

Request for Quote

STATE OF RHODE ISLAND AND PROVIDENCE PLANTATIONS
 ONE CAPITOL HILL
 PROVIDENCE RI 02908

CREATION DATE : 30-MAR-12
 BID NUMBER: 7449605
 TITLE: 2012 VEHICLE PURCHASE AMBULANCE - URI

 BID CLOSING DATE AND TIME: 01-MAY-2012 10:00:00

BUYER: Mosca, Gary
 PHONE #: 401-574-8124

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 URI ACCOUNTS PAYABLE
 CARLOTTI ADMINISTRATION BLDG
 75 LOWER COLLEGE ROAD, SUITE 1
 KINGSTON, RI 02881
 US

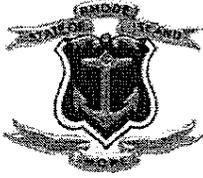
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 DOA-CS STATE FLEET
 ONE CAPITOL HILL, 2ND FLOOR
 SMITH ST
 PROVIDENCE, RI 02908
 US

Requisition Number: 1263190

Note to Bidders: Questions concerning this solicitation may be emailed to gary.mosca@purchasing.ri.gov no later than 4/13/12 @ 12:00 NOON (EST). Questions should be submitted in a Microsoft word attachment. Please reference the RFQ # on all correspondence. Questions received if any will be posted on the internet as an addendum to this solicitation. It is the responsibility of all interested parties to download this information.

Line	Description	Quantity	Unit	Unit Price	Total
1	<p>2012 Ambulance Line Note to Bidders: Trade In value Please note URI Health Services is unsure whether or not they will be trading in this vehicle for trade TRADE IN VALUE: _____</p> <p>PL Custom Medallion 100 on a 1999 Ford E-450 VIN: 1FDXE40F4XHB61535 PL CUSTOM BUILD: MVP 99-1491 BUILD DATE: 08/99 FORD WHITE WITH BLUE STRIPE</p> <p>Vehicle in fair condition for normal use</p> <p>Exterior: minor scratches on chassis, multiple dents on driver door, and scratches on module box corrosion /rusting under paint, modified grille with grille lights inserted into grille, (originally located on push bar) and siren speaker remounted under chassis Front left hubcap (custom piece) missing, dent in side module access door, right side compartment doors closing mechanism not working. rear wheel well diamond plating replaced with rubber.</p> <p>Interior: Upholstery tears, scratches Engine: Refurb transmission unit, new batteries extended idle times The trade) in on this ambulance vehicle will not be available until at least 60 days after receipt of the new ambulance vehicle (or later if proper registrations, certifications are not obtained in this time period for the new vehicle) as described in this bid.</p> <p>ALL BIDDERS ARE TO BE IN COMPLIANCE WITH RHODE ISLAND GENERAL LAW; CHAPTER 31-4 "TRANSFER OF VEHICLES" SECTION 31-4-11.</p>	1 00	Each		

It is the Vendor's responsibility to check and download any and all addenda from the RIVIP. This offer may not be considered unless a signed RIVIP generated Bidder Certification Cover Form is attached and the Unit Price column is completed. The signed Certification Cover Form must be attached to the front of the offer.



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Line	Description	Quantity	Unit	Unit Price	Total
	ALL BIDDERS MUST FILE OUT AND SUBMIT 45 PAGE SPECIFICATION SHEET (S) WITH BID				

Delivery: _____

Terms of Payment: _____

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Contract Terms and Conditions

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Terms and Conditions

BID STANDARD TERMS AND CONDITIONS

TERMS AND CONDITIONS FOR THIS BID

INSURANCE REQUIREMENTS

AN INSURANCE CERTIFICATE IN COMPLIANCE WITH PROVISIONS OF ITEM 31 (INSURANCE) OF THE GENERAL CONDITIONS OF PURCHASE IS REQUIRED FOR COMPREHENSIVE GENERAL LIABILITY, AUTOMOBILE LIABILITY, AND WORKERS' COMPENSATION AND MUST BE SUBMITTED BY THE SUCCESSFUL BIDDER(S) TO THE DIVISION OF PURCHASES PRIOR TO AWARD. THE INSURANCE CERTIFICATE MUST NAME THE STATE OF RHODE ISLAND AS CERTIFICATE HOLDER AND AS AN ADDITIONAL INSURED. FAILURE TO COMPLY WITH THESE PROVISIONS MAY RESULT IN REJECTION OF THE OFFEROR'S BID. ANNUAL RENEWAL CERTIFICATES MUST BE SUBMITTED TO THE AGENCY IDENTIFIED ON THE PURCHASE ORDER. FAILURE TO DO SO MAY BE GROUNDS FOR CANCELLATION OF CONTRACT

NOTE: IF THIS BID COVERS CONSTRUCTION, SCHOOL BUSING, HAZARDOUS WASTE, OR VESSEL OPERATION, APPLICABLE COVERAGES FROM THE FOLLOWING LIST MUST ALSO BE SUBMITTED TO THE DIVISION OF PURCHASES PRIOR TO AWARD: * PROFESSIONAL LIABILITY INSURANCE (AKA ERRORS & OMISSIONS) - \$1 MILLION OR 5% OF ESTIMATED PROJECT COST, WHICHEVER IS GREATER * BUILDER'S RISK INSURANCE - COVERAGE EQUAL TO FACE AMOUNT OF CONTRACT FOR CONSTRUCTION. * SCHOOL BUSING - AUTO LIABILITY COVERAGE IN THE AMOUNT OF \$5 MILLION * ENVIRONMENTAL IMPAIRMENT (AKA POLLUTION CONTROL) - \$1 MILLION OR 5% OF FACE AMOUNT OF CONTRACT, WHICHEVER IS GREATER * VESSEL OPERATION - (MARINE OR AIRCRAFT) - PROTECTION & INDEMNITY COVERAGE REQUIRED IN THE AMOUNT OF \$1 MILLION

DELIVERY PER AGENCY

DELIVERY OF GOODS OR SERVICES AS REQUESTED BY AGENCY

RIVIP INFO - BID SUBMISSION REQUIREMENTS

It is the Vendor's responsibility to check and download any and all addenda from the RIVIP. This offer may not be considered unless a signed RIVIP generated Bidder Certification Cover Form is attached and the Unit Price column is completed. The signed Certification Cover Form must be attached to the front of the offer. When delivering offers in person to One Capitol Hill, vendors are advised to allow at least one hour additional time for clearance through security checkpoints.

AWARD

THE STATE, AT ITS SOLE DISCRETION, SHALL RESERVE THE RIGHT TO MAKE ONE OR MULTIPLE AWARDS FOR THIS REQUIREMENT AND/OR TO REJECT ANY OR ALL BIDS

AUTO / VEHICLE PURCHASE ORDER

THE FOLLOWING ADDITIONAL TERMS AND CONDITIONS APPLY TO THIS PURCHASE ORDER: 1. ALL VEHICLES MUST BE DELIVERED WITHOUT DEALER'S NAME OR ADVERTISING OF ANY TYPE VISIBLE ON THE BODY. 2. EACH VEHICLE DELIVERED TO THE STATE MUST BE ACCOMPANIED BY A "CERTIFICATE OF ORIGIN" CONTAINING THE

MANUFACTURER'S VEHICLE IDENTIFICATION NUMBER (VIN), THE NUMBER OF ENGINE CYLINDERS AND ENGINE TYPE, A GENERAL DESCRIPTION OF THE BODY, AND THE MODEL NAME OR NUMBER. CERTIFICATE OF ORIGIN MUST BE ASSIGNED TO STATE OF RI/FLEET OPERATIONS, ONE CAPITOL HILL, PROVIDENCE, RI 02908 UNLESS THE VEHICLE IS BEING PURCHASED BY THE RHODE ISLAND STATE POLICE IF SO, CERTIFICATE OF ORIGIN MUST BE ASSIGNED TO RHODE ISLAND STATE POLICE, 311 DANIELSON PIKE, NORTH SCITUATE, RI 02857. 3. THE VENDOR MUST WARRANT FULL AND UNENCUMBERED TITLE TO THE VEHICLE(S) AS OF THE DATE OF DELIVERY TO THE STATE. 4. TITLE CERTIFICATES MUST BE PROVIDED AT THE TIME OF DELIVERY TO THE STATE

VENDOR SPECIFICATIONS

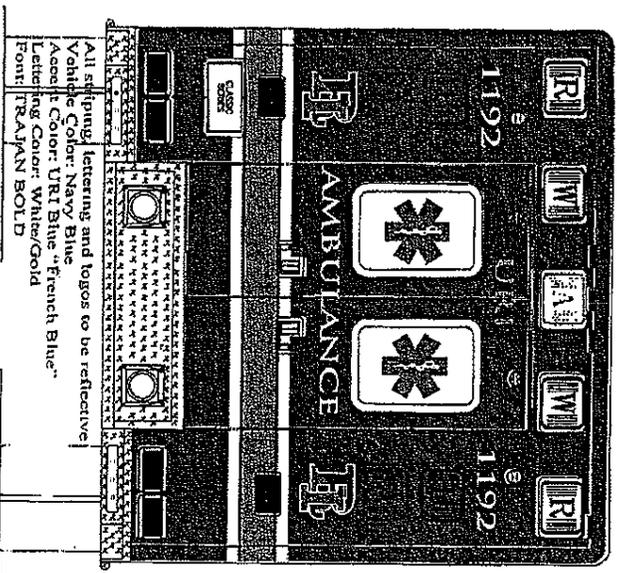
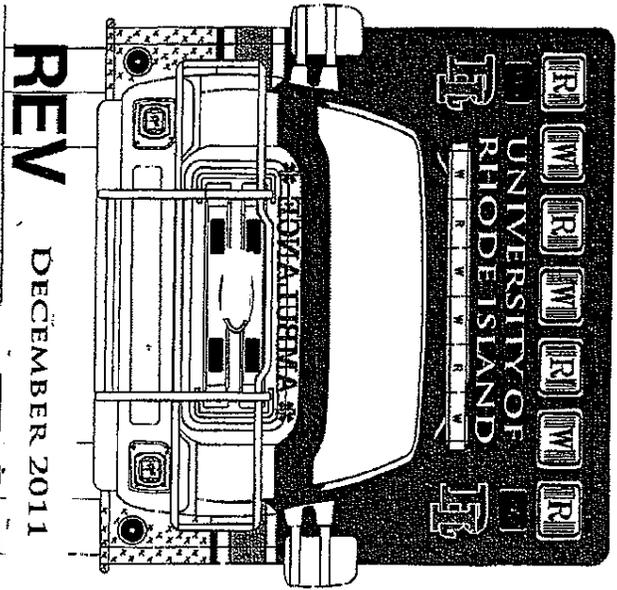
ALL VENDORS MUST INCLUDE SPECIFICATIONS WITH BID PROPOSAL (EVEN THOSE BIDDING BRAND SPECIFIED) FAILURE TO SUBMIT SPECIFICATIONS WITH BID PROPOSAL MAY RESULT IN DISQUALIFICATION OF BID ITEMS IN CATALOGS MUST BE CLEARLY MARKED AND PAGES TABBED



REV DECEMBER 2011

MISC NOTES:

- All striping, lettering and logos to be reflective
- Vehicle Color: Navy Blue
- Accent Color: URI Blue "French Blue"
- Lettering Color: White / Gold
- Font: TRAJAN BOLD
- Graphic Design to be repeated on opposite side



All striping lettering and logos to be reflective
 Vehicle Color: Navy Blue
 Accent Color: URI Blue "French Blue"
 Lettering Color: White/Gold
 Font: TRAJAN BOLD

State of Rhode Island Emergency Medical Services OVERVIEW TO SPECIFICATIONS

INTENT OF SPECIFICATIONS:

It is the intent of these specifications to cover the furnishing and delivery to the purchaser of a complete emergency vehicle equipped as hereinafter specified. With a view to obtaining the best results and the most acceptable ambulance for service in our setting, these specifications cover the general requirements as to the type of construction, together with certain details as to finish, equipment, and appliances with which the successful bidder must conform. Minor details of construction and materials where not otherwise specified are left to the discretion of the contractor, who shall be solely responsible for the design and construction of all features.

Bids will only be considered from companies which have an established reputation in the field of ambulance/rescue construction.

Each bidder shall furnish satisfactory evidence of his ability to construct the vehicle specified, and shall state the location of the factory where the vehicle is to be built. The bidder shall also show that they are in a position to render prompt service, and to furnish replacement parts for said ambulance.

CONTRACTOR'S SPECIFICATIONS:

Each bid shall be accompanied by a set of "Contractor's Specifications" consisting of a detailed description of the ambulance and equipment proposed and to which the ambulance furnished under contract must conform. These specifications shall indicate size, type, model, and make of all component parts and equipment.

LATE PROPOSALS

It is the bidder's responsibility to see that their proposals arrive on time. Late proposals, facsimiles, telegraphed, or telephone bids will not be considered.

The purchaser reserves the right to accept or reject any or all bids on such basis as the purchaser deems to be in its best interest.

SAFETY REQUIREMENTS:

It is expected that the Bidder will meet all State and Federal safety standards and laws that are in effect on the date of the bid for the item(s) that are being specified and the particular use for which they are meant.

ACQUAINTANCE WITH SPECIFICATIONS:

It is the responsibility of the bidder to review all of the bidding requirements. Failure of a bidder to be acquainted with this information shall not relieve him/her from any obligations of the bid requirements.

QUALITY AND WORKMANSHIP:

The design of the ambulance must embody the latest approved automotive engineering practices. Experimental designs and methods will not be acceptable.

The workmanship must be of the highest quality in its respective field. Special consideration will be given to the following points; accessibility of the various units which require periodic maintenance operations, ease of operation, and symmetrical proportions.

Construction must be rugged and ample safety factors must be provided to carry loads as specified.

LIABILITY:

The bidder, if his bid is accepted, shall defend any and all suits and assume all liability for the use of any patented process, device, or article forming a part of the ambulance or any equipment furnished under the contract.

WARRANTY:

A copy of the warranties for the electrical system, body module structure, and paint shall be furnished with each bidder's proposal.

EXCEPTION TO SPECIFICATIONS:

The following chassis and body specifications shall be strictly adhered to. Exceptions will be allowed if they are equal to or superior to that specified and provided they are listed and fully explained on a separate page entitled "EXCEPTIONS TO SPECIFICATIONS". Exception lists shall refer to the specification page number.

PROPOSALS TAKING TOTAL EXCEPTION TO THESE SPECIFICATIONS WILL BE IMMEDIATELY REJECTED

The buyer is aware that all bidders will have to take some exceptions to these specifications. Therefore, **BIDDERS THAT TAKE NO EXCEPTIONS WILL BE REQUIRED TO MEET EVERY PARAGRAPH TO THE FULLEST EXTENT, SHOULD THEIR BID BE ACCEPTED.** It is our intent to receive bids that do not require telephone calls or other communications to ascertain what a bidder is intending to supply.

Upon delivery, the ambulance will be inspected against THESE specifications and not those supplied by the bidder with their proposal. Deviations will not be acceptable unless they were noted as exceptions at the time of bid. The apparatus will be rejected until said deviations are corrected to the satisfaction of the buyer.

Decisions regarding "equal to" or "better than" will be the sole responsibility of URI EMS, rather than those companies submitting bids. If exceptions are not taken, but inconsistencies are noted in the submitted detailed specifications, the bid may be rejected.

PROPOSAL SEQUENCE:

Bid Proposals must be submitted in the same sequence as these specifications for ease of checking compliance to same.

SERVICE CENTER:

The dealership supplying the ambulance must maintain a full service, repair, and warranty center. The service center must be owned and operated by the dealership, which must be an established business entity. Third party service or repair services shall not be allowed. Furthermore, the dealership's service center and office must be located in a commercial business district; neither the office or service center may be located in a residential district. These requirements are set forth to assure that competent, 24-hour service can be provided without interruption. THERE SHALL BE NO EXCEPTIONS TO THIS PARAGRAPH.

IMPORTANT!

It is our intent to inspect each bidder's service center, personnel, and mobile service units. Service of this vehicle is of the utmost importance to the purchaser. It is completely unacceptable for any bidder not to have mobile service units, in house personnel, or a service center within 100 miles.

ALL BIDDERS SHALL PROVIDE PHOTOGRAPHIC DOCUMENTATION OF THE SERVICE CENTER, AS WELL AS THE MOBILE SERVICE TRUCKS

THERE SHALL BE NO EXCEPTIONS TO THE ABOVE LISTED SERVICE REQUIREMENTS

REFERENCE LIST:

All bidders shall supply a list of communities in which their ambulances are located. No bids shall be accepted from any contractor who cannot show they have manufactured at least 100 similar Type I units **(NO EXCEPTIONS)**

DRAWINGS:

Accurate drawings of the apparatus must be submitted with the bid. These drawings must be the same as the unit being proposed by the bidder. Similar drawings are not acceptable. If a bid is received without accurate drawings, it shall be rejected immediately without any consideration, regardless of the bid price. **(NO EXCEPTIONS)**

FACTORY TRIPS:

There shall be no less than two (2) factory inspection trips by URI EMS. A preconstruction phase inspection with the purpose of review the specs blue prints, as well as finalizing drawings etc. A second inspection would be conducted at the end of construction and pre-delivery of the vehicle to go over change orders, deficiencies, and go through the general "punch list" of items that need to be completed. This would also be the time when any URI EMS supplied equipment could be delivered to the vendor for installation. Vendor is responsible for all testing of every component of the vehicle to ensure all systems work as promised before the vehicle leaves the factory. University of Rhode Island EMS personnel reserves the right to inspect and test each and every component and all systems of vehicle before delivery.

DELIVERY:

Dealer's name or emblem are not to be placed on the vehicle. The dealer / vendor will be responsible to ship* the vehicle to the buyers desired location. The delivery destination will be, University of Rhode Island Automotive Garage 9 Rhody Way Kingston RI 02881. If using a GPS system the address will appear as 9 Garage Way verses 9 Rhody Way.

* Ambulance vehicle is to be delivered via truck. Ambulance is to be driven for delivery.

