



PURCHASING DEPARTMENT

COLE COUNTY COMMISSION

1736 Southridge Dr. | Jefferson City, MO 65109
Tel 573-634-9168 | Fax 573-634-5666
jprenger@colecouny.org

To: All Interested Parties
From: Jennifer Prenger, Cole County Purchasing Agent
Date: February 24, 2017
Re: Addendum One to Cole County Bid No. 2017-18: Type III Ambulance

The following information hereby becomes part of the above-referenced Request for Bid and shall be fully considered in the preparation of your response.

1. The ambulance specifications have been revised and are attached hereto, replacing the corresponding section within the original document. Respondents should note the following changes:
 - Section 3.12 has been deleted
 - Section 6.9 has been added
 - Section 3.8 has been edited

The bid receipt date and time HAVE NOT BEEN CHANGED; submissions will be received until Friday, March 17 at 9:00 a.m. The deadline for questions is Friday, March 10.

I/We have received Addendum Number One to Bid No. 2017-18 and have fully considered the information provided in preparing a response.

Name of Company

Agent and Title

Authorized Signature

TYPE III AMBULANCE SPECIFICATIONS

1.0 CHASSIS		Y/N
1.1	<u>VEHICLE AND WHEEL BASE.</u> 2017 Ford 450 Econoline cutaway chassis with dual rear wheels, 158-inch wheel base, 14,500 lb. GVWR, Ford Ambulance prep package 47A.	
1.2	<u>ENGINE.</u> Ford 6.8L V-10 Electronic Fuel Injected GAS engine	
1.3	<u>HIGH IDLE SWITCH.</u> The OEM High Idle switch shall be standard. When the vehicle is in park, engaging the switch shall electronically adjust the engine idle up to an OEM predetermined setting to maintain system voltage.	
1.4	<u>GAUGES AND METERS.</u> Speedometer, odometer, fuel gauge, temperature, oil pressure, digital voltmeter, engine hour meter.	
1.5	<u>SPRINGS AND AXLES.</u> Front axle, Twin I-beam, 5,000 pounds GAWR. Rear Axle, 9,600 pounds GAWR; Gas filled shock absorbers, front and rear.	
1.6	<u>STEERING.</u> Power steering with tilt wheel and cruise control.	
1.7	<u>BRAKES.</u> Front / Rear Disc with 4-wheel anti-lock, 4 wheel disc brake system.	
1.8	<u>TRANSMISSION.</u> Five-speed TorqShift automatic overdrive transmission with external oil cooler.	
1.9	<u>AXLE, REAR.</u> 3:73 gear ratio with limited slip.	
1.10	<u>FUELTANK.</u> Single, aft of rear axle, OEM 55 gallon capacity tank with a Cast Products fuel fill mounted on the street side. A stainless steel fuel filler guard shall be installed on the body just below the fuel fill door.	
1.11	<u>WHEELS AND TIRES.</u> Seven (7) LT 225/75R16D Steel Belted Radial tires, BSW all season tread. Stainless steel wheel inserts with valve stem extensions are to 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 770 CCA, one under hood and one mounted in a pull-out slide tray in a separate sealed compartment underneath the ALS compartment with access via a separate door; wired parallel in OEM configuration that complies with KKK-A-1822-F requirements. Batteries are to 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 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	<u>ALTERNATORS.</u> Dual OEM 145 amp alternators with internal regulators.	
1.14	<u>WINDOWS.</u> Tinted safety glass to be installed in all exterior windows. Ford OEM power operated windows.	
1.15	<u>WINDSHIELD WIPERS.</u> Variable speed electric, with washer and adjustable intermittent cycle.	

