

SHELBY TOWNSHIP

2017 Emergency Rescue Ambulance Bid Specifications - Ford F450 4x4 Chassis

Notice of Bid

Shelby Township is requesting bids for One (1) new rescue ambulance on a 2017 or newer F-450 4X4 chassis, with a "Liquid Spring" suspension.

The bid responses shall be in the form of one (1) original hardcopy and one DVD/CD. No faxed or emailed bids will be accepted. Bids will be received in a clearly marked envelope with the words "**2017 EMERGENCY RESCUE AMBULANCE**" Bids will be accepted by the Township Clerks office until **3:00 P.M., local time, Thursday March 30, 2017 at 52700 Vandyke, Shelby Twp. MI 48316** at which time they shall be publicly opened and read. Shelby Township reserves the right to reject any or all bids and waive any irregularities in the best interest of the City.

The Proposal, contract forms and specifications are on file and may be obtained on the MITN website at www.mitn.info

Please contact the following by written form (email is acceptable) if you have questions:

Fire Chief Jim Swinkowski (jswinkowski@shelbytwp.org)

Shelby Township

- Chartered 1978 -

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BID SPECIFICATION

GENERAL CONDITIONS

PURCHASER: The "Purchaser" who is hereinafter described as an individual, or a group of individuals who represent the interest of a City, Borough, County, Parish, State, or Private enterprise AND has been charged with the responsibility of purchasing one or more emergency medical ambulance(s).

BIDDER: The "Bidder" is hereinafter defined as the ambulance manufacturer and/or it's authorized Representative/Dealer.

PURCHASER'S INTENT

Y__N__

The intent of the specifications supplied herein is to purchase an ambulance with the highest level of quality and engineering excellence. The intent of this vehicle is centered on the patient's need for pre-hospital care, in conjunction with a safe working environment for the Emergency Medical Personnel. **It is the Township's intent to purchase an ambulance that has an interior constructed welded all-aluminum cabinets, a floor that is not constructed with any wood and an overall construction method that enables the ambulance module to be easily remounted at the end of the chassis' life.** It is also the Township's intent to purchase an ambulance from a dealer that represents a manufacturer that will be remounting their own product, using the same manufacturing processes and materials that are used in the original manufacturing process. **It is understood by the bidder that this is the Townships intent and the bidder 100% meets these requirements.**

BID BOND

Y__N__

All bids shall be accompanied by a Surety Bond in the amount of ten (10%) per cent of the bid amount payable to the purchaser and shall be provided by the Manufacturer of the ambulance bid. Bonds submitted by the Agent or Dealer will not be accepted.

The purchase contract/agreement after being awarded to the successful bidder shall be returned to the purchaser within thirty (30) days of the award. Failure to do so will result in the contract/agreement being deemed "no response" and the awarded contractor shall have no interest remaining in the pursuit of fulfilling the contract/agreement. The purchaser reserves the right at that time to pursue the bid bond amount, required at the time of bid.

Bidders failing to provide a bid bond will be considered a "no bid". No exceptions.

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PERFORMANCE BOND

Y__N__

A performance bond in the amount of 100% {one hundred percent } of the contract price will be required to be provided by the contractor as a security of faithful performance of the contract, specifically meeting all of the specifications outlined in this bid (bond is specific to material, process, and construction). The Performance Bond shall be secured by a Guaranty or a Surety Company listed in the latest issue of the U.S. Treasury Circular 570.

LICENSED MICHIGAN VEHICLE DEALER

Y__N__

If the proposal is being offered through a manufacturer's Dealer, the dealer must be licensed in the State of Michigan and provide a copy of their dealer license in the proposal

BIDDER'S INSTRUCTIONS

Bidders shall thoroughly examine all drawings, specifications, schedules, instructions and any other documents supplied as part of this invitation to bid and shall make all investigations necessary to thoroughly inform themselves regarding the content of the written specifications, drawings, and instructions supplied herein. No plea of ignorance by the bidder pertaining to the content of the specifications, drawings, schedule, or instructions will be considered by the purchaser on the deadline, if bid submission has occurred. Failure or omission on the part of the bidder to make the necessary examinations and investigations into the content of the specifications AND make all clarifications or explanations of exceptions and conditions that exist or that may exist hereafter shall NOT be accepted as a basis for making variations to the requirements of the purchaser or compensation to the bidder.

The Purchaser's clarifications shall be documented in writing and distributed to all qualified bidders at least two business days prior to the deadline for bid submission.

EXPLANATION OF EXCEPTIONS

Y__N__

Bidders may take exceptions to any part of the bid contained herein with a written itemized schedule. The schedule shall include the page number, paragraph number(s), the text that the bidder feels he cannot comply with and an explanation why the bidder feels that the requirement is not in the best interest of the purchaser AND/OR an alternate bidder solution. Alternate bidder solutions may be considered by the purchaser, if the bidder can show the purchaser that the alternate solution is, in quality and quantity, equal to OR better than the specified item. Explanations of exceptions taken must be documented and submitted with the bid proposal on or before the bid submission deadline.

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NO ALTERNATE BIDS TAKING TOTAL EXCEPTION

BID PACKAGES SHALL NOT TAKE TOTAL EXCEPTIONS: Bidders are required under this bid invitation to give, for the consideration of the purchaser, a proposal that will comply with the written specifications, drawings, and schedules supplied herein. The specifications supplied represent a compilation of input from all disciplines of users, patients, maintenance and management personnel who are directly affected by the vehicle performance. All the personnel who have direct working contact with the vehicle specified herein base careful consideration pertaining to safety, configuration, construction, and workmanship on working experiences. The intent of this ambulance was created as a result of resolving issues and improvement suggestions that have originated from the personnel most QUALIFIED to make such input.

The purchaser makes no claim that potential issues or improvements are included in the specifications supplied herein. The purchaser will consider any valid concern by any bidder and will consider only minor specification exceptions or alternates of equal or better performance, provided that the exceptions are steered toward meeting the intent AND the exceptions are submitted with the final bid proposal on or before the bid deadline.

CAUTION: A bidder who submits a bid that takes "Total Exception" and makes an offering of some "Standard" or "Stock" unit will be viewed by the purchaser as a bidder who did not make, and is not prepared to make, a valid bid, and is not qualified to manufacture the ambulance as specified herein. Alternate bids shall NOT be considered.

INTER-AGENCY AGREEMENTS (PIGGY-BACK)

It is the intent of this bid document to make available to other government entities, by mutual agreement with the successful Bidder, the right to purchase the same or like equipment and or products, at the prices quoted for the period of the contract. Each Bidder shall indicate in the bid proposal, if the Bidder will honor other political subdivision's orders, in accordance with contract terms and conditions. This procedure is sometimes identified as a "Piggy-Back" Bid.

VENDOR QUALIFICATIONS

Y__N__

Regardless of chassis purchased, all bidders shall be members in good standing of the Ford Motor Company Qualified Vehicle Modifier Program (Q.V.M.). Certification verification shall be provided with the bid response. If for any reason the Q.V.M. Certification was withdrawn or suspended by Ford Motor Company within the past five years, the bidder shall supply a full written explanation of the Q.V.M. withdrawal or suspension and any corrective actions taken to regain Q.V.M. Certification.

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PRE-CONSTRUCTION CONFERENCE

Y__N__

The successful bidder shall be required, prior to manufacturing, to have a Pre-Construction conference with two (2) people designated by the purchaser. This meeting is to be held at the production facility of the manufacturer and if more than 350 miles from the purchaser's location, the transportation shall be by commercial air carrier and individual hotel rooms as well as meals will be supplied.

MID-POINT INSPECTION

Y__N__

A Mid-Point inspection shall be required. Accompanied by a Dealer Representative, two (2) people designated by the purchaser will travel to the manufacturer's facility for the purpose of inspecting the vehicle for compliance to the specifications and for the overall quality of the vehicle. Inspections shall be scheduled during weekdays, including travel time. If this inspection is to occur at a location more than 350 miles from the purchaser's location, the transportation shall be by commercial air carrier and individual hotel rooms as well as meals shall be provided.

FINAL INSPECTION

Y__N__

A Final inspection shall be required. Accompanied by a Dealer Representative, two (2) people designated by the purchaser will travel to the manufacturer's facility for the purpose of inspecting the vehicle for compliance to the specifications and for the overall quality of the vehicle. Inspections shall be scheduled during weekdays, including travel time. If this inspection is to occur at a location more than 350 miles from the purchaser's location, the transportation shall be by commercial air carrier and individual hotel rooms as well as meals shall be provided.

PRODUCT LIABILITY INSURANCE

Y__N__

A Certificate of current liability insurance, with a Ten Million Dollar minimum shall be supplied with the bid submission. The certificate of insurance shall bear the insurance carrier's name, address, and phone number. The Certificate shall also bear the name and address of the insured. This document shall contain the coverage schedule, explaining the type of insurance, the policy number, the effective date of coverage, the policy expiration date, and the individual limits of liability.

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DRUG FREE WORKPLACE

Y__N__

The bidder shall conduct business as a Drug Free Workplace. The bidder/manufacturer shall provide notice to their employees as required under the Drug Free Workplace Act of 1988. A copy of the bidder's Drug Free Workplace policy shall be furnished to the purchaser upon request.

CHASSIS POOL

Y__N__

The bidder shall be a member of the Ford Motor Company's and/or the General Motor Company's Chassis Bailment Pool, regardless of the chassis specified within this specification. The bidder shall provide a current Ford Motor Company and/or General Motor Company's Pool account number to the purchaser upon request.

PRODUCT TESTING

AMBULANCE MANUFACTURER'S DIVISION: The Bidder shall be a member in good standing with the National Truck Equipment Association (N.T.E.A.) and the Ambulance Manufacturer's Division (A.M.D.) of N.T.E.A. The bidder shall supply a letter with the bid response to verify current membership in both the N.T.E.A. and the A.M.D.

AMD STANDARD 001: STATIC LOAD TEST

A.M.D. 001 - MANUFACTURERS' BODY STRUCTURE TESTING: The ambulance described herein shall be tested to the National Truck Equipment Association's Ambulance Manufacturer's Division, AMD Standard 001 - Static Load Test, except the test weight shall be at least 32,000 pounds. The test results shall be certified by an independent engineering firm not directly associated with the Ambulance Manufacturer. These certified test results shall be supplied to the purchaser upon request.

KKK-A-1822F TESTING CERTIFICATION

The bidder shall provide documentation within this bid proposal, which verifies that all KKK-A-1822F testing is current and certified by an independent engineering firm.

QUALITY ASSURANCE - SPECIFICATION COMPLIANCE

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The manufacturer shall inspect and test all systems and electrical loads per Federal specification KKK-A-1822F Section 4. Testing results shall be documented and displayed in the oxygen compartment and supplied with the vehicle delivery handbook.

NOTE: The purchaser will have zero tolerance towards bidder/vendors who state compliance to specification, but delivers an incomplete product and/or substandard materials and workmanship.

MANUFACTURER OWNERSHIP

Y__N__

It is the intent of the purchaser to work with an ambulance manufacturer that has a long-standing history of building the product that is being proposed. Bidder shall state number of years that the manufacturer has been building the specific make and model of ambulance being proposed, specifically in the manufacturer's current location:

NON-COLLUSIVE BID CERTIFICATION

By submission of this bid response, the Bidder and/or Bidder's authorized representative(s), certify under penalty of perjury, to the best of their knowledge and belief the following:

- A. The prices in this bid response have been arrived at independently without collusion, consultation, communication, or agreement for the purpose of restricting competition, as to any matter relating to such prices with any other Bidder or with any competitor, and;
- B. Unless otherwise required by law, the prices which have been quoted in the bid response have not knowingly been disclosed by the Bidder and will not knowingly be disclosed by the Bidder, prior to the public bid opening, either directly or indirectly to any competitor, and;
- C. No attempt has been made or will be made by the Bidder, for the purpose of restricting competition, to induce any person, partnership, or corporation not to submit a bid response.

DEBARMENT STATUS

Y__N__

By submission of this bid response, the Bidder and/or its authorized representatives, certify under penalty or perjury, that to the best of their knowledge and belief they are not currently debarred from submitting bids or bidding on contracts from any agency within the home state of the purchaser, nor are they an agent of any

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person or entity that is currently debarred from submitting bids on contracts by any agency within the home state of the purchaser.

DELIVERY STATEMENT

The bidder shall state the number of calendar days required for delivery of the completed ambulance, after receipt of an order and receipt of chassis by the manufacturer.