NEW DEALER LICENSE:

All bidders shall supply a copy of their DMV license to sell new vehicles for their State of incorporation. Used dealer, manufacturer, general repairer, or limited repairer licenses are not acceptable. URI EMS is buying a new vehicle and requires that any dealer selling the ambulance be a licensed and bonded "New Vehicle" dealer per State statues.

DEALER LICENSE NUMBER _____ STATE OF INCORPORATION _____

Signature of person attesting to the above statement _____

Printed or typed name of person signing this document _____

BUYER OPTION:

While it will not contribute to a major deciding factor in the selection of the bid, please provide a quote for the trade-in value of the ambulance specified below. The buyer retains the option (the right, but not the obligation) to trade in this vehicle.
Bidder to examine unit in person prior to bidding.

TRADE IN VALUE: _____
PL Custom Medallion 100 on a 1999 Ford E-450
VIN: 1FDXE40F4XHB61535
PL CUSTOM BUILD: MVP 99-1491

FORD WHITE WITH BLUE STRIPE

Vehicle in fair condition for normal use

- Exterior: minor scratches on chassis, multiple dents on driver door, and scratches on module box, corrosion /rusting under paint, modified grille with grille lights inserted into grille, (originally located on push bar) and siren speaker remounted under chassis Front left hubcap (custom piece) missing, dent in side module access door, right side compartment doors closing mechanism not working, rear wheel well diamond plating replaced with rubber
- Interior: Upholstery tears, scratches
- Engine: Refurb transmission unit, new batteries, extended idle times

The trade – in on this ambulance vehicle will not be available until at least 60 days after receipt of the new ambulance vehicle (or later, if proper registrations, certifications are not obtained in this time period for the new vehicle) as described in this bid

Quantity:	1		Vendor Indicate Compliance Yes/No
Department:	URI	Fuel Type:	Diesel
Division:	Health Services	Color:	Navy Blue
RI-FANS Requisition Number:		SR1263190	

STANDARD FEATURES	FOR VENDOR USE ONLY TO INDICATE COMPLIANCE	
	Yes/No	Specify Alternative (if responding no)
CHASSIS SPECIFICATIONS 2012 TYPE I, minimum requirements to include <ul style="list-style-type: none"> - Ambulance Prep Package - 6.7L V8 Turbo Diesel - GVW 16,500 - 6-speed automatic transmission - 4.10 limited slip rear axle - 84" Cab to Axle - Dual alternators with a minimum of 355 total amps 		
MODULE DIMENSIONS: Overall length – 156" Interior height – 72" Overall width – 99"		
COMPARTMENT LAYOUT Exterior compartment dimensions reflect wall to wall measurements COMPARTMENT "A" Left front, full height storage of "M" size oxygen cylinder in KKK certified bracket and mounting system, with compartment dimensions of 17w x 86h x 21d. OXYGEN BOTTLE MOUNT, "M" TANK: The vehicle shall be equipped with a mount for an "M" oxygen cylinder in the oxygen storage compartment. The mount shall be an approved Ziamatic oxygen bottle retention system or equivalent for an "M" size bottle. The mounting bracket shall be securely bolted to two Uni-Strut tracks welded to the vehicle framework. The entire mounting system shall be tested to the requirements of AMD-003; oxygen tank retention system. Test Documentation shall be provided upon request. OXYGEN CYLINDER WRENCH: An oxygen cylinder wrench shall be permanently attached to the wall of the oxygen compartment in a custom wrench holder. There shall be a permanent lanyard attachment to both the wrench and the compartment, designed to prevent loss of the wrench		
COMPARTMENT "B" Left side half high storage; in front of left rear wheel. Two (2) adjustable aluminum diamond plate shelves shall be mounted on Unistrut shelving standards, with compartment dimensions of 33w x 42h x 20d.		
COMPARTMENT "C" Left rear half high compartment; behind left rear wheels with the		

dimensions 33w x 39h x 20d, with two (2) adjustable aluminum diamond plate shelves shall be mounted on Unistrut shelving standards.		
COMPARTMENT "D" Right front inside / outside storage compartment, with dimensions of 17w x 55h x 20d. This compartment shall allow access to contents from the exterior or the interior of the vehicle above the vehicle floor level.		
COMPARTMENT "E" Right rear compartment; behind right rear wheels, with the dimensions 18w x 83h x 21d.		
COMPARTMENT "J" Right side skirt compartment behind right rear wheel with the dimensions 26w x 25h x 20d.		
<p>STEPWELL COMPARTMENT/ INTERMEDIATE STEP:</p> <p>Inside the side entrance door shall be a recessed stepwell compartment. The compartment shall extend into the body approximately 20 7/8" and be the full width of the side entrance door. An intermediate step shall be fabricated as part of the stepwell area. This intermediate step shall be a 8 1/2" step from the floor of the stepwell, and the actual floor of the ambulance shall be another 8 1/2" step.</p> <p>The vertical sides of the compartment shall be fabricated from .100 polished aluminum diamond plate. The floor shall include non-skid turtle tile, removable with a drain/sweep out plug for ease of cleaning. The intermediate step shall also be provided with the same non-skid turtle tile on the horizontal stepping surface. Aluminum diamond plate on the floor is unacceptable due to the slippery surface when wet.</p> <p>The sub-floor of the compartment shall be fabricated from 3/16" aluminum plate to provide a heavy duty walk surface which will not flex under foot. The upper edge where the stepwell meets the flooring material shall include non-slip polished aluminum threshold trim which is screwed in place. The intermediate step shall be constructed to allow service access to the air compressor compartment which is located behind the stepwell area and bolted to the frame of the chassis.</p>		
<p>OVERHEAD STORAGE ABOVE SQUAD BENCH WITH SLIDING DOORS:</p> <p>An overhead storage cabinet shall be provided and installed in the area above the squad bench. The cabinet shall have two (2) transparent sliding doors. The entire lower edge corner shall be padded to prevent sharp corners.</p>		
<p>SINGLE OXYGEN OUTLET RIGHT SIDE WALL:</p> <p>One (1) single Air Liquide, or equivalent, oxygen outlet shall be provided on the right side of the ambulance in the right side wall above the squad backrest, below the overhead cabinet. The outlet shall be built in flush and not protrude more than 1" beyond the wall.</p>		
<p>EXTERIOR MODULAR BODY EXTERIOR, ALUMINUM BODY CONSTRUCTION</p>		
<p>FRAMES:</p> <p>The module body shall consist of an electric welded, unitized aluminum roll cage structure throughout. The framework shall consist of six individual frames that are constructed in such a manner to insure squareness and flatness before being assembled into</p>		

a box configuration.		
<p>MATERIAL: All material used on any frame member, corner and upper cove shall be high strength aluminum alloy. This alloy shall be 6061-T6. The use of lesser materials such as 5052 or 6063 is not allowed due to its lesser mechanical properties. The ultimate strength of 6061-T6 is approximately 25% greater than 5052 and 6063 alloy. Material certifications showing 6061-T6 alloy shall be provided upon request to verify the use of this material for all frame members.</p>		
<p>WELDING: All welding done on any part of the frame structure shall be done by welders tested in welding this alloy and type of structure. Welders testing certifications shall be provided upon request. All butt welds shall have 100% weld penetration using a filler wire approved for this alloy aluminum. All welding shall be done in accordance with American Welding Society (AWS), Structural Welding Code.</p>		
<p>FLOOR FRAME: The main floor structure shall consist of a primary load bearing support frame. This primary frame shall consist of 2"x3"x 125" square wall tubular aluminum. This primary frame is of critical importance to the structural integrity of the module. The use of channel sections or frame members less than 2" x 3" x 125" is not acceptable due to its moment of inertia and section modulus calculations are less than minimum acceptable. The secondary support frames of the floor frames shall consist of 2"x 2" x 125" (square) and 1 1/2" x 2" x 125" (rectangular) wall tubular aluminum. Areas between exterior compartments and sub-floor support members shall be a minimum of 2"x 2" x 125 (square).</p>		
<p>VERTICAL FRAMES:</p> <p>FRAMES, Left and Right Sides: The vertical left and right side frames shall consist of a heavy duty, custom aluminum extrusion members. The vertical corner and horizontal upper "Main Beam" shall consist of an extrusion with the minimum dimensions of 5 3/4 by 3 7/8 inches with a cross section across the web of 1875 inches. Built into the inside edge of the vertical and horizontal section shall be an area where the exterior door seal shall mate. This door jamb area shall be designed into, and be part of the main corner extrusion. Door jamb sections which are welded in place are unacceptable due to the possibility of the welds cracking which in turn leads to door and or exterior paint cracking and failure. The inside door jamb which is part of the structural member (not a welded section) shall have minimum dimensions of 1 inch wide by 1 1/4 inches deep and have minimum side vertical wall thicknesses of 1875 inches. This door seal and jam section shall be recessed behind the exterior surface of the body approximately 7/8 of an inch to allow for the door seal to be placed outboard of the door latches and provide for a full uninterrupted hollow core door seal mounted on every door. Each door of the vehicle shall seal on this integrated section of the extrusion. The outer exterior mounted finish trim shall be sealed to the body during fabrication. The sealant used shall be a high strength automotive product which can be painted. All parts which utilize sealant shall not be structural members but just trim sections. The FMVSS 206 rated door closure bolt shall be mounted directly to this structural member and not to a welded door jamb section. Door alignment shall be maintained by discrete alignment grooves extruded in the custom shape. This eliminates the need for excessive adjustment allowance which could become maintenance issues at some future time. The area of the structural member which is in contact with the roof box beams shall</p>		

<p>incorporate a 1/2 inch flange to carry the load of the roof structure and resulting static load when applied. This support flange is utilized to prevent the need for the roof and roof structure to be held in place by the welds only.</p> <p>The main support, structural members around the door openings shall incorporate a built in door seal and jam surface similar to the one found around the main corner extrusion, with all the strength and design features the same. Two distinctly different types of structural members shall be used for different types of door configurations. Doors which are placed in the modular body which are not adjacent to any other door shall utilize an extrusion with the overall dimensions of 3 inches wide by 2 inches deep. This extrusion shall form the two vertical and two horizontal door seal, and jam surfaces. Doors of this type which are placed on the forward most or rear most positions of the body, shall utilize the main corner extrusion with its built in door seal to act as one side of the structural door seal and jam surface. For the same reason a door which extends the full height of the modular body shall utilize the upper most main corner extrusion for the top horizontal door seal and jam surface. Door configurations which have two doors adjacent to one another shall utilize a structural body extrusion with minimum dimensions of 4 inches wide by 2 inches deep. Between each door shall be a minimum of a 2 inch structural wall and floor support. Under no circumstances shall two adjacent compartments not include this 2 inch structural member. Similar to previous door structural extrusions this member shall incorporate two built in door sealing surfaces without the need for welding additional parts as stated previously. The remaining structural members of the vertical side frames shall utilize 2 inch by 2 inch by .125 inch thick wall and 1 1/2 inch by 2 inch by .125 inch thick wall structural box beam members. All members of the side vertical frames shall be placed at a maximum of 12 inches on center. Closer spacing shall be utilized in areas of critical strength requirements. Along the floor line, shall be 2 inch by 2 inch by .1875 inch structural angle attached to the side frame, which then during assembly into a module shall be fully welded to the floor frame. These members shall act as the main attachment point for the side frames, where the vertical frames meet the floor frame, and at this point of attachment full welds shall be utilized.</p> <p>VERTICAL FRAMES, Front and Rear:</p> <p>The front and rear frames shall be fabricated utilizing the same main structural corner extrusion as the side vertical frame along the horizontal top edge. The remaining structural members of this frame shall utilize 2 inch by 2 inch and 2 inch by 1 1/2 inch by .125 inch structural box beam members. These structural members shall be placed on a minimum of 20 inches on center. A closer spacing shall be utilized in areas of critical strength. Rear facing door openings shall utilize custom aluminum extrusions in place of box beam members as required. The door openings shall be exactly as specified for the doors located on the vertical side frames as described previously.</p>		
<p>ROOF FRAME:</p> <p>The roof frame of the vehicle shall be fabricated from 2 inch by 1 1/2 inch by .125 inch box beam structural members. The transverse frame members shall be spaced a maximum of 12 inches on center.</p>		
<p>MODULE ASSEMBLY:</p> <p>The six frames as previously stated shall be assembled into a module, including the floor, front, rear, two sides and roof subframe before any of the exterior skin is applied. The structural frame work shall be a self-supporting body and not require the use of the exterior skin for structural integrity. The framed body, without the skin shall</p>		

<p>be capable of supporting the required static load of the vehicle per A.M.D. 001 specifications. The floor frame shall be welded to the two vertical side frames at the area of the floor, in front and behind the wheelbox area. This welding shall be 100% continuous in these areas. The full perimeter welding and center bonding of the exterior panels shall enhance the overall strength of the modular body.</p>		
<p>SIDE IMPACT PROTECTION BODY PROTECTION Per Federal Motor Vehicle Safety Standards, the vehicle shall be designed to protect the occupants or equipment from side impacts. This shall be accomplished by: (a) Two side impact rails with minimum dimensions of, 2 inch by 5 inch by 125 inch 6061-T6 aluminum alloy, structural box beam member located approximately 24 inches from the lower side rail; and approximately 18 inches from the upper side (b) full structural members which extend across the body in the transverse direction between the compartments.</p>		
<p>MODULAR BODY DOOR PROTECTION In addition to the vertical body sides, each door with a vertical height greater than 30 inches, on the left and right sides of the vehicle shall incorporate a 2 inch by 5 inch by 125 inch 6061-T6 aluminum alloy, structural box beam members. Each member shall be welded to the interior door extrusions. The structural members shall be placed approximately 24 inches from the lower side rail. There shall be no exceptions to side impact protection in modular body doors. EXTERIOR PANELS: The two sides, front and rear shall be covered with 125" thick 5052-H34 stretcher leveled aluminum alloy sheet. The center areas of the sheets shall be applied using "Very High Bond" structural bonding tape. Before any tape is applied to the structure, both the sheets and the structure shall be thoroughly cleaned with an approved solvent. In addition to the structural bonding tape the exterior skin shall be welded along the perimeter corners and along all door openings. This welding is only done in areas that will not show dimple on the finished body module. The side panels of the vehicle shall be single piece and not welded or fabricated. Additional welding shall be done at the lower rubrail area where the body exterior panels meet the lower structural support members. This welding is done to completely bond the exterior panel to the substructure in an area where weld dimples will not show on the finished vehicle.</p>		
<p>ROOF SHEET: The roof sheet shall be a one piece sheet of 125" 5052-H34 aluminum. There shall be no seams in the roof panel or any overlapping seams. The roof sheet shall be fully welded to the roof sub-frame from the inside. The outside perimeter of the roof sheet where it meets the upper cove shall be 100% welded prior to painting. This 100% welding eliminates the need for caulks or sealers and the possibilities of water leaks into the body.</p>		
<p>CORNER AND ROOF CORNER EXTRUSIONS: The exterior body corners and coves shall be an extruded aluminum section made of 6061-T6 aluminum. Both the corners and roof corner extrusions shall have a 1 5/8" radius hollow extrusion design with an inside flat mating surface. The exterior surface shall be designed to form a smooth transition at all corners of the body. The corners shall be designed in such a way as to provide an interlocking surface with the "Main Beam" extrusion. This surface contact shall provide a weld surface to attach the corners to the main beam. The process of attachment shall include threaded mechanical fasteners to pull the two surfaces tight prior to the welding. This provides a completely tight interface surface. To enhance the corner waterproof integrity a recessed sealant groove shall be incorporated into the</p>		

<p>exterior flanged surface which is in contact with the body and roof exterior panels. This groove allows the surfaces to be sealed to prevent water infiltration and pre-vent corrosion. The corners shall be designed so they are NOT a structural component of the body, but means to provide a smooth exterior transition and water tight surface.</p>		
<p>CORNER CASTINGS: The upper four corners of the module shall have a cast aluminum ball corner that matches the radius of the corner extrusions. This ball corner shall be completely 100% welded in place to pre-vent water leaks and finished to have a smooth transition at the corner.</p>		
<p>EQUIPMENT MOUNTING LOCATIONS & REINFORCEMENTS:</p> <p>Areas within the body that have equipment mounted or items bolted shall have additional structural members welded in place. The areas are as follows:</p> <ol style="list-style-type: none"> 1. A .250" thick 1 25" by 2.5" structural angle to mount squad bench and seat belt restraints shall be installed on the side interior walls, including left side attendant seat. The entire assembly shall be tested and certified to F.M.V.S.S 210. Documentation shall be provided upon request. 2. Cot mounts shall be mounted/bolted to structural members welded within the floor structure. Cot mounts shall be tested and meet A.M.D. Standard A.M.D-004. Documentation shall be provided upon request. 3. Rear facing attendant seat pedestal shall be mounted to a reinforced structural channel members between the frame members of the floor structure. The entire assembly shall be tested to and certified to F.M.V.S.S. 210. Documentation shall be provided upon request. 4. The oxygen bottle retention bracket shall be bolted to a reinforcing structure within the storage compartment. Under No Circumstances shall an oxygen bottle be secured to interior cabinets only, they must always be bolted to a structural member of the module body. The entire assembly shall be tested to A.M.D-003. 5. Reinforcing plates for ceiling dome lights shall be installed between the roof frame members. 6. Double laminated reinforcing plates shall be installed in the front body frame for added strength in the areas where the body is bolted to the cab, in addition to structural angles in the front frame above the cab roof. 		
<p>WHEEL WELL CONSTRUCTION: The rear wheel well housings shall be designed to OEM manufacturers recommended clearances. The inner well shall be formed to follow the contours of the wheel and be fabricated from 125 aluminum sheet, and extend down to the lower body skirt level. Tolerances shall include clearance for full tire chains. All wheel well housings shall be completely sealed and undercoated prior to mounting the body.</p>		
<p>LIFETIME STRUCTURAL WARRANTY Manufacturer will warranty to original purchaser that the new emergency vehicle body (exclusive of paint finish) is structurally sound and free from all structural defects of both material and workmanship, and further warrants that it will maintain such</p>		