1.16	<u>SEATS, DRIVER'S COMPARTMENT.</u> Deluxe cloth OEM High Back Captains Chairs, with inboard fold-down armrests, seat belts and shoulder harnesses. There is to be a 9" recess behind the cab seats for tilting or reclining of the seats. The GM OEM cab seats must be the seats installed and shipped with the chassis by GM. The OEM seat pedestals shall be located in the mounting location as determined by GM. Any changing of the GM OEM Seats, mounting pedestals or location thereof is absolutely prohibited.	
1.17	<u>HEATER & AIRCONDITIONING, CHASSIS.</u> OEM heavy duty, high output.	
1.18	<u>ENGINE COOLING SYSTEM.</u> Heavy-duty liquid system using a 50/50 mix of permanent type antifreeze and water for protection to (-) 40 Fahrenheit.	
1.19	<u>MIRRORS, EXTERIOR.</u> Dual Deluxe Velvac mirrors shall be installed on the cab doors. Mirrors shall have foldaway arms. The upper flat mirror shall be heated and power operated. The lower convex mirror shall be manually adjusted.	
1.20	<u>RUNNING BOARDS AND MUD FLAPS.</u> 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. They shall include mud flaps to protect the chassis and module. Rubber mud flaps shall be installed behind the dual rear wheels.	
1.21	<u>RIM PACKAGE, CHASSIS.</u> Exterior upgrade package; full stainless steel wheel simulators, chrome bumpers and grill, aero style headlights with Daytime running lights. Color keyed door trim, color-keyed carpet and headliner, padded sun visors, courtesy dome lights, AM/FM/CD Stereo radio with clock. Two speakers with separate volume control shall be wired into this radio. Power door locks with remote keyless cab entry, cruise control, tilt steering wheel. Hella brand fog lights shall be installed above the front bumper.	
1.22	<u>MISCELLANEOUS CHASSIS ITEMS.</u> Dual pitch horn, reduced sound level exhaust, OEM standard undercoating, dual air bags.	
2.0 MODULE CONVERSION		Y/N
2.1	<u>DIMENSIONS, EXTERIOR.</u> 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>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	
2.3	<u>GENERAL CONSTRUCTION.</u> The entire body shall be a welded and SEAMLESS one-piece body. The entire perimeter and around all openings of the body shall be fully welded and ground smooth thus eliminating any joints or seams. The use of tongue and groove method of construction that requires the use of a seam sealer is not acceptable. This is to prevent the cracking of paint at these areas resulting in a buildup of road dirt and grime and the eventual development of corrosion along the tongue and groove seams.	
2.4	<u>GENERAL CONSTRUCTION.</u> The aluminum skin, the roof and side panels shall be permanently fastened to the framework using Lord 406/19 Acrylic Adhesive. Adhesive is applied to the sidewall skin to prevent warp age, oil canning and metal deflection associated with the welding of the sidewall skin to the structural framework. The use of double back adhesive tape is prohibited to eliminate the possibility of the adhesive tape failing to maintain a bond to the external skin.	

2.5	GENERAL CONSTRUCTION. 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.	
2.6	GENERAL CONSTRUCTION. All side panels and the roof panel shall be a single sheet of aluminum. Covering the sidewall, front, rear or 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.	
2.7	GENERAL CONSTRUCTION. The wall and roof support framework shall be .125" 6061-T6 extruded aluminum box beams and extrusions spaced on 12" centers or less. There shall be no frame members spaced at a distance in excess of 12". The roof support framework shall additionally include .125" 6061-T6 extruded 1" x 2" aluminum box beams running the full length of the roof. The frame and skin shall be fully welded with no rivets. The system shall include report writing capabilities that allow the user to analyze data and obtain user-defined printouts.	
2.8	GENERAL CONSTRUCTION. The exterior of the body will be finished smooth with 45-degree SEAMLESS beveled extruded corners presenting a modern and dynamic appearance. The outer wall thickness of the extruded corners shall be .250" to provide additional protection at all corners. The body shall be designed and built to provide impact and penetration resistance, with appropriate channel reinforcing to assure rigidity.	
2.9	GENERAL CONSTRUCTION. All parts of the body and attachments shall 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.	
2.10	GENERAL CONSTRUCTION. The body shall be a bolted and welded structure. Welding shall 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.	
2.11	GENERAL CONSTRUCTION. In the assembly of the body, areas where steel is in contact with aluminum, there shall be rubber isolator pads installed. This pad should provide corrosion and water resistance.	
2.12	GENERAL CONSTRUCTION. 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.	
2.13	GENERAL CONSTRUCTION. The body will then be fastened to the cab with 32 1/4"-20 x 1" stainless steel bolts. The body sub-structure shall be fastened to the chassis frame with eight (8) rubber mounting "pucks" and bolt assemblies designed for this purpose. Outriggers, 3 1/2" x 3 1/2" x 1/4" shall be bolted to the outboard side of the GM frame using 5/8" grade eight (8) bolts.	
2.14	ROOF. The roof surface shall be SEAMLESS and CROWNED and of ONE PIECE of .125" aluminum (3003-H14). The use of any type of sealer or caulking material is strictly forbidden. There shall be no lip or protrusion on the roof that could result in the entrapment of any water or moisture.	
2.15	ROOF. The perimeter of the roof shall be constructed of 45-degree SEAMLESS beveled extrusions that eliminate any lip or protrusion providing a smooth finish. The outer wall thickness of the roof perimeter extrusions shall be .250" to provide additional protection at all perimeter corners.	
2.16	ROOF. The roof under structure will be fabricated from extruded aluminum box beams (6061-T6). The under structure will be constructed by welding 1" x 2" x .125" box beams lengthwise and by welding 2" x 2" x .125" box beams, spaced on 12" centers or less, crossways forming a cross sectional grid roof support framework. The complete roof shall be treated with a sound-deadening barrier. The roof panel shall be fully perimeter welded and adhesive bonded to the roof under structure with Lord 406/19 Acrylic Adhesive. The use of skip or intermittent welding of the roof perimeter is unacceptable.	

