open at 90 degrees. This device shall be mounted with 1/4" x 20 stainless steel bolts or machine screws.

Does bid comply with specification exactly as written? Yes No

The curbside and rear entry door headers shall have a removable, vinyl covered foam cushion to provide protection for emergency personnel when entering or exiting through either entry door.

Does bid comply with specification exactly as written? Yes No

The module side and curbside rear entrance doors shall be equipped with two point, deep grip, free-floating TriMark handles. The handles shall have a die cut rubber gasket separating the deep grip handle from the door. The surface finish of the assembly shall provide a flat black finished housing with a chrome handle. The free floating (when locked) pivot plate and lock cam washer shall be zinc plated and coated with clear chromate. The street side rear entry door will be equipped with a trailing door latch release mounted on the inside edge of the door extrusion. This provides easy access from both the interior and exterior of the ambulance without the necessity of another hole being cut on the outside of the door. **No Exceptions.**

Additionally, each entry access door shall have upper and lower emergency release tabs. These tabs shall be situated so that they are unobtrusive but provide easy access if there is

an emergency need to exit the vehicle and the latching assemblies have become non-functional. **No Exceptions.**

Does bid comply with specification exactly as written? Yes No

All compartment and module entry door handles shall be keyed alike. The latches shall be equipped with double cut, non-directional tumbler assemblies designed to accept a key that does not require a specific orientation for actuation. Single cut tumbler assemblies that require a specific orientation for operation are not acceptable. No Exceptions

Does bid comply with specification exactly as written? Yes No

The module entrance doors shall be equipped with TriMark rotary latches constructed of high strength, heat treated, steel latch components. Rotor and latch shall be coated with a solid film lubricant, springs made of 302 stainless steel, and components zinc plated with yellow chromate (clear chromate will not be acceptable). All rotary door latches shall engage Nader pin striker posts made of high strength steel, plated with yellow zinc chromate and inserted through a synthetic isolation washer designed to prevent corrosion around Nader pins. The Nader pins shall have a shoulder to prevent the latch mechanism from being pulled over the top of the pin in a dynamic crash situation. The Nader pins shall be fastened with a securing nut designed to function like a blind fastener, allowing the Nader pin to be adjusted and re-tightened without having to access the nut.

Does bid comply with specification exactly as written? Yes No

The interior side of the side and curb side rear module entrance doors shall include a TriMark flush mount interior paddle handle with the same specifications as the exterior paddle handles. The interior door assembly shall include a locking lever for the side entrance door and the curbside rear locking door.

The street side rear entry door will be equipped with a trailing door latch release mounted on the inside edge of the door extrusion. This provides easy access from both the interior and exterior of the ambulance without the necessity of another hole being cut on the outside of the door. Additionally, each entry access door shall have upper and lower emergency release tabs. These tabs shall be situated so that they are unobtrusive but provide easy access if there is an emergency need to exit the vehicle and the latching assemblies have become non-functional.

Does bid comply with specification exactly as written? Yes No

The interior door panel of the module entrance doors shall be of formed stainless steel. The upper section shall accommodate the upper window assembly, the middle section shall provide access to the door handle assemblies and shall have a highly reflective red/white chevron pattern laminated on the surface and the lower panel shall provide a wear resistant

kick panel. These panels shall be attached with #10 – 24 stainless steel machine screws into matching rivet nut inserts around the perimeter of the door.

Does bid comply with specification exactly as written? Yes No

All of the internal door hardware, paddle handles and latches, shall be sprayed with a petroleum based lubricant material. "NO EXCEPTIONS"

Does bid comply with specification exactly as written? Yes No

The module entrance door switches shall incorporate magnetic proximity switches that will activate specified module interior lighting when the side or rear entry doors are opened and will activate a flashing indicator light in the driver's control panel when the doors are opened. When open, the rear doors shall activate the rear load and back-up lights. The curbside scene lights shall be activated when the curbside module entrance door is opened. The switch utilized shall be a magnetic proximity switch that requires no maintenance and is easily accessible for replacement. The magnetic switch shall be a heavy-duty, industrial type.

Does bid comply with specification exactly as written? Yes No

This vehicle shall be equipped with non-remote power door locks. They shall be installed on the patient entry doors and the exterior compartment doors. These locks shall be wired so that they can be locked and unlocked manually with the switch at each patient access door.

Does bid comply with specification exactly as written? Yes No

The manufacturer shall wire the OEM cab door lock switches so that they will actuate the module entrance and compartment locks. There shall be a stealth switch installed in the passenger side grille area to provide an emergency unlock feature for the ambulance. There will also be a power door switch located (1) at the side entry door and (1) at the rear entry doors.

Does bid comply with specification exactly as written? Yes No

Keyless Entry Key Pad: There shall be a Numeric, wireless Keypad to the electric door locks. The Keypad shall be mounted on the rear of ambulance.

Does bid comply with specification exactly as written? Yes No

There shall be "C"-nuts, speed nuts or threaded inserts installed around the full perimeter of the module entry and compartment doors to provide a stable environment for mounting the interior door panels. Under no circumstances will the manufacturer use self-tapping or self-threading screws.

Does bid comply with specification exactly as written? Yes No

ANALOG CLOCK

Bidder shall provide an analog clock in rear of ambulance.

Door Hardware

Each module entrance doors shall be fitted with a 1inch "L" shaped assist handle. The assist handles shall run horizontally along the lower edge and then vertically up the hinged side of the window on each door.

Does bid comply with specification exactly as written? Yes No

Side Entry Threshold

There shall be a recessed step well located at the curbside module entrance door. The step portion of the step well and the three sides shall be lined with aluminum diamond plate. The step well shall be as deep as possible and will extend from the door edge area to the edge of the interior floor structure so as to provide as much step area as possible between the squad bench and ALS cabinet. There will be a 8.5"W stainless steel threshold installed at the edge of the floor with a strip of anti-skid tape installed full length across the threshold.

Does bid comply with specification exactly as written? Yes No

Module Windows

The side entrance door shall include a sliding window with a positive latch and screen. The window shall be approximately 26 1/2 inches high and 19 1/2 inches wide with privacy tinted glass.

Does bid comply with specification exactly as written? Yes No

The rear entry doors shall have fixed glass windows to prevent the possibility of carbon monoxide from entering the patient compartment. The two rear entry door windows shall be identical and shall be approximately 22 1/2 inches high and 13 1/2 inches wide with privacy tinted glass.

Does bid comply with specification exactly as written? Yes No

All windows shall be from the same window manufacturer, and shall be privacy tinted safety glass with black aluminum extruded frames inside and out. Windows shall meet and incorporate the required stamp and serial number per F.M.V.S.S. regulation #571.205.

Does bid comply with specification exactly as written? Yes No

Mounting System

The mounting system shall not cause any chassis frame deformation. There shall be ten mounting points, five on each frame rail. The modular body shall have full perimeter welded sill rails of one half inch by two inch of 6061-T6 alloy aluminum and be attached to the vehicle utilizing one inch by three inch sill plates of 6061-T6 alloy aluminum. The modular body shall be welded to the sill plates at every exposed seam. At all outrigger mounting locations, a double compression, neoprene rubber isolator mounts shall be used to minimize chassis vibration transfer to the modular body. The modular body and sill plates shall be attached to the frame rails using three quarter inch grade eight bolts. Any method contrary to QVM which may void the chassis warranty shall not be accepted.

Does bid comply with specification exactly as written? Yes No

Cab to Module Interface

The body will be attached to the cab using a minimum of twenty-four (24) .250" x 20 zinc treated bolts, fender washers and nylon lock nuts. A one-piece automotive style closed cell bulb seal will be installed between the cab and body to completely seal the joint between the cab and the modular body. The body shall be primed and painted prior to the cab & chassis being attached to provide maximum protection against electrolysis.

Does bid comply with specification exactly as written? Yes No

In order to provide the driver and passenger with a safe and comfortable environment, the manufacturer shall provide a minimum of 6" of additional cab space located behind the driver and passenger seats, recessed into the module bulkhead.

Does bid comply with specification exactly as written? Yes No

A one-piece automotive style closed cell bulb seal will be installed between the cab and body to completely seal the joint between the cab and the modular body. The body shall be primed and painted prior to the cab & chassis being attached to provide maximum protection against electrolysis.

Does bid comply with specification exactly as written? Yes No

Rear Bumper

The rear bumper framework shall be constructed of 2"x 3"x .1875" wall, 11 gauge steel "C" channel. The framework shall be bolted to the chassis frame with Grade 8 bolts. The outboard pods shall be covered with .100" diamond-plate and the center section shall incorporate a flip-up step of grated material.

Does bid comply with specification exactly as written? Yes No

Above the rear bumper and below the rear doors, there shall be a full length riser of aluminum diamond plate for a protective kick panel. The kick panel shall be securely fastened with ceramic coated stainless steel screws to inhibit rust that could result from electrolysis and run the full rear width of the module. Pop rivets are not acceptable.

Does bid comply with specification exactly as written? Yes No

The rear outboard bumper pods shall be .100" aluminum diamond plate. The pods shall be formed and welded to provide a clean, finished appearance to the rear bumper.

Does bid comply with specification exactly as written? Yes No

All steel rear bumper frame members to include isolation material between the steel frame and the aluminum bumper pods. Frame to have Scorpion X02 polyurethane spray applied. NO EXCEPTIONS.

Does bid comply with specification exactly as written? Yes No

The center step of the bumper assembly shall be designed to allow it to flip up and out of the way to facilitate patient loading. The flip up section of the of the rear bumper shall be diamond plate to meet the requirements of KKK - A – 1822F specification. The diamond plate flip up step shall be punched with three rows of raised star-shaped holes to create additional non-skid surface. A 2x2x0.125 aluminum box tube shall be welded inside the step full width on the side farthest from the rear of the vehicle. A stainless steel hinge with a center pin of .250 inch shall be used to attach the flip up section of the rear step to the main rear bumper assembly.

Does bid comply with specification exactly as written? Yes No

Insulation

The primary manufacturer shall supply an insulating material that is nonflammable with a Class A, Class 1 fire rating. It shall be certified to meet the smoke and flammability requirements of FMVSS 302. The exposed walls of the exterior compartments and wheel wells that intrude into the interior of the modular shall be covered with reflective insulating material with a value of R-14. The side, front, rear, walls as well as the ceiling shall be insulated with one inch block foam beneath a full covering of reflective insulation. In addition, one inch block foam insulation shall be installed under the aluminum floor moisture barrier and between the floor structures. The insulation shall be protected from road debris by an additional aluminum moisture barrier under the insulation.

Does bid comply with specification exactly as written? Yes No

The interior walls of the module (floor, walls, ceiling) shall be insulated with 1" block polystyrene block foam insulation installed between the extruded structural framing. The

floor insulation shall rest in a .090" formed pan installed between all of the floor super structure members.

