BID DOCUMENTS

FOR

2023 OWOSSO AMBULANCE BID TYPE III FORD E-450 AMBULANCE



CITY OF OWOSSO 301 W MAIN STREET OWOSSO, MICHIGAN 48867

September 7, 2023

NOTICE TO BIDDERS FOR THE CITY OF OWOSSO, MICHIGAN

Partially funded by USDA Rural Development Grant

TYPE III FORD E-450 AMBULANCE

Sealed bid proposals will be received by the city of Owosso for **Type III Ford E-450 Ambulance** and should be addressed to:

Bid Coordinator City of Owosso 301 W Main St Owosso, MI 48867

Sealed bids will be accepted until **3:00 p.m. October 17, 2023**, for the **Type III Ford E-450 Ambulance**, at which time bids will be publicly opened and read aloud.

All bids must be in writing and must contain an <u>original</u> signature by an authorized officer of the firm. Electronic bids (i.e., telephonic, FAX, etc.) are **NOT** acceptable. All bids shall clearly contain on the outside of the **sealed** envelope in which they are submitted:

TYPE III FORD E-450 AMBULANCE

All bids must be accompanied by a certified Cashier's Check or Bid Bond for a sum of not less than 5% of the total bid and shall be made payable to the city of Owosso. This amount shall be forfeited in the case of the failure on the part of the successful bidder to sign a contract and furnish satisfactory bonds as required after the review and approval of the bid by the city of Owosso.

The city reserves the right to accept any proposal; or to reject any proposal; to waive irregularities in a proposal; or to negotiate if it appears to be in the best interest of the city Of Owosso. The bid shall be valid for a period of 90 days from the date of opening. A bid valid for a shorter period may be rejected by the city of Owosso. During the bid validity period, the bidder shall maintain its original bid without any change to the proposed unit prices and total price.

Special conditions included in this inquiry shall take precedence over any conditions listed under General Conditions or Instructions to Bidders.

Hard copies of the proposal, contract forms and specifications are on file and may be obtained for a fee in accordance with the city's FOIA Policy at the office of the Bid Coordinator, City Hall, 301 West Main Street, Owosso, Michigan 48867. Bid documents are available at no charge on our website at www.ci.owosso.mi.us or on the MITN website at www.mitn.info.

INQUIRIES/ADDENDUMS

Addendums will be available on the city's website at <u>www.ci.owosso.mi.us</u> and on the MITN website at <u>www.mitn.info</u>.

All inquiries regarding this bid request must be submitted to Public Safety Chief Kevin Lenkart and received at least seven (7) calendar days prior to the submission and shall be received in, and responded to, in writing, or via FAX at 989-723-0528 or by email: <u>kevin.lenkart@ci.owosso.mi.us</u>

BID Proposal TYPE III FORD E-450 AMBULANCE

TO: THE CITY OF OWOSSO (HEREINAFTER CALLED THE "CITY") Bidder must provide pricing for each item listed.

The undersigned, having examined the bid proposal forms and specifications, does hereby offer TYPE III FORD E-450 AMBULANCE as listed below at the following prices to wit:

Item	Description	QTY	Unit Price
1	Type III Ford E-450 Ambulance Chassis Model Year	1	
2	Stryker Power-Pro 2 Powered Stretcher, High Configuration (part #650705550001)	1	
3	Stryker Xpedition Powered Stair-Chair (part # 625705550002)	1	
4	ASSEMBLY, BATTERY CHARGER, part #650700450301 and ASSEMBLY, POWER CORD, part #650700450102 (to be used for Power-PRO 2 and Xpedition Stair-PRO)	1 each	
5	Stryker Power-LOAD Fastener (Model 6390) with floor plate (see bid specs doc attached)		
6	 5 years of Part #: 71061PT ProCare Power-PRO 2 Prevent Service: Annual onsite preventive maintenance inspection and unlimited repairs including parts, labor and travel with battery coverage 5 years of Part # 73071XPB ProCare Xpedition Powered Stair- Chair Prevent Service: Annual onsite preventive maintenance inspection and unlimited repairs including parts, labor and travel 		
	with battery coverage 6 years of Part #: 76011PT Pro Care Power-LOAD Prevent Service: Annual onsite preventive maintenance inspection and unlimited repairs including parts, labor and travel with battery coverage		
7	Trade-in Credit for One (1) Manual Stryker Cot SN 000439078	1	

8	Trade-in Credit for One (1) Manual Stryker Stair-Chair	1	
	TOTAL BID PRICE		
	BIDDER'S INITIALS		

VARIANCE FROM SPECIFICATIONS: If the bidder is unable to comply with the specifications as outlined, the bidder shall clearly note these variations from the specifications. The bidder may also propose additions to these specifications for the city to consider, but the costs associated with these additions shall be stated separately.

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REMARKS:_____

SIGNATURE PAGE AND LEGAL STATUS

On behalf o	f		I hereby submit this	s proposal	
for TYPE	III	FORD E-450		dersigned	
			s subject to the General Conditions and the General Spe	cifications	
included in	the o	contract documents	. The undersigned certifies that he is an official legally aut		
bind his firm	and	to enter into a con	tract should the city accept this proposal.		
Bid proposal by (Name of Firm):					
Legal stat			•		
			ox and USE CORRECT LEGAL NAME.		
		Corporation	State of Incorporation:		
		Corporation			
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		Partnership	List of names:		
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Signed th	is		Day of 2023		
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Diquei ac	KIIU	wieuges receipt of	the following Addenda.		
ADDEND	UM N	NO:	BIDDER'S INITIALS:		

GENERAL CONDITIONS

1. LOCAL PREFERENCE POLICY

The city of Owosso has a local preference policy for the purchase of goods and services. The policy in part states: A business located within the city limits and paying real or personal property taxes to the city of Owosso will be granted a 6% bid advantage or \$2,500, whichever is less, over a business located outside Shiawassee County. A business located outside the city limits but within Shiawassee County and paying property taxes to the county will be granted a 3% bid advantage or \$2,500, whichever is less, over a business located outside Shiawassee County. The preference also applies to subcontractors performing 25% or more of the work of a general contract.

2. BID ACCEPTANCE

The city reserves the right to reject any or all proposals. Unless otherwise specified, the city reserves the right to accept any item in the proposal. In case of error in extending the total amount of the bid, the unit prices shall govern.

3. PAYMENT

Unless otherwise stated by the bidder, time, concerning discount offered, will be computed from date of delivery and acceptance at destination or from date correct bill or claim voucher properly certified by the contractor is received. When so stated herein, partial payments, based on a certified approved estimate by the city of materials, supplies or equipment delivered or work done, may be made upon presentation of a properly-executed claim voucher. The final payment will be made by the city when materials, supplies, equipment or the work done have been fully delivered or completed to the full satisfaction of the city.

4. BID DEFAULT

In case of default by the bidder or contractor, the city of Owosso may procure the articles or services from other sources and hold the bidder or contractor responsible for any excess cost occasioned thereby.

5. UNIT PRICES

Prices should be stated in units of quantity specified.

6. QUOTED PRICES

Unless otherwise stated by the bidder, prices quoted will be considered as being based on delivery to a designated destination and to include all charges for packing, crating, containers, shipping, etc., and being in strict accordance with specifications and standards as shown.

7. SUBSTITUTIONS

Wherever a reference is made in the specifications or description of the materials, supplies, equipment, or services required, to a particular trade name, manufacturer's catalog, or model number, the bidder, if awarded a contract or order, will be required to furnish the particular item referred to in strict accordance with the specifications or description unless a departure or substitution is clearly noted and described in the proposal.