2.17	<p><u>SIDE WALLS.</u> The body sidewall skin shall be constructed of .125" aluminum (3003 H14). The sidewall under structure will be fabricated by welding 2" x 2" x .125" extruded aluminum box beams vertically, spaced no further than on 12" centers. The vertical tubing will join and be welded to roof supports (2" x 2" x .125" extruded aluminum box beams) to form an interlocking grid between the sidewall and the ceiling. The complete sides will be treated with a sound-deadening barrier. The body sidewall skin shall be fully welded around the entire perimeter and all body openings and adhesive bonded to the sidewall frame work with Lord 406/19 Acrylic Adhesive.</p>	
2.18	<p><u>SIDE WALLS.</u> 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.</p>	
2.19	<p><u>FLOOR SUB-STRUCTURE.</u> 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.</p>	
2.20	<p><u>FLOOR SUB-STRUCTURE.</u> The floor structure shall consist of 2" x 2" x .250" primary box beams running the full length of the module body and 2" x 2" x .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.</p>	
2.21	<p><u>EXTERIOR COMPARTMENT CONSTRUCTION.</u> Compartments provided on the unit shall be constructed as follows: The compartment floor shall be fabricated of .125 diamond plate aluminum (3003-H14) and the ceiling and bulkheads of .100 diamond plate aluminum (3003-H14). All compartment floors shall be reinforced with two 1x2 aluminum bars on the underside of the floor. All exterior compartments shall be sweep out style to provide for ease of cleaning. Drain holes are not desirable. All exterior compartments shall 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 will be flush mounted with wiring routed through the body eliminating any exposed wiring.</p>	
2.22	<p><u>EXTERIOR COMPARTMENT CONSTRUCTION.</u> 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.</p>	
2.23	<p><u>DOORS.</u> The corner of each door frame shall be ¼" Cast Aluminum inserted & welded to horizontal & vertical extrusions. This Cast part shall ensure superior strength as well as uniform fit & finish.</p>	
2.24	<p><u>DOORS.</u> The door(s) of each compartment shall 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.</p>	
2.25	<p><u>DOORS.</u> All doors shall be constructed of .125 aluminum and 2 ½" thick.</p>	
2.26	<p><u>DOORS.</u> The inner panel on all exterior compartment and entry doors shall be fastened to the extruded door-frame and recessed into the door frame extrusion for a flush finish. Surface mounting of any interior door panels is not allowed. All fasteners used for the mounting of the interior panels are to have a rubber grommet affixed to the underside of the screw head to prevent the fastener screws from loosening and backing out of the extrusion. The interior door panels shall be readily removable for access to the interior of the door and the latching mechanism.</p>	
2.27	<p><u>DOORS.</u> All doors shall be reinforced and cross-braced inside for increased strength allowing for the mounting of equipment on the door.</p>	
2.28	<p><u>DOORS.</u> 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. Access ports shall also be provided for the lubrication of the slam latches located at the top and bottom of each entry door. All ports are to be covered with a friction type "plug-in" plastic cover that is readily removable.</p>	