Delivery shall be within _____ calendar days after receipt of order and receipt of chassis. (State number of calendar days)

REQUIRED DELIVERY ITEMS

REQUIRED DELIVERY ITEMS: Upon a successful bid award, the vendor shall provide the following to the purchaser, upon ambulance delivery:

1. Manufacturer's Quality Assurance Vehicle Testing and acceptance documents.
2. One (1) copy of conversion parts, service, and operational manuals.
3. OEM Chassis Owner's Guide materials as provided by the chassis manufacturer.
4. Two (2) copies of "as built" customized electrical schematics for the ambulance conversion.

PURCHASER'S RIGHTS

ACCEPTANCE OR REJECTION: The Purchaser reserves the right to accept or reject any and all bids as deemed to be in the best interest of the purchaser and is not bound to accept the lowest bid.

BID PROPOSAL TIME LIMITS: All bids submitted to the purchaser shall remain in effect for a minimum period of (60) sixty calendar days.

BID WITHDRAWAL: Only written bid withdrawal requests will be accepted by the purchaser. Bid withdrawals received less than (3) three working days prior to the advertised bid opening will not be accepted.

FORCE MAJEURE

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The bidder shall not be charged with liquidated damages or any excess cost when delay in delivery of goods is due to:

Any preference or priority of an allocation order duly issued by a government agency.

Unforeseeable cause beyond the control and without the fault, of the ambulance manufacturer, or acts of God or of the public enemy, acts of the purchaser, acts of another contractor in the performance of a contract with the purchaser, fire, flood, epidemics, quarantine restrictions, strikes, freight embargoes, and unusually severe weather; and;

Any delays of subcontractors occasioned by any of the causes specified in the two immediately preceding clauses.

MANUFACTURER "MAKES"

Y ___ N ___

Does the manufacturer of the ambulance being offered build only one (1) "make"/"brand" of ambulance/emergency vehicle in its manufacturing/production location? If the manufacturer of the ambulance being bid also produces other "makes" of ambulances ("make" being defined as a separate name, dealer network, or "BRAND"), bidder must supply a list of brands/makes along with a list of product and production differences between these brands/makes.

AMBULANCE BUILD LOCATION

All ambulance modules in this specification must be built in the United States of America.

ROLLOVER CRASH TEST

The manufacturer shall perform a dynamic rollover crash test with video documentation to be provided to the Purchaser upon request. Crash tests shall be performed within a controlled and repeatable environment. All testing shall be performed by an ISO/IEC 17025 accredited laboratory by an accreditation body that is recognized by the National Cooperation for Laboratory Accreditation (NACLA) or is a signatory to the International Laboratory Accreditation Cooperation (ILAC) Mutual Recognition Arrangement (MRA). Refer to the following publications for specifications:

SAE J211-1 Instrumentation for Impact Test – Part 1: Electronic Instrumentation

SAE J211-2 Instrumentation for Impact Test – Part 2: Photographic Instrumentation

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SAE J21733 Sign Convention for Vehicle Crash Testing

SAE 3027 Ambulance Litter Integrity, Retention, and Patient Restraint

SIDE IMPACT CRASH TEST

The manufacturer shall perform a dynamic side impact crash test with video documentation to be provided to the Purchaser upon request. Crash tests shall be performed within a controlled and repeatable environment. All testing shall be performed by an ISO/IEC 17025 accredited laboratory by an accreditation body that is recognized by the National Cooperation for Laboratory Accreditation (NACLA) or is a signatory to the International Laboratory Accreditation Cooperation (ILAC) Mutual Recognition Arrangement (MRA). Refer to the following publications for specifications:

SAE J211-1 Instrumentation for Impact Test – Part 1: Electronic Instrumentation

SAE J211-2 Instrumentation for Impact Test – Part 2: Photographic Instrumentation

SAE J21733 Sign Convention for Vehicle Crash Testing

SAE 3027 Ambulance Litter Integrity, Retention, and Patient Restraint

One (1) **KKK FEDERAL SPECIFICATION REQUIRED** Y__N__

This Order / Ambulance is required to conform to KKK Federal Specification for the Star-of-Life Ambulance.

One (1) **KKK CHANGE NOTICE 8 REQUIRED** Y__N__

Shelby Twp is required by law to be KKK-A-1822F Change Notice 8 compliant to meet SAE J3026 - Ambulance Patient Compartment Seating Integrity and Occupant Restraint Standards, and SAE J3027 - Ambulance Litter Integrity, Retention, and Patient Restraint Standards. Does your specification meet these requirements?

One (1) **TYPE I - AMBULANCE -** Y__N__

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SPECIFICATION INTENT: Type I 169-inch module, constructed with not less than a 72-inch interior module height, an overall length of 307-inches, an overall width of 98-inches and an overall exterior height not to exceed 110-inches.

One (1) **CHASSIS - FORD F-450 CHASSIS, 193" WB 4 x 4**

Y___N___

F4H 2017 FORD F450 CHASSIS CAB, 193" WB 4X4 DRW (108 C.A.)

MECHANICAL

- Axle - Mono beam front axle w/coil spring suspension
- Rear-axle "Standard" width 4.10 Limited-slip w/DRW (*X4N*)
- Battery - Batteries Dual 750 CCA
- Brakes – Four-wheel Disc Brakes; Anti-lock Brake System (ABS)
- Emission 50-State Emissions System
- Engine — 6.7L 4V OHV POWER STROKE V8 TURBO DIESEL B20 (*99T*)
- Engine block heater (*41H*)
- Operator Commanded Regeneration (*98R*)
- Tires - 225/70Rx19.5G BSW A/S (*TFB*)
- Transmission – TorqShift® Six-Speed automatic w/SelectShift® automatic (6R140)

FUNCTIONAL

- Alternators: Dual extra heavy duty (*67B*)
- Ambulance Prep Package (*47L*)
- Hood release
- Horn - dual electric
- Oil minder system
- Shift - Electronic-Shift-On-the-Fly – 4X4 (ESOF *213*)
- Shock absorbers - heavy -duty gas

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- Sirius XM® Radio (Note: Includes a 6-month prepaid subscription. Service is not available in Alaska or Hawaii).
- Spare Tire, Wheel and Jack (Excludes carrier; includes Hydraulic Jack (*512* *61J*))
- Springs, rear auxiliary
- Stabilizer bars – front & rear
- Trailer Brake Controller

EXTERIOR

- Back Panel, rear - solid, no sliding rear window
- Bumper – front, chrome
- Color – Vermillion Red
- CLN IDLE Decal, CAL SER VEH EXP (*63B *936*)
- Fender vents – front
- Front License Plate Bracket
- Fuel Tank — 40 gallon aft axle (F-450)
- Glass – privacy
- Grille – two (2) bar, bright chrome
- Manual locking hubs
- Preferred Equipment Package, XLT Trim (*653A*)
- Scuff plates – front, color-coordinated
- Splash Guards/Mud Flaps – Front
- "Three Blink" Lane change signal
- Tow hooks – front (2)
- Trailer wiring – 7 wire harness w/relays, blunt cut & labeled
- Wheels – Aluminum
- Windshield Wipers – intermittent

INTERIOR/COMFORT/CONVENIENCE

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- 4.2" LCD Productivity Screen in IP Cluster w/Compass display
- 12V Power point, auxiliary
- Air conditioning – single-zone, manual
- Air conditioning vents – black w/chrome ring and knob
- AM/FM Stereo Single-CD/MP3 Player, Clk (*54k*) (speakers; four (4) with Regular Cab six (6) with SuperCab and Crew Cab)
- Auxiliary audio input jack
- Cabin Air Particulate Filter
- Carpet Delete (*166*)
- Coat hooks, LH/RH color-coordinated
- Cruise Control
- Dash top tray
- Dome lamp – LH/RH door activated & I/P switch operated w/delay
- Door locks w/ backlit switches
- Door-trim – soft armrest, grab handle, power window/lock switches and reflector; front map pockets on Regular Cab and SuperCab; front and rear map pockets on Crew Cab
- Floor Mats – all weather (*166*)
- Gauges & Meters - Fuel , Transmission temperature, Engine coolant temperature, Oil pressure (gas engine), and Turbo (diesel engine) gauges, Speedometer, Odometer, and Tachometer
- Handles, grab – driver & front-passenger Handles, roof ride – front-passenger (also over rear-doors on Crew Cab)
- Headrests - driver and passenger 4 way adjustable
- Map lights – dual (front and rear w/Crew Cab)
- Mirror – rearview 11.5" day/night
- Outside Temperature Display
- Power Equipment Group – 1ST row (front-seat) windows w/one-touch up/down, power 2ND row (rear-seat) windows (Super/Crew Cab); power/door-locks w/backlit switches & accessory delay

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- Seat –Front, high-series cloth 40/20/40 cloth medium earth gr (*3S*) split bench - 20% center under-seat storage, – w/center armrest,

cup holder and storage (manual lumbar – driver’s side) — Four-way adjustable driver/passenger headrests

- Steering – power
- Steering wheel – Black urethane with tilt and telescoping steering wheel/column; includes three (3) button message control
- Sun visors – color-coordinated cloth, driver w/pocket, both driver and passenger w/covered mirrors
- Upfitter Interface Module (*18A*)
- Upfitter switches – 6 located in Overhead Console

SAFETY/SECURITY

- AdvanceTrac® with RSC® (Roll Stability Control™)
- AutoLamp – Auto On/Off Headlamps
- Belt-Minder® (front safety belt reminder)
- Driver and passenger frontal and side airbag/curtain; passenger side deactivation switch
- Headlamps – Quad beam jewel effect halogen
- Lamps – Roof marker/clearance – LED
- Mirrors – manually telescoping/folding trailer tow with power/heated glass, heated convex spotter mirror, integrated clearance lamps/turn signals
- MyKey® owner controls feature
- Remote keyless entry and Perimeter anti-theft alarm
- Safety Belts – color-coordinated w/height adjustment (front-outboard seating positions only)
- Safety Canopy® System
- SecuriLock® Passive Anti-Theft System (PATS)
- Stationary Elevated Idle Control (SEIC)
- SOS Post-Crash Alert System™
- Underhood service light

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DRIVER ASSIST

- AutoLamp (Auto On/Off Headlamps) with Rainlamp Wiper Activated Headlamps
- Cruise control (steering wheel-mounted)
- SYNC® with MyFord® – Voice-activated Communications and Entertainment System with 911 Assist® and AppLink™

WEIGHT RATINGS

FRONT AXLE WEIGHT RATING	6000
REAR AXLE WEIGHT RATING	13660
GROSS VEHICLE WEIGHT RATING	18000

One (1) **CHASSIS, CUSTOM - OEM PAINT - VERMILLION RED** Y__N__

The OEM Ford Chassis shall be painted OEM Vermillion red from the factory.

One (1) **ALUMINUM WHEELS** Y__N__

Aluminum wheels shall be ordered with the chassis. These will include the hub, hat and lug covers.

One (1) **FUEL TANK - FULL UPON FACTORY RELEASE** Y__N__

The chassis fuel tank of the completed unit shall be full at time of release from the ambulance manufacturer's facility.

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A Buckstop utility bumper with winch bumper mount shall be installed on the front of the chassis in place of the OEM chrome bumper. The winch mount shall support the mechanical Federal "Q" siren. (No winch is to be provided).

One (1) **HEAT SHIELDS** Y__N__

Protective heat shields shall be installed above the exhaust system as recommended by the chassis manufacturer.

One (1) **HIGH IDLE SYSTEM, AUTOMATIC** Y__N__

An aftermarket auto high-idle system shall be provided on the chassis. The high-idle shall be programmed to activate when the transmission is placed in the park position and the parking brake is activated. The system will automatically go to high idle, but will adjust itself as needed for higher or lower idle. If the module heat or a/c is activated the high idle will be over ridden to 1500 rpm.

One (1) **MIRRORS, EXTERIOR OEM MANUAL TELESCOPING W/REMOTE & HEAT** Y__N__

The chassis shall have OEM telescopic trailer tow mirrors with power adjustable flat heated glass and manual adjustable convex glass.

One (1) **OEM AUTO-LOCK DISABLED (cab & module doors do not auto lock or unlock)** Y__N__

One (1) **RUNNING BOARDS - STAR PUNCHED DIAMOND PLATE** Y__N__

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Aluminum diamond plate running boards with a star punched non-skid surface shall be provided on the cab. The running boards shall be bright dip anodized after they are formed to retain finish and increase corrosion resistance.