8. HOLD CITY HARMLESS

The bidder, if awarded an order or contract, agrees to protect, defend, and save the city harmless against any demand for payment for the use of any patented material, process, article, or device that may enter into the manufacture, construction, or form a part of the work covered by either order or contract. Bidder further agrees to indemnify and save the city harmless from suits or action of every nature and description brought against it, for or on account of any injuries or damages received or sustained by any party or parties, by or from any of the acts of the contractor, his employees, subcontractors, or agents.

9. COMPETITIVE BIDDING STATUTES

The laws of the state of Michigan, the charter and ordinances of the city of Owosso, as far as they apply to the laws of competitive bidding, contracts and purchases, are made a part hereof.

10. SAMPLES

Samples, when requested, must be furnished free of expense to the city and, if not destroyed, will upon request be returned at the bidder' expense.

11. EQUAL EMPLOYMENT OPPORTUNITY AND OTHER CLAUSES

The contractor shall agree not to discriminate against any employee or applicant for employment because of age, race, religion, color, handicap, sex, physical condition, developmental disability as defined by Michigan Complied Statutes, or national origin. This provision shall include but not be limited to the following: employment, upgrading, demotion or transfer, recruitment or recruitment advertising, layoff or termination, rate of pay or other forms of compensation, and selection for training including apprenticeship. The contractor further agrees to take affirmative action to ensure equal employment opportunities for persons with disabilities. The contractor agrees to post in conspicuous places, available to employees and applicants for employment, notices setting forth the provision of the non-discrimination clause.

LOCAL PREFERENCE POLICY

The following affidavit should be completed if a bidder is located within Shiawassee County or intends to sub-contract more than twenty-five percent (25%) to a Shiawassee County based business: The city of Owosso has a local preference policy for the purchase of goods and services as recorded in the city ordinance in section 2-348. "Lowest qualified bidder" defined.

 The term "lowest qualified bidder," as used in this division, shall mean the lowest bidder having qualifications to perform the work which are satisfactory to the council. The lowest bidder shall be determined based on an adjusted bid tabulation which shall be prepared in the following manner: To the bid of any bidder which is neither a city-based business nor a county-based

business shall be added an amount equal to six (6) percent of the bid or two thousand five hundred dollars (\$2,500.00), whichever is less.

- 2. To the bid of any bidder which is a county-based business shall be added an amount equal to three (3) percent of the bid or two thousand five hundred dollars (\$2,500.00), whichever is less; provided, however, that if no bid is received from a city-based business, no additional amount shall be added to the bid of a county-based business.
- 3. "Owosso-based business" shall be interpreted to mean a business registered with the county clerk or a corporation registered with the state having a business address within the city limits which pays real and/or personal property taxes levied by the city. The term "county-based business" shall be interpreted to mean a business other than a city-based business registered with the county clerk or a corporation registered with the state having a business address within the county clerk or a corporation registered with the state having a business address within the county which pays real and/or personal property taxes levied by the county.
- 4. If twenty-five (25) percent or more of a contract for construction or other services is to be subcontracted by a city-based business bidder to a non-city-based business or businesses, or by a county-based business bidder to a non-county-based business or businesses, the adjusted bid shall be calculated by applying the provisions of this section separately to each portion of the contract based on the status of the contractor or subcontractor performing that portion of the contract as a city-based or county-based business.

AFFIDAVIT

In accordance with Section 2-348 of the Owosso city code, the bid from a business located in Shiawassee County shall be adjusted to reflect a preference. In order for the city to calculate the adjustment, the bidder hereby deposes and states that their business address is registered, and is currently paying real and/or personal property taxes in Shiawassee County at the following address:

Registered business address

The affiant further deposes and states that a sub-contract with a business registered, and paying real and/or personal property taxes in Shiawassee County will be executed for a percentage equal to or greater than twenty-five percent (25%) as stated below:

Business name and address of sub-contractor

Percentage of contract

Authorized signature

Title

Company name

Date

W-9 INFORMATION FOR LEGAL STATUS

Sole proprietor. Enter your individual name as shown on your income tax return on the "Name" line. You may enter your business, trade, or "doing business as (DBA)" name on the "Business name/disregarded entity name" line.

Partnership, C Corporation, or S Corporation. Enter the entity's name on the "Name" line and any business, trade, or "doing business as (DBA) name" on the "Business name/disregarded entity name" line.

Disregarded entity. Enter the owner's name on the "Name" line. The name of the entity entered on the "Name" line should never be a disregarded entity. The name on the "Name" line must be the name shown on the income tax return on which the income will be reported. For example, if a foreign LLC that is treated as a disregarded entity for U.S. federal tax purposes has a domestic owner, the domestic owner's name is required to be provided on the "Name" line. If the direct owner of the entity is also a disregarded entity, enter the first owner that is not disregarded for federal tax purposes. Enter the disregarded entity is a foreign person, you must complete an appropriate Form W-8.

Note. Check the appropriate box for the federal tax classification of the person whose name is entered on the "Name" line (Individual/sole proprietor, Partnership, C Corporation, S Corporation, Trust/estate).

Limited Liability Company (LLC). If the person identified on the "Name" line is an LLC, check the "Limited liability company" box only and enter the appropriate code for the tax classification in the space provided. If you are an LLC that is treated as a partnership for federal tax purposes, enter "P" for partnership. If you are an LLC that has filed a Form 8832 or a Form 2553 to be taxed as a corporation, enter "C" for C corporation or "S" for S corporation. If you are an LLC that is disregarded as an entity separate from its owner under Regulation section 301.7701-3 (except for employment and excise tax), do not check the LLC box unless the owner of the LLC (required to be identified on the "Name" line) is another LLC that is not disregarded for federal tax purposes. If the LLC is disregarded as an entity separate from its owner, enter the appropriate tax classification of the owner identified on the "Name" line.

Other entities. Enter your business name as shown on required federal tax documents on the "Name" line. This name should match the name shown on the charter or other legal document creating the entity. You may enter any business, trade, or DBA name on the "Business name/disregarded entity name" line.

	December 2011) ment of the Treasury Revenue Service	Request fo Identification Numb	or Taxpayer ber and Certifica	ation	Give Form to the requester. Do not send to the IRS.
	Name (as shown or	n your income tax retum)			81.94.
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Print or type Specific Instructions on page	Check appropriate	box for federal tax classification: proprietor C Corporation S Corporation	Partnership Trus	st/estate	Exempt payee
Print or type Instruction	Limited liabilit	y company. Enter the tax classification (C=C corporation, S	S corporation, P=partnership	p)►	
fic In	Other (see ins	tructions) ► treet, and apt. or suite no.)	B	equester's name and addres	ss (optional)
peci					
See S	City, state, and ZIP	code			
	List account numbe	r(s) here (optional)			
Par	t I Taxpa	er Identification Number (TIN)			
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		n more than one name, see the chart on page 4 for g	juidelines on whose	Employer identifica	ition number
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		other U.S. person (defined below).			
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Cat. No. 10231X

Form W-9 (Rev. 12-2011)

GENERAL SPECIFICATIONS

This Emergency Vehicle shall be in accord with the Ambulance Design Criteria of the National Highway Traffic Administration, U.S. Department of Transportation, and Washington, D.C. This bid specification is based on the Federal Ambulance Specification (KKK-A-1822F). Please note that this ambulance must be "change notice 8" compliant.

The purpose of this document is to provide minimum specifications and test parameters for the manufacture. It establishes essential criteria for the design, performance, equipment, and appearance of the vehicle. All dimensions listed are given as the approximate sizes, meeting the needs of the city. The objective is to provide a vehicle that is in accordance with nationally recognized guidelines. It is not the intention of the city to write out vendors or manufacturers of similar or equal equipment, construction processes, and material. These specifications are a minimum requirement.