2.29	<p>DOORS. The door latch assembly of each compartment shall be a Eberhard E GRABBER LATCH, 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 5/32 steel rods threaded on the turn buckle end.. 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.</p>	
2.30	<p>DOORS. 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.</p>	
2.31	<p>DOORS. 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 shall 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.</p>	
2.32	<p>DOORS. All compartment and entry doors shall have one-piece Stainless Steel doorsill protector protecting both surfaces of the body opening.</p>	
2.33	<p>DOORS. 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.</p>	
2.34	<p>DOORS. All compartment doors shall 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.</p>	
2.35	<p>DOORS. There shall be a "dampening" devise installed within each gas strut for the purpose of preventing the "shock" that can occur when a gas strut is fully extended.</p>	
2.36	<p>DOORS. Each compartment door shall be mounted with a continuous stainless steel hinge with a minimum pin diameter of (.250). Hinge Pin diameter of less than (.250) is unacceptable to ensure the long-term performance of the hinge in this extreme use application.</p>	
2.37	<p>DOORS. 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 insures that each compartment shall be dust and waterproof and that the striker pins and door latches shall remain dry and clean.</p>	
2.38	<p>DOORS. All exterior compartment and patient compartment entry doors shall be insulated with a single layer of R-14.5 reflectics insulation. Additionally, there shall be a single layer of 2" polystyrene insulation installed in each door</p>	
2.39	<p>DOORS. 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. Each rear door shall have an 18.5" x 17.5" fixed window. The side door shall have an 18.5" x 17.5" slide opening window with screen and window lock.</p> <p>Right side entry door opening: 68" H X 30" W Rear entry door opening (double door): 61" H X 50" W</p>	
2.40	<p>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.</p>	

3.0 ELECTRICAL SYSTEM		Y/N
3.1	ELECTRICAL SERVICE PANEL. All circuits shall be rated to carry at least 125% of its maximum load. Each circuit shall be protected by a manual reset circuit breaker. Circuit breakers and relays shall be mounted in plug-in, pull out sockets that are permanently mounted in a printed circuit board for durability, as well as weight and space savings. Relays should be a type that is readily accessible at any auto parts store. All circuit breakers shall be SEQUENTIAL SWITCHING interchangeable with standard ATC automotive fuses so that system can be quickly returned to service.	
3.2	ELECTRICAL SERVICE PANEL ACCESS. The electrical service panel shall be mounted behind the hinged action wall and shall be easily accessible by activating a single latch allowing the switch panel section to swing down.	
3.3	LOAD MANAGEMENT SYSTEM. The distribution panel shall include a solid-state programmable load management system designed to sense when the charging system is not keeping up with the electrical demand. When this situation exists, the load manager shall automatically shut down warning lights, one at a time in a programmed sequence until the electrical load is being sustained without discharge. This system only functions when the unit is in park.	
3.4	SEQUENTIAL SWITCHING. A solid state Sequential Switching System shall be installed that shall turn emergency lighting on/off in staggered 1/2-second intervals. This is done to eliminate subjecting the alternator to sudden load and unloading of electrical draw.	
3.5	ELECTRICAL WIRING. All the vehicle's electrical equipment shall be served by circuits separate and distinct from the chassis electrical system. All electrical wiring shall be run in grease, oil, heat and moisture resistant looming. Harnesses shall be fastened with vinyl-clad clamps and grouted at any area they contact a metal edge. Every load carrying wire shall be a minimum of 12-gauge, and shall be color-coded and heat embossed with its function every 6 inches. There shall be at least a 6-inch service loop of wire at the point of attachment to each component. All electrical connections shall be machine crimped; the use of Scotch-locks is strictly prohibited.	
3.6	12V DC OUTLETS. There shall be two (2) Cigar style 12V DC outlets, one located in the action area, and one in the right front bulkhead ALS compartment.	
3.7	110V AC SYSTEM. There shall be a weatherproof 110V - 125V male "twist lock" receptacle rated at 30 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 and an LED indicator light shall be installed directly over the receptacle. It shall be wired through one 15-amp circuit breaker. The circuit shall include seven(7) 110-volt interior receptacles, one located in the front action wall area, one in the rear action wall, one in upper rear and middle rear cabinets, one in the cabinet over the front action area, one at rear of squad bench and one in the ALS area. All outlets shall illuminate per KKK-A-1822-F. A Vanner Model #20-1050 wired to ignition. Shall be included as part of the 110V system.	
3.8	<p>LIGHTING, EMERGENCY. The unit shall be equipped with a Vanner #3860 flasher and the following warning lights:</p> <p>10) Whelen Series 9 x 7 RED/BLUE Linear LED lights as follows:</p> <ul style="list-style-type: none"> 4) Facing forward 2) Facing rearward 2) Facing right 2) Facing left <p>1) Whelen Series 9 x 7 CLEAR Linear LED light installed top center forward.</p> <p>1) Whelen Series 9 x 7 AMBER Linear LED light installed top center rearward.</p> <p>(2) Whelen Series 9 x 7 RED/AMBER Linear LED light installed facing rearward (at mid-height, lower red section wired to break)</p> <p>2) Whelen Series 7 x 3 RED Linear LED lights mounted on front fenders</p> <p>2) Whelen Series 500 LED's in grill (1 RED; 1 BLUE)</p> <p>2) Whelen Series 500 CLEAR LED's in grill (on separate switch)</p> <p>2) Whelen Series Roto Beams RED Linear LED lights over rear wheels</p> <p>All warning lights to have clear lenses. All warning lights shall have chrome flanges. Circuit shall have a dual mode switch. "Primary" shall flash all lights. "Secondary" shall flash top red & amber lights only.</p>	