Does bid comply with specification exactly as written? Yes No

After the standard insulation package is installed, the entire interior of the unit shall be wrapped with 5/16" foil wrapped two sides, radiant barrier foam style insulation to enhance the thermal and acoustical properties of the modular unit.

Does bid comply with specification exactly as written? Yes No

Electrolysis/Corrosion Protection

All external materials and fasteners shall be chosen to prevent electrolysis and corrosion due to dissimilar materials, exposure to the elements and moisture entrapment.

Does bid comply with specification exactly as written? Yes No

The following requirements shall be considered as minimum acceptable standards. All exterior fasteners shall be stainless steel. There shall be a rubber or plastic insulating material under all lighting, all exterior compartment and module door handles, rear door hold opens and between the cab and module.

To prevent long term electrolytic paint corrosion all components to be mounted on the module exterior shall be cut out prior to painting. All exterior fasteners used to mount emergency lighting to the outside of the module shall be completely treated with ECK to provide a barrier and protective layer to prevent paint oxidation, corrosion or degradation due to any paint breaks on the module body.

Additionally, all exterior components fastened or attached to the module, anything that breaks or has the potential to break paint shall incorporate the use of ECK brand anti-corrosion and electrolysis prevention material. The manufacturer must use the patented ECK product; an equivalent substitute will not be acceptable. This product is available to any and all manufacturers and has proven itself in the emergency and fire industries. Product must be applied per the application guidelines. NO EXCEPTIONS

Does bid comply with specification exactly as written? Yes No

Crash rails that are bolted to the module body shall use 1/4" neoprene isolation spacers to prevent the mounting bolts from coming into contact with the modular aluminum skin. NO EXCEPTION

Does bid comply with specification exactly as written? Yes No

Rub Rails

The lower rub rail mounted along the exterior of the body shall be a combination extruded rubber material designed to fit into a specially designed aluminum extrusion. The extruded rubber is designed so that a 1" wide .090" aluminum sleeve laminated with a Scotchlite reflective material can be inserted along the full length of the rail. The rub rail assembly shall be mounted to the lower edge of the body with ceramic coated stainless steel machine screws with 1/8" rubber isolators installed between the rail and the body side skin.

The insert along the full length of the rub rails on both sides of the module will be laminated with White Scotchlite material.

Does bid comply with specification exactly as written? Yes No

The rear wheel well cut outs of the module shall be fitted with polished, cast aluminum extrusions. These one-piece, cast fenderettes shall include an integral isolation spacer. The flare shall provide additional body protection and shall be installed so that the mounting hardware is not visible.

Does bid comply with specification exactly as written? Yes No

Running Boards

The manufacturer shall provide aluminum diamond plate running boards on the OEM cab. At a minimum, the running boards shall be made of .100 inch polished aluminum diamond plate and will be approximately 8 inches wide in front and tapered toward the rear to provide a step surface that is flush with the outside of the modular sidewall. The forward edge shall include a diamond plate splash guard that is welded to the forward ends of the running boards. The step surface of the running boards shall have a symmetrical punch pattern CNC pressed into the surface. This assembly shall be securely mounted to the cab with ceramic coated stainless steel self-tapping anchor screws. ECK brand material must be applied to prevent electrolysis at mounting locations.

Does bid comply with specification exactly as written? Yes No

Mounted behind the rear dual wheels shall be heavy duty commercial type mud flaps. They shall be installed in such a manner as to not come in contact with the exhaust pipe and shall be bolted on with 1/4" x 20 ceramic coated stainless steel bolt assemblies for ease of replacement.

Does bid comply with specification exactly as written? Yes No

Located on the front and rear of the module shall be diamond plate corner protection which shall be approximately 13" high and shall extend from the edge of the OEM cab to around the module radius. Each corner shall be a manufactured from a minimum .100 inch

diamond plate formed to match the extruded corner radius and shall have sealed edges. ECK brand spray shall be used prior to installation at all fastening points.

Does bid comply with specification exactly as written? Yes No

Drip Rails

The modular drip rails shall be an integral part of the extruded, upper roof radius running the full length of module at the top sides, front and rear. They shall not be riveted, welded, or held in place by VHB tape.

Does bid comply with specification exactly as written? Yes No

The drip rails installed above the compartment and entry doors shall be extruded, bright anodized aluminum, running full length above each door opening. All drip rails shall be attached with 3M VHB bonding tape, which will withstand exposure to the elements and still be replaceable. This method shall provide quick and easy replacement in the event they are damaged. They shall not be riveted, welded, or integral to the doorframe extrusion.

Does bid comply with specification exactly as written? Yes No

Wheel Well Configuration

The module wheel well opening shall include full (length and width) wheel well liner. The liner protection plates shall be formed .125 inch aluminum secured in each rear wheel well extending from the lower forward edge to the lower rear of the wheel well interior.

Does bid comply with specification exactly as written? Yes No

Cab to Module

A bulkhead cabinet shall separate the cab from the patient compartment with a hinged door to allow access between the two while providing privacy. The open door shall allow for an aisle of at least 17 inches between the compartments. The door shall have at least a 150 square inch transparent, shatterproof viewing panel in the center section at the driver's eye level. The door shall be secured with a driver's side self-latching device in the open and closed positions and a gas strut located at the top of the door will stabilize the door in the open position. The bulkhead cabinet shall be moved to the rear of the vehicle to allow for 6 inches of space behind the driver and passenger seats.

Does bid comply with specification exactly as written? Yes No

License Plate

There shall be a cast aluminum license plate holder recessed into the rear of the module body. The cast housing shall be equipped with two TruckLite #15205 LED lights, one each

side of the housing. The mounting fasteners shall be stainless steel screws through plastic wall inserts and the cast housing shall be completely isolated from the module wall by a butyl rubber, full perimeter gasket. The manufacturer must use ECK brand material for installation.

Does bid comply with specification exactly as written? Yes No

MODULE COMPARTMENTS

Compartment Structure

All compartment sidewalls and ceilings shall be constructed of .090" x 5052-H32 aluminum plate. Compartment floors shall be constructed of .125" x 5052-H32 aluminum plate. Door frames constructed of extruded aluminum shall be welded to all compartment openings, providing a smooth, flangeless mating surface for the installation of an air cell hollow core, 360 degree compression door seal. The complete formed and welded compartment assemblies shall be securely welded to the sub-floor structure and sidewall structural framing of the module. Each compartment must be built as an individual unit, no common walls between compartments will be allowed. All compartment construction joints/seams shall be welded and then completely sealed.

Does bid comply with specification exactly as written? Yes No

The flush mounted doors shall be mounted with a full length 2" stainless steel, piano hinge with a 1/4 inch pin. The hinge shall include intermittently spaced horizontal and vertical slots for door adjustment and straight holes to lock the hinge in position. The hinge shall be dimpled on the knuckles at one end to prevent the pin from vibrating loose. The hinge shall be bolted to the door frame with LockTite dipped; stainless steel 1/4" x 20 truss head bolts. With the exception of any double doors that are specified, all the curb side and street side doors shall be hinged on the forward side.

Does bid comply with specification exactly as written? Yes No

Prior to installation, the hinge shall be coated with ECK brand anti-corrosion and electrolysis prevention material. The manufacturer must use the patented ECK product; an equivalent substitute will not be acceptable. This product is available to any and all manufacturers and has proven itself in the emergency and fire industries. Product must be applied per the application guidelines. NO Exceptions

Does bid comply with specification exactly as written? Yes No

The manufacturer shall install a stainless steel door sill protection on the lower outside edge of all exterior entry and compartment door frames to prevent damage caused by entering or leaving the vehicle or when accessing or replacing equipment.

Does bid comply with specification exactly as written? Yes No

Compartment Doors

All of the module compartment doors shall incorporate pan formed .090" x 5052-H32 single sheet aluminum exterior skins mounted to HD extruded frame structures with a self-etching, high-strength structural adhesive to produce a strong, stable structural component. The door extrusions shall include a closed slot for installation of locking reinforcement keys at each corner and an open channel for installation of a full perimeter, open cell, automotive style extruded rubber weather seal. The design of the structural door extrusion shall incorporate a flat surface mirroring the jamb extrusion such that the combined components supports the weather seal and provides a structurally enhanced mounting surface for the door mounting hinge. Formed or extruded frame designs that require plastic fill materials to provide a smooth, seamless door finish shall not be acceptable due to the extremes of the high cycling environment and constant stresses that will cause seam separation and visible degradation.

Does bid comply with specification exactly as written? Yes No

All doors over 24 inches high shall have a formed .090" x 5052-H32 and/or extruded aluminum bracing securely attached to the interior of the door to provide additional structural support for long term use. In the upper corner where the hold open attaches to the door shall be welded a 1/4 inch aluminum backer plate for added securing strength.

Does bid comply with specification exactly as written? Yes No

The module entrance doors shall be equipped with TriMark rotary latches constructed of high strength, heat treated, steel latch components. Rotor and latch shall be coated with a solid film lubricant, springs made of 302 stainless steel, and components zinc plated with yellow chromate (clear chromate will not be acceptable).

Each door jamb shall be equipped with one or two Nader pin striker posts made of high strength steel, plated with yellow zinc chromate and inserted through a nylon isolation washer designed to prevent electrolysis under and around the pin. The Nader pins shall have a shoulder to prevent the latch mechanism from being pulled over the top of the pin in a dynamic crash situation. The Nader pin shall be fastened with a securing nut designed to function like a blind fastener, allowing the Nader pin to be adjusted and re-tightened without having to access the nut.

Does bid comply with specification exactly as written? Yes No

The module compartment doors shall be equipped with two point, free floating, flush mounted, TriMark deep grip paddle handles. The handles shall have a die cut rubber gasket separating the paddle handle from the door. The surface finish of the handles shall provide a polished chrome, bright finish and the handle housing shall be made of SAE 903 zinc, die

cast alloy that is black powder coated. The coating shall be tested for adhesion, chemical resistance, salt spray, abrasion and accelerated weathering. All springs shall be made of pre-galvanized zinc music wire. Pivot plate and lock cam washer are zinc plated and coated with clear chromate.

Does bid comply with specification exactly as written? Yes No

All latches, handles and door rod components shall be coated with petroleum based white lithium type material for lubrication.

Does bid comply with specification exactly as written? Yes No

The manufacturer shall install an aluminum diamond plate door liner. The liner shall be attached with #10 x 24, LockTite dipped, stainless steel machine screws. The machine screws shall be attached to the door extrusion flange with matching threaded inserts. NO Exception.