All vendors and manufacturers must meet all state and local regulations regarding the manufacturing, licensing, and sale of emergency rescue vehicles and ambulances within the State of Michigan. A copy of the bidder's State of Michigan Vehicle Dealer License is a requirement.

Any exceptions or clarifications to the specification shall be noted on a separate page in the bid marked "EXCEPTIONS AND CLARIFICATIONS". All exceptions and clarifications shall be clearly defined with the page number, description, and the exception or clarification.

1.0 CHASSIS

1.1	<u>VEHICLE AND WHEELBASE</u> <u>Current model year</u> Ford E-450 Super Duty cutaway chassis with dual rear wheels, 158-inch wheelbase, 14,500 lb. GVWR, Ford Ambulance prep package 47H.
	COMPLY?
1.2	ENGINE Ford 7.3L V-8 Electronic Fuel Injected GAS engine.
	COMPLY?
1.3	<u>AUXILIARY POWERTRAIN CONTROL (APC)</u> The Ford OEM APC Module shall be standard. The APC Module is to be programmed in the "Charge Protection" mode. When the vehicle is in park, service brake disengaged, and the parking brake is set, the APC module shall electronically adjust the engine idle (up or down) to maintain proper electrical system voltage.
	COMPLY?
1.4	<u>GAUGES AND METERS</u> Speedometer, odometer, fuel gauge, temperature, oil pressure, digital voltmeter, engine hour meter.
	COMPLY?
1.5	<u>AXLES, GAWR & SHOCKS</u> Front Axle, Twin I-Beam; 5,000 pounds GAWR. Rear Axle, Full Float; 9,600 pounds GAWR. Gas filled shock absorbers, front and rear.
	COMPLY?
1.6	STEERING Power steering with tilt wheel and cruise control.
	COMPLY?
1.7	BRAKES Heavy-duty power assisted. Front / Rear Disc w/ 4-wheel anti-lock brake system.
	COMPLY?

1.8 TRANSMISSION

Six-speed automatic overdrive transmission with external oil cooler.

1.9 <u>AXLE, REAR</u>

4.56 gear ratio with limited slip differential.

1.10 FUEL TANK

Single OEM 55-gallon capacity tank with a Cast Products fuel fill mounted in compliance with Ford QVM guidelines.

1.11 WHEELS AND TIRES

Seven (7) LT 225/75R16E Steel Belted Radial tires, BSW all season tread. The spare tire will be mounted in the left rear exterior compartment. Stainless steel wheel inserts with valve stem extensions will be provided. The valve stem extensions are to be steel braided lines that are held in place with stainless steel brackets. These brackets are to be located in such a way as to provide easy access to both the inside and outside rear tires valve stems for the checking of tire pressure and for the addition of air when required.

1.12 <u>BATTERIES</u>

Two 750 CCA mounted in a pull-out slide tray in a separate sealed compartment underneath the ALS compartment with access via the inside/outside door; wired parallel in OEM configuration that complies with Ford QVM and KKK-A-1822-F requirements. Batteries will be wired so that both will always be used for starting and controlled by a 300-amp power cut off switch. The power cut off switch circuit shall be protected by a 250-amp fuse. The Ford ignition key shall activate the power cut off switch. Power can be provided to the module without the engine running by turning the ignition key to accessory position.

1.13 ALTERNATOR

Ford OEM 225-amp alternator with internal regulators.

1.14 WINDOWS, CAB

Tinted safety glass is installed in all exterior windows. Ford OEM power operated windows.

1.15 WINDSHIELD WIPERS

Two speed electric, with washer and adjustable intermittent cycle.

1.16 SEATS, DRIVER'S COMPARTMENT

Deluxe clothe OEM High Back Captain's Chairs, with inboard fold-down armrests, seat belts and shoulder harnesses. There will be a 6" recess behind the cab seats for tilting or reclining of the seats.

The Ford OEM cab seats must be the seats installed and shipped with the chassis by Ford and have the correct Ford prescribed serial number. The Ford OEM seat pedestals shall be located in the mounting location as determined by Ford. Any changing of the Ford OEM Seats, mounting pedestals or location thereof is absolutely prohibited.

1.17 <u>HEATER AND AIR CONDITIONER, CHASSIS</u> OEM heavy duty, high output.

1.18 <u>COOLING SYSTEM, ENGINE</u>

Heavy-duty liquid system using a 50/50 mix of permanent type antifreeze and water for protection to (-) 40 Fahrenheit.

1.19 MIRRORS, DRIVER'S

Dual OEM below-eye-level mirrors on foldaway arms with power adjustment shall be provided. The flat mirror shall be 65 sq. in. with a 10 sq. in. convex mirror located in the lower outside corner of the flat mirror. Both mirrors shall be mounted below eye level.

1.20 TRIM PACKAGE, CHASSIS

Exterior upgrade package; full stainless-steel wheel simulators, chrome bumpers and grill, aero style headlights with Daytime running lights. Interior upgrade package; Color keyed door trim, color-keyed carpet and headliner, padded sunvisors, courtesy and dual dome lights, AM/FM/CD Stereo Radio with Clock. Power door locks, cruise control, tilt steering wheel.

1.21 RUNNING BOARDS AND MUD FLAPS

Heavy-duty aluminum diamond tread running boards shall be installed from the back of the front wheel opening to the front of the module box. Running board shall include grip-strut inserts. They will include mudguards to protect the chassis and module. Rubber mud flaps will be installed behind the dual rear wheels.

1.22 MISCELLANEOUS CHASSIS ITEMS

Dual pitch horn, reduced sound level exhaust, OEM standard undercoating, dual air bags.

1.23 <u>REMOTE ENTRY</u>

Remote Entry with two key FOBs shall be included.

1.24 <u>HIDDEN DOOR UNLOCK</u>

A hidden unlock switch shall be installed in the front cab grill and shall unlock all entry doors of the cab and module.

1.25 ADDITIONAL CAB DOME LIGHT

A red/white dome light shall be added to the cab headliner. The light shall be slightly toward the passenger's side of the vehicle (from center) and red side of light shall be toward the driver.

2.0 MODULE CONVERSION

2.1 APPROXIMATE DIMENSIONS, EXTERIOR

Overall vehicle length	268.0 inches
Overall vehicle height	107.5 inches
Overall module body length	168.0 inches
Overall module body height	87.0 inches
Overall module body width	96.0 inches

2.2 <u>APPROXIMATE DIMENSIONS, INTERIOR</u>

Length forward door to rear door	158.0 inches
Width interior wall to wall	90.0 inches
Width of aisle	51.0 inches
Height floor to ceiling	72.0 inches
Loading height	32.5 inches
COMPLV9	VEC NO

2.3 <u>GENERAL CONSTRUCTION</u>

The body wall skin shall be of prime commercial quality .125" thick 3003 H14 corrosion resistant aluminum. All side and roof panels shall be .125" thick. The use of side and roof panels that are of a lesser thickness is strictly prohibited.

All side and roof panels shall be a single sheet of aluminum. Covering the roof of the exterior body with sectional pieces of aluminum panels is prohibited. This is to eliminate the necessity for joints or seams where these panels join.

All parts of the body and attachments will be fastened together with rust resistant fasteners in a manner that will preclude loosening of any bolts and screws, and the cracking of welded joints. The exterior body panels will be made of not less than 0.125" thick metal and be reinforced at all points where equipment will be attached.

The body will be a bolted and welded structure. Welding will not however, be employed in the assembly of the body in a manner that will prevent the ready removal of any component part for service or repair.

In the assembly of the body, areas where steel is in contact with aluminum, there shall be rubber isolator pads installed. This pad provides corrosion and water resistance.