3.9	SCENE LIGHTS. There shall be four (4) Whelen LED Series 9 x 7 with 13-degree tilt built into the lenses mounted two (2) lights on the left side and two (2) lights on the right side. There shall be two (2) Whelen LED 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.	
3.10	DOOR SWITCHING. Magnetic Door Switches shall be installed to activate Door Open, Compartment Open, Dome and Scene Lights via a PC Board.	
3.11	SIREN AND SPEAKERS. Siren shall be a Whelen 295 HFS2, with Wail, Yelp, Hi/Lo and Phaser sounds. Cast speakers shall be installed with the speaker driver being mounted behind the bumper. Siren speakers must be mounted in accordance with GM QVM. Buell Air horns shall be mounted through the front bumper. Horn shall operate from either of two switches in the driver console.	
3.13	LIGHTS, PATIENT COMPARTMENT. The ceiling headliner shall contain eight (8) Whelen LED High - Low intensity 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 shall be activated by opening of the side or rear entry doors.	
3.14	LIGHTS, PATIENT COMPARTMENT. There shall be two (2), 39 inch, fluorescent "Checkout" light fixtures installed in the headliner and switched independently via a single switch on each fixture or in common via a single on/off switch located in the action area. The "Checkout" lights shall be wired in such a manner to allow them to be operational when the master switch is in the on or off position. A timer switch shall also operate these lights and be mounted on the wall at the head of the squad bench. In addition, a 10" LED light shall be in the action area.	
3.15	CLOCK, PATIENT COMPARTMENT. A battery-powered ATOMIC clock with a sweep second hand shall be located above the rear patient entry doors and shall be visible from all seat locations.	
3.16	SUCTION - ON BOARD. An Impact Model 324 self-contained suction system shall be provided and mounted on the back wall above the action area counter top just forward of the CPR Seat.	
3.17	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.	
3.18	LOW VOLTAGE ALARM. A Low Voltage Alarm shall sound when voltage drops below 11.8 volts for more than 120 seconds.	
3.19	SWITCH CONSOLE, DRIVER'S. There shall be a one-piece molded console mounted on the OEM engine cover. The console shall be easily removable from the engine cover to allow access for servicing the engine. There shall be space provided for the installation of dual cup holders or radios below the switches and gauges. The switch panel shall be molded, aesthetically appealing, and incorporate modern switches and gauges as follows: Master Switch Load Manager/Sequencer Primary/Secondary Siren/Horn Left Scene Rear Scene Right Scene Rear Dome Lights Back up Alarm Disable Silent Intercom Lights Door Ajar Light Compartment Open Light Voltmeter, Digital	