Does bid comply with specification exactly as written? Yes No

Doors shall be mounted with a full length 2.5" stainless steel piano style hinge with a 1/4" stainless steel pin. The hinge shall incorporate intermittently spaced horizontal and vertical slots for door adjustment and non-slotted holes for locking the hinge in place after the door has been positioned. The hinge shall be dimpled on the knuckles to prevent the pin from vibrating loose. The hinges shall be bolted to the door frames with 1/4" x 20 stainless steel truss head machine screws. The surface of both the door and the door frame must be treated with ECK prior to hinge installation. Bidders must demonstrate compliance with FMVSS #206. NO EXCEPTIONS

Does bid comply with specification exactly as written? Yes No

Except where otherwise required by this bidder, each compartment will be fitted with a gas strut hold open device installed to hold the door open at 90 degrees.

Does bid comply with specification exactly as written? Yes No

Door Switching

Each exterior compartment shall be independently switched and will energize one compartment only. The door switch shall activate a common flashing amber light located in the front switch panel to notify the driver when any door is open. The switch utilized shall be a magnetic proximity switch that requires no maintenance yet is still easily accessible for replacing. Proximity switch shall be heavy duty industrial type with a minimum of 3amp rating.

Does bid comply with specification exactly as written? Yes No

The magnetic proximity switch located on each door shall activate a door open indicator on the driver's control panel.

Does bid comply with specification exactly as written? Yes No

The exterior compartments shall be lit by 4" round incandescent lights, rubber grommet mounted with dedicated ground wires and activated by magnetic door switch. The O2 shelf light in the #1 compartment will be surface mounted.

Does bid comply with specification exactly as written? Yes No

Compartment Interiors

All compartments surfaces shall be Scorpion X02 coated .090" aluminum plate.

Does bid comply with specification exactly as written? Yes No

Compartment Shelves

Where specified, exterior adjustable shelves shall be box pan formed of a minimum .125 inch Aluminum Diamond Plate and corners shall be welded. Shelves shall be infinitely adjustable, and securely mounted to heavy gauge aluminum Unistrut track.

Does bid comply with specification exactly as written? Yes No

Compartment "F"

Compartment "F" shall be the forward most compartment on the street side of the module. This compartment shall be 60.75"H x 14.25"W X 15"D for oxygen storage. It shall be externally vented and contain a universal oxygen cylinder holder to fit M bottle size and shall have retention requirements that meet AMD Standard 003 for KKK-A-1822F. A cylinder changing wrench shall be tethered inside the compartment.

Does bid comply with specification exactly as written? Yes No

Compartment "E"

Compartment "E" shall be directly behind compartment "F" and below the interior action area shelf on the street side of the module. This compartment shall be 38.5"H X 31.75"W X 15"D equipped with a two (2) adjustable shelves and shall have a 2"W HD nylon strap installed as a door restraint to allow the door to open far enough for easy access to the stair chair.

Does bid comply with specification exactly as written? Yes No

Stair Chair storage: Compartment "E":

There shall be two (2) adjustable aluminum shelves mounted in exterior compartment #E shall be half depth leaving 8" in the forward part of the compartment. There shall be a 4" drop pan welded into the floor of the compartment to facilitate storage of a Stryker stair chair. A 2" wide restraint strap with a quick release latch shall be installed from the forward wall to the rear wall to support the stair chair.

Does bid comply with specification exactly as written? Yes No

Compartment "D"

Compartment "D" shall be directly behind the rear wheel well on the street side rear of the module. This compartment shall be 80.75"H X 25"W X 7.75"D equipped with one adjustable restraint strap for the backboards.

Does bid comply with specification exactly as written? Yes No

Compartment "B"

The module shall include a compartment located below the level of the interior squad bench. This compartment shall be 31.5"H X 38"W X 15.25"D and is dedicated for miscellaneous equipment or spare tire storage. There shall be (1) adjustable shelf in compartment "B".

Does bid comply with specification exactly as written? Yes No

Compartment "A"

Compartment "A" shall be the forward most compartment on the curbside of the module allowing exterior access to the right front ALS cabinet. There will be a single combined door for the upper I/O cabinet. The interior ALS cabinet shall have an opening approximately 41.5"H x 17"W. The exterior access door shall provide access to the upper cabinet area only; the lower ALS cabinet shall provide interior access only and blocked off from exterior access.

Does bid comply with specification exactly as written? Yes No

Battery Storage Compartment

Located below the ALS cabinet and the primary #8 compartment I/O access shall be an isolated storage compartment for the vehicle batteries. This compartment shall include a self-sealing door that is separate and distinct from the interior/exterior access door. The tray shall be mounted to a set of HD 250# slides mounted on 1/4" aluminum side rails.

Does bid comply with specification exactly as written? Yes No

MODULE INTERIOR REQUIREMENTS

Cabinet Materials and Construction

The interior cabinets, squad bench assembly, shelves and doors shall be constructed of Featherply plywood; due to the product's ability to be customized to fulfill the needs of this agency, the additional acoustical and thermal insulation properties, repair ability, and the safety factor of not producing sharp fragments or shards in the event of a serious collision. The thickness of the finished panels used to construct the cabinets, shelves and doors shall be 3/4 inches including mica and adhesive. Any construction material that provides anything less than 3/4 inch panels in cabinet construction is not acceptable to this agency. NO EXCEPTION.

The squad bench lid shall be attached to the squad bench assembly via a stainless steel piano hinge the entire length of the bench. The squad bench shall be equipped with a locking device to automatically secure the lid upon closing. The patient compartment wall panel (behind the squad bench) and the cab compartment wall panel shall be constructed of 1/4 inch plywood and covered with color coordinating high pressure laminate.

The cabinets shall be constructed using 8 mm dowels placed no farther than 32 mm apart. The dowels shall be pre-glued hardwood and will be mechanically injected by a CNC finishing machine.

The doors on the upper cabinets shall be surface mounted with stainless steel piano hinges and 3mm edge banding that is mechanically installed by a CNC banding machine. The doors on the center and lower cabinets shall be flush mounted using continuous stainless steel piano hinge and a 3 mm edge banding. All doors and cabinet openings shall be covered with a 3 mm edge banding with machine finished, radius edges.

Does bid comply with specification exactly as written? Yes No

Where specified the storage cabinets shall be 3/4" Featherply solid core plywood. The doors on the center and lower cabinets shall be flush mounted using continuous stainless steel piano hinge and a 3 mm edge banding. All doors and cabinet openings shall be covered with a 3 mm edge banding with machine finished, radius edges.

Does bid comply with specification exactly as written? Yes No

Storage cabinets, drawers, and kits shall be easily opened, but shall not come open in transit. The Lexan used in the cabinets fitted with glass track and sliding doors shall be at least 3/16" thick. Opening the sliding doors shall be facilitated by full height extruded aluminum handles affixed to one end of each Lexan door.

In areas where access openings require a hinged, Lexan door (i.e. O2 access door) the door material shall be 3/8" Lexan. The use of 3/16" or 1/4" Plexiglas will not be accepted due to its propensity to crack and/or shard.

Does bid comply with specification exactly as written? Yes No

Sound levels within the patient compartment shall not exceed eighty (80) decibels in accordance with AMD Standard 006 and the requirements of paragraph 3.13.8 of Federal Specification KKK - A - 1822F.

Does bid comply with specification exactly as written? Yes No

The interior of the cabinets shall be finished with a matte white commercial plastic laminate to provide a clean bright surface that promotes cleanliness and improved visibility.

Does bid comply with specification exactly as written? Yes No

The exterior of the cabinets shall be laminated with industrial grade, color coordinated laminate material. The upper cabinets and the lower cabinets and walls shall be covered with a commercial grade plastic laminate.

Does bid comply with specification exactly as written? Yes No

All plastic laminates shall be adhered to the cabinetry using an industrial grade high strength contact adhesive. The manufacturer shall demonstrate strength of adhesive through independent testing. Test results shall demonstrate strength of newly applied adhesive as well as strength of aged adhesive. Testing should be to ASTM standard # D3163-92 or equivalent.

Does bid comply with specification exactly as written? Yes No

Cabinet Shelves

Interior shelves, where specified, shall be made of .75 inch Therma-Lite Board Tough. The shelves shall be infinitely adjustable, and bolt into position to prevent rattling. Shelves shall be lined on all sides and edges with a matte white commercial plastic laminate. The front edge of the shelf shall have a 1" anodized aluminum lip.

Does bid comply with specification exactly as written? Yes No

Interior Walls

All side wall panels shall be .125" plywood covered with a commercial grade laminate. The panels shall be securely attached to the wall structure with ceramic coated stainless steel machine screws.

Does bid comply with specification exactly as written? Yes No

The face and inside of the cabinets shall be covered by a commercial grade laminate and adhered to the cabinet face by a high quality poly vinyl adhesive using a thermal press application. The wood, adhesive and laminate shall be pressed together at 200 degrees for four minutes in a thermal platen press. There shall be no voids of the adhesive between the laminate and the cabinet surfaces.

Does bid comply with specification exactly as written? Yes No

Safety Designs

All vertical edges of cabinets shall be of an aluminum extrusion with a 2 inch radius designed to free the interior of the patient's compartment of all sharp edges or projections.

In the upper third of the interior of the module, where there are no cabinets mounted, the manufacturer shall provide additional color coordinated cushions for occupant protection.

All interior latches are to be flush mount style in order to ensure occupant safety.

In order to a secure, safe storage environment; all interior storage areas shall have Lexan, laminated plywood or aluminum doors and/or lids fitted with positive latches.

Does bid comply with specification exactly as written? Yes No

Polished, High Gloss White Headliner

The headliner shall be a polished gloss white insert that is physically attached to the ceiling structure. The ceiling shall provide a full length center open area for access to the module wiring harness.

Does bid comply with specification exactly as written? Yes No

Flooring Materials

A top floor of seven ply, three quarter inch exterior grade plywood, sanded both sides with no voids, and shall be installed over the moisture barrier. The Therma-Lite Board Tough composite material shall be installation to prevent warping due to ambient moisture absorption. The Therma-Lite Board Tough floor shall be one piece from the bulkhead to the rear doors between the patient door steeple and squad bench and extend under the street side cabinets. The floor material shall be securely anchored to the floor sub structure with one quarter inch UNF machine by two and one half inch screws.

Does bid comply with specification exactly as written? Yes No

The patient compartment flooring shall extend up the sidewalls 4". The installation process shall provide for a recessed 3/8" toe kick to prevent contamination by fluid borne pathogens, liquids and cleaning solutions. NO EXCEPTIONS

Does bid comply with specification exactly as written? Yes No

The manufacturer shall use a non-water based adhesive for securing the vinyl flooring material to the sub floor and the floor cove.

Does bid comply with specification exactly as written? Yes No

The vehicle shall include a 20 gauge #304 stainless steel threshold with anti-skid tape at the curbside entry door. The threshold will be installed with Sikaflex sealant adhesive in a manner that provides a permanently stable attachment and full perimeter seal to prevent fluid borne pathogen contamination and enhances the cleaning process. Note: There shall be no screws or visible attachments used to secure the threshold.