One (1) **OEM WHEELS - WITH VALVE STEM EXTENSIONS - OEM CAST ALUMINUM WHEELS** Y__N__

Chassis shall be ordered with cast aluminum wheels and hub, hat, and lug covers from the OEM manufacturer.

One (1) **ELECTRICAL SYSTEM - WELDON V-MUX, MICRO PROCESSOR BASED** Y__N__

A Weldon V-MUX 100% solid state microprocessor based multiplex system shall be installed to control the electrical functions. The system shall include load management, load shedding, power modulation, load sequencing capabilities and provide on-board diagnostics with real-time status reporting. The system shall consist of one (1) color control console (Vista) in the cab, one (1) color control console (Vista) in the patient compartment, four (4) control nodes (Hercules), and a cab warning display with video input and monitoring capabilities.

The system must be a Weldon V-MUX. **No exception.**

Bidders who propose any other proprietary electrical system shall be considered as non-compliant.

Documentation required with bid submission

Bidder must supply with his/her bid proposal, a listing of not less than 500 ambulances produced with the Weldon v-mux system within the past 5 years. The documentation shall include a production order number, the purchaser's agency name, and the date the ambulance was delivered.

Bids submitted without this documentation shall not be considered.

One (1) **VISTA IV MCC - PUSH BUTTON** Y__N__

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A Weldon V-MUX Vista IV interface module / display screen shall be provided and installed in the cab. The Vista module shall be operated through the use of push buttons.

One (1) **VISTA IV ACP - PUSH BUTTON** Y__N__

A Weldon V-MUX Vista IV interface module / display screen shall be provided and installed in the patient compartment. The Vista module shall be operated through the use of push buttons.

The module power and heat/ac system shall be set to "ignition hot", allowing the power to the module to be on when chassis ignition is turned on.

One (1) **WARNING DISPLAY - MULTIPLEX ELECTRICAL SYSTEM** Y__N__

A digital warning display shall be integrated into the cab display console and programmed through the multiplex system to provide visual and audible indications for:

Parking brake set condition

Parking brake release condition

Patient status alarm (four color with reset capability)

Individual outside storage compartment "door open" warnings in vehicle outline form.

Low voltage alarm

Low oxygen pressure alarm

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One (1) **DAYTIME RUNNING LAMPS - MULTIPLEX ELECTRICAL SYSTEM** Y__N__

Headlights shall be activated at 30% intensity, for day time operation, when transmission is placed in drive, as a feature of the multiplex system. (if not standard on the chassis)

One (1) **MASTER CONTROL CONSOLE (MCC) - MULTIPLEX ELECTRICAL SYSTEM** Y__N__

A floor mounted Master Control Console (MCC) shall be located in the cab. The console shall house the siren and the color microprocessor display screen, which will control all the Emergency Warning functions as well as also being able to control the Patient Compartment lighting and module heat/ac functions.

One (1) **ATTENDANT CONTROL PANEL (ACP) - MULTIPLEX ELECTRICAL** Y__N__

The Attendant Control Panel (ACP) shall contain a color micro processor screen, which will control all equipment installed in the patient compartment.

One (1) **ELECTRICAL COMPARTMENT (PDQ) - MULTIPLEX ELECTRICAL SYSTEM** Y__N__

The Power Distribution Quarters (PDQ) shall hold electrical components, (i.e. power distribution nodes, circuit breakers, etc). The electrical compartment shall be enclosed with a lockable, hinged door, located on the partition wall behind the attendant seat.

One (1) **SPARE CIRCUIT - MULTIPLEX ELECTRICAL SYSTEM** Y__N__

One (1) spare 15 amp circuit shall be provided.

One (1) **WIRING HARNESS CONNECTORS - MULTIPLEX ELECTRICAL SYSTEM** Y__N__

All wiring harnesses shall be connected via quick connect circular plug connectors.

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One (1) **RADIO TIE-IN POINTS - MULTIPLEX ELECTRICAL SYSTEM** Y__N__

Radio tie-in points shall be installed and labeled in the lower area of the electrical compartment and in the cab, under the console. The radio tie-in points shall be comprised of insulated terminal stud blocks with one "battery hot" and one "ignition hot".

One (1) **EMERGENCY MASTER SWITCH - MULTIPLEX ELECTRICAL SYSTEM** Y__N__

A single emergency master switch shall be supplied for activating all the emergency warning lights and shall be provided on the master control console screen. The emergency master switch will activate the module power automatically. There shall also be an Emergency Master Menu button which shall allow access to individual warning light functions.

One (1) **CONTROL PANEL SWITCHES - MULTIPLEX ELECTRICAL SYSTEM** Y__N__

The switches on the master control console and attendant control panel screens shall have dimmable perimeter backlighting for easy identification.

One (1) **MODULE POWER SWITCH - MULTIPLEX ELECTRICAL SYSTEM** Y__N__

A module power switch for the electrical system shall be provided on both the master control console and the Attendant Control Panel screens.

One (1) **MODULE DISCONNECT - MULTIPLEX ELECTRICAL SYSTEM** Y__N__

An In-Power disconnect with a built-in adjustable timer shall be installed to keep the module power switch engaged for five minutes, after the ignition is switched to the "off" position. This disconnect can also be activated from the side and rear doorways to turn on the fluorescent check-out lights.

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One (1) **VOLTMETER - MULTIPLEX ELECTRICAL SYSTEM** Y__N__

One (1) digital voltmeter shall be provided on the master control console screen.

One (1) **FLASHER - MULTIPLEX ELECTRICAL SYSTEM** Y__N__

The flasher shall be provided within and programmed by the multiplex electrical system.

One (1) **FLASHING HEADLIGHTS - MULTIPLEX ELECTRICAL SYSTEM** Y__N__

The headlights (high beams) shall be programmed through the multiplex system to alternate flash (wig-wag), activated by a switch on the master control console screen labeled "Flashing Headlights", with the ignition on and module power and emergency master switches enabled. The flashing headlights are to be disabled when the low or high beams are activated. They are also disabled when the transmission is placed in the neutral/park position. The flashing headlights shall have the capability to be reactivated with the "park override" switch in the "on" position if the low and high beams are off.

One (1) **PARK OVERRIDE - MULTIPLEX ELECTRICAL SYSTEM** Y__N__

A park override switch, located on the master control console screen, shall reactivate all lights disabled when the transmission is placed in the neutral/park position.

One (1) **LOAD MANAGER-SEQUENTIAL SWITCHING SYSTEM - MULTIPLEX ELECTRIC** Y__N__

The load manager-sequential switching system shall be controlled by the microprocessor based electrical system. The emergency master switch shall control the sequential switching of the emergency lights and/or other warning devices. The load manager shall automatically shed not-critical electrical loads during low voltage

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conditions to help prevent electrical system overload when the vehicle is stationary and the transmission is in the park position.

One (1) **WARNING LIGHTS FLASH PATTERN SIGNAL ALERT 75 - MULTIPLEX ELEC SYS** Y__N__

The default flash pattern for the warning lights shall be Signal Alert 75. These warning lights will be operated from a single switch labeled "flashers" via the Multiplex System on the master control console.

One (1) **WARNING LIGHTS SWITCH - MULTIPLEX ELECTRICAL SYSTEM** Y__N__

All flashing module warning lights shall be operated from a single switch on the master control console screen, labeled "flashers".

One (1) **FRONT CLEAR DISABLE SWITCH - MULTIPLEX ELECTRICAL SYSTEM** Y__N__

Activation of the switch on the master control console screen shall disable all forward facing clear warning lights.

One (1) **CURBSIDE SCENE LIGHTS "ON" WITH CURBSIDE DOOR - MULTIPLEX EL** Y__N__

The curbside scene lights shall be programmed to activate when the curbside door is in the open position.

One (1) **REAR SCENE LIGHTS "ON" WITH REAR DOORS OPEN - MULTIPLEX ELEC** Y__N__

The rear scene lights shall be programmed to activate when the rear doors are in the open position.

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One (1) **DISABLE SWITCH FOR REAR SCENE LIGHTS - MULTIPLEX ELECTRICAL** Y__N__

A disable switch shall be installed at the rear door area to disable the rear scene lights.

One (1) **DISABLE SWITCH FOR SIDE SCENE LIGHTS - MULTIPLEX ELECTRICAL** Y__N__

A disable switch shall be installed at the curbside door area to disable the curbside scene lights.

One (1) **REVERSE (TRANSMISSION) FUNCTIONS - MULTIPLEX ELECTRICAL - PROGRAMMING** Y__N__

The system shall be programmed to provide activation of the side "rear-most" scene lights, and the rear scene lights, when the transmission selector lever is placed into "reverse" position. No emergency lights shall flash in reverse.

One (1) **AIR HORNS-BUELL DUAL TRUMPETS 10" & 12" THRU BUCKSTOP BUMPER w/LANYARD** Y__N__

A Buell air horn system with dual trumpets, one (1) 10" and one (1) 12", shall be mounted through the front Buckstop bumper, one (1) each side. The compressor shall be installed in OSS #2. The air horns shall be activated by a lanyard cable installed in the OEM cab headliner

One (1) **BACKUP ALARM** Y__N__

An (OSHA approved) back up alarm shall be installed with disable switch for silent backing. The disable switch shall be located on the MCC (master control console). The back up alarm system shall automatically reset to the "on" mode when the transmission is taken out of reverse.

One (1) **CAMERA REAR VIEW - SINGLE SYSTEM - VISTA SCREEN** Y__N__

A color camera system connected to the cab Vista display screen shall be installed, providing rear view monitoring to the rear exterior of the module. The camera shall be connected to the video input provided in the cab's Vista screen. This camera image shall automatically be displayed on the MCC Vista when the vehicle is placed in reverse. The Vista shall resume normal operation when the vehicle is taken out of reverse.

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One (1) **ELECTRICAL CIRCUITS** Y__N__

All electrical circuits shall have wiring and circuit protection suitable to the demand and must meet the national electric code (NEC) wiring requirements.

All added on wiring (18 GA through 10 GA) shall be color coded and stamped with code numbers and functions every 4" for easy identification (all other wiring shall be color coded). SLX high temperature thermoplastic cross link wire shall be used.

SGX insulated cable shall be used for all under hood / underbody battery and charging system cable. High temperature (375°F) thermoplastic loom shall be used on all harnesses.

One (1) **GROUND FAULT CIRCUIT INTERRUPTER (GFCI)** Y__N__

A 125 VAC, 20 AMP circuit breaker with ground fault circuit interrupter (GFCI) electronic ground leakage detection shall be installed in the load center for the shoreline circuit.

One (1) **INVERTER, VANNER - 1050 WATT, #20-1050CUL-DC CHARGER** Y__N__

A Vanner 20-1050CUL-DC, 1050 watt inverter with battery conditioner/charger, with remote switch, shall be provided and installed.

One (1) **LIGHT, ATTENDANT CONTROL PANEL AREA - LED - WARM WHITE** Y__N__

A Tecniq Silho-X 2.75" round warm white LED light with SS trim ring, shall be mounted above the left wall forward action area counter. The light shall be operated through the a button on the ACP Vista screen labeled "Attendant Light"

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One (1) **LIGHT, ELECTRICAL COMPARTMENT (PDQ)** Y__N__

A 12 VDC light shall be located in the electrical compartment. The light shall be wired "battery-hot" to activate when the power distribution quarter's door is in the open position. The light shall be off when the door is in the closed position.

One (1) **LIGHT OSS COMPARTMENT - LED ROPE** Y__N__

Each outside storage compartment shall be equipped with LED rope lighting which shall be located across the top and down both sides of the door opening, activated by a magnetic switch.

One (1) **OUTLETS, 125VAC - THREE (3) INTERIOR DUPLEX** Y__N__

Three (3), 2-wire +plus ground 125 VAC hospital-grade duplex outlets shall be installed in the patient compartment with wiring connected to the shoreline. Two (2) outlets shall be installed in the street side cabinet action area, one (1) forward and one (1) rearward, to supply 125 VAC to the monitoring equipment. The third outlet shall be installed in the lower front wall cabinet #3. An indicator lamp shall be located within each 125 VAC outlet as a line monitor to indicate a live circuit. The outlets shall be labeled, "125 VAC".