3.20	<p>SWITCH CONSOLE, PATIENT COMPARTMENT. The following switches shall be in the rear control panel that shall be hinged for easy access to components. They shall be mounted in a single row at an angle facing the center of the cot and the squad bench:</p> <ul style="list-style-type: none"> Left Dome High/Low Right Dome High/Low Silent Intercom Switches Driver Buzzer Exhaust Fan Checkout Lights Thermostat Control for Heat/A.C. Heat/A.C. Fan Control, 3 speed 	
3.21	<p>SWITCH CONSOLE, PATIENT COMPARTMENT. All switches in front and rear panels shall be positive contact rocker type switches that are permanently marked by function, illuminate when activated and backlit for night visibility. Each switch must be independently replaceable to eliminate the need for replacement of the entire switch panel in the event of a single switch failure.</p>	
4.0 PATIENT COMPARTMENT		Y/N
4.1	<p>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 a sheet of 3/4" exterior grade plywood that is caulked and sealed</p>	
4.2	<p>FLOOR, PATIENT COMPARTMENT. The floor is then to be covered with a single piece of commercial-grade, 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</p>	
4.3	<p>FLOOR, PATIENT COMPARTMENT. 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</p>	
4.4	<p>CABINETS, INTERIOR. All interior cabinets shall be built using <u>3/4" cabinet grade, seven layer plywood</u>. The use of plywood of any lesser quality or thickness is strictly prohibited</p>	
4.5	<p>CABINETS, INTERIOR. All interior cabinets shall be constructed using wood screws. The use of staples or nails in the fastening of cabinet components is strictly prohibited</p>	
4.6	<p>CABINETS, INTERIOR. 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 flush-mount slam-type positive latching</p>	
4.7	<p>CABINETS, LEFT WALL. Cabinets shall be designed with a one-piece molded Fiberglass countertop for the attendant in the action area. A second action area shall be included at the rear of the CPR seat. Aluminum IV poles shall be provided at both action counters. Storage cabinets shall be located in the left rear, above the CPR seat, and above the action area. The cabinet above the front action area shall have the same angle front to back as the cabinet with the switch panel. The upper two cabinets shall have "speed load" door frames and one adjustable shelf. The middle rear cabinet shall have an adjustable shelf. The bottom rear will be half the width of the two above it due to rear monitor shelf</p>	
4.8	<p>CABINETS, LEFT WALL. 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 110V duplex outlet. The upper action wall area, shall be hinged for ease of access</p>	

4.9	BULKHEAD CABINETS. Cabinets shall be designed per drawings. 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	
4.10	BULKHEAD CABINETS. A horizontal cabinet shall be located above the walk-thru at ceiling level. This cabinet shall have a top hinged door with a Plexiglas insert. The right side shall have a locking drug box at ceiling level with an interior drug box that shall lock via a push button Simplex lock. Below this cabinet shall be the ALS cabinet with inside/outside access. It shall have two adjustable shelves, and two full-length doors with plexi glass inserts. 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. At the bottom of the cabinet there shall be a Dometic drawer refrigerator at floor level.	
4.11	BULKHEAD CABINETS. The bulkhead shall incorporate a walk-through partition from the front to the rear, and shall have a hinged pocket style door with Plexiglas window. The door shall be made of the same material as the bulkhead and shall have a positive locking mechanism	
4.12	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	
4.13	SQUAD BENCH. The squad bench base shall be constructed of .075" gauge stainless steel for strength and ruggedness. The lid shall be split into two sections. Each lid shall have a gas strut hold open device and paddle style latches. The interior shall be lined with white Wilsonart laminate. Cushions shall be vacuum-formed seamless. On the wall in back of the squad bench, shall be a 16 x 32 window. A sliding privacy panel with dry marker board surface shall also be provided.	
4.14	SEAT, EMT / ATTENDANT. An attendant seat shall be located at the head of the primary cot. It shall be a high back deluxe seamless vinyl captain's chair with built in child safety seat and mounted to a pedestal. Seat belt shall be included for attendant safety	
4.15	SEAT, CPR. A sidewall seat comprised of 3 molded cushions shall be mounted in the center of the left wall with lift up seat for storage below. A seat belt 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.	
4.16	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	
4.17	HEADLINER. The headliner shall be constructed of padded white vinyl in three sections, with the center section being removable to gain access to wiring.	
4.18	PANELING, INTERIOR. Exposed surfaces shall be mar, dent and scratch resistant. Walls shall be covered with high pressure Wilsonart laminate material.	
4.19	GRAB RAIL, OVERHEAD. Two full-length stainless steel handicap style 1 1/2" diameter grab rails shall be installed on patient compartment ceiling. Each rail shall be capable of supporting a minimum of 300 pounds. Both rails shall be treated with Agion Anti-Bacterial Coating.	
4.20	GRAB HANDLES, DOORS. All entry doors shall have a matching heavy duty stainless steel handicap style 1 1/2" "V" bar grab handle that shall be securely mounted slightly below the window. These Bars shall be treated with Agion Anti-Bacterial Coating.	
4.21	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 shall be installed over the edge of the rolled floor. This will eliminate the seam and possibility of fluid retention.	