<p>structural integrity for the life for the body. Warranty transferable subject to inspection by manufacturer. Bidder must include statement of warranty policy with bid.</p>		
<p>BODY MOUNTING RUBBER DONUTS, TYPE I: The modular body shall be mounted to the chassis in such a manner to facilitate easy removal for future remounting with other manufacturer's vehicle chassis having the cab to axle dimensions. Mounting devices shall be ten (10) high strength 5/8" bolts five (5) on each side. Such bolts shall secure the body to the frame via rubber isolation mounting donuts. The rubber donuts shall be mounted to the frame of the chassis utilizing steel outriggers. The outriggers shall be bolted to the frame rail of the chassis.</p>		
<p>DOOR CONSTRUCTION: All doors including personnel and compartment doors shall be constructed of a custom designed extrusion made of 6061-T6 aluminum alloy, used in combination with a "Bent Box Pan" exterior door panel. The bent exterior door panel shall be fabricated from 125" 5052-H34 aluminum alloy panels that have the exact properties and quality as the exterior side panels. Each door pan shall be manufactured with a 3/4" sharp inside corner bend to minimize outside bend radius. The custom extrusion shall be 45 degree miter cut and fit into the 3/4" recessed area of the pan. The extrusion shall be fully welded to the door pan along the entire perimeter in addition to 100% welding on the outside corners of the door pan. The door shall have an overall dimension of 2 1/2", with the primary door seal being mounted to the door at the 3/4" dimension of the door exterior pan. The door latching hardware shall be mounted inboard of the seal in all cases. The door shall have gussets welded from the inside and shall be reinforced in areas where windows are to be installed and for areas where heavy objects might be hung from them. The door extrusion shall be designed in such a way to provide two surface grooves which are used for proper alignment of the door hardware concealed within the door. The grooves shall be used for proper in-out placement of the hardware so that proper alignment is always maintained. All slots and cutouts required for the rotary latches shall be machined or stamped prior to the construction of the door. Door configurations requiring double doors, shall utilize a structural member attached to the adjoining edge of the second opening door. This structural member shall match the seal surface of the door jams on the balance of the door opening. This member shall be welded in place and be a permanent member of the door. Add-on or bolted double door dividers are unacceptable.</p>		
<p>DOOR SEALS: The door shall incorporate a continuous seal permanently attached around the entire perimeter of the door. Automotive latching hardware shall not interrupt the seal surface. The seal shall be a custom designed hollow core seal specifically designed for hinged doors. It shall be a "Dynamic" type seal with vent holes on the outside edge to allow for easier closing of door against seal. Flat open or closed cell solid rubber "Static" seals are not acceptable for hinged doors.</p>		
<p>DOOR HINGES: Each door shall be hung with stainless steel continuous hinges. The hinge shall have a 1/4" pin which is staked every six inches to prevent the pin from sliding. The hinges shall be held to the door and to the body using 1/4-20 stainless steel threaded machine fasteners every, 4" on both sides, use of rivets on hinges is not acceptable. All vehicle hinge bolts shall be installed with the use of a resin-type thread lock and seal material. All hinges installed on the body shall</p>		

<p>include a Dielectric barrier between the dissimilar stainless steel hinge surface and the painted aluminum body. Only dielectric tape specifically designed for this purpose is acceptable. The tape shall have a dielectric barrier of .0035" and have a dielectric strength of 10,000 volt.</p>		
<p>DOOR LATCH HARDWARE: Every door shall utilize an automotive type rotary slam latch. All doors used for personnel access shall utilize two latches; one located on the top of the door the other at the bottom. Single point hardware for this type or any other type of door hardware is unacceptable. The latches shall meet FMVSS 206 standard and shall not be modified in any way to jeopardize its integrity. Latch pins without heads intact shall be cause for immediate rejection of vehicle.</p> <p>All rotary slam latches shall be activated by adjustable steel rods. Cable activated rotary latches are unacceptable. All door hardware and rod assemblies shall be designed to minimize hardware rattle</p> <p>Compartments that require double opening doors shall incorporate (2) point latches on first closing door in addition to second closing door. The latches shall be activated by a handle in each compartment door on the exterior which matches the other exterior handles on the vehicle</p> <p>All door hardware, including rods and latches, shall be concealed within the inner door panel. Doors with any exposed latching hardware are unacceptable. All door systems, including latches, hinges and body/door components shall be tested and certified to meet AMD-002. Test documentation shall be provided upon request.</p>		
<p>ANODIZED ALUMINUM DRIP MOLDINGS: Anodized extruded aluminum drip moldings shall be provided above all exterior compartment and entrance doors. The moldings shall be attached without the use of unsightly screws and shall be easily replaceable if damaged. This molding shall direct excess water away from the compartment and entrance door opening.</p>		
<p>COMPARTMENT DOOR BUMPERS: Heavy duty screw on type rubber (Styrene butadiene rubber, SBR) bumpers shall be installed on all compartments that may come in contact with one another.</p>		
<p>DOOR SWEEP GASKET: All modular body entrance doors shall be equipped with a door sweep EPDM rubber gasket. The rubber shall be attached to the top of the door and prevent water from collecting on the top of the door extrusion and dropping on the operator when the door is opened. The gasket/sweep material shall be installed in such a way as to prevent being torn off and increase its sealing potential when hit with a stream of water.</p>		
<p>RESIN-TYPE LOCK AND SEAL FOR THREADED FASTENERS: All exterior door hinge bolts, inner door panels on both compartment and entrance door panel, and door latching bolts shall be installed with the use of a resin-type thread lock and seal material. Vehicles that are built without the use of a resin-type thread lock and seal material will be cause for rejection of the vehicle.</p>		
<p>POWER LOCKING ENTRANCE DOOR HANDLES: The right side and right and left rear entrance doors shall incorporate a Trimark 850 automotive style paddle handle, or equivalent. This handle shall activate an F M V S S. approved rotary style automotive door latch, two latches per door. Single point door latches for</p>		

<p>entrance doors are unacceptable. The exterior handle shall have a black housing and chrome release paddle. There shall be no mounting hardware exposed to the outside for security reasons. The inside handles on all entrance doors including the left rear door, shall be a matching automotive design, flush paddle release type designed specifically for use with this system. Door hardware shall incorporate a rod activated power door locking system. This system shall be used in at least 500 Ambulances in service. Prototype systems are unacceptable. All rods used for interior door release mechanisms shall incorporate anti-rattle devices to prevent door hardware noise. All entrance doors shall incorporate a power locking - unlocking feature. The control of the power door locks shall be from the power door lock switches located on the driver and passenger doors. All handles shall have a key activated override of power locking feature.</p>		
<p>INTERIOR ENTRANCE DOOR PANELS: The inside surface of the right side and rear entrance doors shall have three (3) sections. The upper shall be an aluminum panel covered with high pressure plastic laminates which matches the interior cabinets. The center area which covers the door hardware shall be a padded vinyl section and the lower panel shall be a single piece of polished aluminum diamond plate, to act as a wear surface. The panels shall be held in place with threaded mechanical fasteners and be removable for servicing of door hardware.</p>		
<p>REMOTE KEYLESS ENTRY: The power door lock switch located on the drivers' and passengers' side cab doors shall be wired to activate the power lock/unlock function of the ambulance body entrance doors (and compartment doors when power feature is specified). The switch shall be tied to the battery side of the master disconnect switch and function whenever depressed.</p> <p>In addition to the cab door control of the power door locks, a remote keyless entry system shall be installed. The system shall lock and unlock the cab and ambulance doors as specified above. The vehicle shall be delivered with four (4) remote keyless entry devices and programmed to operate with the vehicle. The remote device shall be capable of being attached to the key ring of the vehicle.</p>		
<p>VEHICLE KEYS The vehicle will be supplied with four (4) complete set of ignition, cabinet, and door keys.</p>		
<p>POWER DOOR LOCKS OVERRIDE SWITCH: A concealed emergency override switch shall be provided and located behind the front grille.</p>		
<p>POWER LOCKING COMPARTMENT DOOR HANDLES:</p> <p>All compartment doors shall incorporate Trimark 850 automotive style paddle handles, or equivalent. This handle shall activate an F.M.V S.S. approved rotary style automotive door latch. The exterior handle shall have a black housing and chrome release paddle. Mounting hardware shall not be exposed to the outside for security reasons. Door hardware shall incorporate a rod activated power door locking system. This system shall be used in at least 100 ambulances in service. Prototype systems are unacceptable. NO EXCEPTIONS</p> <p>All compartment doors shall incorporate a power locking - unlocking feature. The control of the power door locks shall be from the power door lock switches located on the driver and passenger doors. All handles shall have a key activated override of power locking feature.</p>		

These doors shall lock - unlock at the same time as the cab doors and entrance doors.		
COMPARTMENT POWER DOOR LOCK SWITCHES: The power door lock switch located on the drivers' and passengers' side cab doors shall be wired to activate the power lock/unlock function of the ambulance compartment doors. The switch shall be tied to the battery side of the master disconnect switch and function whenever depressed.		
GAS SPRING DOOR HOLDERS: All hinged compartment doors and right side entrance door shall incorporate a pneumatic gas spring door holder. The mounting bracket, piston end for the door side, shall be secured to the 1/4" gusset within the door. The door holder gas spring end shall be attached to compartment ceiling. The gas spring shall be installed with a 10 degree pitch downward to improve function and extend life of gas spring.		
"E" COMPARTMENT TO CHECK PAST 90 DEGREES The Gas spring door check on compartment "E" shall be set beyond the standard 90 degree, open default position to allow easier access into this compartment.		
"D" COMPARTMENT TO CHECK PAST 90 DEGREES The Gas spring door check on compartment "D" shall be set beyond the standard 90 degree, open default position to allow easier access into this compartment. This allows needed clearance for battery and pull-out tray slides (where applicable) and also allows for ease of moving larger equipment in and out of the right front in/out access.		
REAR ENTRANCE DOOR HOLDER, "GRABBER": The rear entrance doors shall incorporate a Cast Products, Grabber door holder device, or equivalent. This device shall hold the door at approximately 170 degrees. The door holders shall be securely bolted to the vehicle substructure of the body.		
EXTERIOR COMPARTMENT CONSTRUCTION: The exterior compartments shall be fabricated from fully enclosed aluminum sheets. The floor and ceiling material shall be fabricated from 125" aluminum sheets. Each compartment shall be its own independent unit with two sides, rear, top and bottom, and not share a common wall with an adjoining compartment. All vertical seams of the compartment shall be continuous one piece bend or 100% welded construction. Overlapping caulked vertical seams are unacceptable. Each compartment unit shall be welded to the inside of the structural door jamb. All compartments shall incorporate a flush sweep out design. No compartment floor lips or door gaskets shall come above or protrude into the compartment opening at all.		
STEPWELL COMPARTMENT: Inside the side entrance door shall be a recessed stepwell compartment. The compartment shall extend into the body approximately 12" and be the full width of the side entrance door. The vertical sides of the compartment shall be fabricated from 100 polished aluminum diamond plate. The floor shall include non-skid turtle tile, removable with a drain/sweep out plug for ease of cleaning. Aluminum diamond plate on the floor is unacceptable due to the slippery surface when wet. The sub-floor of the compartment shall be fabricated from 3/16" aluminum plate to provide a heavy duty walk surface which will not flex under foot. The upper edge where the stepwell meets the flooring material shall include non-slip polished aluminum threshold trim which is screwed in place.		

<p>EXTERIOR COMPARTMENT SHELVES: All shelves as specified in exterior compartments shall be fabricated from 125" formed aluminum diamond plate with a 1" flange bent up on both the front and rear of the shelf. The shelf shall be mounted to heavy duty UNISTRUT shelving standards to allow for full adjustment. The front edge of the shelf shall be finished with a Trim-Lock snap on vinyl edging.</p>		
<p>EXTERIOR COMPARTMENT FINISH: The rear and two side walls of the interior surface of the exterior compartments shall be fabricated from 100% welded, .080" polished aluminum diamond plate panels.</p>		
<p>COMPARTMENT DOOR PANELS: Interior door panels on compartment doors shall be made of .100" polished aluminum diamond plate held on with threaded fasteners that provide access for repairs or replacement of hardware.</p>		
<p>STAINLESS STEEL DOOR SILL PLATES: Heavy duty stainless steel protection plates shall be installed on the lower edge of all entrance and compartment door openings. The plates shall be a formed polished stainless steel angle with dimensions of 1/2" x 1", by full width of the door opening. The angle plates shall be permanently mounted without the use of screws and be removable for replacement if necessary. All edges shall be filed and de-burred for a finished appearance.</p>		
<p>COMPARTMENT VENTING: The exterior compartments shall be vented to the exterior of the vehicle. The vents shall be located in the lower portion of the compartments. Vents are installed to allow air to escape and allow the compartment door to close with ease. The vents are added to an area above floor level to prevent road debris from entering the compartment. The vents shall be a total of 25 square inches.</p>		
<p>COMPARTMENT FLOOR MATTING: Dri-Dek, or equivalent material shall be installed on all floors of the exterior compartments. The matting will be interlocking 12"X12"X9/16" squares with a knobby perforated surface that is both flame and chemical resistant shall be installed on all floors of the exterior compartments. These squares shall be custom cut to fit around oxygen bottles and mounted equipment. The flush sweep-out floor edges shall include the tapered edges of these squares.</p>		
<p>RUBBER MATTING SHELVES: A 125" rubber mat material shall be installed on all shelves of the exterior compartments. The rubber matting material shall be custom cut to fit each compartment shelf.</p>		
<p>SIDE ENTRANCE DOOR STEPWELL: The floor of the stepwell compartment shall be lined with nonskid Turtle Tile mat, or equivalent nonskid suspended vinyl modular flooring mat. The mat shall be removable for ease of cleaning.</p>		
<p>FIXED SHELF: A fixed shelf shall be installed in exterior compartment "A" located as stated below. A 4" recessed light fixture shall be installed under the shelf. The compartment light shall be controlled by an automatic door post switch in the door. The compartment open indication light shall activate anytime any compartment door is opened. The door post switch shall activate the compartment lighting relays. The door post switch shall not carry the current of the compartment lights.</p>		
<p>SECURING DEVICES FOR EQUIPMENT BACKBOARD MOUNTS: The right rear full height compartment shall be provided with (3) black rubber friction mounts for securing three (3) backboards. The mount shall be fabricated from an "L" shaped (45"h x 16"d) 3" aluminum channel. The channel will be bolted to the interior</p>		

<p>compartment. The rubber friction mount shall be press fitted onto each side of the 3" channel, full length. Proper spacing shall be provided to allow for Long Boards with runners.</p>		
<p>MOUNTING HANGER FOR SCOOP STRETCHER: The left front full height compartment shall be provided with a rubber coated "Ferno EXL" Scoop hanger, or equivalent for hanging of a Ferno Washington #65 Scoop Stretcher or Ferno #65 EXL Scoop Stretcher which is provided by URI EMS</p>		
<p>FULL HEIGHT DIVIDER W/(2) ADJUSTABLE SHELVES: The compartment as listed below shall be equipped with a full height divider 12" off front wall, with one side for long equipment storage and two 10.25" adjustable shelves on the other side of the divider. The divider shall be fabricated from a 0 125" aluminum panel with flanges on top and bottom and back edge for better attachment to the compartment. Dividers will be finished off with a "Powder Coat" paint process. The shelves shall be mounted on four sections of aluminum Unistrut, and be fully adjustable.</p>		
<p>REAR STEP BUMPER: The bumper shall incorporate a design that allows it to be recessed under the rear of the body. Any rear bumper design that does not have a recessed design shall be unacceptable. The under body recessed bumper design allows the chassis frame to absorb minor impact without any damage to ambulance body. A full length reinforced rear bumper shall be installed on the rear of vehicle. The bumper shall be fabricated from 3" aluminum 6061-T6 structural channel and securely bolted to the vehicle frame using high strength, grade 8, 1/2" bolts. The bumper shall have contoured ends and be covered with polished aluminum diamond plate end caps. In addition, two full end gussets shall be provided to support the bumper ends in the event of minor impact. The gussets shall be fabricated from 3" x 2" x 1/4" structural aluminum tube 6061-T6. No exceptions to size of gussets.</p>		
<p>LIFT-UP REAR STEP; RECESSED STEP RISER: The rear step bumper shall incorporate a 44" long by 9 1/2" deep, lift-up center section made of extruded aluminum, "Diamond Back" safety grating. The step shall hinge on a full length stainless steel piano hinge. Note: When the step is in the load position the step shall be totally within the exterior of the body and shall not protrude beyond the door sill. The diamond plate riser shall incorporate two (2) 4" incandescent illumination lights in 15 degree bezels. The lights will activate when vehicle is in reverse or rear doors open.</p>		
<p>LICENSE PLATE HOLDER: A recessed polished aluminum license plate holder shall be installed in the left rear body panel of the ambulance. It shall include (2) recessed license plate lights activated with the running/headlights of the vehicle.</p>		
<p>DOCK BUMPERS: Two (2) Heavy duty black rubber dock bumpers shall be installed on the rear bumper ends, (1) each side. The bumpers shall be 2" high, 10" long and protrude 2" outward from rear bumper. The dock bumpers shall be bolted to the structural channel of the rear step bumper.</p>		
<p>ALUMINUM DIAMOND PLATE ACCESSORIES FRONT STONE GUARDS: High polished 100 aluminum diamond plate stone guards shall be installed on the front body corners. The guards shall be one piece &</p>		