Does bid comply with specification exactly as written? Yes No

The rear door threshold shall be 14 gauge, stainless steel. The threshold will be permanently installed with Sikaflex sealant/adhesive. The Sikaflex material will both secure the threshold and provide a full perimeter seal to prevent fluid borne contamination. The threshold shall include a width strip of 3M "Safety Walk" anti-skid tape to prevent slipping. The stainless threshold shall include a 45 degree chamfered edge to facilitate loading.

Does bid comply with specification exactly as written? Yes No

The patient compartment standard flooring shall be Lonseal commercial grade; sanitary, seamless floor covering that meets FMVSS 302. It shall be installed per the technical specifications and recommendations of the manufacturer. The flooring material shall be Lonplate II flooring Gunpowder 424 TX.

Does bid comply with specification exactly as written? Yes No

Padded Head Protection

Located over the module to cab walk-through and on all head area obstructions, which may prove dangerous to persons moving about in the patient compartment; the manufacturer shall install high density flame retardant foam cushions. All of the upholstered cushions shall be covered with a minimum of thirty two ounce nylon reinforced commercial vinyl material. The side entry door header shall have a vinyl covered foam padded cushion spanning the full width and height of the header wall above the door. The rear entry door header shall have a 2" high density flame retardant vinyl covered cushion spanning the full width and height of the header wall above the doors.

Does bid comply with specification exactly as written? Yes No

Vacuum Formed Seating

All of the backrests shall be constructed with 2 inch thick, high density flame retardant foam covered with a minimum of thirty two ounce nylon reinforced commercial vinyl material. The backrest shall be secured to the wall in a manner that provides a safe, secure environment while allowing this user to easily remove the backrest for cleaning and disinfecting.

Does bid comply with specification exactly as written? Yes No

Stainless Steel Grab Rails

An overhead grab rail shall be installed in the patient compartment head liner. The grab rail shall be brushed stainless steel and handicapped style with rounded ends. The grab rail shall be a minimum of 96.5 inches long and shall be mounted in a recess in the liner. The grab rail shall be securely mounted to roof structural framing running through the ceiling headliner with 1/4" x 20 stainless steel machine screws.

Does bid comply with specification exactly as written? Yes No

On each entry door there shall be an L shaped grab handle. The vertical portion of the L shall be close to the hinge of the door and run the full length of the upper window in the door. The horizontal portion of the L shall be located just under the upper window. The grab handles shall be 1 inch diameter brushed stainless steel and handicapped style.

Does bid comply with specification exactly as written? Yes No

To assist in entering the ambulance from rear, there shall be an additional hand rail installed at curbside rear interior wall, reachable from rear doors exterior.

IV Hangers

There shall be two dual bag CPI #2008 IV hangers with stabilizer straps mounted in the patient compartment ceiling. One shall be recessed into the ceiling over the primary cot in the torso area and one shall be recessed into the ceiling over the squad bench in the torso area. They shall be mounted so that in the event of a forward collision, the plasma hanger will fold up upon impact.

Does bid comply with specification exactly as written? Yes No

Bulkhead Cabinet

A cabinet shall be provided behind the attendant seat on the front bulkhead wall. The cabinet above the cab to module opening shall be for the electronic control panel. The

cabinet shall have dual 3/4" plywood doors laminated with a commercial grade laminate and will include a Southco 2" round M1-64-8 latch on the right hand door.

Does bid comply with specification exactly as written? Yes No

Action Area

There shall be a single cabinet with sliding Lexan doors located over the action area labeled L. This cabinet shall be 14.25"H x 40.25"L x 13.5"D. There will be a permanent vertical divider installed at the center point of the cabinet.

Does bid comply with specification exactly as written? Yes No

The patient compartment control panel shall be located below the upper "L" cabinets. The section of the cabinet shall be approximately 7"H, shall be separated horizontally from the upper cabinet and shall be tapered from the front (approximately 7.5"D) of the action area to the rear (approximately 3"D) so that the controls will be visible from both the technicians seat at the head of the cot and the CPR seating area.

Does bid comply with specification exactly as written? Yes No

The action wall area shall be conveniently located below the rear control cabinet extending from the O2 compartment inner wall to the CPR seat area. It shall contain two (2) oxygen outlets, one (1) vacuum regulator, one (1) SSCOR 22000 holder bracket with disposable suction unit, one (1) 110VAC duplex outlet and one (1) 12VDC receptacle. A full depth counter top shall be located below the action wall.

Does bid comply with specification exactly as written? Yes No

The manufacturer shall provide a sealed, solid poured composite counter top on the action/area shelf. The color and pattern design of the counter top material shall be gray.

Does bid comply with specification exactly as written? Yes No

CPR Seating

The CPR seat shall provide a seating space approximately 24" wide. The seat and backrest cushions shall be 2 inch high density flame retardant foam covered with high grade color coordinated vinyl. The upper and lower portion of the CPR seat area shall be padded on three sides for additional protection. These areas shall be a minimum of 1 inch high density flame retardant foam covered with high grade color coordinated vinyl. The area below the CPR seat will be available; the CPR seat will be hinged with a recessed self-latching TriMark black paddle handle installed below the seat to secure it in the down position. The backrest will be fixed to the wall.

Does bid comply with specification exactly as written? Yes No

Upper Left Wall Cabinets

The street side of the module shall be equipped with Cabinets aft of the CPR seat. The upper cabinets from rear wall to the CPR seat will be as follows:

J1 – 14.25”H x 22.25”W x 7”D

J2 – 14.25”H x 22.25”W x 13.5”D

Does bid comply with specification exactly as written? Yes No

The rear cabinets below J1 shall be from the rear to the rear monitor work space area will be as follows:

H1 – 16.25”H x 26.75”W x 7”D w/ (1) Adjustable Shelf

H2 – 16.25”H x 26.75”W x 7”D w/ (1) Adjustable Shelf

H3 – 16.25”H x 26.75”W x 7”D w/ (1) Adjustable Shelf

Does bid comply with specification exactly as written? Yes No

The shelf area located between cabinet J2 above, cabinet O below and to the left of the CPR seat will be capable of holding a LifePack 15 and swivel mount for the LifePack 15.

Does bid comply with specification exactly as written? Yes No

One cabinet shall be located below the rear monitor area work space and will be as follows:
O – 15”H x 22.25”W x 15.5”D w/ (1) Adjustable Shelf

Does bid comply with specification exactly as written? Yes No

The cabinet shall have sliding Lexan doors with full length extruded handles along one side.

Does bid comply with specification exactly as written? Yes No

Squad Bench

The squad bench cabinet shall be located on the curb side of the patient compartment over the rear wheel well. The squad bench shall be a minimum of 72 inches long and be constructed of three quarter inch birch. The lid shall be attached to the squad bench assembly via a stainless steel piano hinge the entire length of the bench. The hinge shall attach with fasteners in a vertical position through the face of the lid and not through the edge of the cabinet and lid. The squad bench shall be equipped with a TriMark flat black, flush mount locking device to automatically secure the lid upon closing. A full length cushion shall be installed on the squad bench lid and on the wall as a back rest. The interior of the squad bench shall provide storage the full length of the bench.

Does bid comply with specification exactly as written? Yes No

The squad bench shall be furnished with three sets of lap safety belts for seated occupants and for the retention of a cot when positioned on the squad bench. The anchorages for the side facing seat belt assembly shall withstand a minimum of 2,500 pounds force when tested in accordance with FMVSS 210-S5.1.

Does bid comply with specification exactly as written? Yes No

The manufacturer shall provide a minimum of three restraint strap receivers on the face of the squad bench that work in conjunction with the squad bench seat belts for securing a patient lying on the squad bench.

Does bid comply with specification exactly as written? Yes No

The squad bench shall include (1) TriMark recessed black latch to secure the squad bench lids when in the down position. It shall also contain two gas cylinder struts to hold the door in the open position. The squad bench shall have dual squad bench lids.

Does bid comply with specification exactly as written? Yes No

Sharps and Waste

There shall be a sharp's and waste located at the head end of the squad bench mounted on A-Bar crash barrier.

Does bid comply with specification exactly as written? Yes No

ALS Cabinet

The A/C - Heater evaporator unit shall be positioned at the top of the ALS cabinet.

Does bid comply with specification exactly as written? Yes No

The right front ALS cabinet shall be made of 3/4" Featherply, shall provide the customer with interior / exterior access and shall be laminated with a heavy duty, wear resistant plastic laminate. The interior laminate shall be matte white and the exterior shall match the finish of the interior of the patient compartment.

Does bid comply with specification exactly as written? Yes No

The body of the ALS cabinet shall contain upper and lower section. The "A" exterior access door shall provide access to the upper section of the cabinet. The lower part of "E2" cabinets shall be interior access only.

Does bid comply with specification exactly as written? Yes No

There shall be 1 set of 3/8" lexan double interior access doors mounted on the front of the cabinet. The doors shall be fitted with flush-mount Southco M1-64-8 round, polished, stainless steel "push to close" non-locking latches. There shall be a top hinged 3.8" flip up door on the cabinet above the middle cabinet. Each cabinet door shall be 3/8" thick smoked Lexan.

The upper "E1" cabinet shall be approximately - 7.5"H x 27"W x 21.25"D

The middle "E2" cabinet shall be approximately 46"H x 27"W x 21.25"D

Does bid comply with specification exactly as written? Yes No

Attendant Seat w/integrated child seat

Seating for the attendant shall consist of a contoured high back padded bucket seat. The seat covering shall be an easy clean vinyl material and be impervious to blood borne pathogens and other contaminants. Therefore, cloth seats or seats with welting seams or visible stitching will not be accepted. Seating must meet OSHA regulation 1910.1030. The seat belt must be certified to KKK-A-1822F specification and shall be an integrated three-point harness.

An integrated child safety seat shall be incorporated in the seat. Installation shall comply with FMVSS regulations.

The 3 point seat belt mounts shall be fastened to the swivel base itself to allow the seat belts to rotate with the seat. Seat belt retention must still conform to federal regulation F.M.V.S.S. #571.207 and F.M.V.S.S. #510.210. The 3 point seat belt shall be self-retracting auto lock style, and conform to federal regulation F.M.V.S.S. #571.209.

Does bid comply with specification exactly as written? Yes No

The standard mounting process for the attendant's seat base shall be an installation with four (4) 7/16" grade 8 bolts inserted through the floor and bolted below the subfloor and through a 1/2" 6061-T6 aluminum reinforcement plate welded to the underside of the modular floor substructure.

Does bid comply with specification exactly as written? Yes No

The attendant seat will be an EVS high back captain's seat with integral/child safety seat and 3-point seat belt mounted on an EVS swivel base. The seat will be Gunmetal gray.