4.22	<u>FERNO COT MOUNT.</u> A Ferno Inline 95 cot fastener shall be installed.	
4.23	<u>INSULATION.</u> The entire patient compartment, walls, floor and ceiling, shall be blanketed with two layers of reflectics insulation. Additionally, Styrofoam block shall be included between the reflectics insulation in the walls and ceiling. This will 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.	
4.24	<u>INSULATION.</u> All exterior compartment and patient compartment entry doors shall be insulated with a single layer of R-14.5 reflectics insulation. Additionally there shall be a single layer of 2" polystyrene insulation installed in each door.	
4.25	<u>CLIMATE CONTROL.</u> 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. Additionally, a 110v heater shall be installed at ceiling level at the rear of the squad bench. The application will provide a method to correct values for prior years.	
4.26	<u>SHARP'S CONTAINER.</u> A Sharp's container and separate trash container shall be mounted in the squad bench. They shall have flip up lids on the top side at the head of the bench. There shall be an access door in the step well of the side entry door.	
4.27	<u>OXYGEN OUTLETS.</u> Oxygen system shall be plumbed with conductive hose from the oxygen compartment to three (3) Allied, Ohio style oxygen outlets: one in the action area, one at the head of the squad bench and a third over the cot mounted in ceiling.	
4.28	<u>SAFETY NET.</u> A safety net shall be installed at the head of the squad bench. There shall be seven mounting points that secure the net into place. All of the mounting points shall be installed in a way so that the net is removable.	
5.0 EXTERIOR BODY		Y/N
5.1	<u>REAR WHEEL WELL TRIM.</u> The rear wheel wells shall be trimmed with Stainless Steel Fenderettes that shall be attached to 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.	
5.2	<u>RUB RAILS.</u> 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 the body. The rub rails shall be spaced ¼ inch from the body with Delrin spacers.	
5.3	<u>BUMPER, REAR STEP.</u> The rear step assembly shall be constructed of 1 3/4" X 1 3/4" tubular steel frame bolted to the chassis frame. The center section shall be non-skid grip strut that will allow mud and snow to 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.	
5.4	<u>DOOR STEP, SIDE.</u> 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	<u>STONE SHIELDS.</u> 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	<p><u>EXTERIOR COMPARTMENT CONFIGURATION, OXYGEN / BACKBOARD COMPARTMENT.</u> The left front (street side) exterior compartment shall contain a “Zico” nylon triple collar bracket to house one “M” size oxygen cylinder. The O2 tank is to be stored in the aft side of the compartment. There shall be an interior access door to allow the attendant to turn the oxygen tank valve on/off from the patient compartment. A separate O2 compartment light shall be provided for the purpose of viewing the tank O2 gauge and be switched on/off from the action panel. A wrench is to be provided for changing the tank regulator. This wrench is to be secured in the compartment with a cable and mounted to the compartment wall when not being used.</p> <p>This compartment shall have an aluminum divider located between the O2 tank and the backboard storage side of the compartment. A shelf is to be installed from the divider to the compartment aft wall above the O2 bottle.</p> <p>The forward side of the compartment is to provide storage for two (2) backboards and shall have rubber “nerf” strips, two (2) on the floor and two (2) on the back wall of the compartment, for the protection of the backboards. There shall be a seat belt style-retaining strap installed for the purpose of securing the backboards.</p> <p>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. 80 H x 18 W</p>	
5.7	<p><u>EXTERIOR COMPARTMENT CONFIGURATION, GENERAL STORAGE COMPARTMENT.</u> 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. 36 H x 46 W</p>	
5.8	<p><u>EXTERIOR COMPARTMENT CONFIGURATION, STREETSIDE REAR COMPARTMENT.</u> The left rear street side exterior compartment shall be for general storage and shall include an adjustable shelf duplicating the shelf described in #2 above. This compartment shall have a single door, 36 H x 37 W</p>	
5.9	<p><u>EXTERIOR COMPARTMENT CONFIGURATION, CURBSIDE BACKBOARD COMPARTMENT.</u> The right rear curb side exterior compartment shall be a single door full height vertical compartment for the purpose of storing backboards, and a stair chair. The compartment is to be divided equally with an aluminum divider. There shall be a shelf located on the forward side over the stair chair 48” above the floor. 80 H x 18 W</p>	
5.10	<p><u>EXTERIOR COMPARTMENT CONFIGURATION, GENERAL STORAGE COMPARTMENT.</u> This compartment is to be located on the curbside forward of the #4 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. 21 H x 20W</p>	
5.11	<p><u>EXTERIOR COMPARTMENT CONFIGURATION, ALS IN/OUT ACCESS.</u> There shall be a single full-length door located at the right front (curbside) allowing for In/Out access to the ALS interior cabinet. This door shall also provide access to the battery storage compartment located under the ALS cabinet. 46 H x 18 W</p>	
5.12	<p><u>LIGHTING, DOT.</u> 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 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 amber lights mounted on the top front center of the module above the light bar.</p> <p>The rear of the module box shall have two Whelen 4” x 6” series amber LED arrow turn lights, two Whelen 4” x 6” series red LED tail/brake lights, two Whelen 4” x 6” series reverse lights. They shall 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.</p>	