All fasteners, bolts, screws, etc. used in the assembly of the body and all attachments shall be coated with the "ECK" brand corrosive protectant. Additionally, all exterior door hinges, both entry and compartment, are to be coated with "ECK" protectant prior to the installation of the door. This "ECK" coating is to be used in lieu of a gasket material behind the hinge to prevent the problems of gasket retention and deterioration.

The body shall be attached to the frame of the chassis with the 12 OEM rubber mounts and bolt assemblies provided for such purpose by Ford. The body will then be fastened to the cab with $32 \ 1/4$ "- $20 \ x \ 1$ " stainless steel bolts. The body (components) will not be welded to the frame of the chassis. The mounting of the module body to the chassis shall be done in strict accordance with Ford QVM guidelines. Any other method of attachment is strictly prohibited.

2.4 <u>ROOF</u>

The roof understructure will be fabricated from extruded aluminum box beams (6061-T6). The use of skip or intermittent welding of the roof perimeter is unacceptable.

2.5 <u>SIDE WALLS</u>

The body sidewall skin shall be constructed of a single sheet of .125" aluminum (3003 H14). The sidewall understructure will be fabricated by welding 2" x 2" x .125" extruded aluminum box beams.

All body openings shall be seamless. Body openings framed with tongue and groove style extrusions requiring the use of seam sealer will not be acceptable.

2.6 FLOOR SUB-STRUCTURE

The floor shall be at the lowest level permitted but not more than 32.5 inches from the ground with no modifications to the OEM chassis suspension. There shall be 12 mounting points using the Ford supplied ladder supports.

The floor structure shall consist of 2" x 2" x 0.250" primary box beams running the full length of the module body and 2" x 2" x 0.125" secondary box beams running the entire width of the body. The finished assembly shall be securely welded to the wall structures and exterior compartments. All critical load points will be reinforced with gussets.

2.7 EXTERIOR COMPARTMENT CONSTRUCTION

Compartments provided on the unit will be constructed as follows: The compartment floor will be fabricated of 0.125 diamond plate aluminum (3003-H14) and the ceiling and bulkheads of 0.100 diamond plate aluminum (3003-H14). All compartment floors will be reinforced with two 1" x 2" aluminum bars on the underside of the floor.

All exterior compartments will be sweep out style to provide for ease of cleaning. Drain holes are not desirable. All exterior compartments will be vented to provide for the displacement of air when closing doors. Vent louvers shall be installed on the vertical walls of the exterior compartments.

All exterior compartments shall be lighted when the compartment door is opened. Compartment lights are to be LED and flush mounted with wiring routed through the body eliminating any exposed wiring.

All exterior compartment shelving shall be "Pan" style aluminum shelves mounted on two (2) sets of uni-strut tracks at each end of the shelf providing infinite adjustment. Rubber matting is to be installed on the topside of all shelving.

2.8 DOORS, EXTERIOR COMPARTMENT AND ENTRY

The door(s) of each compartment will be flush type (being on the level with adjacent body surface) and of PAN FORMED / EXTRUDED DOUBLE BREAK construction. The weather seal is to be mounted on the outer flange of the door with the latches and strikers mounted on the extruded second break inside the door opening. This door design eliminates exposure of the latches to the elements and prevents moisture from corroding the latch mechanisms.

All doors shall be constructed of 0.125 aluminum and 2.5" thick.

All doors shall be reinforced and cross-braced inside for increased strength allowing for the mounting of equipment on the door.

In order to facilitate adjustment and routine maintenance of door linkage rods and latches, all patient compartment entry doors shall have access ports. There is to be an access port above and one below each interior entry door handle of sufficient size to allow for the adjustment of the door linkage rods. All ports are to be covered with a friction type "plug-in" plastic cover that is readily removable.

The door latch assembly of each compartment will be an **Eberhard Grabber 21100 series**, two (2), point slam lock (206 rotary latch) of stainless-steel construction. Door latch assemblies shall be "blind mounted" eliminating any exposed mounting hardware on the exterior side of the latches. There is to be a rubber gasket between the exterior stainless-steel latch assembly and the aluminum door to ensure the isolation of the two dissimilar metals.

The door linkage rods' connecting the door handles and the rotary latches are to be threaded stainless steel rods. They shall be straight direct pull rods with no bends built into the rods allowed. Adjustments to the entry door linkage rods are to be provided by a turnbuckle located above and below and adjacent to each interior door handle.

All exterior doors are to be lockable via an "automotive style" lock with all compartment and patient compartment entry doors being keyed alike. The key shall be double sided for ease of insertion into the lock. All compartments shall lock and unlock with the cab lock/unlock button, key fob, and switches in the module.

Door strikers shall be installed on the vertical compartment flanges, with the exception of double doors. There are to be two (2) pins per door, with the exception of the battery compartment door. All striker pins shall be fully adjustable from the exposed side. They will be grade 8.0 cadmium plated steel strikers with a "captive nut" for adjustment and so located as not to interfere with the sweep-out design of the compartment itself.

All compartment and entry doors shall have one-piece Stainless Steel doorsill protectors to protect both surfaces of the body opening.

Each compartment and entry door is to have a full width aluminum drip rail mounted above each door. All drip rails are to be attached using double back adhesive tape. The use of screws, rivets, or any other form of metal attachment is not acceptable.

All compartment doors will be equipped with a gas strut door stay that holds the door at 90 degrees to the body when open. All gas struts are to be mounted in such a way as to allow for easy access in the event that replacement or repair is required.

There shall be a "dampening" device installed within each gas strut for the purpose of preventing the "shock" that can occur when a gas strut is fully extended.

Each compartment door will be mounted with a continuous stainless-steel hinge with a minimum pin diameter of 0.25". Hinge Pin diameter of less than 0.25" is unacceptable to ensure the long-term performance of the hinge in this extreme use application.

Each compartment opening is to be sealed with full perimeter 5/8" wide by 1/2" thick hollow core wiper seal. The seal is to be mounted on the doorframe out board of the striker pins and the door latches. This seal ensures that each compartment will be dust and waterproof and that the striker pins and door latches will remain dry and clean.

All exterior compartment and patient compartment entry doors shall be insulated with a single layer of R-14.5 Reflectix insulation. Additionally, there shall be a single layer of 2" polystyrene insulation installed in each door.

Rear patient compartment doors shall be equipped with Cast Products "Grabber" hold-open devices. Side patient compartment door shall be equipped with Gas Strut door opening device.

Rear and side patient compartment doors shall have dark tinted safety glass windows encased in extruded aluminum frames.

2.9 LICENSE PLATE HOLDER

Installed in the center of the rear kick plate above the rear step bumper there shall be a Cast Products license plate holder.

3.0 ELECTRICAL SYSTEM

3.1 ELECTRICAL SYSTEM COMPONENTS

A Weldon V-MUX 100% solid-state microprocessor based multiplex system will be installed to control the electrical functions. The system will provide diagnostics lap top plug in capability. The front console shall contain fifteen (15) PODS buttons with an OLED, text display. The rear panel shall contain twelve (12) PODS buttons. PODS buttons are flexible to be used as latching, multi-level or momentary buttons. A Weldon High Content Node (S) shall be provided. There could be one or more depending upon demand requirements.

3.2 WARNING DISPLAYS

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

Outside storage compartment "Door Open" warnings Module curbside and rear "Door Open" Warning Low voltage alarm System Voltage System Errors

3.3 <u>VOLTMETER</u>

The OLED display on the console will display system voltage.

3.4 <u>CONTROL PANEL PODS BUTTONS</u>

A console panel will be mounted in the cab and a rear panel will be mounted in the access door to the electrical service cabinet in the action area. The PODS buttons will control all Emergency Warning functions as well as being able to control the Patient Compartment lighting and module heat/ac functions.