Does bid comply with specification exactly as written? Yes No

Interior Color Selection

Throughout the interior of the module, materials used shall be determined by the type of activity, long term durability, ease of cleaning and overall interior design. The floor covering

shall run 4 inches up the lower left cabinet and squad bench aisle side walls. The street side cabinet wall and the squad bench shall incorporate a 3/8" recessed toe kick at the top edge of the flooring to provide an environment that prevents fluid contamination behind the floor material and enhances the cleaning capability in the patient compartment. The patient compartment seat, wall and padded cushions shall utilize vacuum formed upholstery covers to reduce the risk of fluid borne contamination and facilitate cleaning and sanitation.

Does bid comply with specification exactly as written? Yes No

The interior cabinet doors shall be Smoked Lexan material.

Does bid comply with specification exactly as written? Yes No

All cabinets surfaces within the module are considered high wear areas and most susceptible to wear and tear and contamination; therefore all of these cabinets shall be covered with standard grade plastic laminate. All wall panels shall be covered with the same material. All cushions mounted in these same areas shall be covered with a color coordinated industrial grade vinyl. These cushions shall be vacuum formed with no seams.

Does bid comply with specification exactly as written? Yes No

The module interior shall be finished in a manner that provides a well finished, color coordinated interior. The interior wall and cabinet laminate shall be Dove Gray.

Does bid comply with specification exactly as written? Yes No

The cushions and backrests shall be thermal vacuum formed automotive vinyl over fire retardant foam. The cushions shall be backed with 10mm PVC board. Plywood or other porous materials shall not be acceptable for cushion backs. Cushions shall be attached with automotive grade Dual Lock Velcro to make them removable for cleaning, which includes squad bench seats, back rest, CPR seat, backrest and hip cushions. The vacuum formed cushions shall be Gunmetal

Does bid comply with specification exactly as written? Yes No

Miscellaneous Interior Options

All of the sliding Lexan doors in the patient compartment shall be 3/16" at a minimum. All hinged doors shall be 3/8" Lexan.

Does bid comply with specification exactly as written? Yes No

The manufacturer shall install 11" stainless steel risers on both the face of the squad bench and the lower street side wall to provide a durable surface that is easily to cleaned and maintained.

Does bid comply with specification exactly as written? Yes No

There shall be a cabinet containing (3) Glove Butler II glove boxes surface mounted above the side module entrance door. The glove boxes shall be accessed through a 3/8" Lexan cover.

Does bid comply with specification exactly as written? Yes No

ELECTRICAL GENERAL

Wiring

The emergency medical vehicle's electrical system must meet KKK-A-1822 F Section 3.7.1. The driver and patient compartment control consoles shall be constructed in a way that the switches and any gauges are easily serviced. They shall be accessible through service panels. These panels will be secured in the closed position in a positive manner, yet can be easily opened for service.

Does bid comply with specification exactly as written? Yes No

Wiring shall be routed in conduit or high temperature looms with a rating of 300 degrees Fahrenheit where necessary to protect it. All added wiring shall be located in accessible, enclosed, and protected locations and kept at least six inches from the exhaust system components. Electrical wiring and components shall not terminate or be routed in the oxygen storage compartment except for the oxygen controlled solenoid, compartment light, and switch plunger. All conduits, looms, and wiring shall be secured to the body or frame with insulated metal cable straps in order to prevent sagging and movement which results in chafing, pinching, snagging or any other damage. All apertures on the vehicle shall be properly grommited and sealed for passing wiring and conform to SAE 1292. All items used for protecting or securing the wiring shall be appropriate for the specific application and be standard automotive, aircraft marine or electronic hardware.

Does bid comply with specification exactly as written? Yes No

Circuit connections shall be made on barrier style terminal blocks utilizing binding post screws for positive mechanical connections. minimize the potential for wiring shorts and voltage drops all wiring terminals shall be brass, tin plated, annealed, ETP copper with nylon high heat insulation. Serration's, inside the barrel, provide maximum contact and tensile strength after crimping. Connection shall be machine crimped, to UL standards, with a high quality crimping tool that produces crimps for a given size wire and terminal that are precisely alike in appearance and performance. Crimping pressure must be controlled by a ratchet device on the hand tool or a corresponding pre-calibration in the crimping jaws of an automated machine. Crimping pressure can neither over-stress nor under stress the terminal-barrel-machined dies. Therefore, this agency requires a termination that is free of contamination and is extremely resistant to shock and critical environment conditions.

No splices shall be permitted except for connection of "pig-tail" devices. Butt splices are permitted for connection of "pig-tail" devices. The use of IDC (Insulation Displacement Connector) connectors, i.e.: "3M Scotchlock" type fasteners, is not acceptable.

Does bid comply with specification exactly as written? Yes No

The printed circuit board shall be designed and manufactured as follows: A screen printed board with all circuits fully numbered and labeled. The circuit board shall be a double-sided copper trace printed circuit with a double-sided laminated isolator. The board shall be non photo image able solder mask over bare copper with hot air leveled solder over non masked copper. Fuse capacity is the beginning factor in calculating trace width to ensure proper current carrying capability. The circuits shall then be oversized as much as space permits for maximum cooling of the board. All holes shall be plated through. The terminal strips shall be mounted on the board for connection of the above mentioned wiring harness. Automotive transient suppressers must be incorporated into circuit board at the point of cable entry to the board. All relays must include built in noise suppression. The suppression must be accomplished with a IN4001 parallel with the coil. The relay must have a 40 ampere continuous contact rating with one form C contact arrangement. Normally open contact must have a maximum initial voltage drop of 200 millivolts at 40 ampere contact load. The relays must withstand 24 VDC for five minutes conducting rated contact current in case of accidental 24 volt jump start condition. Circuit board options must be programmable via jumpers to facilitate addition of options. The color of wire and circuit number must be screened printed at the terminal block connections on the board for rapid identification and relation to schematics.

The printed circuit board shall incorporate red LED indicators for on board diagnostics for input, output, and switching circuits for troubleshooting at a glance.

Does bid comply with specification exactly as written? Yes No

The printed circuit board must meet the following specifications:

1. Packaging and Interconnecting Acceptability Standard number IPC 600
2. UL-796
3. Solder mask, IPC number SM-840
4. Solder in conformance with MIL SPEC QS-571
5. Laminate in conformance with IPC number 4101

Does bid comply with specification exactly as written? Yes No

Wiring Criteria

All wiring devices, switches, outlets, etc., except circuit breakers, shall be rated carry a minimum of one hundred and twenty-five percent (125%) of the maximum ampere load for which the circuit is protected. All wires carrying a load of more than 5 amperes shall be a minimum of 16 AWG. There shall be a master electrical component panel located in the vehicle. It is preferred that the master panel be mounted on or near the bulkhead of the patient compartment. Standard circuit breakers, relays, and diodes shall be mounted on a printed circuit board that is easily accessible. All components on the circuit board are to be permanently labeled as to their function.

Does bid comply with specification exactly as written? Yes No

A service loop of wire or harness, per KKK-A1822-F specification, shall be provided at all electrical components, terminals, and connection points. All relays shall be mounted for ease of serviceability. All high current diodes greater than 5 amperes shall be heat sink mounted. provide the optimum circuit "overload" protection, the electrical system's main circuit board shall allow for the use of stud type automatic reset pole breakers. One spare 15 ampere circuit breaker shall be provided for future use. A solid state electronic flasher shall be heat sink mounted to the panel for control of the flashing warning light system. All wiring between the cab and module shall be connected to a terminal strip(s) or block(s) or use multi pin connectors on the electrical component panel and shall provide for future module replacement. All connectors and terminals provided shall comply with SAE J163, J561, or J928 as applicable.

The wiring shall be permanently color coded to identify wire function. Wires shall be permanently heat ink embossed with both number and function codes. The function code shall be the descriptive name of the circuit served. The number code shall be the exact purpose of that circuit. This number code shall be completely referenced in a detailed wiring schematic provided with the vehicle. The function and number code shall be embossed at a minimum of four inch intervals the entire length of the wire terminating into all switch and control panels. The use of multi-conductor cable must be function and color coded and shown on the wiring diagram.

Does bid comply with specification exactly as written? Yes No

The ambulance body and accessory electrical equipment shall be served by circuit(s) separate and distinct from the vehicle chassis circuits. Wiring methods must conform to SAE J1292. All wiring provided by the primary manufacturer shall be copper and conform to all the SAE J1127 and SAE J1128 requirements. All low tension primary cable shall have GXL or better insulation. All low tension battery cable shall have SGX insulation. Documentation from the wiring manufacturer that the wire used by the primary manufacturer is in

compliance with this requirement shall be submitted with the proposal. Bids not meeting this requirement will not be accepted.

Does bid comply with specification exactly as written? Yes No

The vehicle shall be equipped with magnetic proximity switches on each entry and compartment door. The switches shall be wired to activate the individual compartment lighting associated with the individual compartment switch and the door open warning light mounted in the driver's control console.

Does bid comply with specification exactly as written? Yes No

Wiring Documentation

The manufacturer shall provide two complete sets of detailed wiring schematics shall be provided for ease in trouble shooting. In addition, a detailed wire harness list shall be provided showing circuit numbers and functions. When optional electrical devices or systems are ordered, additional corresponding schematics shall accompany those options.

Does bid comply with specification exactly as written? Yes No

The manufacturer shall provide an amp load test certification. The documentation shall provide the end user with the vehicles operating load requirements and the units remaining reserve capacity.

Does bid comply with specification exactly as written? Yes No

Harness Assembly

The various wiring installations as supplied with this vehicle shall be of the "automotive harness" design. For ease of identification and future replacement these harnesses shall be engineered and manufactured in the following sections.

1. Engine compartment harness.
2. Driver's control console harness.
3. Main module harness.
4. Chassis rear lighting harness.

This agency is extremely concerned the primary manufacturer has the ability to control, warrant and replace the harnesses. To that end, the primary manufacturer shall not subcontract the construction of these harnesses.

Does bid comply with specification exactly as written? Yes No

Harness Routing and Access

The center section of the patient compartment ceiling shall be designed with a full length center trace for accessing the ambulance wiring harness.

Does bid comply with specification exactly as written? Yes No

Communication Options

Shall meet the requirements of paragraph 3.14.3 of Federal Specification KKK-A-1822F. The vehicle shall be equipped with two RG58AU low loss cables installed from behind the passenger seat in the cab to the ceiling of the module. There will be an antenna access plate mounted in the patient compartment ceiling.

Does bid comply with specification exactly as written? Yes No

The ambulance antenna pre-wire shall be run from the ceiling of the patient compartment to the areas designated by this purchaser.

Does bid comply with specification exactly as written? Yes No

The vehicle shall be equipped with two (2) #8 gauge power and ground wire terminated with the coax radio pre-wiring. The radio power wires shall originate in the power distribution area and will be labeled appropriately for future installation by a radio technician. (1) Pre-wire shall be 15amp ignition switched and (1) shall be 30 amp constant hot.