<p>contoured to fit the 1 5/8" outside radius of the body The stone guards shall be removable for repair in event of damage. The edges of the diamond plate panels shall be sealed with a closed cell gasket around the perimeter, to prevent moisture from getting behind panels. All panels shall be removal if required.</p>		
<p>OFFSET DIAMOND PLATE RUB RAILS: Heavy duty polished aluminum diamond plate rub rails shall be installed on the lower body skirt panels under the door line The rub rails shall be fabricated from 19 thick (3/16"), aluminum bent in channel form The ends shall be capped with a polished cast aluminum shape that will blend with channel. The rub rails shall be attached to the body with 1.5" x 1.25" diameter, polyurethane spacers that hold the channel and end caps off the body. This design prevents debris from accumulating between the Rub Rails and the painted body. Designs that are not offset from the body are unacceptable due to their tendency to accumulate debris.</p>		
<p>TYPE I, FLARED RUNNING BOARDS: Polished aluminum NFPA Certified diamond plate custom built running boards shall be installed on both cab entrance step areas The running boards shall have a 2" bent outside flange for strength, and be bolted to the lower cab rocker panel. The running boards shall incorporate into the design an aluminum wheel splash guard on the forward edge, for protection from the front wheel splash. The running boards shall be tapered to match the exterior body width The rear full width tapered area shall be properly reinforced to withstand a 500 pound load without flexing Type I Running Boards without the use of rear reinforcement and commercially available type running boards are unacceptable.</p>		
<p>REAR DIAMOND PLATE PANEL & CORNER GUARDS: A polished aluminum diamond plate kick panel shall be installed above the rear step bumper and below the rear doors The panel shall fit flush on all sides and not appear to be an add-on part. The step riser panel shall be removable. Polished aluminum diamond plate panels shall be installed on the rear body corners Panels shall extend to the rear step riser, and protect the lower area of the body around the rear recessed bumper step. The panel height shall be approximately 4" in height.</p>		
<p>EXTERIOR TRIM REAR WHEEL FENDERETTES, RUBBER: Heavy Duty Rubber, fenderettes shall be installed around the rear wheel opening, sized to allow for proper tire clearance. The fenderettes shall be bolted on for easy removal. All hardware shall be concealed. Exposed mounting hardware is unacceptable.</p>		
<p>FUEL FILL HOUSING: A Polished Aluminum fuel fill housing shall be installed in the street side body panel The fuel fill shall be designed to match the O.E.M mounting procedures and shall not cause any undue stress on any of the fuel components. The fuel fill housing shall be completely sealed from the inside of the vehicle.</p>		
<p>EXHAUST VENT COWL: A left side mounted, polished aluminum type exhaust vent cowl shall be installed on the vehicle. The cowl shall allow air from the power exhaust vent to exit the interior of the vehicle The inside of the cowl vent shall have a rubber flap to prevent air from back feeding vent when not in use.</p>		
<p>ADDITIONAL EXTERIOR: BODY UNDERCOATING: The entire under side of the modular body, including all frame</p>		

members, compartment lower panels and aluminum sub floor, shall be undercoated. The undercoating shall be applied to insure proper and complete coverage. The undercoating shall be a high quality automotive type.		
<p>EXTERIOR BODY WINDOWS</p> <p>SLIDING SIDE DOOR WINDOW: An 18"W x 22"H window shall be installed in the side entrance door. It shall have sliding, 31% tinted automotive safety glass and be mounted within an aluminum black anodized frame. The window shall be completely sealed and held to the door via an inside clamp ring which matches the exterior of the window. The window shall incorporate a sliding removable screen.</p>		
<p>FIXED REAR DOOR WINDOWS: Two (2) 16"W x 22"H windows shall be installed in the rear entrance doors. They shall have fixed automotive 31% tinted safety glass and be mounted with an aluminum black anodized frame. The windows shall be completely sealed and held to the door via an inside clamp ring, which matches the exterior of the window.</p>		
<p>SQUAD BENCH BACKREST, CUSTOM: The backrest shall be modified to form a "U-Shape" wrap around the body side window to prevent the use of an under sized backrest cushion. The backrest shall match the squad bench cushion, and be mounted so that it can be easily removed.</p>		
<p>TINTED ENTRANCE DOOR WINDOWS: The side and entrance door windows shall be dark privacy tinted, by the addition of a MYLAR film or equivalent to the inside of the door windows. The installation shall be free of air bubbles and other defects.</p>		
<p>INTERIOR MODULAR BODY</p> <p>CABINET CONSTRUCTION: The interior cabinets of the vehicle shall be completely constructed of 3/4" and 1/2" premium grade, cabinet birch plywood. All cabinets shall be held together with glue, staples and threaded screw fasteners. Each cabinet shall include a reinforced attachment point where it is secured to the vehicle framework. All cabinets shall be attached directly to the vehicle framework and all mounting bolts shall be used, on a maximum of 16" centers for any cabinet. All cabinets shall be covered with "Formica"(or equivalent) type high pressure plastic laminate and trimmed with aluminum moldings for a finished appearance. Raw wood or unfinished edges of any kind including aluminum panels are unacceptable. When a full height right rear cabinet or a full height cabinet in the right front exists in the vehicle, it will have rounded corners of radius 1.5" on the inboard vertical edges. The rounded corner will be constructed from two extrusions made from 6061-T6 aluminum. The interior extrusion is designed to attach two perpendicular sheets of furniture grade laminated plywood. The exterior or visible extrusion will be satin anodized and designed to snap into the interior extrusion, so that it may be replaced if damaged. If the full height right rear cabinet or full height cabinet in the right front has specific components preventing the cabinet from incorporating the rounded corner design, it will have the edge of the cabinet finished with anodized aluminum three quarter round moldings.</p>		
<p>WALLS: All walls of the vehicle shall be fabricated using 1/4" plywood covered with color coordinated high pressure plastic laminates. All walls shall be held on using threaded fasteners and finished with anodized aluminum moldings in all corners and edges.</p>		

<p>ADJUSTABLE SHELVES: All adjustable shelves within the interior cabinets shall be mounted to Unistrut shelving standards. Each cabinet shall be equipped with four adjustable standards for each cabinet and have (4) retaining clips for each shelf. The shelf will have 2 securing screws attached to retaining clips. The shelf shall be the full width and depth of the cabinet, have a 1" lip on the front edge.</p>		
<p>HINGED DOORS: All hinged doors shall be equipped with hinges and a locking Soutcho, or equivalent positive latching device to prevent opening while in motion. All surfaces of the door including the edges shall be finished to match the interior of the vehicle cabinets.</p>		
<p>WIRE RACEWAY: A full length drop down wire raceway shall be installed down the center of the ceiling. It shall be finished with padded vinyl material to match the upholstery in the vehicle. Vehicles which utilize wire raceways above or behind interior cabinets are unacceptable.</p>		
<p>SOFFIT TRIM: A vinyl covered soffit trim piece shall be installed around the perimeter of the interior cabinets where they meet the ceiling. This trim shall be added to allow access to the cabinet mounting bolts and provide a finished transition between the ceiling and cabinet surfaces.</p>		
<p>INSULATION</p> <p>MODULAR BODY INSULATION: The entire inside surface of the modular body, including walls and ceiling, shall be insulated with a minimum of 2" thick "Thinsulate" or equivalent insulation. Areas behind heat generating light fixtures shall not be insulated. The insulation shall completely fill the voids between the frame members and the exterior skin.</p> <p>In addition to the modular body insulation the interior surfaces of the rear wheelwells and the exterior surface of the side entrance door stepwell shall be sound deadened with a composite acoustical sound deadening material. This material is specifically designed for the reduction of transmitted sound in single skin aluminum panels and shall not be substituted with other spray on products or undercoating type material.</p>		
<p>MODULAR BODY ENTRANCE DOOR INSULATION: All exterior entrance doors shall be sound deadened with a composite acoustical sound deadening material. The entire exterior skin surface of the interior door shall have this material bonded to it. The modular personnel entrance doors shall have an additional thermal insulation of 2" thick "Thinsulate" or equivalent insulation bonded in place, with clearance provided for door hardware.</p>		
<p>MODULAR BODY COMPARTMENT DOOR INSULATION: All exterior compartment doors shall be insulated and sound deadened with a slow-rise foam in place insulation and sound deadening material. The entire exterior skin surface of the interior of the door shall have this material bonded to it. The use of fiberglass or undercoating type material is unacceptable in an exterior door application.</p>		
<p>FLOOR: The floor shall consist of ¾" Expanded PVC Polymer material. This material shall have 0.16 lbs. per cu in density and be impervious to fluid intrusion. An aluminum sub-floor shall be installed between the floor material and the floor frame members. Floors constructed from plywood are unacceptable.</p>		
<p>FRONT BULKHEAD WALL</p>		

<p>FRONT WALL PASS THRU: Centered in the front wall of the modular body shall be a pass through opening. It shall have a hinged door with a sliding window mounted within it. The door shall have a recessed door pocket to maintain a clear opening and to prevent protrusion into the opening. The approximate opening size shall be 50" high by 18" wide. The door shall be held open by a gas spring door check, and held closed by a Southco "D" ring type, slam latch assembly, or equivalent. The use of elbow latches or slide bolts is unacceptable hardware for this application.</p>		
<p>CAB TO BODY WALK-THRU: A cab to body walk-thru entrance shall be installed in the front of the body and rear of cab. In the front of the body the module framework shall be positioned to allow for a minimum opening of 18" wide x 42" high. The openings shall have a full perimeter 5/8" flange on the body side with 3" radius in the corners. The rear of the cab shall be modified first by removing the rear glass and replacing with 125" panels and installing a full perimeter 2" x 1" x 14GA steel tubular frame door entrance. The rear of the cab shall be cut away and have the frame welded in place and completely sealed. The frame flange shall have a matching 5/8" flange to align with the opening in the body, and provide approximately a 1 3/4" gap between the cab and body for flexing. Attached to the flange shall be an Automotive Quality EPDM rubber bellows material with steel spring carrier attachment completely sealed at the seam. The seal shall be semi-permanent and removable if required at some future time. At the pass through floor shall be an aluminum threshold plate with a nonskid rubber mat attached. Only one side shall be attached to create a full floating threshold between the cab and body. The entire perimeter of both the cab and body opening shall be finished with anodized trim. A vinyl covered, padded head bumper shall be installed from both the cab side and the body side of the walk-thru opening.</p>		
<p>HEATER/AIR CONDITIONER CABINET: The Heater/Air Conditioner cabinet shall be provided in the upper most area, centered above the cab to body pass-thru. This cabinet shall be designed in such a way to allow for quick easy removal of Heater/Air Conditioner unit without the removal of any other equipment. The interior of the cabinet shall be designed to allow fresh air intake from the front of the exterior body and exit to a closable vent located under the cabinet platform. The vent allows fresh air from the exterior of the vehicle to shut off in the summer months for maximum air conditioning performance. The lower platform shall also allow adequate return air flow to the Heater/Air Conditioner unit. The air return shall have a minimum air opening in the cabinet for two 6" by 10" filtered return grills.</p>		
<p>ELECTRICAL DISTRIBUTION CABINET: The Electrical Distribution Cabinet shall be located on the front left wall of the body. The cabinet shall be approximately 12 1/4" deep x 17" wide and run from the floor to the underside platform of the heater/air conditioner cabinet. The cabinet shall have a single removable aluminum door secured with four threaded fasteners and include an opening on the side with a hinged access door. The size of the door will be approximately 12" wide by 24" high. The door will latch in the closed position by two flush mounted trigger latches, and be vinyl covered to blend in with the other components in the vehicle. All the main wiring harnesses shall terminate within this compartment. Cabinet shall be provided adequate compartment ventilation. The cabinet access door shall be covered in heavy duty</p>		

<p>vinyl to match interior upholstery.</p> <p>RIGHT FRONT INTERIOR CABINET (Upper Section) RIGHT FRONT INTERIOR STORAGE CABINET, UPPER:</p> <p>In the upper most portion of the right front bulkhead area shall be a cabinet with sliding transparent access doors. The cabinet shall extend from the top of the inside outside portion of the right front to the ceiling of the vehicle. Approximate dimensions 20" high by 28 7/8" wide by 18" deep.</p> <p>RIGHT FRONT INTERIOR CABINET (Lower Section) RIGHT FRONT LOWER, IN/OUT ACCESS STORAGE COMPARTMENT:</p> <p>The interior right front storage cabinet of the vehicle shall be designed to provide access from both the inside of the vehicle or through the exterior compartment door. The size of the compartment shall align with the exterior height and width of the exterior compartment door area above the floor level of the vehicle. The width of the compartment from the inside shall extend to the pass thru area to the cab. Approximate dimensions 39 3/4" high by 31 7/8" wide by 19" deep.</p>		
<p>RIGHT FRONT CABINET, ADJUSTABLE SHELVES:</p> <p>The right front inside/outside compartment shall be equipped with two (2) adjustable shelves. The shelves shall be fully adjustable within the inside area of the cabinet.</p>		
<p>RIGHT FRONT IN/OUT COMPARTMENT HINGED DOORS:</p> <p>The right front inside/outside access cabinet shall incorporate double hinged 1/2" tinted acrylic transparent doors. The doors shall have hinges that resist motion when moved to prevent doors from swinging freely when the vehicle is moving. The doors shall also incorporate (1) Southco Polished Stainless Steel positive type locking latch, or equivalent in each hinged door.</p>		
<p>RIGHT SIDE SQUAD BENCH</p> <p>SQUAD BENCH:</p> <p>A full length squad bench shall be provided on the right side wall. It shall have dimensions of approximately 74" long x 19" high x 20" deep. The squad bench shall be bolted to reinforced members of the framework utilizing 7/16" high strength bolts. The storage area of the squad bench shall be accessible by lifting the seat cushions. The bench shall have post and wheel cups, with upholstered padded 3" thick seat cushions. The seat cushions shall be approximately 18" wide x 72" long. The lower cushion shall be removable and easily cleaned or replaced if damaged. The cushions shall be held to the platform with #8 screw type mechanical fasteners, which is permanently attached to the underside of the cushion and platform surface of the squad bench. The cushion/lid shall be held open and closed by two (2) gas spring hold opens and hinged at the rear with full length piano hinges. The mounts for the gas spring shall be installed into reinforced areas within the seat lid platform.</p>		
<p>SEAT BELTS, SQUAD BENCH:</p> <p>Three (3) sets of lap seat belts shall be installed for persons seated on the squad bench. All seat belts shall have enclosed automatic locking retractors with push button releases. All seat belts and seat belt mounts shall be tested to F.M.V.S.S. 210 and Federal Specifications KKK-A-1822. Documentation shall be available upon request.</p>		
<p>SQUAD BENCH PATIENT RESTRAINTS:</p> <p>Three (3) matching seat belts shall be installed on the face of the squad bench which can be used for securing a second patient. The belts shall be securely attached to the structure of the ambulance and</p>		

be automatic adjusting.		
RIGHT SIDE WALL: A Right side wall shall be installed as a finished backing to the right side cabinets. The wall covering shall match the laminate color of the cabinets.		
SQUAD BENCH UNDER SEAT STORAGE AREA: The inside area of the squad bench shall be laminated with high pressure plastic laminates.		
"D" BOTTLE STORAGE AT STEPWELL: The stepwell of the vehicle shall be modified to extend under the squad bench. The recessed area shall provide a storage location for one "D" size oxygen cylinder and one Streamlight Vulcan Led or equivalent handlight		
BOTTLE BRACKETS: Ferno Washington Universal Oxygen Cylinder Brackets, Qty (2), Model #521, or equivalent shall be provided and installed. One will be installed in the recessed area at the head of the squad bench, and the other will be installed within Compartment "A".		
CARGO NET HEAD OF SQUAD BENCH: At the head of the squad bench there shall be a floor to ceiling (cargo style) net in place. The net will be secured to the bench seat, ceiling and the side wall. The net is to be adjustable and must be able to be disconnected in the event a patient needs to be removed from the side body entrance door. The net is designed to prevent seated personnel from sliding off the bench into the step well or front bulkhead cabinet area. The net is certified to sustain a 2000 lbs. load.		
SQUAD BENCH LID HOLD DOWN DEVICE: The lid of the squad bench shall be equipped with a slam type positive closure device. This closure device shall prevent opening of squad bench lid in the event of an accident. The release shall be a stainless steel slam type Trimark paddle handle, or equivalent, located on the outside surface of the squad bench, and incorporate a catch device on the underside of the lid.		
TIP-OUT SHARPS CONTAINER: A Tip-out Sharps Container shall be provided at the head of the squad bench base cabinet. It shall be custom built into the squad bench and provide a hinged tip out door to access a disposable 1qt. Sharps Container.		
LEFT SIDE WALL: A left side wall shall be installed as a finished backing to the left side cabinets. The wall covering shall match the laminate color of the cabinets.		
LEFT SIDE ATTENDANT SEAT: A left side attendant seat shall be built into the left wall cabinets. It shall incorporate a 24" wide x 20" deep seat area with a cushion which is 21" above the floor, a backrest, and a separate headrest. In order to prevent injury during vehicle motion both the forward and rear cabinets that are immediately adjacent to the left side attendant seat shall include full size padded head bumpers with a 1" thick padding. Designs which do not include this padding are unacceptable. All vertical surfaces to the front and rear of the seat cushion shall be fully padded and wrap around the top of the counter to provide a full armrest.		
HINGED BACKREST: The backrest portion of the left side attendant seat shall be hinged with a full length piano hinge at the bottom and when dropped form a continuous counter area that is on the same plane as the counter forward and rear of the seat and have a 1" lip that matches the other counter surfaces. The backrest shall be held in the closed position by		

a positive slam latch with a single pull type release.		
FIXED LEFT SIDE ATTENDANT SEAT CUSHION: The left side attendant seat cushion shall be permanently fixed to the base of the cabinet.		
SEAT BELT, LEFT SIDE ATTENDANT SEAT: One (1) Seat belt shall be installed at the left side attendant seat. The seat belt shall have enclosed automatic locking retractors with push button releases. The seat belt and seat belt mount shall be tested to F.M.V.S.S. 210 and Federal Specifications KKK-A-1822. Documentation shall be available upon request.		
LIFE SUPPORT STATION LIFE SUPPORT STATION/SWITCH PANEL: The rear Life Support control and switch panel shall be mounted to the underside of the upper cabinet. The oxygen outlets shall be mounted in the panel to provide use of a ball type flow meter with humidifier bottle attached. The entire panel shall be hinged to provide full access of components for servicing. An adequate area shall be provided alongside the switches for permanent built-in installation of two-way communications radio.		
SWITCH PANEL COVERING: The switch panel shall be covered with padded vinyl covering which matches the upholstery in the vehicle. The padding shall be 1/8" thick and glued in place prior to the installation of the custom made stitched vinyl cover.		
LIFE SUPPORT STATION STORAGE CABINET: A storage cabinet shall be provided at the head of the Life Support Switch Panel. The storage cabinet shall have a hinged transparent door with a Southco Polished Stainless Steel positive latch, or equivalent and one (1) adjustable shelf within the cabinet.		
LIFE SUPPORT STATION UPPER STORAGE CABINET WITH RESTOCKING LIFT-UP DOOR: A storage cabinet shall be provided above the Life Support Control Panel. The rear most edge shall have a 45 degree angled panel to eliminate any obstructive corners in the area of the Life Support Station working area. The rear surface shall be covered with a padded head bumper surface. The storage cabinet shall be provided with a full framed sliding transparent cabinet door which is also capable of lifting for full restocking access to the cabinet and one (1) adjustable shelf within the cabinet. The door shall be held open with two gas springs and held closed with two positive slam latches. The frame shall be made of a custom designed aluminum extrusion and held together with (4) #10 mechanical fasteners in each corner; glued or epoxied construction is unacceptable. The entire lower edge shall be padded to prevent sharp edges. COUNTER AREAS: All open counter areas within the Life Support Station shall have a 1" high x 1/2" wide lip (Matching cabinet laminate color), built into the lower cabinets. All edges shall be finished with anodized aluminum three quarter round trim for high wear areas and to eliminate sharp edges on any cabinets.		
COMBINATION TIP-OUT TRASH AND SHARPS BIN: A Combination Tip-out trash bin and Sharps container shall be provided under the LSS counter, forward of wheel well. It shall be custom built into the bench and provide a hinged tip-out door and flush Southco Polished Stainless Steel latch, or equivalent. A removable rectangular vanity wastebasket with a capacity of 8 quarts, and a disposable sharps 1 qt. container shall be supplied which is mounted to the door. Trash/Sharps bin shall tip into aisle,		