One (1) **OUTLETS, 12VDC - TWO (2) INTERIOR POWERPOINT** Y__N__

Two (2) 12 VDC power point outlets shall be installed in the patient compartment, one (1) in the front wall equipment area, and one (1) in the action area, on the street side of the vehicle. The outlets shall be labeled, "12 VDC". A Schottky diode medical isolator shall be provided to protect the 12 VDC outlets.

One (1) **RADIO ANTENNA BASES - TWO (2)** Y__N__

Two (2) antenna bases with attached coax cables shall be installed on the module roof. The coax cables shall terminate in with one (1) the PDQ and one (1) under the console in the cab. Access to the antenna bases shall be through adjacent module interior dome lights.

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One (1) **RECEPTACLE SHORELINE INLET-SUPER 20 AMP, AUTO EJECT** Y__N__

A Kussmaul super auto eject shoreline inlet receptacle with yellow cover shall be installed on the module exterior (forward street side) near the driver's door. The receptacle shall be equipped with an integral dynamic disconnect.

The 125 VAC, heavy duty 20-amp circuit breaker shall have GFCI protection and shall be connected to the lighted 125 VAC patient compartment outlet(s). A mating connector shall be shipped loose with the completed ambulance.

One (1) **SIREN, FEDERAL MECHANICAL "Q" SIREN - DIAMOND PLATE BUILD-OUT w/ RUBBER BUMPERS** Y__N__

A Federal Mechanical "Q" siren shall be recessed installed in the Buckstop front bumper on the chassis. The front bumper shall be equipped with forward facing rubber dock type bumpers to absorb contact with other vehicles and equipment. The Federal "Q" Siren shall be activated through a foot pedal located on the cab floor, driver's side as well as through the multiplex screen in the cab.

One (1) **SIREN, WHELEN 295-HFSA7-REMOTE WITH MICROPHONE** Y__N__

A Whelen 295-HFSA7 remote dual siren amplifier shall be flush-mounted in the master control console located in the cab. The siren shall be capable of hands-free operation and shall be equipped with a noise canceling microphone. Some features of this siren include:

DUAL 200 WATT, FLUSH MOUNT SIREN with REMOTE SIREN AMPLIFIER

- Six function siren plus radio repeat and public address.
- Operates two 100-watt speakers.
- Operates in dual (outputs 2 independent siren tones creating rich harmonic dual tone sound) or mono sound modes.
- External dip switch programmable siren tones.

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- PTT (push to talk) switch on microphone overrides all siren functions.
- Removable unidirectional microphone with adjustable microphone volume & adjustable preset radio repeat volume.
- SI TEST®, silent diagnostic test.
- Quick disconnect plug for ease of service or replacement.

12 Siren Tones

- Airhorn • Wail • Yelp • Piercer • Manual Coast to Stop
- Manual • Mechanical Coast to Stop • Hi/Low • Yelp 249
- Warble • Whoop • Mechanical Tone

One (1)

SIREN SPEAKERS, RECESSED BEHIND FRONT BUMPER

Y__N__

Two (2) Cast Products - 100-watt siren speakers, shall be installed in outer ends of the front bumper.

One (1)

SYSTEM ACTIVE AND CHECK OUT LIGHTS - 5 MINUTES

Y__N__

A switch shall be located at the curb and rear entry doors that will allow activation of the V-MUX electrical system. There shall also be a check out light switch located at the curb and rear doors that will allow activation of the left LED angled lights prior to entering the module. The system shall be programmed to shut down automatically after 5 minutes unless the ignition is on. This shutdown delay shall be user adjustable.

One (1)

LIGHTS, DOME LED (8) Tecniq

Y__N__

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Eight (8) Tecniq (E08-LC10-1) 18 LED dome lights, shall be provided in the patient compartment. The dome lights shall be controlled by separate switches for the left bank and right bank of lights. The dome lights shall be activated by switches on both the attendant control panel and the master control console. The dome lights shall be illuminated at 50% power whenever the patient compartment side or rear doors are opened.

One (1) **LIGHTS, TECNIQ LED PANEL (3) STREETSIDE - ANGLED** Y__N__

Three (3) Tecniq (E30-L010-1) 21 LED lights shall be mounted on the angled panel above the streetside interior cabinets. These lights shall be three way switched from the attendant control panel and the master control console.

One (1) **LIGHTS, ICC / LED CLEARANCE - ON MODULE FRONT - TECNIQ** Y__N__

The vehicle shall have five (5) amber Tecniq LED (S33-AA00-1) clearance / ICC lights on the front of the module near the roof line.

One (1) **LIGHTS, ICC / LED CLEARANCE - ON MODULE REAR - TECNIQ** Y__N__

The vehicle shall have five (5) red Tecniq LED (S33-RR00-1) clearance / ICC lights on the rear of the module near the roof line.

One (1) **LIGHTS, UNDERBODY EIGHT (8) TECNIQ LED - LOCATED UNDER MODULE** Y__N__

There shall be nine (9) Tecniq E10 white LED lights mounted on brackets underneath the module. The lights shall turn on automatically when the vehicle is shifted into park. The lights may also be activated or disabled by a switch on the MCC Vista display screen labeled "Underbody Lights".

One (1) **LIGHTS, FRONT GRILLE - (2) WHELEN 500 SUPER LED - RED W/CLEAR LENS** Y__N__

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Two (2) Whelen 500 series red super LED warning lights, with clear lens and waterproof connectors shall be installed in the grille area of the chassis. The lights shall operate from a switch on the master control console labeled "Flashers".

One (1) **LIGHTS, FRONT MODULE-WHELEN (7) 900 RED/WHITE SPLIT SUPER LED** Y__N__

Seven (7) Whelen Red/White split Super LED warning lights with chrome bezels shall be installed on the module front with individual light layout to Departmental specifications. All lights shall have clear lens. The lights shall operate from a switch on the master control console, labeled "Flashers".

One (1) **LIGHT FRT, WHELEN-PIONEER PLUS PFP2 SUPER LED LIGHT HEAD w/PBA203 CHROME HOUSING** Y__N__

A Whelen Pioneer PFP2 SUPER LED lighthouse shall be installed on the module front. Light shall be installed in a PBA203 chrome housing.

One (1) **LIGHTS, REAR TAIL - WHELEN 600 LED STOP, TURN, HALOGEN BK-UP** Y__N__

One (1) pair each of Whelen 600 series LED stop/tail lights, turn lights, and halogen back-up lights with chrome bezels shall be installed on the rear of the module.

One (1) **LIGHTS, REAR WINDOW-LEVEL - WHELEN (2)900 LED - RED W/CLR LENS** Y__N__

Two (2) Whelen 900 series red super LED warning lights with clear lenses and chrome flanges shall be installed on the rear of the module at window level, one (1) on each side. These lights shall operate from a switch on the master control console, labeled "Flashers".

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One (1) **LIGHTS, REAR MODULE -WHELEN (5)900, (2)RED, (1)AMB LED, (2)LED SCN CLR LENS** Y__N__

Two (2) Whelen 900 series red super LED warning lights with clear lens, two (2) Whelen 900 series 24 diode LED scene/load lights, and one (1) Whelen 900 series amber super LED warning light with clear lens shall be installed on the rear of the module. The lights shall be installed with chrome flanges and shall be operated from switches on the master control console labeled "Flashers" and "Rear Scene Lights".

One (1) **LIGHT, LICENSE PLATE LED** Y__N__

One (1) Whelen OACOEDCR LED license plate light with 45 deg angled chrome-plated bezel shall be installed on the rear of the module, lower left side.

One (1) **LIGHTS, ICC / LED CLEARANCE - ON MODULE SIDE - TECNIQ** Y__N__

The vehicle shall have two (2) red Tecniq LED (S33-RR00-1)clearance / ICC lights : one (1) red on each side at the rear of the vehicle which will also function with the turn signals.

One (1) **LIGHTS, INTERSECTION FRONT - WHELEN 700 SUPER LED -SPLIT RED/CLEAR** Y__N__

Two (2) Whelen 700 series super LED split red / clear warning lights, with clear lens and water-proof connectors, shall be mounted, in 15 degree tilt housings on the front chassis fenders, one (1) on each side. The lights shall operate from a switch on the master control console labeled "Flashers".

One (1) **LIGHTS, SIDE MODULE SCENE - WHELEN 900 24 DIODE LED - CLEAR** Y__N__

Four (4) Whelen 900 series (clear 2-40° light spread) 24 Diode LED scene lights with chrome flanges shall be installed, two (2) each module side, inboard of the warning lights. These lights shall operate from switches on the master control console labeled "Left Scene Light" and "Right Scene Light".

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One (1) **LIGHTS, SIDE MODULE WARNING - WHELEN 900 SUPER LED - RED W/CLR LENS** Y__N__

Four (4) Whelen 900 series red super LED warning lights with clear lenses and chrome flanges shall be installed, two (2) each module side, outboard of the side module scene lights. These lights shall operate from a switch on the master control console labeled "Flashers".

One (1) **LIGHTS, INTERSECTION REAR - WHELEN 700 SUPER LED -SPLIT RED/CLEAR** Y__N__

Two (2) Whelen 700 series super LED split red / clear warning lights with clear lenses, chrome bezels and water-proof connectors, shall be installed above the rear wheel wells, one (1) on each side. These lights shall operate from a switch on the master control console screen labeled "Flashers".

One (1) **MODULE BODY CONSTRUCTION - SEAMLESS** Y__N__

The module shall be fabricated entirely of parts cut and formed from .125" (minimum) thickness 5052-H32 flat aluminum sheet stock, using CNC machines capable of .0004" repeatability. This is the only alloy that may be used for body parts that are welded together.

The roll-cage type interior super-structure, aluminum partition and module shall all be welded together into a single unit to give optimum strength for patient and attendant protection. The module roof shall be designed with a minimum 1.5" crown to facilitate water run off.

The floor, roof, sides, and all exterior doors shall be fabricated from .125" (minimum) thick flat aluminum sheet stock. The exterior joints between the roof and side components shall be continuous full seam welded the entire length of the module. All exterior body panel joints shall be continuous full seam welded.

No VHB bonding tape or other adhesives shall be used in the construction of the ambulance module.

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One (1) **SOLE SOURCE MODULE BODY CONSTRUCTION** Y__N__

It is required that the manufacturer of this vehicle have the ability to manufacture a completed ambulance, with the exception of the chassis, within their own manufacturing facility. The modular body must be built in the manufacturer's facility and shall not be the product of a subcontractor or any company other than the manufacturer.

One (1) **AWS ALUMINUM CERTIFIED WELDERS** Y__N__

AWS Aluminum Certified Welders shall construct the module.

AWS certificates shall be required to be part of the completed bid packet. Bids without AWS certificates shall be considered non-compliant (no Exception).

One (1) **CONNECTIONS, MODULE** Y__N__

The module shall be bolted to the chassis frame rail with (12) 5/8" -11 grade 8 bolts through OEM rubber insulating spacers installed on outriggers at twelve (12) separate locations (six each frame rail), providing noise insulation and easy removal for chassis replacement. The frame mounting bolts shall be properly torqued and secured with locktite. The system used for fastening the module to the frame shall be that approved by the chassis manufacturer.

One (1) **ALUMINUM PARTS - MODULE EXTERIOR** Y__N__

All unpainted exterior aluminum parts shall be bright dip anodized after fabrication to retain the finish and increase corrosion resistance.

One (1) **CORROSION MINIMIZATION - MODULE** Y__N__

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All module contact with dissimilar metals shall be minimized with the use of nylon screw-hole inserts to prevent fastener contact with the module body, nylon hinge strips, ceramic coated stainless steel hinge bolts, and ECK brand corrosion inhibitor spray.

One (1) **DOOR SKINS, OUTSIDE STORAGE COMPARTMENTS - DIAMOND PLATE INTERIOR SKINS** Y__N__

The interior door skins for all outside storage compartments shall be constructed of .063" thick aluminum diamond plate.

One (1) **DOOR CONSTRUCTION - GASKET PLACEMENT** Y__N__

All exterior hinged module doors shall be constructed in an inverted pan-formed design. The pan shall be constructed from .125" thick 5052-H32 flat sheet aluminum. The exterior door skin shall be constructed of .190" thick aluminum and welded to the pan.

Door gaskets shall be attached to the interior side of the door skin. Gaskets attached to interior door frames are not satisfactory and shall not be accepted.