Does bid comply with specification exactly as written? Yes No

Back Up Camera System

A Safety Vision backup camera with color LCD monitor shall be installed. The camera shall be mounted above rear doors on back of module. The monitor shall be mounted in the cab headliner center.

Does bid comply with specification exactly as written? Yes No

ELECTRICAL 12 VOLT DC

Voltmeter

The vehicle shall be equipped with an OEM voltmeter to monitor total system voltage. The voltmeter connection shall be direct to eliminate erroneous readings from connection voltage drops. The voltmeter shall have a minimum accuracy of +/- 5% and shall be mounted in the OEM dash panel.

Does bid comply with specification exactly as written? Yes No

Battery System

There shall be furnished a high current 12 VDC disconnect system that provides an effective and efficient method of switching up to 300 amps. The primary electrical system shall have an integral Commander 350 high current disconnect switch wired to the ignition system. The switch shall be rated for 200-amp continuous duty and 300-amp peak electrical loads.

Does bid comply with specification exactly as written? Yes No

Batteries

The vehicle shall be supplied with a two 12-volt battery system. The batteries shall be OEM and will have a combined minimum cold cranking ampere capacity of 1500 CCA.

Does bid comply with specification exactly as written? Yes No

Battery Storage

The vehicle shall be supplied with a two battery system. The two batteries shall be in the right front lower compartment. This compartment shall be isolated from the patient compartment. The batteries shall be activated through the OEM ignition switch. The ignition switch shall only turn off power to the module and not to the chassis. An emergency fail-safe switch shall be mounted in the cab console. The battery system shall be wired in accordance with KKK-A-1822F and current Ford Motor QVM specifications. The system must meet SAE J541 for starter circuit voltage drop.

Does bid comply with specification exactly as written? Yes No

Modular Disconnect

This switch shall be located on the front control switch panel and shall disconnect all patient compartment conversion circuits. The switch shall be connected to the electronic control module through a computer cable. The switch label shall be back lighted, permanently identifying it as to function and have an LED indicator to show that function is activated.

Does bid comply with specification exactly as written? Yes No

Chassis Ground

Battery cables shall be a minimum 2/0 AWG or as supplied by the chassis manufacturer. If the batteries are relocated other than the factory location, cables shall be upgraded to a minimum 3/0 AWG. This is required to maintain compliance with SAE J541 specification for starter motor circuit voltage drop for heavy duty applications. All primary manufacturers must meet this specification. All Cables larger than 10 AWG shall be pneumatically or

hydraulically crimped utilizing tin plated copper connectors. This connection must be covered with an adhesive lined heat shrink to permanently seal against weather.

Does bid comply with specification exactly as written? Yes No

There shall be a total of two additional braided grounding straps besides the OEM provided chassis ground and the 3/0 battery cabling. The straps shall be braided copper with zinc coating rated at 250 amps each. There shall be two straps from the module to the chassis frame. At the frame attachment all paint must be removed and the strap attached with grade five bolts.

Does bid comply with specification exactly as written? Yes No

12VDC Receptacles

The patient compartment shall include two cigarette style 12VDC power outlets as standard. (1) Outlet shall be mounted on the action wall and (1) outlet shall be mounted above the top shelf in the lower section of the right front stack ALS cabinet. Outlets on this circuit shall be wired "battery hot" and protected by a medical isolator.

Does bid comply with specification exactly as written? Yes No

VEHICLE SYSTEMS

Driver's Console

A console shall be installed to house the switching panel and radio installation. This console shall be attached to the engine cover housing below the line of sight of the driver. The console shall be a floor mounted consol with (2) cup holders and (2) map/binder slots. An access panel shall be installed on the top of the console to facilitate servicing. The switches shall be full size rocker switches with LED on the indicators. The switch assembly shall be 1.97 inches tall by 1.064 inches wide with silver plated copper contacts and a .250 inch spade type terminal. The switch and rocker material shall be a thermal set molding material. The complete switch assembly will be tested to withstand one thousand (1,000) volts RMS dielectric. The switches must have a positive "throw" feel and an audible "click" upon activation.

Does bid comply with specification exactly as written? Yes No

Driver's Control Panel

The Front Control Switch Panel shall incorporate low-voltage full size easy-to-use rocker switches. Switches are for ambulance equipment operation, including, but not limited to the following: siren, all warning and emergency lights, battery indicator lights, horn/siren cut-off switch, silent signal intercom, side and rear flood lights, compartment and entry door

ajar warning light, patient compartment master switch, emergency lights master switch, voltmeter, ammeter and air conditioner/heater master switch. The control console shall be connected to the electronic control module by a control harness with positive type connectors for secure, safe, positive connections.

Does bid comply with specification exactly as written? Yes No

The electrical system shall incorporate a warning light panel located in the front control switch panel. It shall provide indicator lights showing patient compartment door(s), side and/or rear are open and shall be a flashing RED light approximately 1/2" in diameter. There shall be an exterior compartment "door open" warning light and shall be a flashing AMBER light approximately 1/2" in diameter.

Does bid comply with specification exactly as written? Yes No

This switch shall be located on the front control switch panel and shall disconnect all patient compartment conversion circuits. The switch shall be connected to the electronic control module through a computer cable. The switch label shall be back lighted, permanently identifying it as to function and have an LED indicator to show that function is activated.

Does bid comply with specification exactly as written? Yes No

The emergency lights "master" switch shall be a paddle type switch having a translucent label with a RED "on" indicator. The remainder of the function switches shall be low voltage switches. The switch shall be connected to the electronic control module through a computer cable. All switch labels shall be back lighted, permanently identifying it as to function and have an LED indicator to show what function is activated as required by KKK-A-1822F.

Does bid comply with specification exactly as written? Yes No

Backlighting for the front control switch panel shall turn on with the headlights and be controlled by the headlight switch rheostat function.

Does bid comply with specification exactly as written? Yes No

There shall be a rear A/C - Heat 'enable' switch on the front console.

Does bid comply with specification exactly as written? Yes No

Action Area Control Panel

All switches and controls for the patient compartment including those for the heat and air units shall be located on a service panel in the action area. These switches shall be of the same design and construction as found on the front control switch panel. The panel shall be connected to the electronic control module by a control harness with positive type

connectors for secure, safe, positive connections. The panel shall include but not be limited to, controls for patient compartment dome lights, fluorescent lights, if specified, action area light, vacuum system, electric oxygen solenoid, if specified, three-light intercom, and three spare switches for future use. These switches shall not be activated unless the "MASTER" switch on the front control switch panel is in the "ON" position.

Does bid comply with specification exactly as written? Yes No

Primary Electrical System

All electronic devices and equipment installed which produce RFI, shall have the proper filters, suppressers or shielding to prevent electromagnetic radiation and the resultant interference to radios and other medical electronics as required by KKK-A-1822F.

Does bid comply with specification exactly as written? Yes No

The printed circuit board shall be designed and manufactured as follows: A screen printed board with all circuits fully numbered and labeled. The circuit board shall be a double-sided copper trace printed circuit with a double-sided laminated isolator. The board shall be non photo image able solder mask over bare copper with hot air leveled solder over non masked copper. Fuse capacity is the beginning factor in calculating trace width to ensure proper current carrying capability. The circuits shall then be oversized as much as space permits for maximum cooling of the board. All holes shall be plated through. The terminal strips shall be mounted on the board for connection of the above mentioned wiring harness. Automotive transient suppressers must be incorporated into circuit board at the point of cable entry to the board. All relays must include built in noise suppression. The suppression must be accomplished with a IN4001 parallel with the coil. The relay must have a 40 ampere continuous contact rating with one form C contact arrangement. Normally open contact must have a maximum initial voltage drop of 200 millivolts at 40 ampere contact load. The relays must withstand 24 VDC for five minutes conducting rated contact current in case of accidental 24 volt jump start condition. Circuit board options must be programmable via jumpers to facilitate addition of options. The color of wire and circuit number must be screened printed at the terminal block connections on the board for rapid identification and relation to schematics.

The printed circuit board shall incorporate red LED indicators for on board diagnostics for input, output, and switching circuits for troubleshooting at a glance.

Does bid comply with specification exactly as written? Yes No

The emergency medical vehicle's electrical system shall be equipped with, but not limited to the following: 12VDC battery system, ignition, starting, generating, lighting, visual and audible warning systems; specified electronics equipment and devices to include control consoles located in the cab and patient compartment and other specified accessory wiring.

The electrical systems and equipment shall comply with all applicable FMVSS including Federal Motor Carrier Safety Regulations (FMCSR), and shall also conform to all the applicable SAE recommended standards and practices whether or not specifically referenced in this document. Additionally, the electrical system shall meet the requirements of AMD Standard 005. All electrical and electronic components shall be selected to minimize electrical loads and levels of heat generated by those electrical components thereby not exceeding the vehicle's generating system capacity or diminish its ability to provide the required levels of electrical power. Electrical systems utilizing switching of "hot load" circuits for emergency and warning lighting shall not be accepted by this agency. All electrical system components and wiring shall be readily accessible through access panels for checking and maintenance. The cab and patient compartment consoles shall also be constructed in such a way that the switches and gauges are easily serviced. They shall be accessible through service panels. These panels will be secured in the closed position in a positive manner, yet can be easily opened for service.

Does bid comply with specification exactly as written? Yes No

In compliance with KKK-A-1822F, manufacturer will not install warning lights beyond those required by this specification. Additional lighting will utilize reserve alternator capacity and could result in overloaded electrical systems, which may result in electrical system failure and cause the ambulance to fail in the field.

Does bid comply with specification exactly as written? Yes No

All switches, indicators and control devices supplied by the ambulance manufacturer shall employ permanently engraved translucent labels. Backlighting shall be activated when the "MASTER" switch is on. Decals or other "stick on" type labels are NOT ACCEPTABLE.

Does bid comply with specification exactly as written? Yes No

EMERGENCY LIGHTING REQUIREMENTS

Emergency Lighting Requirements

The emergency lighting system must provide the vehicle with 360 degrees of visual warning conspicuity. The system must display highly perceptible and attention-getting signals that function in a mode system and convey the message in the PRIMARY MODE - "Clear the Right-of-Way" and the SECONDARY MODE - Hazard Vehicle stopped on Right-of Way. A "Master Emergency" switch on the front control console shall control all of the emergency lighting. The Primary/Secondary modes shall be controlled by a secondary switch on the front panel. All screws, bolts, inserts or other devices used to mount external lighting fixtures will be treated with ECK to prevent oxidation, corrosion or electrolysis.