<p>toward the center of the vehicle. The trash/sharps bin shall be designed to include an aluminum door laminated to match the interior cabinets. The trash/sharps bin shall be a totally self-contained unit and be sealed on all sides to contain its contents during transit.</p>		
<p>LEFT REAR STORAGE CABINETS</p> <p>LEFT REAR INTERIOR CABINET UPPER WITH RESTOCKING LIFT-UP DOOR:</p> <p>A storage cabinet shall be provided in the upper left rear corner of the body. The cabinet shall have sliding transparent doors and one (1) adjustable shelf. The interior cabinet shall be provided with a full framed sliding transparent cabinet door which is also capable of lifting for full restocking access to the cabinet. The door shall be held open with two gas springs and held closed with two positive slam latches. The frame shall be made of a custom designed aluminum extrusion and held together with (4) #10 mechanical fasteners in each corner; glued or epoxied construction is unacceptable. The entire lower edge corner shall be padded to prevent sharp corners.</p>		
<p>LEFT REAR INTERIOR CABINET, LOWER:</p> <p>A storage cabinet shall be provided in the lower left rear corner of the body above counter level. The cabinet shall have two (2) 1/2" acrylic hinged transparent doors, each with a Southco, or equivalent, Polished Stainless Steel positive latching device and one (1) adjustable shelf.</p>		
<p>INTERIOR CABINET DOORS</p> <p>TINTED TRANSPARENT DOORS:</p> <p>All transparent doors where specified within this specification shall be tinted. All sliding doors shall be Lexan and shall be installed in double, anodized aluminum tracks with Standard Products, or equivalent rubber flocked inserts to prevent movement and inadvertent sliding. All hinged transparent doors will be provided as 1/2" acrylic and shall include stainless steel locking Southco, or equivalent positive closure latches.</p>		
<p>FULL LENGTH HANDLES ON TRANSPARENT DOORS:</p> <p>All sliding doors shall have anodized aluminum full length pull handles installed on the leading outside edge of the door. An anodized trim shall be installed on the edge of the following side of the door for a finished appearance. The use of finger holes or screw on cabinet handles is unacceptable.</p>		
<p>POSITIVE CLOSURE DEVICES ON HINGED DOORS:</p> <p>All hinged doors shall be equipped with a positive closure device such as a polished stainless steel Southco slam-latch, or equivalent. Magnet or roller type catches are unacceptable hardware for this application. The use of positive-latching types of hardware will prevent inadvertent opening when in motion.</p>		
<p>UNISTRUT SHELVING STANDARDS, INTERIOR CABINET SHELVES:</p> <p>The interior cabinets of the vehicle shall be provided with Unistrut shelving standards, or equivalent. The standards shall be aluminum with the approximate dimensions of 3/8" by 1" wide. The Unistrut shall be securely fastened to the interior of the cabinets with #10 threaded fasteners.</p>		

<p>INTERIOR ENTRANCE DOORS</p> <p>All entrance door panels shall be mounted with machine screw threaded fasteners which are installed with thread locking, resin-type thread lock and seal</p>		
<p>ABOVE DOOR HEAD BUMPERS</p> <p>SIDE ENTRANCE DOOR HEAD BUMPER:</p> <p>A cushioned, matching vinyl covered "bump protection" head bumper shall be mounted in the interior of the side entrance door area. It shall be designed to provide both onward and upward contact protection.</p>		
<p>REAR ENTRANCE DOOR HEAD BUMPER:</p> <p>A cushioned, matching vinyl covered "bump protection" head bumper shall be mounted in the interior above the Rear entrance doors. It shall be designed to provide both onward and upward contact protection.</p>		
<p>INTERIOR GRAB RAILS</p> <p>GRAB RAIL RETENTION:</p> <p>All ceiling grab rails installed in the ambulance shall meet the requirements of the A M D grab rail retention test. Test documentation shall be provided upon request.</p>		
<p>72" CEILING GRAB RAIL, OVER SQUAD BENCH:</p> <p>A satin finish stainless steel grab rail shall be installed in the ceiling over the squad bench. It shall be 72" long x 1 1/4" in diameter with welded stanchions every 24". It shall have fully radiused ends to eliminate a head injury hazard. The use of grab rails which do not have fully welded construction is unacceptable. The grab rail shall be bolted directly to the structure members of the ceiling framework.</p>		
<p>FULL LENGTH CEILING GRAB RAIL OVER COT:</p> <p>A 96" full length satin finish stainless steel grab rail shall be installed in the ceiling over the cot. It shall be full length x 1 1/4" in diameter with welded stanchions every 24". It shall have fully radiused ends to eliminate a head injury hazard. The use of grab rails which do not have fully welded construction is unacceptable. The grab rail shall be bolted directly to the structure members of the ceiling framework.</p>		
<p>18" STAINLESS STEEL GRAB HANDLES REAR DOORS:</p> <p>One (1) 18" satin finish stainless steel grab handle shall be installed at each rear entrance door. Each shall be fabricated from 1 1/4" diameter tube and have radiused ends, which match the over-head grab rail.</p>		
<p>SIDE ENTRANCE DOOR GRAB RAIL, 45 DEGREE:</p> <p>The side entrance door shall be equipped with a custom built 45 degree grab handle which extends from under the door window in the horizontal plane and then diagonally to the lower outside corner of the door. The grab rail shall be fabricated from satin finish stainless steel 1 1/4" diameter tube with fully welded construction. The grab handle shall be bolted directly to the structural members with the door with the use 1/4-20 threaded fasteners.</p>		
<p>REAR ENTRANCE DOOR GRAB RAILS, 45 DEGREE:</p> <p>The rear entrance doors shall be equipped with two custom built 45 degree grab handle which extends from under the door window in the horizontal plane and then diagonally to the lower outside corner of the door. The grab rails shall be fabricated from satin finish stainless steel 1 1/4" diameter tube with fully welded construction. The grab handles shall be bolted directly to the structural members with the door with the use 1/4-20 threaded fasteners.</p>		

<p>SEAT BELTS SEAT BELT, REAR FACING ATTENDANT SEAT: One (1) lap seat belt shall be installed at the rear facing attendant seat. The seat belt shall have enclosed automatic locking retractors with push button releases. The seat belt and seat belt mount shall be tested to F M V.S.S. 210 and Federal Specifications KKK-A-1822. Documentation shall be available upon request.</p>		
<p>COT MOUNTING COT MOUNT, (175-3): A Single position Ferno Washington Model #175-3, orequivalent removable cot mount shall be installed in the center position. The mount shall be aligned to hold a Ferno Washington cot and the mounting to the vehicle shall be certified to meet AMD standard 004 litter retention test Test documentation shall be provided upon request Mounting hardware installed to secure a Ferno Washington #35A cot as supplied by URI EMS</p>		
<p>PERMANENT MOUNTED IV HOLDER RECESSED DUAL IV HOLDER, OVER COT: One (1) "Recessed" dual IV holder shall be installed in the ceiling over cot. The holder shall be bolted to reinforcing plates located within the ceiling and include a Velcro strap for securing IV during transport.</p>		
<p>RECESSED DUAL IV HOLDER, OVER SQUAD BENCH: One (1) "Recessed" dual IV holder shall be installed in the ceiling over squad bench. The holder shall be bolted to reinforcing plates located within the ceiling and include a Velcro strap for securing IV during transport.</p>		
<p>INTERIOR SURFACE FINISHES AND COLORS CEILING PANEL: The ceiling panel of the ambulance shall be Kydex-I, or equivalent, high impact thermoplastic panel laminated to a 1/4" subpanel. The entire assembly shall be bolted directly to the ceiling structural framework. The panel shall be the fire retardant grade of Kydex-I, or equivalent. All components (including lights, IV holders, and grab rails) mounted to the ceiling shall be mounted to the structural frame work of the ceiling. Under no circumstances shall anything be mounted to the ceiling panel only The ceiling panel shall be attached to the vehicle framework without the use of visible hardware.</p>		
<p>INTERIOR COLORS: The interior color of the upper laminated cabinets shall be Fashion Grey with a high gloss finish The interior color of the lower laminated cabinets shall be Fashion Grey with a high gloss finish.</p>		
<p>INTERIOR UPHOLSTERY AND PADDED SURFACES HEAD BUMPERS: Vinyl padded head bumpers shall be installed in areas where head injury can occur. One (1) located at the rear door, one (1) at the side door and one (1) at the cab to body door Full padding shall be provided around the cabinets on the left side attendant seat area All head bumpers shall incorporate a 1" thick minimum padding under Heavy Duty matching upholstery.</p>		
<p>HEAVY DUTY UPHOLSTERY, SEAMLESS: All upholstery used in the vehicle shall be a High Quality Automotive Grade Vinyl Upholstery All upholstery shall be seamless flat upholstery utilizing minimal stitching on the outside</p>		

corners. All material shall meet the requirements of FMVSS 302 Upholstery Color: Brt. Blue		
REAR FACING ATTENDANT SEAT ATTENDANT SEAT, EVS WITH 3 POINT HARNESS, ABS BACK, SWIVEL, SEWN VINYL, BLUE: The ambulance shall be provided with an EVS brand, model 17703 rear facing swivel attendant seat. The seat shall include a three point harness, ABS seat back and be mounted on an EVS brand, model SB-8 swivel base. Seat shall have forward and back adjustment, and swivel to eight positions. All seats and seat installations shall be tested and certified to meet FMVSS standards. It shall be covered in sewn blue upholstery to match the other vinyl in the ambulance.		
INTERIOR FLOORING FINISH LONCOIN FLOORING: A Commercial Quality LONSEAL Mfg Loncoin II Flecks flooring, or equivalent shall be installed. It shall be applied over a prepared Polymer floor surface, with all seams filler patched, to eliminate holes or bubbles in the flooring surface. Color shall be sapphire - blue.		
ROLL-UP FLOORING 3": The flooring on both the left side wall and right side squad bench shall incorporate a three inch roll-up section of the vinyl flooring material. The flooring material shall be finished with an anodized aluminum trim. The trim shall be secured in place with mechanical fasteners and have a tapered top surface to prevent accumulation of dirt and foreign material. The underside shall be designed in such a way to prevent infiltration behind the trim. This is required to eliminate the possibility of foreign liquid material from becoming trapped behind the flooring where it cannot be disinfected.		
DRIVERS CAB CONSOLE CAB CONSOLE, TYPE I FLOOR MOUNTED: An individually designed custom Cab Console shall be provided and mounted to the floor of the cab. It shall be equipped with a quick hinged lid for access when servicing. The console shall follow the contours of the floor to minimize its protrusion and overall height. The console shall be covered with 1/8" padded black vinyl cover. All switches and controls shall be within easy reach of both the driver and passenger. The console shall be designed to allow room for permanent mounted flush two-way communication radios.		
INTERIOR MOUNTED EQUIPMENT "FASTEN SEAT BELT" AND "NO SMOKING" SIGNS: Two (2) large face "No Smoking" signs and one (1) "Fasten Seat Belt" sign shall be installed in the patient compartment of the ambulance.		
ENTRANCE DOOR REFLECTORS: Per the requirements of Federal Specifications KKK-A-1822 three (3) 3" diameter red reflectors shall be mounted to the inside outer corner of each entrance door. Two (2) rear doors, (1) side entrance door.		
OXYGEN AND ASPIRATION SYSTEMS OXYGEN SYSTEM: The Oxygen delivery system shall consist of a permanent mount DOT approved Medical Oxygen Cylinder. The oxygen line from the cylinder to the distribution outlets shall be oxygen cleaned, high pressure electrically conductive, "Green" hose with swagged fittings. All fittings and hardware used shall be Medical Oxygen Quality and cleaned for oxygen use. All oxygen hose shall be encased in high temperature protective		

<p>loom to avoid chafing and physical damage. Any and all fittings shall be completely accessible for service or inspection without the removal of any cabinets or wall panels. The entire system shall be installed, inspected, tested and labeled per the requirements of Federal Specifications KKK-A-1822. The oxygen storage cylinder shall be accessible through a transparent door for manual on/off control of the main valve and to visually monitor tank pressure on the regulator gauge.</p>		
<p>OXYGEN SYSTEM: The oxygen, vacuum and air systems in the vehicle shall be compatible with AIR LIQUIDE equipment provided by URI EMS</p>		
<p>DUAL OXYGEN OUTLET: One (1) Air Liquide or equivalent dual oxygen outlet shall be flush mounted within the Life Support Station panel. The distance from the primary patient to the Life Support Station shall not exceed 35" per the requirements of KKK-A-1822.</p>		
<p>CEILING MOUNTED OXYGEN OUTLET, REAR: An Air Liquide oxygen outlet, or equivalent shall be installed in the rear ceiling raceway 9" off the rear doors 6" off the rear head bumper. The outlet shall be near flush in the ducted climate control center wire raceway and not protrude more than 1/2" below the ceiling panel.</p>		
<p>OXYGEN SHUT OFF SOLENOID: An electric-powered, oxygen shut off solenoid shall be installed and mounted on the output of the oxygen bottle regulator. It shall be controlled by a switch located at the rear Life Support Panel. The solenoid shall be approved for medical oxygen use and be equipped with a manual override valve (in the event the electric solenoid may fail to open the valve). An electrical rectifier shall be installed in the circuit to prevent voltage spikes from entering the electrical system.</p>		
<p>ELECTRIC SUCTION/ASPIRATION SYSTEM: The vehicle shall be equipped with a permanently installed Suction/Aspiration System. The system shall be equipped with a high volume Thomas, or equivalent, electric suction pump certified for use in all states, with a 30 liter per minute flow rate. The pump shall be activated from a relay controlled circuit and switch, on the Life Support switch panel. The pump shall be mounted in an enclosed compartment using rubber isolators to minimize any noise and vibration when in use. The pump shall be connected to an onboard collection bottle permanently attached to the counter near the primary patient. The connecting hose shall be fiber reinforced medical hose and loomed to prevent chafing. The entire system shall be tested and meet the criteria of KKK-A-1822. Test Documentation shall be available upon request. As with the oxygen delivery system all fittings and lines shall be accessible for inspection and service without the removal of cabinets or walls.</p>		
<p>DISPOSABLE COLLECTION SYSTEM: On Board suction shall be provided with a SSCOR, or equivalent disposable system. System shall include SSCOR, or equivalent wall mounted white faced, regulator and disposable collection bottle mounted in stainless steel bracket mounted on wall per customer location.</p>		
<p>OXYGEN PRESSURE GAUGE, TANK PRESSURE: An oxygen pressure gauge; 2" analog dial for tank pressure shall be installed in the Life Support Station area of the vehicle. The gauge shall be full scale type for Medical oxygen use. It shall be connected to the main oxygen cylinder with a high pressure (3,000 PSI working</p>		

<p>pressure) Parflex, or equivalent flexible line with high pressure fittings. (Braided stainless steel is not acceptable) The actual location of the gauge shall be above the L/S/S, just below the clock</p>		
<p>LARGE TANK OXYGEN REGULATOR: One (1) Model #12-001540 (aka 1633-2), or equivalent, large tank oxygen bottle regulator shall be provided and installed.</p>		
<p>ELECTRICAL SYSTEMS</p> <p>LIFETIME ELECTRICAL SYSTEM WARRANTY Manufacturer will warranty to original purchaser that the supplied electrical equipment as listed below are sound and free of all defects of both materials and workmanship, for the life of the vehicle or 100,000 miles whichever occurs first This electrical equipment includes body door post switches, all wire terminals and crimps, main vehicle wiring harness and battery harness cables, relays, switches, automatic/manual reset circuit breakers, voltmeter, ammeter, battery disconnect switches, solenoids, all terminal strips, manufacturer installed electrical connections and power distribution panel Warranty transferable subject to inspection by manufacturer. Bidder must include statement of warranty policy with bid.</p>		
<p>ELECTRICAL 12 VOLT: The entire 12 volt Electrical System shall comply with the recommended standards and practices per FMVSS, Federal Specifications KKK-A-1822 & SAE where applicable.</p>		
<p>Electrical system provided by ambulance Manufacturer shall have Lifetime Electrical Warranty.</p> <p>The entire 12 volt DC Electrical System shall incorporate SXL Thermoplastic High Temperature Copper wire Each wire shall be color coded with function imprinted every four inches for immediate identification. All exposed wiring shall be covered with Packard Flec or equal, black with gray stripe, convoluted loom with minimum of 300 degree F Temperature rating. Loom with a lower temperature rating is cause for rejection. Large Heyco type or rubber insulators shall be used where wires pass through sheet metal or structural members All circuits shall be protected with circuit breakers suitable to the circuit demand. Any wire carrying a load to an appliance in the 12 volt Electrical System shall be 16 gauge wire minimum Electrical System shall consist of five main wiring harnesses which terminate at the Electrical Distribution Panel. Distribution Panel shall be centrally located with connections resulting through 45 pin Connectors. Harnesses shall include one (1) for left body, one (1) for right body, one (1) for Life Support Station, one (1) for cab switch console and one (1) for chassis.</p> <p>All Electrical components shall be mounted using a "plug in" type assembly which affords speedy replacement of failed components. The entire unit shall be housed in a readily accessible maintenance cabinet built into front wall of the personnel compartment. Attached to inside of door shall be complete documentation of 12 volt Electrical System. The use of exterior compartment mounted electrical distribution panel is unacceptable</p> <p>The main power distribution panel shall consist of a plug-in modular system which includes locations for 42 plug-in circuit breakers and 60 plug-in relays, as standard equipment This type of system is utilized to have standard circuit configuration while remaining totally flexible for custom circuits when</p>		