6.0 BODY FINISH		Y/N
6.1	<u>PAINTING PROCEDURE.</u> 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 shall be attached to the body during the paint process.	
6.2	<u>PAINTING PROCEDURE.</u> 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.	
6.3	<u>PAINTING PROCEDURE.</u> 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.	
6.4	<u>PAINTING PROCEDURE.</u> 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.	
6.5	<u>PAINTING PROCEDURE.</u> After the body paint procedure is completed a 10" PAINTED stripe shall be applied at midline forming a continuous band around the vehicle. This band is to be painted with (2) coats of PPG Delfleet Evolution FBC Color Coat followed by (2) coats of PPG Delfleet Evolution F3921 Clear Coat.	
6.6	<u>PAINTING PROCEDURE.</u> 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- E Specification just prior to delivery.	
6.7	<u>PAINTING PROCEDURE.</u> Warranty shall be a full 5-year / 100,000 mile NON-PRORATED Modular Paint Warranty.	
6.8	<u>DECALS, STAR-OF-LIFE.</u> There shall be DOT approved decals provided as follows: 2) 6" Star-of-Life 2) 12" Star-of-Life 2) 16" Star-of-Life 1) 36" Star-of-Life 1) 4" Mirror-Image "AMBULANCE" 3) 6" "AMBULANCE" Additionally: (2) Cole County EMS Logs (Exhibit 1) (1) Cole County EMS Lettering, each (Exhibit 2) Identifying lettering and logos will be the responsibility of the manufacturer and shall be adhered prior to delivery.	
6.9	<u>REFLECTIVE CHEVRONS.</u> There shall be blue/white alternating reflective chevrons over entire rear of box (not to cover rear windows).	
7.0 PAYLOAD		Y/N
7.1	<u>PAYLOAD.</u> There shall be a minimum of 3300 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 ADDITIONAL MISCELLANEOUS EQUIPMENT		Y/N
8.1	<u>DECALS, NO SMOKING & OXYGEN EQUIPPED.</u> There shall be two NO SMOKING and two OXYGEN EQUIPPED signs, one each in the cab and one each in the patient compartment.	
8.2	<u>I.V. HOLDERS.</u> There shall be two recessed, swing-up dual I.V. bag holders mounted in patient compartment headliner. The holders shall be Cast Products # IV-2008 (KKK-1822-E Approved). Additionally, three (3) "perko clips" for securing IV bags shall be provided.	
8.3	<u>ANTENNA PRE-WIRE.</u> Two pre-wire antenna coaxial cables delivered to the drivers switch console.	
8.4	<u>WIRING SCHEMATIC.</u> There shall be a complete SPECIFIC wiring schematic showing all circuits, including optional equipment included in the owner's manual.	
8.5	<u>CONSOLE.</u> A floor mounted console with 2 drink holders and 3 notebook slots shall be mounted to the floor between the driver and passenger seats.	
8.6	<u>CHAINS.</u> On-Spot automatic snow chains shall be installed on the chassis. Included shall be a separate switch for the compressor.	
8.7	<u>FIRE.</u> Two fire extinguishers shall be provided with the ambulance.	
8.8	<u>TOW HOOKS.</u> Rear recessed tow hooks shall be provided directly above the rear bumper.	
9.0 WARRANTY		Y/N
9.1	<u>WARRANTY.</u> 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 Structure Warranty	
10.0 REQUIREMENTS OF THE MANUFACTURER		Y/N
10.1	<u>KKK-A-1822-F CERTIFICATION.</u> 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.	
10.2	<u>AMD MEMBERSHIP.</u> 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."	
10.3	<u>REMOUNTING AND REFURBISHING.</u> 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.	