The PODS buttons will have dimmable perimeter backlighting for easy identification and a red LED will light up when turned on.

3.4.1. MODULE POWER BUTTON

A module power button for the electrical system will be provided on the front and rear panels (total of two mod power switches).

3.4.2. EMERGENCY MASTER BUTTON

A single emergency master button will be supplied for activating all the emergency warning lights and will be provided on the front console panel. The emergency master button will activate the module power automatically.

3.4.3 FLASHER

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

3.4.4 PARK OVERRIDE

A park override PODS button, located on the Front Console Panel, will reactivate all lights disabled when the transmission is placed in the neutral/park position.

Comply...... YES No____

3.4.5 BACKUP ALARM OVERRIDE

The Front Console Panel will have a PODS button to disable the backup alarm. This override will automatically reset to "Enabled" when the vehicle is removed from Reverse.

3.4.6 CURBSIDE SCENE LIGHTS "ON" WITH CURBSIDE DOOR

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

3.4.7 REAR SCENE LIGHTS "ON" WITH REAR DOORS OPEN

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

3.4.8 <u>REAR SCENES "ON" IN REVERSE</u>

The system will be programmed to provide activation for the rear flashers, rear scene lights, and the side scene lights, when the transmission selector lever is placed into the "reverse" position.

3.5 ELECTRICAL WIRING

All of the vehicle's electrical equipment will be served by circuits separate and distinct from the chassis electrical system. All circuits shall be rated to carry 125 percent of its maximum load. All electrical wiring will be run in grease, oil, heat, and moisture resistant looming. Harnesses will be fastened with vinyl-clad clamps and grommeted at any area they contact a metal edge.

Every load carrying wire will be a minimum of 14-gauge and will be color-coded and heat embossed with its function every 6 inches. There will be at least a 6-inch service loop of wire at the point of attachment to each component. All electrical connections will be machine crimped; the use of Scotch-locks is strictly prohibited.

3.6 <u>GROUNDING SYSTEM</u>

Due to the fact that most electrical problems in all 12-volt systems, but especially in emergency vehicles are due to problems with bad grounds, the body will be grounded to the chassis frame with two (2) heavy duty braided grounding straps. In addition, there will be grounding straps from the engine block to the body and frame. There is to be a Major Ground Buss Bar in the electrical panel that is connected to the ground straps and frame, and then each individual circuit will have its own ground wire run to that ground buss bar. This will greatly improve the grounding of all circuits in the vehicle and insure less electrical problems.

The Weldon HC NODES shall be ground directly to the chassis batteries to eliminate any interference or possible loss of ground which would result in the shutdown of the entire NODE.

3.7 ELECTRICAL SERVICE CABINET

The electrical service panel will be mounted in the electrical service cabinet above the action area and will be easily accessible by activating a single latch allowing the Button POD Panel section to swing down. The V-Mux Node(s) will be located in an easily accessible location in the electrical service cabinet for service technicians to perform troubleshooting and service work. This cabinet must be solely for the electrical system components with a large enough door opening to perform work on the systems completely without removing them from the cabinet.

Under no circumstances will any of the electrical systems be mounted in any exterior compartment. NO EXCEPTIONS

COMPLY?	YES	NO
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3.8 <u>12V DC OUTLETS</u>

There shall be three (3) Cigar style 12V DC outlets, two located in the action area, and one in the right front bulkhead ALS compartment.

3.9 <u>110V AC SYSTEM</u>

There shall be a Vanner Inverter/Conditioner w/remote switch, Model 20-1050-CUL or equivalent.

There shall be a weatherproof auto-ejecting 11OV- 125V male receptacle rated at 20 amps with a spring-loaded cover assembly located on the front left corner of the module body for incoming 110-volt power. This receptacle shall be labeled. It shall be wired through one 15-amp circuit breaker. The circuit shall include four (4) 110-volt interior receptacles ,one (1) located in the action wall area (this outlet to be 110V/USB combination) two (2) in the ALS area, one (1) in the upper bulkhead, and one (1) centered on the rear cab wall. Both outlets shall illuminate per KKK-A-1822-F.

3.10 LIGHTING, EMERGENCY

Front of module lights to be in sequence of: red, red/white, white, red/white, red. Lighting to be set to Whelen "Action Scan"

The unit shall be equipped with the following warning lights:

10) Whelen Series 9 x 7 red LED lights as follows:

- 2) Facing forward
- 4) Facing rearward (the 2 at window level with brake override)
- 2) Facing right
- 2) Facing left
- 1) Whelen Series 9 x 7 clear LED light installed top center forward.
- 2) Whelen Series 9 x 7 red/clear LED lights facing forward
- 1) Whelen Series 9 x 7 amber LED light installed top center rearward.
- 2) Whelen Series 7 x 3 red LED
 - 1) Facing right
 - 1) Facing left

2) Whelen ION T-Series LED red lights with Chrome Flange mounted in the Front Fenders.2) Whelen ION T-Series red LED lights with Chrome Flange mounted on the Grill.

Circuit shall have a dual mode switch. "Primary" shall flash all lights in Whelen "Action Scan" mode. "Secondary" shall flash top red & amber lights only. "Seondary" mode to activate when vehicle is in Park or Park Brake set.

3.11 SCENE LIGHTS

There shall be eight (6) LED Whelen Series 9 x 7 with 13-degree tilt built into the lenses mounted four (2) lights on the left side and four (2) lights on the right side. There shall be two (2) LED Whelen Series 9 x 7 with 13-degree tilt built into the lenses mounted on the rear. A separate switch on the driver's switch panel shall control each pair. In addition, the right side and rear scene lights shall activate when the right side or rear doors, respectfully, are open.

In addition, there shall be a scene cut-out switch inside each entry door of the module. This switch shall be located in an area that the cot will not come into contact with it and also be momentary (automatically turn back to standard function once mod power is cycled)

FRONT SCENE/"BROW" LIGHT

There shall be a Pioneer Spot & Flood w/Flange (PCPSM2C) located on the front of the ambulance module. A separate switch on the driver's switch panel shall control the light

3.12 DOOR SWITCHING

Magnetic Door Switches shall be installed to activate Door Open, Compartment Open, Dome and Scene Lights.

3.13 SIREN(s) AND SPEAKERS

A Whelen Howler shall be provided and installed in order to add an extra layer of warning for intersections and high-risk areas when used with a 100/200 watt siren amplifier, providing deep tones to penetrate other vehicles, alerting drivers and pedestrians of your approach. A Whelen 295 HFSC9 Dual Tone siren shall be provided and installed. It is the request from the department that the siren speakers are mounted BEHIND THE GRILL. If the ambulance OEM will not mount in this location, all wiring and shall be completed and terminated in an area that the speakers can be mounted by the department or third party. Siren and Speakers must be able to be tested by department, at the ambulance OEM, prior to acceptance of the ambulance.

3.14 SPOTLIGHT

There shall be a 300,000 candlepower LED spotlight, with eight-foot coiled cord and momentary switch, permanently wired into front console. A "Mic" style storage clip shall be provided.

3.15 LIGHTS, PATIENT COMPARTMENT

The ceiling headliner shall contain eight (8) Whelen High – Medium – Low intensity LED dome lights. The left and right banks of lights shall be switched separately. In addition, the left bank high mode can be switched from the drivers switch panel and will be activated by opening of the side or rear entry doors. There shall be a timer switch installed in the right wall at the head of the squad bench. The timer switch will allow the left bank of Dome Lights to turn on even when the master switch is in the off position.

Dome lights to have settings of off, high, medium, and low intensity.

In addition, a 10" LED light shall be in the action area.