<p>required All circuits shall consist of plug-in relays and plug-in circuit breakers only The use of diodes, rectifiers, heat sinks, or other than automotive type relays is unacceptable.</p>		
<p>CIRCUIT BREAKERS: All circuit breakers 30 amp or less, shall be plug in manual and or auto-reset type. All circuits which require greater capacity shall utilize a Cooper Electric or equal 40 or 50 amp "MAXI-AMP" manual or auto-reset circuit breaker, dependent on electrical application.</p>		
<p>RELAYS: Devices being switched with loads in excess of one (1) amp (12 watt) shall be accomplished through Potter & Brumfield or equal, 40 amp SPDT 12 volt automotive relay switching devices. All relays used in the panel shall be of the same type to insure complete compatibility and ease of re-placement. Relays shall be controlled through a ground signal from all switches, including door post switches. All relays shall be plugged into the modular panel assembly including the 70 amp power relays where required. All relay circuits utilizing the SPDT relays and SPST 70 amp relay shall include internal suppression to eliminate voltage spikes in the electrical system.</p>		
<p>GROUNDING: All Modular Bodies shall be grounded to the vehicle chassis with two (2) 0 GA braided, tinned copper grounding straps Circular copper conductors (battery cables) shall not be used. These ground straps meet requirements of both KKK-1822-F and Bulletin Q-18. Each appliance (i.e lights, fans) shall be grounded to the body structure in close proximity to its location or by a ground harness as required The ground shall be equivalent to its feed wire size and be minimized in length Each ground attached directly to the vehicle structure shall use machine screws with star washers or ring terminals with serrated ring to insure a positive contact at all times. All Body harnesses shall be contained within the body Harnesses shall not run on the underside exterior of the body. Under hood harness shall be protected within high temperature convoluted loom All connections exposed to the elements or under hood shall be made within "waterproof" heat shrink connections This type of connection shall also be used on all heavy duty battery cables. All battery cables, both positive and ground shall be machine crimped and fully soldered prior to addition of waterproof heat shrink tubing Any exposed connections not in heat shrink and battery connections not soldered shall be rejected All Electrical Systems shall include three (3) spare relays and spares of the correct size circuit breakers utilized, shall be mounted within the Electrical Distribution Panel.</p>		
<p>12V - 110 VOLT CIRCUIT SCHEMATIC DOCUMENTATION: All harnesses, relays, circuit breaker terminal junction points and circuits shall be drawn on individual 8 1/2 x 11 size drawings Each individual circuit shall be on (1) drawing, for ease of troubleshooting. A single drawing overall schematic is unacceptable. All electrical systems shall be designed for each vehicle. Generic or</p>		

<p>similar drawings are cause for rejection of vehicle. All schematics shall include only what circuits are provided in the proposed vehicle.</p>		
<p>ELECTRICAL ANALYSIS: Proper balance of the electrical system output and vehicle draw is critical in the design of all emergency vehicles. Vehicle proposed shall be provided with a detailed electrical analysis generated by the manufacturer of the ambulance and specific to this proposed vehicle and specific electrical equipment requested. General statements will not be acceptable.</p>		
<p>DOOR POST SWITCHES ENTRANCE AND COMPARTMENT DOORS: Sealed door post switches shall be installed in all entrance and compartment doors. All switches shall be sealed from the elements to prevent moisture damage and to prolong service life. The switches shall be warranted for lifetime of vehicle. All door post switches shall activate the grounds of relays only. Under no circumstances shall the door post switch carry more than 140 milliamp of electrical current.</p>		
<p>IGNITION ACTIVATED, MODULE DISCONNECT: A high current disconnect device shall be installed per the requirements of KKK-A-1822 to power all ambulance vehicle conversion and modular body functions. The device shall be activated by the chassis ignition signal, and shall have a 5 minute off delay for module functions when the chassis ignition switch is turned off.</p>		
<p>VOLTMETER: A Transportation Safety Devices, or equivalent, 270 degree sweep analog type voltmeter shall be installed within easy view of driver. The voltmeter shall be circuit breaker protected. The use of digital voltmeters is unacceptable due to its difficulty to read at a glance. The voltmeter shall be tied to the battery side of the master disconnect switch to allow a constant reading on the voltmeter when the switch is off. The voltmeter shall be installed with an angled bezel for better viewing by driver.</p>		
<p>LOW VOLTAGE ALARM: A Low Voltage System with a dual indicator light green/red shall be installed in the driver's console. The Green indicates voltage system is above 11.8 volts. The Red shall indicate when system voltage drops below 11.8 volts for more than 2 minutes and vehicle needs to reduce load. At that time an audible alarm will sound. The alarm will be provided with a cancel switch to momentary silence the alarm. The red light will remain on both the switch legend and the indicator until the system returns to 12.8 volts or above.</p>		
<p>SWITCHES: All switches shall be 12 volt two (2) or (3) position heavy duty Carling Contura X, Full size, Euro-Look Rocker switches, with a black matte finish, or equivalent. Small rocker switches or push style switches are not acceptable substitution. Each switch shall have an integral pilot light which shall activate in the "On" position, including the Horn/Siren switch. The only switches that shall not have a pilot light are momentary switches, where they are not available. No switch shall carry more than one (1) Amp of power, (12 watts). For ease of service and supporting a lifetime electrical warranty, all switches shall have a plug in connector on the bottom of the switch contacts. All switches shall be mounted in a custom designed one piece panel.</p>		

<p>for each vehicle. The switch panel shall be backlit with Light Emitting Diode lighting behind the individual switch legends. The switch panels shall be finished in a black matte finish. All custom legends shall be made of matte black Lexan, or equivalent, inserts with translucent lettering to designate each function. When complete, the surface of the panel shall have a look of a homogeneous surface without the need for white legends which appear to be an add on feature. Due to the superior backlighting of the LED, no exception is allowed. All switch circuits shall be designed for the life of the vehicle.</p>		
<p>BATTERY "ON" INDICATOR: A Master battery "On" indicator shall be installed on the driver's console of vehicle. The indicator shall be a minimum of 1/2" in diameter and glow whenever the batteries are connected to the system.</p>		
<p>DOOR OPEN INDICATOR LIGHT: A Red indicator light shall be installed in the drivers switch console to indicate that an entrance door is ajar. The light will activate whenever the master battery disconnect switch is activated and an entrance door is opened. The indicator shall be a minimum of 1/2" in diameter. The door open indicator shall be relay controlled and the door post switches shall activate the relay.</p>		
<p>COMPARTMENT OPEN INDICATOR LIGHT: An Amber indicator light shall be installed in the drivers switch console to indicate that a compartment door is ajar. The light will activate whenever the master battery disconnect switch is activated and a compartment door is opened. The indicator shall be a minimum of 1/2" in diameter. The compartment open indicators shall be relay controlled and the door post switches shall activate the relay.</p>		
<p>AUDIBLE DOOR/COMPARTMENT OPEN ALARM: A high decibel, electronic beeper alarm shall be installed and activate, when a module entrance door or compartment door is opened. The alarm shall sound only when the vehicle is placed in drive or reverse and be independent of the door open/compartment open warning lights in the console. The warning lights shall activate anytime an entrance or compartment door is opened.</p>		
<p>PARKING BRAKE ALARM AND INDICATOR: The vehicle shall be equipped with a Dual-Mode alarm that will sound when the vehicles shift lever is in Neutral and the Parking Brake is not applied. Secondly the alarm will sound when the vehicle gear selector is in reverse or a forward drive gear and the Parking Brake is applied. The alarm shall include an indicator light in the drivers console and an audible alarm that will sound when the condition exists when the vehicle is in the run mode and when the emergency sequencer switch is on.</p>		
<p>BACK-UP ALARM WITH DISABLE SWITCH: An audible backup alarm shall be installed under the rear step area of the vehicle. The back-up alarm shall be activated any time the vehicle is shifted into reverse gear. A relay controlled momentary cancel switch shall be installed in the drivers console to disable the backup alarm when it may not be required. The circuitry shall be designed to allow the alarm to be reset automatically and function the very next time the vehicle is placed in reverse. On-Off type switch is not acceptable.</p>		

<p>LOAD MANAGER/ SEQUENCER: A combination Load Manager/Sequencer shall be installed in the driver's console. The Load Manager shall automatically shed load to maintain balance between alternator output and draw, by turning predetermined functions to the off position. The Load Manager shall include an override emergency bypass switch in the main electrical panel. The sequencer function turns the emergency lighting on, one at a time in a predetermined order, and turns them off in reverse order.</p>		
<p>RIGHT SIDE FLOOD LIGHT, CONTROL: The right side flood lights of the vehicle shall be controlled by two modes. The first mode of operation is the right side flood lights shall function from the relay controlled circuit and lighted switch located in the driver's console. The second mode, is the flood lights shall be activated when the right side entrance door is opened. All circuits shall be relay controlled. No load current shall pass through the door post switch.</p>		
<p>LEFT SIDE FLOOD LIGHT, CONTROL: The left side flood lights of the vehicle shall function by the relay controlled circuit activated by the left flood lighted switch in the driver's console.</p>		
<p>REAR FLOOD LIGHT SWITCH: The rear flood lights mounted on the rear of the vehicle shall be controlled "on/off" by a single pole lighted switch located in the driver's console. The rear flood light switch shall override both backup function and the flood lights "on" with the door open function and shall not be affected by those circuits.</p>		
<p>REAR STEREO SPEAKERS: Two (2) low-profile, flush mounted, AM-FM Stereo Radio Speakers shall be installed in the ceiling in the forward portion of the vehicle. The speakers shall be spaced with other equipment provided, (1) each side. The speakers shall be connected to the stereo radio within the cab dashboard. A "Volume Control" rheostat shall be provided in the rear switch panel to allow speakers to operate independent of front speakers.</p>		
<p>CAB AND CHASSIS ELECTRICAL MODIFICATIONS ALTERNATOR: The alternator shall be installed by chassis manufacturer in the approved Ambulance Prep Chassis. The alternator shall be a dual 130 amp system with total capacity of 260 amps. The charging system shall not be modified in any way to void its warranty.</p>		
<p>FRONT AND REAR SWITCH PANEL EQUIPMENT AND SYSTEMS GOOSENECK LIGHT: A "Hella" gooseneck light with 7" flexible shaft or equivalent, shall be permanently installed in the driver's console. The light shall have a swivel head and an on/off switch located at the light. A separate removable red filter lens shall be provided.</p>		
<p>ELECTRONIC THROTTLE The chassis shall be equipped with an electronic throttle device which is specifically designed for use in emergency vehicles. The unit shall be included with the Ambulance Prep Package. The unit shall be mounted in a concealed location in the underside of the driver's switch console.</p>		
<p>SPOTLIGHT:</p>		

<p>A hard wired Unity Handheld Spotlight, or equivalent shall be provided. The light shall have a 5" 100,000 CP bulb with a momentary "ON" switch located on the handle. A custom designed aluminum bracket shall be fabricated to hold the light when not in use. The bracket shall be plastic dipped to protect the bulb surface and light from vibration. Lights installed with hooks or no holders are unacceptable.</p>		
<p>HOURMETER: An electronic digital engine Hourmeter shall be mounted in the driver's console. The Hourmeter shall be powered only when the vehicle ignition is running and shall not be activated by the battery master disconnect switch.</p>		
<p>ENTRANCE DOOR POWER DOOR LOCK SWITCHES: The power door lock mechanisms shall be controlled by the OEM door switches.</p>		
<p>SIDE ENTRANCE DOOR POWER DOOR LOCK SWITCH: A double throw momentary switch shall be provided inside the side door area near the load light cancel switch - above the fluorescent light timer, for activating the power lock/unlock function of the ambulance body entrance doors and compartment doors. Press up for lock, push down for unlock.</p>		
<p>REAR ENTRANCE DOOR POWER DOOR LOCK SWITCH: A double throw momentary switch shall be provided on the left side near the load light cancel switch for activating the power lock/unlock function of the ambulance body entrance doors and compartment doors. Press up for lock, push down for unlock.</p>		
<p>ANTI-THEFT DEVICE: The vehicle shall be equipped with a Kussmaul (Safety Lock) Ignition Security System, or equivalent. The system shall minimize vehicle theft at an emergency scene by allowing the engine to remain running with the ignition switch removed. The vehicle will shut down if any of the following conditions exist, the brake pedal is depressed or the vehicle shift lever is moved. The vehicle can only be restarted when the ignition key is reinserted. When the system is in shut down mode the vehicle horn shall activate. The system shall be installed per manufactures instructions.</p>		
<p>EMERGENCY WARNING SYSTEMS HEADLIGHT WARNING SYSTEM HEADLIGHT FLASHER: A Sound Off, Inc, or equivalent, (set to "Power Pulse" Fast alternating mode), headlight flasher shall be installed to alternately flash the vehicles high beam lights. The unit shall be hermetically sealed solid state unit controlled by a single pole lighted switch in the driver's console. The circuit shall be relay controlled. The unit shall be installed per manufacturer's recommendations and shall not affect the vehicles lighting system. The unit shall be disabled when the headlight switch is on.</p>		
<p>SIREN WARNING SYSTEM ELECTRONIC SIREN, WHELEN, 295HFSA1: A Whelen Engineering Company Model 295SLSA1 200 watt Siren, or equivalent shall be provided and installed flush in the driver's console. The siren shall include standard siren tones, public address, air horn, and radio rebroadcast. The siren</p>		

<p>shall be backlit for night operation and include a hard wired microphone. Siren shall include a self-diagnostics mode which warns the driver of a potential problem with the siren or speaker system.</p>		
<p>LIGHTED HORN/SIREN SWITCH: A switch shall be installed in the drivers console to select between OEM Horn ring function of the vehicle Horn or Horn ring activation of the Siren. The switch shall have a lighted indicator and control a SPST relay located within the electrical distribution cabinet. A relay controlled circuit is required to eliminate any potential voltage drop problems due to high amperage draw of the OEM Horns.</p>		
<p>SIREN SPEAKER SYSTEM BUMPER SIREN SPEAKER SYSTEM: Cast Products Model SH-4314 or equivalent, Bumper Siren Speaker system shall be installed in the front bumper of the vehicle. The system shall include two (2) high efficiency 100 watt speaker drivers.</p>		
<p>FRONT LIGHTBAR WARNING EQUIPMENT CAB ROOF MOUNTING OF LIGHT BAR: The light bar shall be permanently mounted on the cab roof of the vehicle using a permanent mount kit. Gutter or other mounting methods are unacceptable. Only corrosion resistant hardware shall be utilized in this external mounting.</p>		
<p>FRONT LIGHT BAR: A Whelen Freedom 55" Light Bar, or equivalent, shall be mounted to the cab of the vehicle. Layout as follows: (2)Corner Forward Facing Super LED red lights (6)Forward facing super LED lights Clear outer lens Side alley lights tied into scene lights, not a separate switch (2) Cruise lights (RED), one at each front corner – wired and switched separately Layout as follows: RED/CLEAR/RED/CLEAR/CLEAR/RED/CLEAR/RED</p>		
<p>CAB MOUNTED WARNING LIGHTS FLASHING LIGHTS, GRILL: Two (2) lights shall be placed in the grille of the vehicle in flange housings. The lights shall be located in the upper portion of the grille area, set a minimum of 18" apart. The lights shall be Whelen 500 Linear LED, or equivalent, Red with a Clear lens cover.</p>		
<p>GRILLE FLANGE: Specific fitted grille flanges shall be provided for Grille lights selected.</p>		
<p>LED FLASHING WARNING LIGHTS, INTERSECTION: The vehicle shall be equipped with LED flashing warning lights. Two lights shall be installed, one each side front fender as far forward as possible. All lights shall include an integrated metallized flange chrome housing, designed for this fixture. Cast aluminum housings are unacceptable. The lights shall be Whelen Lin 3, Super LED, or equivalent, Red with a Clear lens cover.</p>		