One (1) **EXTERIOR COMPARTMENTS DESIGN** Y__N__

All exterior compartments shall include these features:

- Sound absorbing slip resistant polyurethane material shall be sprayed on the inside of all compartments and compartment shelving, slide out trays and closeouts.
- Baffled seep holes shall be provided to prevent water from splashing or seeping into the exterior compartments.

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- Full-length, two-way adjustable, stainless steel hinges on all exterior compartment doors with 3/16" stainless steel hinge pins.
- Compartment doors shall be installed, flush with the module body.
- When double doors are provided, each door shall have an exterior handle, but only the forward door shall be lockable. (rearward door is secured when forward door is locked). All exterior compartments and passage doors shall be keyed alike.
- Lockable, Eberhard "free-floating" type chrome plated handles with rotary locks. A gasket shall be installed under each handle to protect the paint.
- Drip rails shall be installed above all exterior compartment doors.

One (1) **EXTERIOR COMPARTMENTS, VENTING** Y__N__

A minimum of nine (9) square inches of venting shall be provided inside the #1, #2, #3, & #4 exterior storage compartments to provide for easier closure of the compartment doors.

One (1) **EXTERIOR COMPARTMENTS, VENTING - OXYGEN STORAGE** Y__N__

A minimum of nine (9) square inches of venting shall be provided in the exterior oxygen storage compartment, to dissipate any leaking oxygen gas.

One (1) **EXTERIOR COMPARTMENTS - SWEEP-OUT** Y__N__

Exterior module compartments shall be of a sweep-out design to aid in facilitation of the purchaser's routine care and cleaning of the vehicle.

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All exterior compartment floors, with the exception of the front ALS compartment shall be constructed to be flush with the bottom door frame.

One (1) **HANDLES, EBERHARD - CHROME FREE FLOATING TYPE** Y__N__

Eberhard #EMC-1-2110 chrome "free-floating" handles shall be installed on each exterior module door. The handles shall be large enough to accommodate a gloved hand.

One (1) **INSULATION - POLYURETHANE SPRAY FOAM** Y__N__

The walls, ceiling, passage doors, outside storage doors, the entire underside of the module floor (except for mounting pads), the underside of the outside storage compartments, the wheel wells, and the underside of the curbside step area shall be completely foam - in - place insulated with nominal 3/4" thick sprayed on class I, urethane foam for thermal and acoustical insulation. The insulation shall comply with FMVSS #302 flame spread requirements. The underside of the body shall be properly prepared to ensure adhesion before the spray insulation is applied.

One (1) **THRESHOLD, STAINLESS STEEL - EXTERIOR STORAGE COMPARTMENT** Y__N__

Each exterior storage compartment with a hinged door shall have a stainless steel lower threshold at the door opening to protect the paint as equipment is installed and removed from the compartment.

One (1) **ZICO SCBA HOLDERS KD-UH-6-SF (#23891) TWO (2)** Y__N__

Two (2) Zico SCBA holders KD-UH-6-SF (#23891) shall be provided and installed in a fixed location on the lower back wall of the # 3 outside storage compartment. Brackets are to be BRKT ZICO WALK AWAY SCBA KD-UH-6-SF

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One (1) **DOCK BUMPERS, REAR**

Y__N__

Formed hard rubber dock bumpers shall be attached to the rear bumper.

One (1) **DOOR SLIDING - MODULE CURBSIDE PASSAGE**

Y__N__

The module body shall include a sliding side entry door to access the curbside of the patient compartment. The door shall slide out and towards the rear of the module body. The door design must meet FMVSS 206 for sliding doors and shall have been cycle tested in excess of 100,000 cycles. The door shall not extend out more than 5 1/4" from the module when in the open position and shall be flush in the closed position. The door shall operate on a total of nine (9) casters and three (3) tracks for ease of operation. The door shall be held closed with two (2) rotary latches and two (2) locking tabs. The door must have a system to prevent the door from self closing, when unit is parked on an incline. A measured force of ten (10) pounds maximum shall be required to release the door from the open to closed position. A chrome locking handle shall be installed on the exterior of the door. The door shall be lockable from the inside and outside and shall shut on molded air-core, automotive type door seals to prevent any water from leaking into the vehicle interior. A drip rail shall be installed above the door.

Documentation required:

The bidder must submit with this bid proposal a listing of not less than 200 ambulances produced with curbside sliding doors in the past four years. The listing is to include a production order number, the purchaser's agency name, and date the ambulance equipped with the curbside sliding door was delivered.

Failure to provide the required documentation shall be considered as non-responsive.

One (1) **LOWERED MODULE SIDES**

Y__N__

Module sides to be as low as possible and still comply with KKK-1822-F ramp break over angle. Lowered sides will allow easier entry into the module as well as increased compartment storage.

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One (1) **DOORS - REAR PASSAGE** Y__N__

There shall be a 47.50" wide x 59" high rear door opening in the patient compartment. The doors shall be flush without a protruding flange or lip. The right rear passage door shall have a lockable, chrome exterior handle. The left rear door shall have a non-locking, chrome exterior handle. All handles shall be installed with a gasket to protect the paint. The hinge shall be full length stainless steel with a 3/16" stainless steel hinge pin and shall be two-way adjustable. Each rear door shall have a two point slam action automotive type rotary latching system to the body.

The right rear door shall lock to the body at the top and bottom, not to the left rear door. The doors shall have .213" steel door latch activator rods with turn buckle adjusters. The doors shall be lockable from the inside and outside.

All doors shall shut on molded, air-core, automotive type door seals to prevent any water from leaking into the vehicle interior. Each door shall have an access port adjacent to the rotary locks.

One (1) **FENDERETTES - POLISHED ALUMINUM** Y__N__

Polished aluminum fenderettes shall be installed around the rear wheel well openings.

One (1) **HOLD-OPEN - REAR DOORS - GRABBERS** Y__N__

Door grabbers (1 pair) with hard rubber inserts shall be installed on the rear doors, permitting a door hold open position of 180 degrees.

One (1) **SWITCH UNLOCK, WATERPROOF - HIDDEN IN FRONT GRILLE AREA** Y__N__

An exterior waterproof hidden door unlock switch shall also be included and located in the front grille area.

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One (1) **LOCKS POWER - PASSAGE, COMPARTMENTS, KEY FOBS** Y__N__

Power door locks shall be included on module passage doors and five (5) outside storage compartments. The locks shall be activated from the interior of the rear door and the curbside doorway, as well as the OEM chassis cab door switches. A keyless entry system shall be installed. The system shall operate with the OEM key fobs to lock/unlock all chassis and module doors.

One (1) **MUD FLAPS, REAR - BLACK RUBBER FIBERGLASS REINFORCED - THREE COLOR LOGO** Y__N__

Black rubber, fiberglass reinforced mud flaps with a minimum 1/4" thickness shall be bolted to the underside of the module behind the rear wheels. The width and length of the flaps shall provide adequate coverage of the rear dual wheels of the chassis. The mud flaps shall include a three color logo.

One (1) **REAR STEP/BUMPER -FLIP-UP CENTER SECTION - STAR PUNCHED AND ANODIZED** Y__N__

The rear bumper shall be affixed to the chassis frame. The bumper shall be constructed with a hinged center section. Two (2) steel braces shall secure the step to the chassis frame. The outer 17" on each end of the bumper shall be constructed from heavy gauge stamped polished stainless steel bumper parts and shall provide smooth rounded corners. The step shall be constructed of star punched .125" thick aluminum diamond plate. Two (2) rear LED step illumination lights shall be provided. All diamond plate surfaces shall be bright dip anodized. Rear step installation shall comply with AMD standard 018. A strip of black PVC shall be installed on the face of the step to protect the patient cots during loading.

One (1) **RUB RAILS, ANODIZED ALUMINUM** Y__N__

Bright dip anodized polished aluminum rub rails shall be installed on the lower sides of the body below the outside compartment sill areas. The rub rails shall be offset 3/16" from the body to facilitate wash down of road debris.

One (1) **STEPWELL, CURBSIDE DOORWAY - MID STEP AREA** Y__N__

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An aluminum diamond plate step well and mid-level step shall be installed in the curbside doorway threshold area.

One (1) **STONE GUARDS, MODULE FRONT - ANODIZED DIAMOND PLATE (24" H)** Y__N__

Bright dip anodized aluminum diamond plate stone guards shall be installed on the lower 24" of the module front, one (1) each side. These stone guards shall be 14" wide.

One (1) **KICKPLATE/THRESHOLD, REAR DOORWAY - ANODIZED DIAMOND PLATE** Y__N__

A bright dip anodized aluminum diamond plate kick plate shall be installed at the rear exterior doorway, providing a kick / scuff plate at the rear of the vehicle above the rear step.

One (1) **TOW HOOKS, MODULE REAR** Y__N__

Two (2) tow hooks shall be provided in the rear step area and shall be securely fastened to the vehicle frame.

One (1) **WINDOWS, PASSAGE DOOR - (CURB SLIDING, REAR FIXED)** Y__N__

The curbside passage door shall have a 16" x 23" openable (*sliding*) window with removable screen. Each rear passage door shall have a 19" x 18" non-openable window. The distance between the rear window glass shall not exceed 6" to assure maximum vision to the rear. The windows shall have a 69% dark tint and shall be secured with black oxide coated fasteners. No warning lights shall be blocked from view when the curbside or rear doors are open.

One (1) **OUTSIDE STORAGE #1 - STREETSIDE FORWARD - OXYGEN STORAGE** Y__N__

#1 (forward street side compartment) shall have an 77.00" high x 18.25" wide clear door opening with 86.75" high x 24.50" wide x 20.75" deep interior dimensions. This compartment shall provide storage for one (1) "H"

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oxygen cylinder towards rear of the compartment. The compartment door shall be held open with a spring loaded gas cylinder. A locking handle shall be installed on the exterior of the door keyed the same as all other exterior compartments. A spring-loaded, hinged acrylic door shall be provided to allow access from inside the patient compartment to the oxygen cylinder valve. A 9-square inch vent shall be provided in the oxygen storage compartment to permit leaking gas to dissipate to the exterior of the vehicle. The oxygen cylinder shall be secured with a minimum of four (4) restraining devices, meeting AMD standard 003, *oxygen tank retention system requirements*. A cylinder changing wrench shall be provided and secured inside the oxygen cylinder compartment. The oxygen cylinder shall be provided by the purchaser.

One (1) **OUTSIDE STORAGE #2 - STREETSIDE CENTER** Y__N__

#2 (street side center compartment) shall have a 44.25" high x 39.50" wide clear door opening with double doors and shall have 47.75" high x 45.50" wide x 20.75" deep interior dimensions. One (1) fuse holder shall be installed on the inner door skin of the forward compartment door. The compartment shall have double doors held open with a spring loaded gas cylinders. An exterior handle shall be installed on each door. A locking handle shall be installed on the forward door.

One (1) **SHELF TRACK - EXPOSED - OSS #2** Y__N__

Unistrut 1-1/4" x 3/4", 19 gauge "T" grooved track channel shall be installed in outside storage compartment #2. Exposed tracks will be welded in place and coated with Gatorhyde material for a cleaner look and no exposed fasteners.

One (1) **SHELF ONE (1) IN OSS #2** Y__N__

One (1) adjustable shelf with sprayed on polyurethane material shall be provided and installed in outside storage compartment #2.

One (1) **OUTSIDE STORAGE #3 - STREETSIDE REAR - TALL DOOR - EXTERIOR ACCESS** Y__N__

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#3 (street side rear compartment) shall have a 63.50" high x 28.75" wide clear door opening with 65.25" high x 32.50" wide x 20.75" deep interior dimensions. This compartment shall have outside access only. The compartment door shall be held open with a spring loaded gas cylinder. A locking handle shall be installed on the exterior of the door.

One (1) **SHELF ONE (1) IN OSS #3**

Y__N__

One (1) adjustable shelf with sprayed on polyurethane material shall be provided and installed in outside storage compartment #3.

One (1) **OUTSIDE STORAGE #4A BOARD/SCOOP, #4B W/INSIDE/OUTSIDE ACCESS**

Y__N__

#4 (rear curbside compartment) shall have split compartments (**#4A / #4B**), with a 73.00" high x 24.75" wide clear door opening: compartment **#4A** shall have 82.75" high x 15.00" wide x 20.75" deep interior dimensions. This compartment shall provide storage for backboards and a scoop stretcher.

Compartment **#4B** shall have 82.75" high x 13.50" wide x 20.75" deep interior dimensions, equipped with three (3) adjustable shelves and stair chair storage only below the shelves. The compartment door shall be held open with a spring loaded gas cylinder. A locking handle shall be installed on the exterior of the door.