3.16 CLOCK, PATIENT COMPARTMENT

A battery-powered Atomic Digital Clock w/Indoor Temp. & Date. 12/24 Hour display, Automatic updates for time (including DST), month, day, date Calendar.

3.17	SUCTION - ON BOARD An SSCOR/Board On Board suction system with an Impact E-12 Suction Pump shall be provided and mounted recessed under the action area countertop with a half door.
	COMPLY?
3.18	VENTILATION A 138-CFM exhaust fan shall be mounted near the ceiling in the left rear of the patient compartment and shall be activated by a switch on the action wall.
	Fan shall operate in modes Off, Low, and High
	COMPLY?
3.19	LOW VOLTAGE ALARM A Low Voltage Alarm shall sound when voltage drops below 11.8 volts for more than 120 seconds.
	COMPLY?
3.20	<u>SWITCH CONSOLE, DRIVER'S</u> There shall be a switch console mounted in the center of the cab floor between the seats in such a way as to not interfere with access to the dash yet easily accessible to the driver. The console shall be easily removable to allow access for service. There shall be space provided for the installation of radios below the Weldon V-Mux Switch Panel. The console shall include two (2) drink holders. The switch panel shall be esthetically appealing and incorporate as follows:
	Top Row: "E" Master Switch / Primary/Secondary / Light Bar / Heat - AC / Patient Domes / Mod Power
	Second Row: "OLED" Display Screen / Back up Alarm Disable / Voltage Alarm Disable
	Third Row: Door Ajar Light / Compartment Ajar Light
	Bottom Row: Emitter / Siren - Horn / Left Scenes / Rear Scenes / Right Scenes
	COMPLY?

3.21 SWITCH CONSOLE, PATIENT COMPARTMENT

The following switches shall be in the rear control panel, which shall be hinged for easy access to components. They shall be mounted in a double row at an angle facing the center of the cot and the squad bench.

Top Row: Mod Power / Left Domes / Right Domes / O2 Light / Attendant Light

Bottom Row: Inverter / Suction / Exhaust Fan / HVAC Fan Speeds / Heat - AC

All switches in front and rear panels shall be Weldon Button Pod switches that are permanently marked by function, illuminate when activated and backlit for night visibility.

3.22 RADIO/NOTEBOOK CABINET IN CAB

The cab shall include a cabinet to hold radios and notebooks.

4.0 PATIENT COMPARTMENT

4.1 FLOOR, PATIENT COMPARTMENT

The subfloor shall consist of .090" thick 3003 H14 corrosion resistant aluminum sealed watertight. Over the aluminum sub-floor there shall be single sheet of $\frac{3}{4}$ " 13 ply, exterior grade plywood that is caulked and sealed.

The floor is then to be covered with a single piece of commercial-grade, #163 Black LON-PLATE, anti-skid flooring, which shall roll up the left wall and the squad bench approximately 3". Behind the linoleum at the base of the left wall and the squad bench, coving shall be installed providing a solid backing at the point of the bend in the floor. This coving shall run the full length of the left wall and the squad bench. Flooring shall be sealed at all edges to prevent water from seeping between the floor and cabinets.

A formed 6-inch, full width stainless steel floor protection strip shall be installed forward of the rear patient compartment door seal. Additionally, antiskid tape, 2-inch-wide, is to be laid the full width just inside the rear entry doors over the floor protection strip.

4.2 CABINETS, INTERIOR

All interior cabinets shall be built using $\frac{3}{4}$ " cabinet grade, finished both sides, 7 ply, solid core birch plywood. The use of plywood of any lesser quality or thickness is strictly prohibited.

All interior cabinets shall be constructed using wood screws. The use of staples or nails in the fastening of cabinet components is strictly prohibited.

Exposed cabinet surfaces, interior and exterior, are to be covered with "Wilsonart" laminate. All cabinets and counter tops shall be caulked and sealed. Cabinets shall incorporate 1-inch aluminum radius corners throughout and have generous padding to lessen the chance of injuries in the event of an accident. Sliding Plexiglas windows shall be 1/4" thick with full height extruded aluminum handles mounted in full perimeter slide track. Door catches shall be flushmount slam-type positive latching.

Cabinet window frames shall flip up to allow for restocking.

INTERIOR LATCHES

All interior cabinets on the interior of the vehicle shall have latches.

4.2.1 CABINETS, LEFT WALL

Cabinets shall be designed with a one-piece molded Fiberglass countertop for the attendant in the action area. Storage cabinets shall be located in the left rear, above the CPR seat, and above the action area. The cabinet in the rear shall be approximately 26" wide by 19" tall and have restocking frame, inventory tag holes and one adjustable shelf. The cabinet over the CPR seat shall be flip-up and approximately 44" wide by 5" tall and have latches. The cabinet over the action wall shall be approximately 46" wide by 14" tall, have a restocking frame, inventory tag holes, an adjustable shelf, and have the same angle front to back as the cabinet with the switch panel. Each cabinet shall have one track-type adjustable shelf and have flip-up doors.

The action wall shall house the technician's console, two oxygen outlets, vacuum outlet, aspirator collection bottle, climate control thermostat and fan control, one 12-volt connection and one lighted 11OV duplex outlet. The upper action wall area shall be hinged for ease of access.

4.2.2 BULKHEAD CABINETS

The driver side cabinet shall incorporate a floor mounted climate control unit. Unit shall drain directly through the floor. Air in-take shall be at floor level, while output shall be ducted overhead, across the bulkhead cabinets. The return air shall be filtered. Directly above the climate control unit shall be a storage area.

A horizontal cabinet shall be located above the walk-thru at ceiling level. The right side shall have an open cabinet with inside/outside access covered by a cargo net on the top half, and a same-width lockable roll-up shutter on the bottom half, with no outside access. The inside/outside cabinet shall be lighted at each shelf level with recessed lighting. The face of the overhead bulkhead cabinet doors shall be padded.

The bulkhead shall incorporate an open space to the cab with a fiberglass counter surface.

4.2.3 SQUAD BENCH CABINETS

Two cabinets shall be mounted at the ceiling level directly over the entire length of the squad bench. They shall have "flip-up" Plexiglas doors. There must be a minimum of 43" from the bottom of these cabinets to the top of the squad bench.

4.2.4 SQUAD BENCH

The squad bench base shall be constructed of .075" gauge stainless steel for strength and ruggedness. Storage space shall be provided within the bench and accessed via split, two section lids. Each lid will have a gas strut hold open device and paddle style latches. The interior shall be lined with white Wilsonart laminate. Cushions, both seat and back, shall be vacuum-formed seamless. There shall be 6-point red seatbelts for two (2) seating locations with all belts being tested and certified to meet or exceed FMVSS 206.

An A-Bar with sharps and waste shall be installed at the head of the squad bench and be treated with anti-bacterial coating.

4.3 SEAT, EMT / ATTENDANT

An attendant seat shall be located at the head of the primary cot. It shall be an EVS molded/contoured seamless seat mounted on an EVS seat base with integrated 3-point belt system that has been tested and certified to meet or exceed FMVSS 206. Attendant seat shall have integrated child seat and be mounted on a swivel pedestal.

4.3.1 CPR SEAT CABINET

A sidewall seat comprised of three molded vacuum-formed cushions will be mounted in the center of the street side wall. The CPR seat lid shall be hinged and lift for storage below. A seat belt that has been tested and certified to meet or exceed FMVSS 206 shall be provided for attendant safety. One-inch cushions shall be installed on three sides of head area.

4.3.2 SEAT, CPR

A sidewall seat comprised of three molded/contoured cushions will be mounted in the center of the left wall with lift up seat for storage below. Seat to be approximately 45" wide. A 6-point red seatbelt shall be provided for attendant safety. Cushions shall be vacuum-formed seamless. One-inch Cushions shall be installed on three sides of the Head Area.