<p>BODY LIGHTING DIRECTIONAL, AMBER ARROW LIGHTS, FRONT: The vehicle shall be equipped with a Whelen 600 Series Super-LED Amber Arrow lights with clear lenses, or equivalent. The vehicle shall include (2) Light assemblies located on the upper area of the front body. All lights shall include a metallized flange chrome housing, designed for this fixture.</p>		
<p>INDEPENDENT FLASH w/ ALTERNATING FLASHER – PRIMARY/SECONDARY: An Electronic Flasher shall be installed to power primary LED flashing lights. The flasher shall have (2) alternating outputs. The circuit shall be powered by an independent 50 Amp rated auto reset circuit breaker and the flasher shall contain internal short circuit protection. All Body and cab warning light internal flash patterns will be programmed to the pattern specified further in this document. The Flashing lights shall be considered compliant with KKK recognized alternate flash patterns. Primary is all warning lights on, secondary mode will shut down all lower level lights (beltline and below).</p>		
<p>WHELEN LINEAR-LED FLASHING WARNING LIGHT, FRONT, UPPER LEFT: The vehicle shall be equipped with a Whelen 900 Series Linear Super-LED warning light, or equivalent. The vehicle shall include one (1) light assembly on the front, upper left portion of the body. All lights shall include a metallized flange chrome housing, designed for this fixture. The Light shall be Red with a clear lens cover.</p>		
<p>WHELEN LINEAR-LED FLASHING WARNING LIGHTS, FRONT UPPER LEFT: The vehicle shall be equipped with a Whelen 900 Series Linear Super-LED warning light or equivalent. The vehicle shall include one (1) light assembly on the front, upper left portion of the body, located inboard of the outermost flashing light. All lights shall include a metallized flange chrome housing, designed for this fixture. The Light shall be White with a clear lens cover.</p>		
<p>WHELEN LINEAR-LED FLASHING WARNING LIGHTS, FRONT UPPER LEFT: The vehicle shall be equipped with a Whelen 900 Series Linear Super-LED warning light or equivalent. The vehicle shall include one (1) light assembly on the front, upper left portion of the body, located just outboard of the center flashing light. All lights shall include a metallized flange chrome housing, designed for this fixture. The Light shall be Red with a clear lens cover.</p>		
<p>WHELEN SUPER-LED FLASHING WARNING LIGHT, FRONT UPPER CENTER: The vehicle shall be equipped with a Whelen 900 Series Linear Super-LED warning light or equivalent. The vehicle shall include one (1) light assembly on the front, upper center of the body. All lights shall include a metallized flange chrome housing, designed for this fixture. The Light shall be White with a clear lens cover.</p>		
<p>WHELEN LINEAR-LED FLASHING WARNING LIGHTS, FRONT UPPER RIGHT: The vehicle shall be equipped with a Whelen 900 Series Linear Super-LED warning light or equivalent. The vehicle shall include one (1) light assembly on the front, upper right portion of the body, located just outboard of the center flashing light. All lights shall include a metallized flange chrome housing, designed for this fixture. The Light shall be Red with</p>		

a clear lens cover.		
<p>WHELEN LINEAR-LED FLASHING WARNING LIGHTS, FRONT UPPER RIGHT:</p> <p>The vehicle shall be equipped with a Whelen 900 Series Linear Super-LED warning light or equivalent. The vehicle shall include one (1) light assembly on the front, upper right portion of the body, located inboard of the outermost flashing light. All lights shall include a metallized flange chrome housing, designed for this fixture. The Light shall be White with a clear lens cover.</p>		
<p>WHELEN LINEAR-LED FLASHING WARNING LIGHTS, FRONT UPPER RIGHT:</p> <p>The vehicle shall be equipped with a Whelen 900 Series Linear Super-LED warning light or equivalent. The vehicle shall include one (1) light assembly on the front, upper right portion of the body. All lights shall include a metallized flange chrome housing, designed for this fixture. The Light shall be Red with a clear lens cover.</p>		
<p>WHELEN LINEAR-LED FLASHING WARNING LIGHTS, UPPER LEFT SIDE, FORWARD:</p> <p>The vehicle shall be equipped with a Whelen 900 Series Linear Super-LED warning light or equivalent. The vehicle shall include one (1) light assembly on the left side, upper left, forward portion of the body. All lights shall include a metallized flange chrome housing, designed for this fixture. The Light shall be Red with a clear lens cover.</p>		
<p>WHELEN LINEAR-LED FLASHING WARNING LIGHTS, UPPER LEFT SIDE, REARWARD:</p> <p>The vehicle shall be equipped with a Whelen 900 Series Linear Super-LED warning light or equivalent. The vehicle shall include one (1) light assembly on the left side, upper left, aft portion of the body. All lights shall include a metallized flange chrome housing, designed for this fixture. The Light shall be Red with a clear lens cover.</p>		
<p>WHELEN LINEAR-LED FLASHING WARNING LIGHTS, UPPER RIGHT SIDE, FORWARD:</p> <p>The vehicle shall be equipped with a Whelen 900 Series Linear Super-LED warning light or equivalent. The vehicle shall include one (1) light assembly on the right side, upper forward portion of the body. All lights shall include a metallized flange chrome housing, designed for this fixture. The Light shall be Red with a clear lens cover.</p>		
<p>WHELEN LINEAR-LED FLASHING WARNING LIGHTS, UPPER RIGHT SIDE, REARWARD:</p> <p>The vehicle shall be equipped with a Whelen 900 Series Linear Super-LED warning light or equivalent. The vehicle shall include one (1) light assembly on the right side, upper aft portion of the body. All lights shall include a metallized flange chrome housing, designed for this fixture. The Light shall be Red with a clear lens cover.</p>		
<p>WHELEN LINEAR-LED FLASHING WARNING LIGHT, REAR, UPPER LEFT:</p> <p>The vehicle shall be equipped with a Whelen 900 Series Linear Super-LED warning light or equivalent. The vehicle shall include one (1) light assembly on the rear upper left portion of the body. All lights shall include a metallized flange chrome housing, designed for this fixture. The Light shall be Red with a clear lens cover.</p>		
<p>WHELEN LINEAR-LED FLASHING WARNING LIGHT,</p>		

<p>REAR, UPPER CENTER: The vehicle shall be equipped with a Whelen 900 Series Linear Super-LED warning light or equivalent. The vehicle shall include one (1) light assembly on the Rear, upper Center of the body All lights shall include a metallized flange chrome housing, designed for this fixture The Light shall be Amber with a clear lens cover.</p>		
<p>WHELEN LINEAR-LED FLASHING WARNING LIGHT, REAR, UPPER RIGHT: The vehicle shall be equipped with a Whelen 900 Series Linear Super-LED warning light or equivalent The vehicle shall include one (1) light assembly on the rear upper right portion of the body All lights shall include a metallized flange chrome housing, designed for this fixture The Light shall be Red with a clear lens cover.</p>		
<p>Rear Lights at Window Level – to flash in a rapid triple flash “X” pattern.</p>		
<p>WHELEN LINEAR-LED FLASHING WARNING LIGHT, WINDOW LEVEL, REAR, LEFT PANEL: The vehicle shall be equipped with a Whelen 900 Series Linear Super-LED warning light or equivalent The vehicle shall include one (1) light assembly on the Rear left panel The light is situated so when the back door is open, the light shall be visible through the upper portion of the door window. All lights shall include a metallized flange chrome housing, designed for this fixture. The Light shall be Blue with a clear lens cover.</p>		
<p>WHELEN LINEAR-LED FLASHING WARNING LIGHT, WINDOW LEVEL, REAR, LEFT PANEL: The vehicle shall be equipped with a Whelen 900 Series Linear Super-LED warning light or equivalent The vehicle shall include one (1) light assembly on the Rear left panel. The light is situated so when the back door is open, the light shall be visible through the lower portion of the door window All lights shall include a metallized flange chrome housing, designed for this fixture The Light shall be Amber with a clear lens cover.</p>		
<p>WHELEN LINEAR-LED FLASHING WARNING LIGHT, WINDOW LEVEL, REAR, RIGHT PANEL: The vehicle shall be equipped with a Whelen 900 Series Linear Super-LED warning light or equivalent The vehicle shall include one (1) light assembly on the Rear right panel The light is situated so when the back door is open, the light shall be visible through the upper portion of the door window. All lights shall include a metallized flange chrome housing, designed for this fixture The Light shall be Red with a clear lens cover.</p>		
<p>WHELEN LINEAR-LED FLASHING WARNING LIGHT, WINDOW LEVEL, REAR, RIGHT PANEL: The vehicle shall be equipped with a Whelen 900 Series Linear Super-LED warning light or equivalent The vehicle shall include one (1) light assembly on the Rear right panel. The light is situated so when the back door is open, the light shall be visible through the lower portion of the door window All lights shall include a metallized flange chrome housing, designed for this fixture The Light shall be Amber with a clear lens cover.</p>		
<p>WHELEN REAR FLOOD LIGHTS: Two (2) Whelen 900 Series 8-32 degree Scene lights or equivalent shall be installed above the rear entrance doors.</p>		

<p>The lights shall include metallized chrome flange housings specifically designed for this light fixture. Cast aluminum housings are unacceptable.</p>		
<p>SECONDARY BODY MOUNTED LIGHTS LIGHTS: The "secondary" body mounted lights, shall be considered any the warning lights that are placed below the horizontal plane of the "rear flashing lights at rear window level.</p>		
<p>WHELEN SPLIT LED COMBINATION FLASHING WARNING LIGHTS, OVER REAR WHEEL: The vehicle shall be equipped with Whelen 700 Series Split Linear Super-LED Combination flashing warning lights or equivalent. Two (2) lights shall be provided, one over each rear wheel area. The color of the lights shall be split 1/2 Red / 1/2 White w/clear outer lens. The lights shall incorporate an integrated metallized chrome housing. Cast aluminum or other flanges are unacceptable.</p>		
<p>EXTERIOR VEHICLE LIGHTS AND EQUIPMENT WHELEN LED VEHICLE TAIL LIGHTS: The vehicle shall be equipped with two (2) Whelen 600 Series LED red stop/tail lights or equivalent. The lights shall be located on the lower outboard corners of each side of the rear of the vehicle. The body shall be designed in such a way to eliminate the lights from being exposed to the elements from the backside.</p>		
<p>VEHICLE BACK-UP LIGHTS: The vehicle shall be equipped with two Whelen 600 Series rear backup lights, or equivalent, one each side on the inboard side of the lower panel. The lights shall operate any time the vehicle is placed in reverse. The light shall include an integrated metallized chrome housing. The body shall be designed in such a way to eliminate the lights from being exposed to the elements from the backside.</p>		
<p>WHELEN LED POPULATED AMBER DIRECTIONAL LIGHTS: A pair of Whelen 600 Series LED amber arrow directional signal lights, or equivalent, shall be installed on the rear of the vehicle directly above the stop/tail and back-up lights. The lights shall include an integrated metallized chrome flange housing on each fixture.</p>		
<p>MARKER/CLEARANCE LIGHTS: LED Marker and Clearance lights shall be installed on the front rear and both sides of the body to meet all Federal lighting requirements FMVSS 108.</p>		
<p>LOWER FLASHING MARKER LIGHTS: Two (2) Lower marker clearance lights shall be installed on each side at the belt line area of the vehicle, one front, one rear. The lights shall be wired to the side directional lights and activate any time the vehicles directional switch is activated. The marker clearance light shall also include an integrated reflex reflector into the lens.</p>		
<p>RUNNING BOARD ILLUMINATION LIGHTS: The vehicle shall be equipped with two four inch lights recessed into the front of the body at the level just above the cab running boards. The lights shall activate when the drivers or passenger side cab doors are open. The circuit shall be relay controlled and include an independent circuit breaker.</p>		
<p>REAR EMERGENCY FLASHING LIGHTS,</p>		

<p>BRAKE LIGHTS: The two (2) rear red flashing warning lights in the upper most portion of the body, shall be activated whenever the vehicles service brake is applied and the red flashing warning lights are on These lights shall be activated through a transfer relay circuit and under no circumstances shall they be powered by the vehicles stop lamp switch only The stop lamp switch shall power the coil of the transfer relay only</p>		
<p>EXTERIOR 12 VOLT FLOOD LIGHTS WHELEN SIDE FLOOD LIGHTS: Two(2) Whelen 900 Series Halogen 8-32 degree Scene lights or equivalent, shall be installed two (2) on the left upper side of the vehicle. The flood lights shall include single replaceable Halogen bulbs. The flood lights shall include metallized chrome flange housings specifically designed for each light. Cast aluminum housings are unacceptable.</p>		
<p>WHELEN SIDE FLOOD LIGHTS: Two(2) Whelen 900 Series Halogen 8-32 degree Scene lights or equivalent, shall be installed two (2) on the Right upper side of the vehicle. The flood lights shall include single replaceable Halogen bulbs The flood lights shall include metallized chrome flange housings specifically designed for each light. Cast aluminum housings are unacceptable.</p>		
<p>REAR FLOOD LIGHTS: The rear flood lights shall automatically activate when the rear door is opened or when the vehicle is placed in reverse All flood light circuits shall be relay controlled.</p>		
<p>CLIMATE CONTROL SYSTEM: The Ambulance Climate Control System in the chassis shall only function when the vehicle is in the run mode This shall be done to reduce the electrical load on the vehicle when the engine is not running.</p>		
<p>FLOW-THRU VENTILATION: A high volume power exhaust ventilation system shall be installed on the left rear side panel of the vehicle. It shall consist of a (2) speed blower motor. The blower shall be mounted to an anti-vibration plate welded to the inside wall Installations which produce excessive noise due to vibration shall be cause for rejection. A polished aluminum cowl vent with internal, rubber back flow flap shall be installed on the exterior of the modular body Dual closeable intake vents shall be placed in the interior rear corner cabinet A return air intake shall be located on the front of the ambulance body. Single speed blowers or blowers with resistor type speed control are unacceptable.</p>		
<p>DUCTED HEATER AND AIR CONDITIONING SYSTEM: The unit shall have a minimum capacity of 38,000 BTU Air Conditioner, and 60,000 BTU Heat combination unit with a high performance pressurizer type 620 CFM blower The climate control unit shall be permanently attached to the double ductwork system running full length of the ceiling of the vehicle Each duct shall be fully radiused with approximate dimensions of 5" wide and not protrude more than 2 3/4" from the ceiling In addition each shall have four (4) equally spaced, front to rear, fully adjustable 4-way adjustable louvers with shut off feature at each register. The duct work shall be</p>		

<p>covered with a fully padded vinyl covering and also incorporate the vehicles drop down wire raceway cover in the center. The heater/air conditioner unit shall be located in the front of the vehicle centered above the cab to body pass through. An air cleaner filter media shall be installed in the return air grille located in the underside of the cabinet.</p> <p>The climate control unit shall include a twin air return system. One mounted high and one mounted low for full air re-circulation. In addition the entire climate control unit shall be double insulated first by the standard body insulation and secondly by a fully encompassing 5/16" thick reflective insulation. The reflective insulation shall also extend the full length of the raceway duct, front wall and ceiling of the climate control cabinet.</p> <p>All heater hoses shall be provided as EPDM rubber, as per recommendation of chassis manufacturer. The use of lesser quality hose or silicone hose is an unacceptable substitution. The systems heater shall include an automatic heat shut off valve which only opens when the heater unit is "On" and when the vehicle is running. The heater shut off valve shall also include an emergency shut off switch located within the rear power distribution panel. All Air Conditioner hoses shall be heavy duty type and have machine crimped ends, worm type hose clamps are cause for rejection of bid.</p> <p>No exceptions or deviations to this system will be allowed due to its superior air distribution system and low noise characteristics. An exception will be cause for rejection of bid. Bidder/manufacturer must provide proof that this is an operating climate control system, offered as a standard component in their emergency vehicle production. Prototype systems are not acceptable. A user list of vehicles utilizing this system shall be provided with the bid.</p>		
<p>ELECTRONIC DIGITAL DISPLAY THERMOSTAT CONTROL:</p> <p>An electronic Climate Control thermostat shall be used to monitor and control both air conditioning and heating in the rear patient compartment. The thermostat shall include a digital display, with 1/2" digits, which displays ambient temperature in the patient compartment, and will display desired set temperature when the "Temp Set" Switch is depressed. The fan speed may be either automatically controlled depending on the temperature differential in the vehicle, or overridden and manually toggled, or turned off by the "Hot Cool" Switch. The thermostat unit temperature probe shall be located in the upper, mid-level in the patient compartment.</p>		
<p>AUXILIARY COOLANT PUMP CLIMATE CONTROL SYSTEM:</p> <p>An auxiliary coolant pump shall be added to increase coolant flow to the rear heater core. The pump shall be exactly sized to provide required heat to rear unit, while not reducing the effective heat in the vehicle cab. The pump shall be controlled by the vehicle climate control system thermostat. The pump shall be located in a protected location and easily serviceable if required in the future.</p>		
<p>CEILING CONFIGURATION</p> <p>Ceiling Configuration for 6 Dome Lights, 4 Fluorescent Lights & 2 Speakers</p>		

<p>DOMELIGHTING:</p> <p>Six (6) Weldon, or equivalent, LED dome lights shall be equally spaced down both sides of the ceiling. Each light shall include the High/Low intensity feature. The lights shall be relay controlled and have a lighted double throw switch in the rear Life Support panel. All lights to be mounted to vehicle frame work, not to ceiling panel material.</p>		
<p>12 VOLT FLUORESCENT LIGHTS:</p> <p>Four (4) 18", 15 watt, twin bulb fluorescent fixtures shall be installed and equally spaced in between the (6) dome lights. The fixtures shall have reinforced housings with a plastic diffuser which locks in place. The lights shall be relay controlled and switched by a lighted single pole switch in the rear Life Support switch panel. Each light shall also incorporate an individual switch to allow lights to be turned off independently. All lights shall be mounted to the vehicle ceiling structural members and not to the ceiling panel material alone.</p>		
<p>FLUORESCENT LIGHT; "CHECK OUT" TIMER:</p> <p>A 60 minute mechanical timer shall be provided at the side door of the vehicle to allow the fluorescent lights to be turned to the on position when the vehicle exterior power source is connected and shall be powered by the vehicles 12 volt battery charger. The lights shall be controlled by an additional transfer relay to prevent the lights from discharging the vehicle batteries when the shoreline is not plugged in. The timer shall only function when the shoreline is plugged in and will not function when the battery switch is activated.</p>		
<p>INTERIOR AND COMPARTMENT UTILITY LIGHTING</p> <p>DOMELIGHTS WITH DOOR OPEN:</p> <p>The dome lights mounted in the ceiling of the vehicle shall be activated to the low intensity position when the personnel entrance doors are open. The circuit shall be relay controlled and the dome light current shall not be controlled by the door post switch.</p>		
<p>COMPARTMENT LIGHTS</p> <p>EXTERIOR COMPARTMENT LIGHTING:</p> <p>All exterior compartments shall be one or two (as required) 4" recessed light fixtures. The compartment lights shall be controlled by an automatic door post switch in each door. The lights shall be located near the top of the compartment for full compartment illumination. The compartment open indication light shall activate anytime any compartment door is opened. The door post switch shall activate the compartment lighting relays. The door post switch shall not carry the current of the compartment lights.</p>		
<p>INCANDESCENT COMPARTMENT LIGHT, Right Front In/Out:</p> <p>An indirect light located in the Right front In/Out compartment area. The light shall be a 12" incandescent light. The light will be controlled by the opening and closing of compartment doors.</p>		
<p>AUXILLARY INTERIOR LIGHTING</p> <p>PANEL LIGHTS:</p> <p>An indirect light located above the Life Support Station counter shall be used to illuminate the action area. The light shall be a 12" incandescent model and be switched by a switch in the rear switch panel. The rear panel light switch shall also activate the light in the oxygen storage compartment.</p>		
<p>STEPWELL LIGHT:</p> <p>An independent, recessed step well light shall be provided in the rear side of the diamond plate step well and be</p>		