One (1) **OUTSIDE STORAGE #5 - CURBSIDE FORWARD**

Y__N__

#5 (forward curbside compartment) shall have a 69.50" high x 17.50" wide clear door opening. The compartment shall be split into two (2) compartments. **#5A** provides inside/outside storage and shall have and shall have two (2) adjustable shelves. (Reference the lower front wall cabinet in patient compartment specification for interior dimensions). **#5B** shall have 19.00" high x 20.25" wide x 18.00" deep interior dimensions. The compartment door shall be held open with a spring loaded gas cylinder. A locking handle shall be installed on the exterior of the door.

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One (1) **CABINET - LEFT WALL, UPPER OVER PANEL #2 RESTOCKING HINGE (UP)** Y__N__

The left wall, upper interior cabinet (#2) above the attendant control panel shall have a door opening of 10.75" high x 45.00" wide with interior dimensions of 13.25" high x 47.00" wide x 17.25" deep. The cabinet shall be enclosed by one (1) set of sliding acrylic doors attached to a flip-up restocking frame with gas filled hold-open shocks. The cabinet shall contain a center divider with one (1) adjustable shelf, each side.

One (1) **CABINET - LEFT WALL, #6 -FORWARD ACTION AREA - DIMENSIONS** Y__N__

A cabinet (#6) shall be installed at the forward end of the primary action area. Inside dimensions of 17.00"h x 13.00"w and inside dimensions of 18.75"h x 14.75"w x 7.50"d. Cabinet shall be enclosed sliding acrylic doors and equipped with two (2) adjustable shelves.

One (1) **CABINET # 3- LEFT WALL - UPPER REAR OF THE ACTION AREA** Y__N__

An interior cabinet unit (#3) shall be installed at the upper end of single action area on the interior left wall of the module. The door opening shall be 15.75" high x 13.75" wide with interior dimensions of 17.50" high x 15.50" wide x 17.25" deep. The compartment shall be enclosed by one (1) set of sliding acrylic doors and equipped with one (1) adjustable shelf.

One (1) **CABINET #4 - LEFT WALL - LOWER REAR OF THE ACTION AREA** Y__N__

An interior cabinet unit (#4) shall be installed at the lower rearward end of the single action area on the interior left wall of the module. The door opening shall be 15.75" high x 13.75" wide with interior dimensions of 17.50" high x 15.50" wide x 17.25" deep. The compartment shall be enclosed by one (1) set of sliding acrylic doors and equipped with one (1) adjustable shelf.

One (1) **CABINET #7 - LEFT WALL - LOWER BELOW THE ACTION AREA COUNTER** Y__N__

An interior cabinet unit (#7) shall be installed below the rearward end of the single action area on the interior left wall of the module. The door opening shall be 11.75" high x 30.25" wide with interior dimensions of 13.50" high x 32.00" wide x 17.25" deep. The compartment shall be enclosed by one (1) set of sliding acrylic doors and equipped with one (1) adjustable shelf.

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One (1) **PRIMARY ACTION AREA** Y__N__

The primary action area shall be located beside the attendant seat with work area dimensions of approx. 82" wide (from front of module to back and including the area that the forward most action area cabinet (#6) comes down to) and 17.00" deep.

One (1) **DRAWER - SLIDE-OUT / WRITING TABLE STREETSIDE INTERIOR** Y__N__

A slide-out drawer with hinged plexi-glass writing table shall be provided in the street side wall beside the attendant seat. The drawer shall be constructed of .090" thick aluminum.

The table writing surface shall be constructed of 1/4" clear plexi-glass which measures 14.25" wide x 11.25" deep. The drawer interior dimensions shall be 4.50" high x 14.50" wide x 13.25" deep. The drawer shall be secured with one (1) latch. The writing surface shall be installed on top of the drawer with a hinge.

One (1) **CABINET - FRONT WALL, UPPER #1** Y__N__

The front wall, upper interior cabinet (#1) shall have a door opening of 14.25" high x 25.50" wide with interior dimensions of 16.00" high x 27.25" wide x 20.50" deep. This cabinet shall be enclosed by one (1) set of sliding acrylic doors. The compartment shall contain one (1) adjustable shelf.

One (1) **CABINET - FRONT WALL, LOWER #2 & #3 -DIMENSIONS** Y__N__

The front wall lower cabinet (#2) shall have a door opening of 11.50" high x 25.25" wide with interior dimensions of 13.25" high x 31.50" wide x 21.50" deep. This cabinet shall provide inside access only and be enclosed with solid aluminum doors, secured with a Simplex combination lock on the right door and a stainless steel, non-locking flush pull latch on the left door. One (1) clear light mounted in a removable panel will provide illumination in this compartment. There shall be no shelving or partitions within this cabinet.

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The front wall lower cabinet (#3) shall have a door opening of 30.50" high x 25.25" wide with interior dimensions of 32.25" high x 31.50" wide x 21.50" deep. This cabinet shall provide inside/outside access and shall have two (2) adjustable shelves on Unistrut adjustable track brackets. Two (2) clear lights mounted in a removable panel will provide illumination in this compartment. There shall be aluminum beveled ramp edging installed on two edges of each shelf. This compartment shall be enclosed by one (1) pair of 3/8" thick, hinged acrylic doors. Each door shall have a full length hinge, a full length handle, and a locking stainless steel flush pull latch.

One (1) **CABINET - FRONT WALL, LOWER CENTER # 4 UNDER PASS THROUGH w/ COUNTER** Y___N___

The #4 lower center front wall cabinet shall have a door opening of 18.00"h x 16.25"w and inside dimensions of 18.00"h x 16.25"w x 20.00"d. Cabinet shall be enclosed with dual hinged solid aluminum doors, each secured with one (1) stainless steel flush pull latch and equipped with one (1) adjustable shelf.

One (1) **CABINET - FRONT WALL, LOWER BELOW PDQ (SINGLE VENTED DOOR)** Y___N___

The compartment below the power distribution cabinet (PDQ) shall have a door opening of 9.00 high x 11.75" wide with interior dimensions of 9.00" high x 11.75" wide x 21.50" deep. The compartment shall have a vented, hinged aluminum door secured by a chrome locking lever latch. Door to open towards rear of the ambulance module.

One (1) **PASS THROUGH - CAB TO MODULE** Y___N___

A window opening shall be provided in the rear of the cab to accommodate pass-through communications to the patient compartment. A bellows shall be provided to connect the cab to the module.

One (1) **CABINET - RIGHT WALL, REAR WITH (1) DOOR FACING AISLE #1** Y___N___

A storage compartment (#1) shall be provided to the rear of the squad bench and shall be constructed of .125" thick aluminum. The compartment shall face the patient compartment aisle and have an door opening of 30.00" high x 7.25" wide with interior dimensions of OSS #4B and contain three (3) adjustable shelves. The compartment shall be enclosed by a 3/8" thick, hinged acrylic door and latch with inside/outside access.

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One (1) **CABINET - RIGHT WALL, BEHIND SQUAD BENCH #3 & # 4 - DIMENSIONS** Y__N__

Two (2) cabinets shall be installed on the curbside below the roof rail. Door openings of 6.25"h x 29.25"w and a 10.25" depth. Each cabinet shall be enclosed by one (1) top hinged acrylic door, each secured with a stainless steel locking lever latch. The compartments shall be equipped without dividers or shelves.

One (1) **HEAT/AIR CONDITIONING, PROAIR 4X4 AC/HEAT CORE** Y__N__

A ProAir IW-3856 580 CFM heater/air conditioner system with 56,000 BTU heating capacity and 38,000 BTU cooling capacity utilizing a 4x4 AC/Heat core and with a 10-speed blower controlled through, the pulse-width-modulated output of the microprocessor based electrical system, shall be provided for high volume air movement with minimal noise. The heater/air conditioner air return shall be filtered to minimize contamination of the heater/air conditioner cores. The cab and module environmental systems shall be simultaneously capable of heating in the front while cooling in the rear and vice-versa. A thermostatically controlled rear system shall be provided for heating and air conditioning the patient compartment.

The temperature, whether heating or cooling, shall be controlled by a thermostat built into the attendant control panel screen, located in the street side cabinet and from the cab master control console screen. Heating and cooling may be selected automatically or manually. The heater/air conditioner system shall function only when the ignition system and the module power switch are on. The rear heater shall have EPDM/Nomex heater hoses. The rear air conditioner shall have barrier air conditioner hoses for R-134A refrigerant. Full module HVAC controls shall be located on both the rear ACP screen and the cab MCC screen.

The module heat and ac system shall be installed in the upper portion of the front wall. Four (4) adjustable heat/ac vents shall be located above the heater/ac.

One (1) **SEATING - SQUAD BENCH BASE W/ STORAGE CN8 COMPLIANT** Y__N__

A Squad bench seat with two (2) individual seating positions will be installed on the curb side of the patient compartment. The squad bench seat shall be KKK-A-1822F Change Notice 8 compliant with (2) V4 harness style

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shoulder / seat belts and conform to all applicable FMVSS and SAE J3026 requirements. Documentation from a certified independent testing facility shall be required stating the seat has passed SAE J3026 requirements and tested in accordance with SAE J2917, Occupant Restraint and Equipment Mounting Integrity – Frontal Impact System-Level Ambulance Patient Compartment and SAE J2956, Occupant Restraint and Equipment Mounting Integrity – Side Impact System-Level Ambulance Patient Compartment. The head pad and back pad will be constructed of energy absorbing material. The seat bottom, backrest, and headrest of the seat shall be padded and covered with color coordinated, cushioned vinyl. A storage area shall be provided in the squad bench base. The squad bench base shall be constructed of .090" thick aluminum for maximum storage capacity and minimum weight. The interior dimensions of the storage area shall measure 14.25"h x 77.00"w x 21.00"d. The interior of the squad bench shall be sprayed with sound absorbing polyurethane material.

One (1) **ATTN SEAT - CN8 COMPLIANT EVS HiBAC, INTEGRAL CHILD, SWIVEL BASE** Y__N__

A rear facing EVS HiBAC attendant seat shall be installed at the head of the patient cot. The seat shall be equipped with a sliding swivel base and incorporate an integral child safety restraint system. The seat shall be KKK-A-1822F Change Notice 8 compliant with V4 harness style shoulder / seat belt and conform to all applicable FMVSS and SAE J3026 requirements. Documentation from a certified independent testing facility shall be required stating the seat has passed SAE J3026 requirements and tested in accordance with SAE J2917, Occupant Restraint and Equipment Mounting Integrity – Frontal Impact System-Level Ambulance Patient Compartment and SAE J2956, Occupant Restraint and Equipment Mounting Integrity – Side Impact System-Level Ambulance Patient Compartment. The seat shall be padded and covered with color coordinated, cushioned vinyl.

One (1) **SQUAD BENCH LID - SPLIT w/ NO SHARPS/TRASH CONFINEMENT** Y__N__

The squad bench lid and cushion shall be split into two sections so that each section can be opened independently. The squad bench cushions shall be covered with color coordinated vinyl upholstery material and sewn with seams only at the vertical corners to minimize entrapment of fluids. An automatic latching fastener shall be installed (one each lid/cushion section) to secure the squad bench lids in the closed position.

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One (1) **HOLD OPENS - SQUAD BENCH LID - GAS CYLINDERS** Y__N__

Two (2) gas cylinders hold -opens shall be provided and installed to hold the cushioned lid in the open and closed position.

One (1) **CABINET CONSTRUCTION - INTERIOR - ALUMINUM** Y__N__

All interior cabinets shall be constructed of .090" thick welded aluminum. Wood products shall not be used in the construction of any interior cabinet. All cabinet exteriors, interiors, drawer fronts, drawer interiors, and aluminum doors shall be sealed with a washable sprayed-on multi-use polychromatic coating.

One (1) **RECESSED ADJUSTABLE SHELF TRACK - CABINETS** Y__N__

Unistrut 13/16" x 13/32", 19 gauge channel shall be installed in the interior cabinets that contain adjustable shelves. The track shall be welded in and recessed to reduce the number of fasteners and provide a cleaner look.

One (1) **CABINET DOORS - BRONZE ACRYLIC** Y__N__

All sliding cabinet doors shall be nominally 1/4" thick light bronze acrylic material. The sliding cabinet doors shall be installed in aluminum track lined with PPL inserts to eliminate rattles and prevent the doors from opening during transit. An edge mounted aluminum handle shall be installed on each sliding cabinet door.