4.4 UPHOLSTERY

All door panels, seat cushions, and protective pads shall be constructed of fire-retardant foam, covered with a minimum of 40-ounce marine-grade vinyl.

All seat and back cushions in the patient compartment shall be vacuum-formed seamless.

4.5 HEADLINER

The headliner shall be constructed of a thermoplastic core sandwiched between two sheets of aluminum finished in semi-gloss white. The headliner is to provide for the limitation of heat transfer from the roof, reflection of light and be easily cleaned. There is to be a removable center section to gain access to wiring that is covered with a padded vinyl.

4.6 PANELING, INTERIOR

Exposed surfaces shall be mar, dent, and scratch resistant. Walls shall be covered with high pressure Wilsonart laminate material.

4.7 GRAB RAIL, OVERHEAD

A full-length stainless-steel handicap style 1 1/2" diameter grab rail shall be installed on patient compartment ceiling. A second 60" grab rail shall be installed over the squad bench toward the rear of the truck. Both rails shall be capable of supporting a minimum of 300 pounds. Both rails shall be treated with Agion antibacterial Coating.

4.8	GRAB HANDLES, DOORS All entry doors will have a matching heavy-duty stainless-steel handicap style 1 1/2" "V" bar grab handle that will be securely mounted slightly below the window. These Bars shall be treated with Agion antibacterial Coating.
	COMPLY?
4.9	STAINLESS STEEL SIDE WALL The lower left aisle wall shall be .060 stainless steel from action shelf down to floor. The stainless steel shall be installed after the coven floor is in place. The stainless steel will be installed over the edge of the rolled floor. This will eliminate the seam and possibility of fluid retention.
	COMPLY?
4.10	COT MOUNT A Stryker Power-LOAD shall be installed COMPLY?
4.11	INSULATION The entire patient compartment, walls and ceiling, shall be blanketed with two layers of Reflectix insulation. In between the two layers of Reflectix insulation shall be a 2" polystyrene insulation to provide exceptional insulation and sound deadening qualities. To make certain the insulation stays in place, all insulation in the vertical walls is to be glued in place.
	COMPLY?
	All exterior compartment and patient compartment entry doors shall be insulated with a single layer of R-14.5 Reflectix insulation. Additionally, there shall be a single layer of 2" polystyrene insulation installed in each door.
	COMPLY?
4.12	CLIMATE CONTROL Rear climate control shall be floor mounted in driver side bulkhead cabinet to shorten refrigerant and anti-freeze hoses and eliminate vertical circulation. Condensation from high humid conditions shall drain directly through floor. Air intake shall be at floor level; output shall be at ceiling level with return air at floor level for increased airflow. Return air shall be filtered.
	The unit shall be a Pro-Air with 32,000 BTU cooling capacity and a 35,000 BTU heating capacity. The blower motor shall have permanent magnets and be capable of delivering 630 CFM of airflow.
	A thermostat shall control both heating and cooling with 3-speed manual fan control. The thermostat and fan control shall be located on the action wall.
	COMPLY?
	33

4.13 SHARP'S CONTAINER

A lockable Sharp's container with mounting bracket shall be shipped loose.

4.14 OXYGEN OUTLETS

Oxygen system shall be plumbed with conductive hose from oxygen compartment to two Allied, Ohio style oxygen outlets in the action area, a third over the cot mounted in the ceiling, and a fourth over the squad bench.

Three (3) tube-type O2 flow meters shall be included.

4.15 MARKER BOARD

There shall be a marker board located in the bench area. Exact location TBD at preconstruction meeting.

4.16 TIMERS AND SCENE CUT-OFF

There shall be switches installed at the entry doors for a check out timer and scene cut off of the curb side and rear lights.

4.17 A-BAR

An "A-Bar" with sharps and waste containers shall be installed at the curb side module entry door.

4.18 FLOW METER

Three (3) "Tube-type" flow meters shall be supplied and installed on the action wall.

4.19 RESTOCKING SEALS

Restocking seals shall be supplied on all interior compartments.

4.20	RESTOCKING FRAMES/SPEED LOAD All interior cabinets shall have a "flip-up" frame/window for restocking	
	COMPLY?	
4.21	INTERIOR COLORS All interior colors (counter tops, flooring, and vinyl) shall be determined after award.	
	COMPLY?	
4.22	ADJUSTABLE SHELVES All interior cabinets on street side of the interior to have one (1) adjustable shelf.	
	COMPLY?	
4.23	CABINET INTERIOR LIGHTS The interior of all the cabinets inside of the module shall have red LED strip lighting. Light shall come on with module power and have an on/off switch above the action area	S
	COMPLY?	
	5.0 EXTERIOR BODY	
5.1	REAR WHEEL WELL TRIM The rear wheel wells shall be trimmed with Stainless Steel fenderettes that shall be attached the body with stainless steel fasteners. There shall be a gasket placed between the aluminum body and the stainless steel fenderette for isolation of the dissimilar metals.	
	COMPLY?	
5.2	RUB RAILS There shall be bolt on clear anodized extrusion rub rails with a wall thickness of (.187). They shall run the full length of the body and be mounted at the base of each side of each side of t body. The rub rails shall be spaced ¹ / ₄ inch from the body with Delrin spacers.	
	COMPLY?	
5.3	BUMPER, REAR STEP The rear step assembly shall be constructed of 1 3/4" X 1 3/4" tubular steel frame bolted to t chassis frame. The center section shall be non-skid grip strut that will allow mud and snow t fall through the step. The ends shall be constructed of diamond plate end caps with 18" X 4" X 4" heavy-duty rubber dock bumpers.	
	COMPLY?	~ ~

5.4 DOORSTEP, SIDE

The side doorstep shall be formed of aluminum diamond tread and shall be flush sweep out style. Antiskid tape, 2-inch-wide, is to be laid the full width of the step just inside the entry door. Additionally, there shall be a formed 3-inch, full width stainless steel floor protection strip installed over the flooring at the top of the step. An LED step well light is to be installed on the forward vertical wall of the step well with the wiring to be pulled through the backside of the step well. The lower side of the step well shall be covered with Hush Mat to reduce road noise.

5.5 STONE SHIELDS

Diamond plate stone shields shall be installed on the front edge of the module body directly behind the cab at skirt level. These shields shall extend up the front of the box approximately 16 inches.

5.6 EXTERIOR COMPARTMENT CONFIGURATION

#1 OXYGEN / BACKBOARD COMPARTMENT

The left front (street side) exterior compartment shall contain a "Zico" hydraulic O2 Lift System (SKU: QR-OTSL-US) .

On the forward wall of the compartment there shall be a removable panel approximately 8" square in size located opposite of the shoreline plug. This panel, when removed, provides access to the shoreline plug when service or replacement is required.

Approximate compartment size to be 80" tall by 18" wide.

An O2 Regulator for an "M" tank shall be supplied.

#2 GENERAL STORAGE COMPARTMENT

This compartment shall be located street side between the #1 compartment and the left side drive wheels and is to be used for general storage. There is to be a double door on this compartment with the secondary door latch being located on the inside of the door. For ease of opening, the secondary door latch shall be equipped with a stainless-steel handle extension that is visible and readily accessible from the outside of the compartment.

There shall be a full width, full depth aluminum "pan" style storage shelf installed in the compartment. The shelf is to be mounted on two (2) sets of infinitely adjustable uni-strut tracks at each end of the shelf with rubber matting covering the topside of the shelf.

#4 TURNOUT GEAR AND MISC EQUIPMENT

The left rear street side exterior compartment shall be for the storage of turnout gear and other equipment. Compartment to be approximately 32" wide by 60" tall with an adjustable shelf 12" from the top and shall include two coat hooks.