Does bid comply with specification exactly as written? Yes No

The basic warning light system shall contain Whelen 900 Series upper body warning lights mounted at the extreme upper corner areas of the ambulance body below the horizontal roofline. These will consist of lights located on each side and on the rear as specified below. These lights shall function in a dual mode system as shown in KKK-A-1822F and meet the physical and photometric requirements of that same document. Doors, auxiliary lights, or siren(s) shall not obstruct these warning lights. The red "Grille" lights shall be located at least 30 inches above the ground, below the bottom edge of the windshield and will be laterally separated by at least 18 inches, measured from centerline to centerline of each lamp. The red "intersection" lights shall be mounted on the front fenders of the chassis as far forward as possible. All warning lights furnished shall be mounted to project their highest effective intensity beams on the horizontal axis.

Does bid comply with specification exactly as written? Yes No

The basic exterior ambulance lighting shall comply to FMVSS Standard No. 108 and the requirements therein and include: amber front and rear directional signals and hazard warning lights, front and rear side marker lights, backup light(s), loading light(s), clearance lamps, ambulance emergency lights, floodlights and scene light(s). The side marker lights shall also function as a turn signal indicator as described in Federal Specification KKK-A-1822F. The upper I.C.C. lighting will include five (5) front amber LED, five (5) rear red LED.

Does bid comply with specification exactly as written? Yes No

Audible Warning Devices

There shall be a set of Two Whelen SA-315, 100 watt speakers shall be installed in the front OEM front grill area.

Does bid comply with specification exactly as written? Yes No

SIRENS SYSTEMS:

The ambulance shall be equipped with a Powercall DX5200, NFPA Compliant Siren with NC microphone. The siren shall be ignition powered and will provide hands free control feature that allows switching between siren modes from the horn ring. Includes remote Siren/Horn switch on drivers control panel.

Does bid comply with specification exactly as written? Yes No

HOWLER SIREN

There shall be a Whelen Howler, low frequency siren installed behind the front bumper of the chassis. The Howler shall have a momentary switch mounted in front switch panel.

Does bid comply with specification exactly as written? Yes No

Back-Up Alarm Warning Systems

The vehicle shall have a solid-state back-up alarm rated at 97 decibels and equipped with a cancel button located on the front control switch panel, which will deactivate the alarm. The alarm shall be an automatically resetting type whereby the alarm is reactivated automatically each time the vehicle is placed in reverse gear. The purchaser acknowledges and accepts that the provision for back-up alarm cut-off switch may be in non-compliance with motor vehicle regulations in certain States.

Does bid comply with specification exactly as written? Yes No

Emergency Master

The emergency lighting system shall incorporate an "emergency master" switch that turns on and off the emergency loads after the "module master" has been engaged.

Does bid comply with specification exactly as written? Yes No

Modular Front Emergency Lighting

The manufacturer shall install a seven (7) LED light package with Whelen 600 Series LEDs across the front of the module. The LEDs are to be installed from left to right as follows: Red/Clear/Red/Clear/Red/Clear/Red. - 60R02FCR "red" with clear lens and 60C02FCR with clear lens Program to Action Flash.

The "red" LED will function in both the primary and secondary modes and the White LEDs shall function in the primary mode only.

Does bid comply with specification exactly as written? Yes No

Driver's Side Emergency Lighting

There shall be (2) Whelen 900 Series Super LED warning lights with an internal flasher on the driver side of the module. (1) In the upper forward and (1) in the upper rearward corners of the module.

Both lights shall be 90RR5FCR "red" with clear lens and will be programmed to action flash.

Does bid comply with specification exactly as written? Yes No

Passenger Side Emergency Lighting

There shall be (2) Whelen 900 Series Super LED warning lights with an internal flasher on the passenger side of the module. (1) In the upper forward and (1) in the upper rearward corners of the module.

Both lights shall be 90RR5FCR “red” with clear lens and will be programmed to action flash.

Does bid comply with specification exactly as written? Yes No

Modular Rear Emergency Lighting

The light heads mounted near the roof line on the rear of the module shall be installed just below the drip rail located at the lower edge of the upper roof extrusion. Under no circumstances shall the manufacturer cut into the modular structure to install rear lighting. All lights requiring cutouts in the module skin must be located below the line where the extruded roof radius meets the module sidewall skin.

Does bid comply with specification exactly as written? Yes No

The ambulance shall be equipped with (2) Whelen 600 series Super LED warning lights with an internal flasher positioned in the upper outboard corners of the module rear.

Both lights shall be 60R02FCR “red” with clear lens and will be programmed to action flash.

Does bid comply with specification exactly as written? Yes No

The ambulance shall be equipped with (1) Whelen 600 series light center mounted above the rear doors and (2) Whelen 600 series lights centered between the rear load lights and the outboard red LEDs.

This light shall be 60A02FCR “amber” with clear lens and programmed to action flash.

Does bid comply with specification exactly as written? Yes No

Grille Lights

This unit shall be equipped with (2) Whelen 500 Series Super LEDs mounted in the grille area of the chassis in compliance with the OEM chassis manufacturer's guidelines and the lighting requirements of KKK-A-1822F. The lights shall be mounted in polished cast aluminum housings.

Both lights shall be 50R03ZCR “red” with clear lens.

Does bid comply with specification exactly as written? Yes No

Intersection Lights - Chassis

This unit shall be equipped with (2) Whelen 700 Series Super LED lights (with internal flashers) mounted in the forward area of the chassis front fenders in compliance with the

OEM chassis manufacturer's guidelines and the lighting requirements of KKK-A-1822F. The lights shall be mounted in CPI 15 degree forward facing polished, cast aluminum housings.

These lights shall be 70R02FCR "red" with clear lens and programmed to action flash.

Does bid comply with specification exactly as written? Yes No

Miscellaneous Emergency Lighting

The vehicle shall be equipped with Whelen 900 chrome flanges, (1) for each 900 Super LED Emergency lighthouse and one for each 600 Super LED.

Does bid comply with specification exactly as written? Yes No

EXTERIOR LIGHTING

Automotive/DOT Lighting

The exterior vehicle lighting shall include headlights, parking lights, directional signal lights, tail and stop lights, license plate light, back-up lights, hazard warning lights, clearance lights and reflectors, as required by F.M.V.S.S. 571.108. The ambulance tail lights shall be Whelen 900 Series LED brake/tail with Whelen 600 Series halogen back-up light and LED amber turn signals mounted vertically above the rear aluminum treadbright area in polished chrome, sealed housing. The polished chrome light housings shall be centered between the corner extrusion and the edge of the rear door.

Does bid comply with specification exactly as written? Yes No

There shall be two sets of taillights on the rear of the module. The brake/tail shall be a Whelen 900 Series red LED, the turn signal shall be a Whelen amber LED and the backup light shall be a Whelen halogen light. These lights shall be in enclosed custom, chrome housings for protection from exposure and to provide a finished automotive appearance.

Does bid comply with specification exactly as written? Yes No

The vehicle side marker lights mounted along the outside rear corner of the module shall function in compliance with DOT/FMVSS. There will be two 4", grommet mounted LED lights mounted at each rear corner and these lights shall function as direction signals, standard marker lighting and shall be wired to the emergency hazard warning circuits.

Does bid comply with specification exactly as written? Yes No

The front, side and rear clearance lights shall be all LED. They shall consist of (3) Weldon 9186 Surface Mount Amber LED lights evenly spaced on the center face of the module and (3) Weldon 9186 Surface Mount Red LED lights evenly spaced on the center rear face of the module. The two forward Amber and two rear Red outboard LED clearance lights shall be

recess mounted at the end of each side module roof extrusion within the roof radius corner cap. The corner housings shall accommodate two LEDs, (1) to function as an emergency flasher and (1) to function as a part of the DOT clearance lights. There shall be a formed Lexan cover installed over each recessed fixture to seal the light housing areas. The inboard front and rear facing LED clearance lights shall be mounted along the front and rear upper roof radius materials in compliance with DOT/FMVSS requirements. NO EXCEPTIONS

Does bid comply with specification exactly as written? Yes No

Scene and Load Lighting

There shall be a total of four Whelen clear 900 Series 8-32 degree halogen scene lights mounted two streetside and two curbside. The light housing shall be flush mounted and incorporate an optic lens that redirects the light at the specified angles. These lights shall illuminate when the side entry door is opened or when switched on at the driver's console.

Does bid comply with specification exactly as written? Yes No

There shall be a total of two (2) Whelen clear 600 series 8-32 load lights mounted on the rear of the module over the entry doors. The light housing shall be flush mounted and incorporate an optic lens that redirects the light at the specified angles. These lights shall illuminate when the curb side rear entry door is opened or when switched on at the driver's console.

Does bid comply with specification exactly as written? Yes No

The scene and loading lights shall be not less than 75 inches above the ground and shall be completely unobstructed by open doors. The (2) on the left and two (2) on the right sides shall be located just inboard of the side emergency lights on either side of the ambulance body. They will be firmly fastened to the body surfaces below the upper drip rail. The two (2) rear load lights shall be equally spaced over the rear doors below the rear drip rail. Switches for both the scene and load lights shall be located on the front switch control panel. Rear load lights shall illuminate the area surrounding the back loading door(s). Rear loading lights shall automatically be activated when the vehicle is shifted into reverse gear or when the rear doors are opened, but may be turned off with a switch on the front switch console.

Does bid comply with specification exactly as written? Yes No

The side and rear flood lights shall include auto-reset cutout switches. (1) Momentary cutout switch shall be located on the curbside wall at the head of squad bench and (1) switch shall be mounted on the curbside rear door panel.

Does bid comply with specification exactly as written? Yes No

The 900 Series scene lights along both sides of the modular body shall be equipped with Whelen chrome bezels as will the 600 Series load lights at the rear.

Does bid comply with specification exactly as written? Yes No

INTERIOR LIGHTING

Interior Lighting

The patient compartment shall be provided with six (6) overhead dome lights "dual-intensity" LED lights. There shall be three (3) lights located over the "primary" patient area and three (3) over the squad bench. These lights shall be recessed in the patient compartment headliner and not protrude more than 1.5 inches. The technician shall be able to control these lighting levels from switches on the switch control panel through the electronic control module. These dual levels shall work together or differ from side to side. This "dual" light level shall not be provided by the use of a rheostat, but by low voltage, full size easy-to-use rocker switches located on the rear switch control panel. When either the curbside or rear doors are opened, the three (3) lights over the squad bench shall be automatically activate in the low intensity mode.

Does bid comply with specification exactly as written? Yes No

The vehicle shall be equipped with a fifteen minute spring wound timer, wired direct to the battery system to allow operation of the fluorescent dome lights while the vehicle is off. This feature will enable personnel to clean and restock the vehicle, but eliminates the risk of leaving the lights on and draining the batteries. The timer shall be located on the curbside wall near the side entrance door.

Does bid comply with specification exactly as written? Yes No

There shall be (3) 18 inch ThinLite 12V fluorescent lights recessed in the ceiling of the module. They shall be wired to the 12VDC "Fluorescent" switch on the action wall and shall be wired to the thirty minute timer located at the head of the squad bench.