One (1) **CABINETS/ WALLS - POLYCHROMATIC COATING - MARBLE STONE** Y__N__

All exposed side walls, the partition wall (on the patient compartment side only), the headliner, along with the cabinet and drawer fronts, aluminum doors, cabinet and drawer interiors shall be covered with a washable #99-7371 Marble Stone sprayed-on multi-use polychromatic coating, to create a laminate-free interior.

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One (1) **COUNTER TOP - SOLID ACRYLIC - RAVEN BOULDER (BLACK)** Y__N__

A Meganite solid acrylic counter top, Raven Boulder (black) #810, with a 1/2" lip shall be installed to prevent equipment from sliding off. The solid acrylic counter top shall be provided primary action area, consisting of the entire street side cabinet.

One (1) **UPHOLSTERY - SPRADLING "ARCTIC" CHARCOAL #9017** Y__N__

All cushions, head pads and seats shall be covered with Spradling International "Arctic" Charcoal #9017 expanded vinyl upholstery material. The arctic vinyl and all foam cushion material shall comply with FMVSS #302 flame spread requirements.

One (1) **LONPLATE II, NON-SLIP EMBOSSED SM. GRID - GUNMETAL #424** Y__N__

The floor in the patient compartment shall be covered with Lonseal brand "Lonplate II" non-slip; small grid (embossed) Gunmetal #424, resilient sheet vinyl flooring material, which shall be covered 3-inches up the wall on the street side, and to the top of the squad bench base on the curbside. The flooring material shall be stripped and waxed before delivery.

One (1) **ASPIRATOR / SUCTION - SSCOR - WITH ELECTRIC PUMP - RECESSED** Y__N__

An SSCOR suction system shall be recessed into the street side lower interior wall near the attendant's seat. The system shall be activated by a switch on the attendant control panel. The 12 VDC electric vacuum pump shall be mounted in the standard outside storage compartment. The SSCOR vacuum pump exhaust shall be vented to the exterior of the vehicle.

One (1) **ASSIST HANDLES, (2) 'V' STAINLESS STEEL, (4) BLACK URETHANE** Y__N__

A total of six (6) assist handles shall be provided: two (2) 1-1/4" diameter stainless steel 'V' handles, one (1) on each rear passage door; and four (4) 10-7/8" black vulcanized rubber with steel core assist handles, two (2) handles at the rear doorway, one (1) at the curbside doorway, and one (1) on the curbside sliding door.

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One (1) **BAR - "A" - AT HEAD OF SQUAD BENCH w/ SHARPS/WASTE CONTAINMENT** Y__N__

A 1-1/4" diameter stainless steel a-bar shall be installed at the forward end of the squad bench. The top horizontal bar shall be padded. The A-bar system shall pivot to allow better access to a patient on the squad bench. Sharps and waste containment shall be provided on the "A bar.

One (1) **CLOCK - TRIN TEC, 8" 12/24 HR, QUARTZ BATTERY - REAR HEADPAD** Y__N__

A Trin Tec 8" diameter, 12/24 hour battery operated quartz clock shall be installed in the headpad above the rear module passage doors.

One (1) **COT FASTENER - STRYKER PERFORMANCE LOAD CENTER POSITION CN8** Y__N__

A Stryker Performance - LOAD (center mount) fastener system shall be installed on the module floor to accommodate a Stryker cot.

One (1) **EMBLEMS / SIGNS - REAR PATIENT COMPARTMENT** Y__N__

Two (2) "*No Smoking / Oxygen Equipped / Fasten Seat Belts*" signs shall be provided. One (1) sign shall be installed in the cab and one (1) above the oxygen outlets in the patient compartment street side cabinet.

One (1) **EXHAUST VENTILATOR, 3-SPEED - MULTIPLEX ELECTRIC SYSTEM** Y__N__

A three-speed, 300 CFM (minimum) exhaust fan meeting KKK-A-1822F requirements shall be provided and located in the street side cabinet in the patient compartment. The exhaust fan shall be pulse width modulated from a switch on the attendant control panel vista screen. The exhaust system shall have a louvered grille inside and a chrome vent outside. The exhaust system shall vent through the side of the vehicle, not through the roof.

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Two (2) **F W #521 STORAGE BRACKET FOR "D", OR JUMBO "D" CYLINDER (2) - OUTSIDE STORAGE #1** Y__N__

Two (2) Ferno Washington #521 crash stable storage brackets shall be installed, each for one (1) "D", or Jumbo "D" oxygen cylinder on the forward wall of the #1 outside storage compartment and above the fire extinguisher.

One (1) **FIRE EXTINGUISHER - (1) ABC DRY CHEM 5 LB. WITH BRACKET** Y__N__

One (1) ABC Dry-Chemical, 5 lb. fire extinguisher and mounting bracket shall be installed in the #1 outside storage compartment and located below the Ferno 521 oxygen tank brackets.

One (1) **FLOOR CONSTRUCTION- PATIENT COMPARTMENT, NON-WOOD COMPOSITE** Y__N__

The sub-floor in the patient compartment shall be constructed of .125" thick aluminum over .125" and .190" thick reinforcing hat sections and mounting laterals. The aluminum sub-floor shall be covered with a single piece of 3/4" non-wood composite material. All corner molding, edging and trim shall be anodized aluminum or stainless steel and shall be sealed to prevent fluids from seeping under the cabinets.

Wood floors are not satisfactory and shall not be accepted by the purchaser.

One (1) **FLOORING - COVE** Y__N__

The patient compartment floor radius shall be covered with pre-formed floor coving material. The coving shall be installed behind the vinyl floor covering, along both the street side and curbside walls.

One (1) **GLOVE DISPENSER - (3) BOX - ABOVE ENTRY DOOR - CURBSIDE (ABS)** Y__N__

A three (3) - box glove dispenser unit, with a clear plexi hinged access panel with three (3) cut-outs, shall be recessed above the curbside entry door. The dispenser shall be 8.25" high x 33.50" wide with interior dimensions of 5.38" high x 30.25" wide x 3.25" deep.

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One (1) **GRAB RAILS, 1-1/4" DIAMETER, (96") OVER COT & (64") SQ BENCH** Y__N__

Two (2) 1-1/4" diameter stainless steel grab rails shall be installed on the ceiling of the patient compartment. One (1) 64" rail shall be installed over the squad bench area and one (1) 96" rail shall be installed over the patient cot area for attendant/patient balance control. The 96" grab rail will be attached to the ceiling with three (3) mounting brackets that secure it to the super structure of the module. Installation of each grab rail shall comply with AMD-008 requirements.

One (1) **HEADLINER - REAR PATIENT COMPARTMENT** Y__N__

The headliner in the patient compartment shall be one-piece, seamless, .090 thick aluminum finished with sprayed-on multi-use polychromatic coating.

One (1) **I V HANGERS - CEILING RECESSED - CAST PRODUCTS #IV2008-1 (2)** Y__N__

Two (2) Cast Products #IV2008-1 recessed, dual, ceiling I.V. hangers shall be provided. One (1) installed near the street side above the cot area, and one (1) near the curbside above the squad bench area.

One (1) **OXYGEN OUTLETS (2) WALL/(1)CEILING - OHIO MEDICAL TYPE** Y__N__

Three (3) Ohio Medical flush mounted, quick release outlets shall be installed. One (1) in the forward street side cabinet action area, one (1) shall be installed in the wall above the squad bench and one (1) shall be installed in the ceiling above the head end of the cot.

One (1) **OXYGEN OUTLET (1) ADDITIONAL - OHIO MEDICAL TYPE - STREETSIDE w/ ANALOG GAUGE** Y__N__

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One (1) additional Ohio Medical flush mounted, quick release oxygen outlet shall be installed in the patient compartment for a total of two (2) on the streetside. An analog gauge shall be provided on the streetside to regulate the O2 flow levels.

One (1) **FLOW METER, OXYGEN - THORPE STYLE** Y__N__

One (1) Thorpe style oxygen flow meter (15LPM) shall be shipped loose with the completed vehicle.

One (1) **OXYGEN SYSTEM, ELECTRIC - MULTIPLEX ELECTRIC SYSTEM** Y__N__

A 12 VDC controlled electric O2 system operated through the v-mux multiplex electrical system shall be provided and installed.

The oxygen system shall be completely installed and include a pre-set oxygen regulator with a cylinder pressure gauge and a 200 PSI safety valve with all necessary piping and connections. The oxygen system shall be completely low pressure, and the regulator shall be fastened directly to the cylinder. The regulator shall be set to operate at approximately 50 PSI. The oxygen cylinder shall be installed so the system may be easily turned on and off at the main cylinder valve from the patient compartment. The oxygen cylinder shall be provided by the purchaser.

The oxygen system monitor shall be readily available to the attendant while seated at the head of the cot as part of the microprocessor based electrical system. Flexible conductive oxygen hose with a minimum 900 lbs. burst rating shall be installed between the regulator and the oxygen receptacles. The system shall be tested and tagged in conformance with NFPA-56-F and KKK-A-1822F.

The electric oxygen system shall be provided with an on/off switch on the attendant control panel screen. The emergency manual bypass valve shall be located near the oxygen storage compartment in the patient compartment.

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One (1) **PADDED EDGING PROTECTION** Y__N__

Padded corner edging shall be installed where necessary on exposed corners and edges in the patient compartment for patient and attendant protection.

One (1) **PADS, HEAD AND BACK** Y__N__

Vinyl upholstered, foam cushioned head/back pads shall be installed as follows: the lower edge of the upper front wall cabinet (above the partition doorway or window), above the rear doors, above the side door and on the curbside wall behind the squad bench. The pads shall be covered with a flame retardant color coordinated vinyl upholstery material.

One (1) **RADIO SPEAKERS, REAR (OEM RADIO & ACP FADER CONTROL)** Y__N__

Two (2) stereo speakers shall be installed in the rear head pad over the door. The fader control for the rear speakers shall be provided through the OEM radio and a fader control located in the ACP.

One (1) **SQUAD BENCH FACE - VINYL FLOORING MATERIAL** Y__N__

The face of the squad bench shall be covered with vinyl flooring material.

One (1) **DOOR PANELS - MODULE PASSAGE DOORS - FULL LENGTH ALUMINUM - W/ACCESS PANELS** Y__N__

The inner door panels shall be manufactured from aluminum, and covered with a washable sprayed-on multi-use polychromatic coating. The panels shall run the full length of the door and will contain a removable latch access panel.

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One (1) **STAINLESS STEEL WALL PROTECTION - INTERIOR STREETSIDE** Y__N__

A brushed stainless steel panel shall be provided on the street side wall from the bottom of the action area counter top to the bottom of cabinet #4 and #7 (continuous from front to back) and down to the flooring material, to protect this area when the cot is taken in or out of the vehicle.

One (1) **TURTLE TILE - SKID-RESISTANT MAT, CURBSIDE STEPWELL** Y__N__

Skid resistant charcoal gray turtle tile matting shall be installed in the curbside step well.

One (1) **PAINT PROCEDURE** Y__N__

All non-anodized aluminum module body surfaces shall be completely chemically steam cleaned, filled with premium body filler as needed, sanded smooth and primed with F-3993 epoxy primer and then primed again with F-4930 high solid primer.

The cured primer surfacer shall be DA sanded with 320 grit and cleaned with DX-330. F-4930 high solid primer shall then be applied, where needed, as a sealer.

One (1) **CLEAR COATING - MODULE PAINT** Y__N__

The entire module shall be clear-coated, using an Axalta Process, sprayed over the final paint coat.

One (1) **BUFFING, PAINT - MODULE** Y__N__

The paint on the module sides shall be buffed to a high shine using a recommended paint buff system.