#5 CURBSIDE BACKBOARD COMPARTMENT

The right rear curb side exterior compartment shall be a single door full height vertical compartment for the purpose of storing a minimum of two (2) backboards, and miscellaneous other related equipment. The compartment is to be made as deep as possible and divided equally with an aluminum divider. There shall be an adjustable shelf located on the forward side of the divider approximately 5' above the floor. This compartment to have Tecniq E-41 LED strip lighting.

#6 GENERAL STORAGE COMPARTMENT

This compartment is to be located on the curbside forward of the #5 compartment and rearward of the right-side rear wheels. This compartment is to provide exterior storage for miscellaneous equipment under the rear portion of the squad bench. Approximate dimensions to be 20" wide by 21" high.

#7 ALS IN/OUT ACCESS

There shall be a single door located at the right front (curbside) allowing for In/Out access to the TOP PORTION of the ALS interior cabinet. The Bottom portion of the ALS shall be inside access only. Approximate total compartment size to be 46" tall by 18" wide (see also "ALS" on the interior section).

BATTERY COMPARTMENT

There shall be a separate compartment to house the batteries on a slide-out tray

5.7 LIGHTING, DOT

The vehicle shall be equipped with halogen daytime running headlights and two amber park/turn lights on the front. The Module Body shall have at least 11 LED clearance lights with each light having four (4) LED's and grounded via a ground wire". Each top front corner shall have amber lights mounted on the front and side of each corner. There shall be three (3) red lights at the top rear center of the module. Each top rear corner shall have red lights mounted on the rear and side of each corner. There shall be three (3) amber lights mounted on the top front center of the module be three (3) amber lights mounted on the top front center of the module above the light bar.

The rear of the module box shall have two (2) Whelen 4" x 6" series amber LED arrow turn lights, two (2) Whelen 4" x 6" series red LED tail/brake lights, two (2) Whelen 4" x 6" series LED reverse lights. They will be mounted in chrome flanges on the modular body above the diamond plate in the above listed order top to bottom. Mounting of these lights shall be as far outboard on the rear of the module body as possible.

All lights shall be installed and located as per I.C.C. requirements.

5.7 HANDLE, EXTERIOR (CURBSIDE DOOR)

A handle shall be installed on the curbside exterior of the module. Bidder to specify the type and model of handle and location shall be TBD at time of pre-construction

6.0 BODY FINISH

6.1 PAINTING PROCEDURE

Color of cab and module shall be Ford Race Red, Code PQ, PPG #926415. (Acceptance of color sample after award).

An extensive 12-step painting process is to be followed and strictly adhered to as follows:

Prior to paint all doors, chrome trim, lights, handles, steps, and all other attached equipment shall be removed to assure the paint process covers the entire body. No Weather-stripping will be attached to the body during the paint process.

The entire outside of the body shall be sanded with a minimum of 180 grit sandpaper and cleaned and deburred of all rough edges. The entire body shall then be wiped clean with PPG DX436 wax and grease remover prior to painting.

The body shall then be coated with (1) coat of PPG Delfleet Evolution F3993 Epoxy Primer followed by (2) coats of PPG Delfleet Evolution F3975 Urethane Primer. Once the primer has been applied the entire unit shall be baked at 150 degrees for a minimum of 30 minutes. The primer shall then be sanded prior to the application of the topcoat.

Once the application of the primer has been completed, a topcoat consisting of (2) coats of PPG Delfleet Evolution FBC Color Coat is applied followed by (2) coats of PPG Delfleet Evolution F3921 Clear coat for a durable long-lasting high gloss finish. The entire unit shall then be baked a second time at 160 degrees for a minimum of (45) minutes.

The final step shall then be to apply Rubberized undercoating to the underside of the cab and the body in strict adherence to Ford QVM guidelines and the KKK-1822- F Specification just prior to delivery.

Warranty shall be a full 5-year / 100,000-mile NON-PRORATED Modular Paint Warranty.

7.0 PAYLOAD

7.1 PAYLOAD

There shall be a minimum of 3400 lbs. of usable payload. Weight determination shall be made with standard unit, full complement of fuel, fluids, and spare tire. Any optional equipment shall be deducted from payload.

8.0 MISCELLANEOUS EOUIPMENT

8.1 DECALS, NO SMOKING & OXYGEN EQUIPPED There shall be two NO SMOKING and two OXYGEN EQUIPPED signs, one each in the cab and one each in the patient compartment. COMPLY? YES NO 8.2 I.V. HOLDERS There shall be two recessed, swing-up dual I.V. bag holders mounted in patient compartment headliner. The holders shall be Cast Products # IV-2009 (KKK-1822-E Approved). 8.3 ANTENNA PRE-WIRE Four (4) pre-wire antenna coaxial cables shall be included, one (1) delivered to the drivers switch console and three (3) to service panel. There shall be a raceway provided to be able to run radio cable from the cab to the patient compartment. 8.4 WIRING SCHEMATIC There shall be a complete SPECIFIC wiring schematic showing all circuits, including optional equipment included in the owner's manual. COMPLY? YES NO 8.5 **RADIO PRE-WIRE** Two power and ground prewired for radios, one constant hot, one on with ignition, both to service panel. **RADIO SPEAKERS** 8.6 Two radio speakers shall be installed in the patient compartment, with volume control located in action area.

8.7	REAR VIEW AND PATIENT COMPARTMENT CAMERA A Brigade color rear view and interior (module) camera system (camera, screen, wiring) shall be installed.
	COMPLY?
8.8	TIMER AT REAR DOORS A check-out light timer shall be included at the rear doors.
	COMPLY?
8.9	SPARE TIRE A spare tire shall be shipped loose.
	COMPLY?
9.0	FIRE EXTINGUISHER, 5 LB A 5 lb fire extinguisher shall be provided with the ambulance.
	COMPLY?

9.0 WARRANTY

9.1 WARRANTY COVERAGE (See Warranty Certificate for Details) Three year / 36,000-mile Product Conversion Warranty Six-year / 72,000-mile Electrical System Warranty Five-year / 100,000-mile NON-PRORATED Modular Paint Warranty LIFETIME Modular Body Structure Warranty

There shall be no pro-rating allowed for any portion of the above listed warranties.

10.0 REQUIREMENTS OF THE MANUFACTURER

10.1 KKK-A-1822-F CERTIFICATION This unit shall meet all KKK-A-1822-F specifications and the manufacturer shall have current documentation of compliance with all KKK-A-1882-F standards and all subsequent changes.

10.2 CAAS GVS V2.0 CERTIFICATION This unit shall meet all CAAS GVS (Ground Vehicle Standards) V2.0 specifications and the manufacturer shall have current documentation of compliance with all CAAS GVS V2.0 standards.

10.3 FORD QVM PROGRAM This unit shall meet all Ford QVM Program requirements and the manufacturer shall be a current member in good standing of the Ford OVM Program. 10.4 AMD / NTEA MEMBERSHIP The manufacturer shall be a current member in good standing of the Ambulance Manufacturers Division (AMD) of the National Truck & Equipment Association (NTEA). The unit shall be built in compliance with all AMD "Standards". **REMOUNTING AND REFURBISHING** 10.5 The manufacturer must be capable of remounting and / or refurbishing used units. The facilities for such purpose shall be located at the manufacturer's primary location. The subcontracting of remounting and refurbishing is strictly prohibited. 10.6 FORD POOL ACCOUNT PROGRAM The manufacturer shall be a current member in good standing of the Ford Pool Account Program.

POSITIVELY NO EXCEPTIONS ALLOWED IN SECTION 10