Does bid comply with specification exactly as written? Yes No

There shall be a Whelen 2" TOCACCCR LED light mounted in a chrome flange at the curbside entry door step well. The light shall automatically light when the door is opened.

Does bid comply with specification exactly as written? Yes No

Handheld Spotlight

A hand-held spotlight shall be provided with a minimum 400,000-candlepower lamp. It shall be a corrosion proof housing with a momentary switch and a heavy-duty coiled cord. It shall be hard-wired into the front switch console.

Does bid comply with specification exactly as written? Yes No

Action Area Lighting

The action wall area shall be illuminated by a surface mount 12VDC Kinequip Model 621224W 12" LED light fixture.

Does bid comply with specification exactly as written? Yes No

ELECTRICAL 110 VOLT AC

Shore Power - 115VAC

The vehicle shall be furnished with a 2-wire plus ground 115-volt AC - 20Amp wiring system that is separate and distinct from the vehicle's 12-volt DC wiring system. The 115-volt AC electrical system, including wiring and associated equipment, shall comply with Article 551 of the National Electrical Code and with AMD Standard 009. This system is to be used while the vehicle is on standby for powering maintenance devices, medical equipment, battery chargers, and for any other device(s) deemed necessary by this Agency. The 115-volt system shall incorporate a 20 Amp Kussmaul auto-eject shoreline receptacle mounted on the forward, streetside modular wall and a 20-ampere ground fault interrupter (GFI) device.

Does bid comply with specification exactly as written? Yes No

115VAC Receptacles

There shall be three 110VAC 2-wire plus ground illuminated 15 amp duplex outlets, one located on the action area wall, one over the monitor shelf and one in the right front stack ALS cabinet. The outlet in the ALS cabinet shall be located on the rear wall of the middle section, above the top shelf. All 110VAC outlets shall be hospital grade. Wiring shall be encased in flexible metal conduit and all connections shall be made in UL approved junction boxes. Outlets must be installed in the identical trim ring as that of the oxygen/vacuum outlets in order to create a uniform appearance.

Does bid comply with specification exactly as written? Yes No

115VAC – INVERTER , Onboard Power Source

The ambulance shall have a Vanner 20-1050CUL-DC inverter.

Does bid comply with specification exactly as written? Yes No

ENVIRONMENTAL SYSTEMS

Climate Control

An OEM air conditioning and high output heater shall be provided in the cab. The module system shall incorporate a combination heating and air conditioning unit. The chassis and module heating and A/C system controls shall function independently of each other.

Does bid comply with specification exactly as written? Yes No

The ambulance shall be equipped with heating, ventilating, and air conditioning systems that operate using re-circulated air and ambient air and shall be capable of maintaining interior temperature within the established comfort zone of 68 degrees Fahrenheit 78 degrees Fahrenheit while operating between 0 degrees and 95 degrees Fahrenheit ambient. Environmental system components shall be readily accessible for servicing at the installed location. The airflow selector switch shall provide a high, medium and low setting. The switch shall be a common switch for both the heater and air conditioner. These environmental control switches shall be immediately accessible to the attendant while seated in the primary attendant seat located at the head of the primary patient.

The module control thermostat shall be located on a removable panel above the action wall. The system shall automatically maintain the set module temperature every time the vehicle is operated. The combo air conditioning /heating shall be located in the top of the right front cabinet. The system shall have a custom "Cool Bar" to increase the efficiency of the system. The "Cool Bar" is a custom housing designed to hold a Hoseline condenser on the front of the module and allow for additional lighting mounted on the housing. The "Cool Bar" measures 65.38 inches along the rear (box side) and 40.5 inches on the forward facing side. The housing is 12.38 inches deep by 9 inches high. There are two Angled portions to allow for additional lighting for intersection clearing 17.55 inches by 9 inches at an approximate angle of 45 degrees. The condensers shall be Hoseline 2050D. They shall provide 2948 CFM of air flow across the condenser cooling coils with four 12VDC fans and provide 50,000 BTU's of cooling for the 12V side.

Primary manufacturers shall submit testing documentation from an independent laboratory for compliance with Federal Specification KKK-1822F with this proposal.

Does bid comply with specification exactly as written? Yes No

This A/C - Heater system shall utilize a rotary thermostat control located on the action area wall. The heater air conditioning system shall include a rocker switch for the A/C - heater unit, a selector control for fan speed and a temperature selection. Once the temperature control and heat/cool switch is set, the system shall automatically maintain the set module temperature every time the vehicle is operated.

Does bid comply with specification exactly as written? Yes No

Vents

Mounted along the upper inboard aisle side of the ALS cabinet shall be the return air vent. The air intake shall not be less than 50 square inches. This return system shall allow the existing air in the module to be recirculated back through the heat A/C unit, thus allowing faster cooling or heating of the module environment.

Does bid comply with specification exactly as written? Yes No

Exhaust Fan

The patient compartment shall include one 230CFM, high output (2) speed exhaust fan. The fan shall be located at the upper rear street side cabinet and will exit out the rear module wall.

Does bid comply with specification exactly as written? Yes No

14. MEDICAL SYSTEMS

Cot & Cot Fasteners

The manufacturer shall install a cot mounting system that incorporates cast housings recessed into the floor and sealed to prevent fluid contamination from the patient compartment and to prevent exhaust fumes from entering the module through the floor.

Does bid comply with specification exactly as written? Yes No

The manufacturer shall provide cushions on the squad bench that are full width and length of the squad bench lids. There will be no cut-outs for post and wheel cups.

Does bid comply with specification exactly as written? Yes No

The patient compartment shall be equipped with a Stryker #6377 single center position cot fastener mounted for a Stryker cot. There shall also be a Stryker cot hook installed at the rear doors.

Does bid comply with specification exactly as written? Yes No

O2 Systems

The ambulance shall have a hospital type piped oxygen system capable of storing and supplying a minimum of 3000 liters of medical oxygen. The cylinder controls shall be accessible from inside the vehicle. The pressure gauge shall be visible through a Lexan access door. The style of the outlets shall be standard Ohio.

Does bid comply with specification exactly as written? Yes No

The entire oxygen system shall be assembled with certified O2 hose (300 PSI burst strength), stainless steel tees and stainless steel permanent crimps, that are accessible throughout the module. All O2 hose running throughout the module shall also be encased in a flexible plastic loom for additional protection from chafing. The system shall be pressure tested in accordance with AMD standard 015, and a signed inspection sticker shall be provided per KKK-A-1822F.

Does bid comply with specification exactly as written? Yes No

A heavy-duty adjustable retaining system shall be supplied to secure an "H" or "M"-size oxygen cylinder. This retention system shall be installed and comply with AMD Standard 003 for KKK-A-1822F.

Does bid comply with specification exactly as written? Yes No

The oxygen supply system shall be installed in the patient compartment in compliance with KKK-A-1822F. Unless otherwise specified, the system shall consist of three Ohio style oxygen outlets in raised trim rings. Two outlets shall be located on the action wall and one outlet shall be located on the forward end of the curb side wall above the squad bench. This system shall be set up so a change in outlet style is readily made by just removing the front plate, thereby not compromising integrity of the system with field changes.

Does bid comply with specification exactly as written? Yes No

The O2 compartment shall be equipped with a large cylinder changing wrench #5082 secured to the wall with a cable in a location convenient to the oxygen cylinder.

Does bid comply with specification exactly as written? Yes No

Portable O2 Brackets

Bidder shall install customer supplied, portable O2 brackets for D tanks.

Aspirator Systems

The vehicle shall be equipped with an on-board aspirator, SSCOR 22000, with 1000ml disposable receptacle. Vacuum shall be provided by a 12-volt electric vacuum pump mounted in an outside compartment and controlled by a low voltage switch on the rear switch control panel. This switch shall be red in color and shall be connected to the electronic control module through a computer cable. The pump shall be mounted in a manner to reduce noise and vibration in the top front corner of streetside compartment #2.

The suction aspirator system shall provide a free airflow of at least 20-LPM and achieve a minimum of 300 mm Hg Vacuum within four (4) seconds after the suction tube is clamped

off. The system includes a vacuum control and shut-off valve for manual control of vacuum flow.

Does bid comply with specification exactly as written? Yes No

An Ohio style vacuum outlet shall be installed adjacent to the SSCOR suction canister. The outlet shall be provided with an Ohio style quick release barbed adapter for 5/16" suction hose.

Does bid comply with specification exactly as written? Yes No

PAINT GRAPHICS AND NOMENCLATURE

Paint

Ambulance to be painted white, matching OEO cab and Module box.

The primer, paint and paint finishing materials utilized by the manufacturer shall be components of the SIKKENS Paint System. In order to ensure system process integrity and full warranty coverage, the entire body process from body preparation to final sand, buff and glaze shall be a process that is designed and approved by SIKKENS for the manufacturer.

Does bid comply with specification exactly as written? Yes No

The successful bidder will be required to paint match the customer's existing units. The manufacturer shall provide a finished modular unit and chassis that shall match the design and paint color as provided by the customer.

Does bid comply with specification exactly as written? Yes No

The standard modular ambulance paint finish shall be produced by the application of a certified SIKKENS paint process. The standard process shall produce a white finish to match the standard OEM chassis white. The finished paint process shall provide a single color white, solid surface paint application.

Does bid comply with specification exactly as written? Yes No

Paint Stripe/Graphics Design

All graphics and lettering must be applied prior to delivery.
Striping & lettering to match current department layout .

Does bid comply with specification exactly as written? Yes No

Rear Chevron package

There shall be chevron striping on entire back of rig. Red/White reflective vinyl.

DOT, Star of Life Packages

As a standard part of the manufacturer's production process, the manufacturer shall install a small company logo to the rear module wall.

Does bid comply with specification exactly as written? Yes No

Interior Labels

The following labels shall be provided as standard.

'Shore Inlet 110VAC 60 HZ'

'110VAC Outlet'

'12VDC Outlet'

'Diesel Only'

Does bid comply with specification exactly as written? Yes No

There shall be (2) 'Fasten Seat Belt' signs provided. (1) Located in the cab and (1) in the module.

Does bid comply with specification exactly as written? Yes No

There shall be (2) 'No Smoking/Oxygen Equipped' signs provided. (1) Located in the cab and (1) in the module.

Does bid comply with specification exactly as written? Yes No

REFERENCES AND STANDARDS

Owners Manuals

An Owner's information manual shall be provided with each vehicle. The information manual shall include but not be restricted to the following items:

1. Chassis Warranty Card & Owner's Information
2. Chassis Maintenance and Operating Tips
3. Extra Set of Keys
4. Warranty Information
5. Optional Equipment Owner's Information
6. Heater/AC Information & Warranty
7. Operations Manual
8. Parts List
9. New Ambulance Work Order
10. New Ambulance Line Drawings

Does bid comply with specification exactly as written? Yes No