<p>automatically activated whenever the side entrance door is opened. The light shall function as a courtesy light and activate regardless of the position of the module disconnect switch. The exterior shall be protected from weather and damage. All connections shall be weatherproof, sealed connectors.</p>		
<p>FLUORESCENT LIGHTS; 12 VOLT, 115 VOLT COMBINATION:</p> <p>The 12 volt fluorescent lights mounted in the ceiling of the vehicle shall be powered by the vehicle's 12 volt inverter/charger when the vehicle shoreline is attached to an outside 115 volt power source. The lights shall be controlled by an additional transfer relay to prevent the lights from discharging the vehicle batteries when the shoreline is not plugged in.</p>		
<p>DUAL DOME LIGHT SWITCHES:</p> <p>Per the requirements of KKK-A-1822, two independent dome light circuits with two independent switches shall be provided to control two banks of (3) dome lights each. The switches shall be marked in the Life Support panel as left dome light and right dome light. Each switch shall power the low mode of the fixtures independently.</p>		
<p>12 VOLT UTILITY AND MEDICAL OUTLETS 12 VOLT MEDICAL OUTLET:</p> <p>One (1) 12 volt Power Point outlet shall be provided. The outlet shall be circuit breaker protected and provide a source directly from the vehicle batteries, and bypass the vehicles master battery disconnect switch. The outlet shall be located at the Life Support Station.</p>		
<p>12 VOLT MEDICAL OUTLET:</p> <p>One (1) 12 volt Power Point outlet shall be provided. The outlet shall be circuit breaker protected and provide a source directly from the vehicle batteries, and bypass the vehicles master battery disconnect switch. The outlet shall be located in the right front in/out access compartment.</p>		
<p>12 VOLT MEDICAL OUTLET:</p> <p>One (1) 12 volt Power Point outlet shall be provided. The outlet shall be circuit breaker protected and provide a source directly from the vehicle batteries, and bypass the vehicles master battery disconnect switch. The outlet shall be located on the left rear wall of the vehicle.</p>		
<p>ANTENNA AND COMMUNICATION RADIO EQUIPMENT</p> <p>ANTENNA:</p> <p>A Coaxial Antenna lead shall be prewired from a location in the wire raceway to the location of the two-way communication radios. The antenna lead in the roof shall include a connector soldered to end of cable for install of two-way communication radio antenna.</p>		
<p>ANTENNA LEADS:</p> <p>Three (3) coaxial cable antenna leads shall be installed; they shall be positioned within the body roof, in numerical order, #1 being the forward most, #2 being the middle, #3 being the rear most. They shall terminate in the following locations;</p> <ul style="list-style-type: none"> 1 in the front console 2 behind the driver's seat 		

<p>ANTENNA CELLULAR A 3DB Cellular (825 to 896 MHZ) antenna shall be supplied and windshield mounted, terminating in the cab console.</p>		
<p>RADIO POWER LEADS: A 10 gauge constant power positive lead and 10 gauge ground shall be provided with 30 amp circuit protection located in the cab console.</p>		
<p>RADIO POWER LEADS: A 10 gauge constant power positive lead and 10 gauge ground shall be provided with 30 amp circuit protection.</p>		
<p>RADIO POWER LEADS: An 8 gauge constant power positive lead and 8 gauge ground shall be provided with 40 amp circuit protection.</p>		
<p>12 VOLT ELECTRICAL EQUIPMENT 24/12 HOUR CLOCK W/SWEEP SECOND HAND: A 24 hour/12 hour clock with sweep second hand shall be installed in the 45 degree sloped panel above the Life Support Station. The clock shall be powered by a constant, protected, 12 volt source directly from the batteries. The clock shall have an eight inch dial with large numbers to allow for easy viewing when seated in any position in the rear of the ambulance.</p>		
<p>115 VOLT AC ELECTRICAL: The vehicle shall include a 115 volt AC Electrical system separate and distinct from the vehicles 12 volt electrical system. The entire system shall be designed and tested to meet the requirements of the NFPA National Electrical Code (NEC) where applicable and use the balance of the NEC for general practices and procedures associated with high voltage 115/230 volt AC Electrical wiring and devices. The vehicle shall also meet and be tested to all requirements of AMD standard 009. Test Documentation and verification shall be provided upon request.</p>		
<p>115 VOLT ELECTRICAL SCHEMATICS: A complete wiring schematic shall be provided which indicates the systems entire 115 volt Electrical System. The schematic shall be done in the same format as the 12 volt wiring schematics and be provided upon delivery of the vehicle.</p>		
<p>115 VOLT WIRING: All wiring shall be three (3) conductor, 10 GA or 12 GA minimum stranded copper cable as required by the circuit requirements. All conductors shall have 105 degrees Celsius rated insulation, tinned conductors and be rated at 600 volt. All cable wiring shall be encased in high temperature protective loom where exposed.</p>		
<p>KUSSMAUL "SUPER AUTO-EJECT" SHORELINE: A 20 Amp Kussmaul "Super Auto-Eject" Shoreline Male Motor Base Model 091-55-20-120, or equivalent, shall be installed on the left side of the body over compartment "B". The Shoreline shall be waterproof type with spring loaded gasketed cover. The Shoreline shall be wired to the junction circuit breaker box located within the power distribution panel compartment. The Shoreline auto-eject solenoid shall be connected to the starter solenoid of the vehicle and only be activated when the key is in the start mode. The Shoreline shall be equipped with a matching female connector designed for use with the auto-eject shoreline and shipped loose with the vehicle.</p>		
<p>SHORELINE POWER AMBER INDICATOR LIGHT:</p>		

<p>A waterproof 1/4" diameter NEON Amber indicator light shall be provided to indicate live power at the shoreline input connector. The light shall have a 115 volt lamp and be located directly above the main shoreline inlet.</p>		
<p>A 115 volt power distribution box shall be installed in the vehicles main electrical cabinet. The distribution box shall consist of an enclosure with a 20 amp magnetic type circuit breaker installed. The circuit breaker shall power duplex receptacles also mounted within the distribution box. All wiring and circuits provided shall be sized for a 20 amp capacity, 12 gauge conductor, minimum.</p>		
<p>ENGINE BLOCK HEATER: The Block Heater shall be powered by the exterior shoreline power of the vehicle. A 115 volt Electrical conductor encased in high temperature loom shall be routed to the engine compartment and have a quick connect, Female plug on the end to plug into the engine block heater.</p>		
<p>ENGINE BLOCK "SHUT-OFF" SWITCH: A 115 volt AC toggle switch, 15 amp rated, shall be located with the area of the electrical compartment to disconnect the engine block heater from the shoreline input feed. The wiring shall be done in accordance with NFPA, NEC applicable codes.</p>		
<p>115 VOLT OUTLETS INTERIOR: 115 volt AC Duplex Electrical outlet shall be installed in the vehicle. The outlets shall be "Lighted" duplex type. The Neon light within the outlet shall glow when live power is at the outlet. All outlets within the vehicle shall be GFI protected. The location of the outlets shall be as follows, one (1) located on the back wall of the Life Support Station.</p>		
<p>115 VOLT OUTLET INTERIOR: 115 volt AC Duplex Electrical outlet shall be installed in the vehicle. The outlets shall be "Lighted" hospital grade duplex type. The Neon light within the outlet shall glow when live power is at the outlet. All outlets within the vehicle shall be GFCI protected. The location of the outlet shall be as follows, one (1) located on the left rear wall of the vehicle.</p>		
<p>115 VOLT OUTLET INTERIOR: 115 volt AC Duplex Electrical outlet shall be installed in the vehicle. The outlets shall be "Lighted" hospital grade duplex type. The Neon light within the outlet shall glow when live power is at the outlet. All outlets within the vehicle shall be GFCI protected. The location of the outlet shall be as follows, one (1) located in the right front compartment.</p>		
<p>115 VOLT OUTLETS INTERIOR: 115 volt AC Duplex Electrical outlet shall be installed in the vehicle. The outlets shall be "Lighted" duplex type. The Neon light within the outlet shall glow when live power is at the outlet. All outlets within the vehicle shall be GFI protected. The location of the outlet shall be as follows, one (1) located on the back wall to the right hand side of the CPR seat</p>		
<p>1000T WATT INVERTER: A Vanner Model 20-1050 CUL, 1050 watt inverter, or equivalent, shall be installed in the rear electrical equipment cabinet of the vehicle. The inverter shall have a built in transfer switch to power equipment from both the shoreline or vehicle power. The unit shall</p>		

<p>also include a 55 amp battery charger built into the unit All battery leads to inverter shall be powered by a 2GA SXL battery cable, minimum, directly from the battery side of the vehicles master disconnect switch.</p>		
<p>VEHICLE PAINTING</p> <p>PAINTING PROCESS: The entire modular body shall be prepared and painted in strict accordance to Sikkens, or equivalent painting processes for aluminum. All Sikkens or equivalent products shall be used throughout the preparation and painting stages, eliminating any incompatible products.</p>		
<p>PAINT PROCEDURES FOR MAJOR COMPONENTS:</p> <p><u>I. Surface Preparation</u></p> <p>A. All surfaces shall be washed thoroughly with OTO degreaser prior to any sanding, blasting and or body work to prevent the impingement of contamination into substrate B. Surface shall be thoroughly abraded with DA 180-220 grit C. All areas requiring body work shall be ground with 24 to 36 grit, and re-cleaned with OTO degreaser</p>		
<p><u>II. Body Work</u></p> <p>A. All body worked areas shall be filled with Evercoat Z-Grip body filler or equivalent. B. All filled areas will be sanded with 180 grit dry paper C. EvercoatEurosoft Glaze putty or equivalent to be applied over any body filler D. Glaze putty to be sanded with 180 dry grit paper. E. Prime with Autosurfacers 940Hs or equivalent</p>		
<p><u>III. Pre-treat Chemical Wash Process</u></p> <p>A. Pre-wet surface with D I. water B. A mixed solution of OAKITE brightener/cleaner, or equivalent to 5% by volume of DI water shall be applied to the entire modular body. C. The solution will be thoroughly brushed in over the entire surface D. There will be a 5 minute dwell time before rinsing. E. The entire surface will be rinsed thoroughly with D I. water F. The entire body surface will have CHEMETALL 4707 non-chrome conversion coating, or equivalent mixed at 4% with D.I water applied to it G. There will be a dwell time 3 minutes before rinsing H. The body must be completely dry before applying sealer J. The body must be sealed and painted within 24hrs after the 4707 treatment is completed.</p>		
<p><u>IV. Application of Primer / Sealer</u></p> <p>A. One (1) Wet coat of Autocoat ABP Sealer or equivalent shall be applied using 50-60 PSI (HVLV) at the spray gun to achieve a minimum dry film build of 2.5 mils B. 10-15 minutes of flash time shall be allowed between coats C. Primed Body shall be allowed to dry 20 minutes - 8 hours at 70 degrees F/50% RH prior to top coating.</p>		

<p><u>V. Autocoat ABP Polyurethane Top Coat Finish System (Base Coat)</u></p> <p>A Two (2) Wet coats of (ABP) or equivalent Base Coat color shall be applied to prepared body using 50-60 PSI at the HVLP gun to achieve film build of 1.2 - 1.4 mils. B. 5 - 10 Minutes flash-time shall be allowed between coats.</p>		
<p><u>VI. Autoclear ABP Urethane Clear</u></p> <p>A Two (2) Wet coats of Autoclear ABP or equivalent shall be applied at an air pressure of 50-60 PSI (HVLP) to achieve a dry film build minimum of 1.2 - 1.4 mils. B 5 - 10 Minutes flash time between coats. C. Force Dry (Bake) D Bake for 45 minutes with a surface temperature of a minimum of 140 degrees F. E. Sand body using 800 grit finish paper with roof panel masked off. F Clean body thoroughly. G Apply (1) finished coat of Autoclear ABP or equivalent minimizing spray time and contamination. H. Force Dry (Bake)</p>		
<p><u>VII. Striping AutobaseClearcoat System (Base)</u></p> <p>A. Sand desired area with 400 dry grit paper B. Clean surface with Autoclean degreaser or equivalent C Mask off remainder of unit. D 1-2 Medium coats of Autobase or equivalent, color shall be applied at a pressure of 50-60 PSI (HVLP) to achieve a dry film build of not more than .5 mils. E 2-5 Minutes flash time between coats. F Dry for a minimum of 20 minutes at 70 degrees F 50%RH before applying Autoclear ABP, or equivalent G Two (2) Wet coats of Autoclear ABP, or equivalent shall be applied at an air pressure of 50-60 PSI (HVLP) to achieve a dry film build minimum of 1.2 - 1.4 mils H 5-10 Minutes flash time between coats. I. Force Dry (Bake) J Bake for 45 minutes with a surface temperature of a minimum of 140 degrees F.</p>		
<p>PAINT CORROSION PROTECTION:</p> <p>All exterior fastener locations that penetrate the paint on the modular body are to be treated with Electrolysis Corrosion Control (ECK), or equivalent. Every external fastener hole shall have ECK sprayed into the hole for full coverage. The perimeter of the hole shall be covered with a minimum of .5 diameter of ECK. This is to protect the head of the fastener from touching the painted surface. All applications of ECK are to take place before component mounting. The fasteners that are included in this process are for the following components: Lights, Light Bars, Hinges, Diamond plate panels, Fuel fill, License plate holder, Shoreline, Vent Covers, Rain Gutters, Rub Rails, Fenderettes and Door Grabbers. Additional items that are mounted to the painted body will also be included. When an item is cut into the body causing an unpainted edge, the unpainted edge shall be completely coated with ECK prior to component mounting.</p>		
<p>TEN YEAR PAINT WARRANTY</p>		

<p>Manufacturer will warranty to original purchaser that the Paint is free from specific paint defects for 10 years from date the vehicle is delivered. Manufacturer will warranty 100% labor & materials for the following defects: coating system integrity, coating adhesion and UV related degradation, gloss retention and color retention, cracking or checking of the paint film, and delaminating from the substrate or intercoat. Manufacturer will warranty 100% materials and labor to repair defects resulting from dissimilar metals and crevice corrosion for a period of 3 years, 36,000 miles from date of delivery. Warranty transferable subject to inspection by manufacturer. Bidder must include statement of warranty policy with bid.</p>		
<p>MODULAR BODY PAINT COLOR: The entire modular body will be FLNA 5220 Blue.</p>		
<p>CHASSIS CAB REPAINT: The cab of the vehicle including the door jambs shall be repainted a single color.</p>		
<p>CAB PAINT COLOR : The cab color will be the same as the modular body</p>		
<p>PAINT STRIPE: An 8" painted stripe shall encircle the vehicle. The color shall be FLNA 5128. (French Blue/URI Blue)</p>		
<p>VEHICLE LETTERING REFLECTIVE LETTERING: The vehicle shall be provided with custom graphics and reflective lettering prior to the delivery of the unit. Please see drawings.</p>		
<p>CHASSIS EQUIPMENT AIR RIDE SUSPENSION SYSTEM: The rear of the vehicle shall be equipped with a complete Air Ride Suspension System. The system shall be properly installed by factory trained personnel. The ride is designed to enhance and improve the original manufacturers steel spring suspension system, and provide a more stable working environment for medical personnel. The system shall include height leveling valves to insure a level stable ride at all times regardless of location in vehicle of personnel or equipment. The system shall include a heavy duty air compressor located in a well-ventilated exterior compartment. The compressor shall be mounted on rubber mounting/vibration isolators to minimize noise and vibration. The air compressor shall be circuit breaker protected and tied directly to the battery side of the master disconnect switch. The on-off control of the air compressor shall activate only when the master switch is on. An emergency shut off switch shall be provided in the rear power distribution panel for emergency use. The Compressor shall include an air reserve tank with automatic moisture ejector attached to the bottom of the tank. The air suspension system shall be capable of lowering the height of the rear floor by the use of an electric dump solenoid. The solenoid shall be activated by a backlit and labeled double momentary switch located inside the left rear door. One touch of the switch down will lower the vehicle. One touch of the</p>		

<p>upper momentary contact shall raise the vehicle to normal ride height. An automatic safety feature will be incorporated to this vehicle which will allow the Air Ride System to return to ride position when the vehicle is placed in reverse or a drive gear, if it was previously lowered without raising manually. The suspension system shall be MONROE, True Ride, or equivalent</p>		
<p>"WESTIN" GRILLE GUARD: A full width Westin grill guard or equivalent shall be provided and installed on the front bumper of the chassis The grill guard shall have Stainless Steel finish.</p>		
<p>STAINLESS STEEL WHEEL INSERTS: High Quality "Phoenix" or equal polished stainless steel light duty wheel inserts shall be installed on all four wheels, front and rear.</p>		
<p>POWER TRAILER TOW MIRRORS: Mirrors shall be provided as standard OEM equipment. These mirrors provide black finish below eye level heads extending from window area. Brackets are designed with breakaway feature. Mirrors include a built in convex head, power/heated glass, integrated clearance lights and turn signals and are power adjusting from inside the cab.</p>		
<p>RUBBER MUD FLAPS: Rubber mud flaps shall be provided behind the rear wheels of the vehicle They shall be Light Duty Truck type and bolted to the inner fender liners of the modular body, behind the rear tires.</p>		
<p>FRONT END CASTER CAMBER ALIGNMENT: The chassis front end shall be checked and adjusted for proper caster camber alignment after the ambulance body is mounted and the vehicle is ready for delivery</p>		
<p>PREP, CLEAN, AND DETAIL VEHICLE: The new vehicle shall be cleaned and detailed both inside and out, for final delivery.</p>		
<p>FILL FUEL TANK: The fuel tank shall be filled at the time of vehicle delivery.</p>		