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One (1)

STANDARDS AND SPECIFICATIONS FOR VEHICLE PAINT APPEARANCE

Y__N__

Standards and Specifications for Vehicle Paint Appearance

1. **PURPOSE:** To provide cosmetic standards that represent a common language and set of shared expectations of the appearance quality the Bidder's vehicle. This and associated documents define the appearance acceptability and non-acceptability criteria for the Bidder's Ambulance. These standards represent a realistic balance between our Customer expectations and the derived output from our current manufacturing process. Any output required beyond these objectively based requirements requires extraordinary means and comes with associated costs and timing.
2. **SCOPE:** These standards apply to all of the Bidder's vehicles being produced beginning in calendar year 2016.
3. **DEFINITIONS:**
 - 3.1 Class A Surfaces are defined as:
 - A. Highly Visible or reflective surfaces that cause the viewer's eye to focus on that area of the vehicle.
 - B. The exterior of the vehicle from 36 inches off of the ground to 96 inches off of the ground.
 - C. Areas that passengers of the vehicle would view in a normal viewing direction of (+/- 45 degrees) and a distance of (24 Inches – 36 inches).
 - 3.2 Class B Surfaces are defined as;
 - A. Less visible area that is viewed as a general area. This would include areas beyond the normal viewing direction as specified in Class A surfaces including those higher than 96 inches off of the ground or lower than 36 inches off of the ground.
 - B. Another description would include areas seen peripherally.

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C. Any area that must be viewed at an unusual angle.

3.3 Class C Surfaces are defined as;

A. Any area that must be viewed by close inspection.

B. This would include the roof area of a cab.

C. Any area that would be visible less than 1% of the time such as door jams or the back of doors including those on the module

3.4 Class D Surfaces are defined as;

A. Areas that the consumer will be unable to evaluate without removal of other component parts.

B. Any area that must be viewed at an abnormal or unusual angle.

C. Any area that can only be seen when lying on the ground, from under the vehicle, or require a ladder to see, such as the roof.

4. PROCEDURE:

4.1 General Inspection Requirements:

A. Cosmetic inspection by the Bidder or its suppliers shall use the TIME and DISTANCE method of inspection as described in different sections of this document.

B. The Cosmetic standards defined in this document shall be used for training personnel, checking surface quality produced by any process and used in making "Accept/Reject" decisions.

4.2 Viewing Conditions:

A. All visual inspection will be made under normal artificial lighting, unaided and viewed in a manner that duplicates the typical end use of the vehicle. During cosmetic inspection, only visual qualities (appearance) of the part surface shall be considered. Surfaces shall be viewed without the aid of magnification, at an angle approx. 45° to normal of the surface to be inspected.

4.3 The following are Inspection criteria:

A. Inspection shall be conducted using the unaided eye.

B. Viewing distance shall be 18" or 24" as specified by surface class.

C. Viewing angle shall be at a minimum of 45° to the surface.

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D. Light source shall be fluorescent light; the light source shall provide optimal viewing and minimized glare and shadowing of the vehicle.

E. Where subjectiveness intervenes in the assessment, form/fit/function shall take precedent.

4.4 The following table shall be used to determine viewing distance and duration.

Codes	Class A	Class B	Class C	Class D
Viewing Distance	18 inches	18 Inches	24 Inches	24 Inches
Viewing Time	10 seconds	5 seconds	3 seconds	3 seconds
Viewing Area	50 Inches SQD	50 Inches SQD	50 Inches SQD	50 inches SQD

4.5 Conditions and Acceptance Criteria

A. The total number of defects per surface shall not exceed the acceptable limit.

4.6 Specific boundary samples are logged in the Bidder's Database and reviewed annually at a minimum for applicability.

4.7 These standards do not apply to an OEM chassis in which cased, OEM acceptance standards apply unless it has been quoted to meet the Bidder's Appearance Standards.

4.8 Any OEM chassis painted by the Bidder will conform to the original OEM acceptance standards unless it has been quoted to meet the Bidder's Appearance Standards.



Specification Limits For Vehicle Appearance (Exterior)

ITEM	"A" Surface	"B" Surface	"C" Surface	"D" Surface
Bare Substrate	NOT ALLOWED	NOT ALLOWED	NOT ALLOWED	NOT ALLOWED

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Pin Hole/Solvent Pop	.5 mm max. size/1 per 50 inches Squared /must be a minimum of 50 inches apart - MUST NOT BE DEEPER THAN THE CLEAR COAT	1.0 mm max. size/1 per 50 inches Squared /must be a minimum of 50 inches apart - MUST NOT BE DEEPER THAN THE CLEAR COAT	1.5 mm max. size/2 per 50 inches Squared /must be a minimum of 25 inches apart - MUST NOT BE DEEPER THAN THE CLEAR COAT	2.0 mm max. size/3 per 25 inches Squared / must be 12 inches apart - MUST NOT BE DEEPER THAN THE CLEAR COAT
Chips/Damage	NOT ALLOWED	NOT ALLOWED	NOT ALLOWED	NOT ALLOWED
Cracking	NOT ALLOWED	NOT ALLOWED	NOT ALLOWED	NOT ALLOWED
Fish Eyes	NOT ALLOWED	NOT ALLOWED	NOT ALLOWED	Must match Boundry Sample
Dings	NOT ALLOWED	NOT ALLOWED	NOT ALLOWED	NOT ALLOWED
Dirt - Must "feel" flat	.5 mm max. size/1 per 50 inches Squared /must be a minimum of 50 inches apart	1.0 mm max. size/1 per 50 inches Squared /must be a minimum of 50 inches apart	1.5 mm max. size/1 per 50 inches Squared /must be a minimum of 25 inches apart	2.0 mm max. size/ 3 per 25 inches Squared / must be 12 inches apart
Dry Spray	NONE ALLOWED	NONE ALLOWED	NONE ALLOWED	Must match Boundry Sample
Mottling - Color Specific	Must match Boundry Sample	Must match Boundry Sample	Must match Boundry Sample	Must match Boundry Sample
Off Color to Cab or other Module elements	Visually acceptable to the Master Plaque or the Delta E is not greater than 1.5	Visually acceptable to the Master Plaque or the Delta E is not greater than 1.5	Visually acceptable to the Master Plaque or the Delta E is not greater than 1.5	Visually acceptable to the Master Plaque or the Delta E is not greater than 1.5
Orange Peel	Equivalent to # 10 panel MIN.	Equivalent to # 10 panel MIN.	Equivalent to # 10 panel MIN.	Equivalent to # 7 panel MIN.
Overspray	NONE ALLOWED	NONE ALLOWED	NONE ALLOWED	Must match Boundry Sample
Paint Drops/Drips	NONE ALLOWED	NONE ALLOWED	NONE ALLOWED	NONE ALLOWED
Pits/Porosity	NONE ALLOWED	NONE ALLOWED	NONE ALLOWED	NONE ALLOWED
Crooked Mask	NONE ALLOWED	NONE ALLOWED	NONE ALLOWED	NONE ALLOWED

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2017 Emergency Rescue Ambulance Bid Specifications - Ford F450 4x4 Chassis

Lines				
Burn Through	NONE ALLOWED	NONE ALLOWED	NONE ALLOWED	NONE ALLOWED
Sags/Runs	NONE ALLOWED	NONE ALLOWED	NONE ALLOWED	NONE ALLOWED
Scratches	NONE ALLOWED	NONE ALLOWED	NONE ALLOWED	NONE ALLOWED
Polishing Swirls (Scratches)	Minimal amount of micro scratches from polishing are acceptable, must not be felt or able to be seen from 24 inches	Minimal amount of micro scratches from polishing are acceptable, must not be felt or able to be seen from 24 inches	Minimal amount of micro scratches from polishing are acceptable, must not be felt or able to be seen from 24 inches	Minimal amount of micro scratches from polishing are acceptable, must not be felt or able to be seen from 24 inches
Shrinking	NONE ALLOWED	NONE ALLOWED	NONE ALLOWED	NONE ALLOWED
Thin Paint	NONE ALLOWED	NONE ALLOWED	NONE ALLOWED	NONE ALLOWED
Water Spots/Rinse Blisters	NONE ALLOWED	NONE ALLOWED	NONE ALLOWED	NONE ALLOWED
Wet Mark	NONE ALLOWED	NONE ALLOWED	NONE ALLOWED	NONE ALLOWED
Wrinkling	NONE ALLOWED	NONE ALLOWED	NONE ALLOWED	NONE ALLOWED



Specification Limits For Vehicle Appearance (Interior)

ITEM	"A" Surface	"B" Surface	"C" Surface	"D" Surface
Bare Substrate	NOT ALLOWED	NOT ALLOWED	NOT ALLOWED	NOT ALLOWED
Pin Hole/Solvent Pop	NOT ALLOWED	NOT ALLOWED	NOT ALLOWED	N/A

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Chips/Damage	NOT ALLOWED	NOT ALLOWED	NOT ALLOWED	N/A
Cracking	NOT ALLOWED	NOT ALLOWED	NOT ALLOWED	N/A
Dirt - Must "feel" flat	NOT ALLOWED	NOT ALLOWED	1mm in diameter or 1.5mm surface area (L x W) at a minimum of 400 mm apart.	N/A
Dry Spray	NOT ALLOWED	NOT ALLOWED	ALLOWED	N/A
Off Color to other Module elements	NOT ALLOWED	NOT ALLOWED	NOT ALLOWED	N/A
Overspray	NOT ALLOWED	NOT ALLOWED	ALLOWED	N/A
Paint Drops/Drips	NOT ALLOWED	NOT ALLOWED	1mm in diameter	N/A
Pits/Porosity	NOT ALLOWED	NOT ALLOWED	NOT ALLOWED	N/A
Crooked Mask Lines	NOT ALLOWED	NOT ALLOWED	NOT ALLOWED	N/A
Sags/Runs	NOT ALLOWED	NOT ALLOWED	SAG - 2mm Wide by 2mm Long by .5mm High MAX / RUN - 3mm WIDE by 2mm Long by .5mm High MAX	N/A
Scratches	NOT ALLOWED	NOT ALLOWED	NOT ALLOWED	N/A
Shrinking	NOT ALLOWED	NOT ALLOWED	NOT ALLOWED	N/A
Thin Paint	NOT ALLOWED	NOT ALLOWED	NOT ALLOWED	N/A
Wrinkling	NOT ALLOWED	NOT ALLOWED	NOT ALLOWED	N/A

One (1)

PAINT MODULE ALL ONE SOLID COLOR, PLUS CLEAR COAT - RED

Y__N__

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The entire module shall be sprayed one-color and then clear coated. The PPG paint code and color will be provided at the pre-construction meeting.

One (1) **BLACK REFLECTIVE MATERIAL IN RUB RAILS** Y__N__

Rub rails shall incorporate a 5/8" wide black reflective scotchlite safety accent stripe.

One (1) **DOOR REFLECTIVITY** Y__N__

Reflective material (25" x 2.5" red/silver chevron style) meeting FMVSS 108 requirements shall be installed on the lower interior stainless steel panel of each rear door and hinged side door.

If a sliding side door is provided, it shall have a 1.50" x 40.00" white reflective stripe installed on the rear facing edge.

One (1) **GRAPHICS & LETTERING - PURCHASER SUPPLIED/INSTALLED** Y__N__

Lettering, graphics, and striping to be provided and installed on the completed vehicle to departmental specifications, by the purchaser.

One (1) **KKK-A-1822F COMPLIANCE** Y__N__

A KKK-A-1822F compliance sticker, electrical load analysis sticker, and payload sticker shall be installed in the oxygen compartment. Any deviations from KKK-A-1822F shall be listed in the vehicle delivery packet with a notation on the-compliance sticker.

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One (1) **VEHICLE MANUALS (1) PACKAGE SET**

Y__N__

One (1) Delivery Manual Package shall be supplied with the vehicle, and shall include the following items:

- Ambulance manufacturer parts, service and operation manuals
- OEM chassis owner's guide
- Complete 12 VDC and 125 VAC wiring schematics for all included standard and optional systems
- Multiplex Electrical system programming - electronic media

One (1) **WARRANTIES**

Y__N__

MANUFACTURER WARRANTIES: The ambulance manufacturer shall provide Warranty coverage as follows:

- A. Structural Module Warranty - Limited Life Time
- B. Ambulance Conversion Warranty - 3 Years/36,000 Miles
- C. Electrical Warranty (Multiplex-based systems) - 7 Years/ 84,000 Miles, pro-rated
- D. Paint Warranty - The pro-rated paint warranty covers the areas of the ambulance body finished with paint products specified by the Manufacturer for a period of seven years from the date of manufacture, or up to 84,000 miles, whichever occurs first. The first four years, or up to 48,000 miles, are covered at 100% parts and labor. The fifth year or up to 60,000 miles, is covered at 75% parts and labor. The sixth and seventh years or up to 84,000 miles, are covered at 50% parts and labor. Paint repairs must be pre-approved by the Manufacturer and performed by the Manufacturer or an Authorized Dealer / Service Center

NOTE: Copies of these Warranties shall be provided to the purchaser in the bid response.