

Public Safety Committee Meeting
Tuesday, September 21, 2021 5:00 PM
Crete City Hall
243 E 13th Street
Crete, NE 68333

1. Open Meeting

- In accordance with Nebraska law, a copy of the Open Meetings Act can be found in the back of the Council Chambers.
- Items listed on the agenda may be considered in any order.

2. Roll Call

- Attendance of members will be recorded to determine the presence of a quorum for official actions.

3. Items of Business

- The Committee may discuss or limit discussion on, hear testimony in favor of or in opposition to, or take action to provide a recommendation to the City Council on any matter presented under this title.
- A. Consider a recommendation to the City Council on new ambulance specifications with a cost estimate of \$240,000 and setting a bid date.
- B. Consider a recommendation to the City Council on Change Order #1 on the new Fire Department tanker
- C. Consider a recommendation to the City Council for a parade on 13th Street from Fuhrer Field House to Doane Drive on September 30, 2021, at 6:00 PM.

4. Officers' Reports

- Reports may be given by the Mayor, Officers, Departments, or Councilmembers concerning the current operations of the City.
- No action can be taken on matters presented under this title except to answer any questions or to refer the matter for further action.

5. Adjournment

Disclaimers & Notices

- The Council may enter into closed session to discuss any matter on this agenda when it is determined that a closed session is clearly necessary for the protection of the public interest or the prevention of needless injury to the reputation of an individual (if such individual has not requested a public meeting) or as otherwise allowed by law. Any closed session shall be limited to the subject matter for which the closed session was called. If the motion to close passes, then immediately prior to the closed session the Mayor shall restate on the record the limitation of the subject matter of the closed session.
- The City of Crete assures that no person shall on the grounds of race, color, national origin, age, disability, handicap or sex, be excluded from participation in, be denied the benefits of, or be otherwise subjected to discrimination under any program or activity of the City receiving Federal financial assistance. To report discrimination, contact the City Clerk's office.
- The complete agenda with attachments is available at www.crete.ne.gov.

City of Crete Type I Ambulance Specifications

Bid Specifications for

TYPE 1 AMBULANCE

RAM 4500 CHASSIS

Crete Fire & Rescue Department

City of Crete, Nebraska

2019

City of Crete Type I Ambulance Specifications

ADVERTISEMENT FOR BIDS

The City of Crete, Nebraska will receive Bids for an Ambulance until _____ a.m. on _____, _____, 20__, at the office of the City Clerk, 243 East 13th Street, Crete, Nebraska. At that time, all Bids will be opened and publicly read aloud.

Details of equipment to be furnished are given in the Specifications. Specifications are on file at the office of the City Clerk, Crete, Nebraska. Copies of these documents for bidding purposes may be obtained from the City Clerk.

Bids shall comply with the Specifications. The envelope containing the Bid shall be sealed and marked as follows:

PROPOSAL – AMBULANCE
City Clerk
243 East 13th Street
P.O. Box 86
Crete, NE 68333-0086

No Bids shall be withdrawn after the opening of Bids without the consent of the City of Crete, Nebraska for a period of 45 days after the scheduled time of closing Bids.

Final payment will be made within thirty (30) days after delivery and acceptance of the equipment.

The Owner reserves the right to reject any and all Bids and to waive any technicalities in bidding.

Dated at Crete, Nebraska this _____ day of _____, 20__, by order of the Mayor and City Council of Crete, Nebraska.

CITY OF CRETE, NEBRASKA
_____, Mayor

Publish 3 times _____

City of Crete Type I Ambulance Specifications

BID

_____, 20__

THIS BID IS BEING SUBMITTED TO:
Honorable Mayor and City Council
City of Crete
P.O. Box 86
243 East 13th Street
Crete, NE 68333-0086

IDENTIFICATION: Ambulance
 Crete Fire & Rescue Department
 City of Crete, Nebraska

The undersigned, in compliance with your Advertisement for Bids for furnishing an Ambulance, having examined the Specifications and being familiar with the equipment to be furnished, hereby propose to furnish such equipment in accordance with the Contract Documents for the sum set forth in the following Bid Schedule.

BID SCHEDULE

BASE BID:

Provide for the furnishing and delivery of a new complete vehicle equipped as specified in the Specifications.
(LUMP SUM)

_____ DOLLARS (\$ _____)

Bidders shall note that wherever a specific manufacturer or model is listed in the bidding documents, an item of another manufacturer or model will be allowed if that item is functionally equal to the named brand and model such that no change in any related equipment is required. Acceptance of all such equal products shall be at the sole discretion of the Owner.

If it is necessary to bid alternate equipment or to take exceptions to the specifications as set forth, this must be so stated in your Bid. For each item, please signify whether or not you are in complete compliance with the specification on the checklist provided at the end of the specifications. Failure to follow the format or address the specification may cause your Bid to be disqualified. If you need extra space to describe your product, please feel free to attach extra sheets. When doing this, be sure your description references the appropriate specification and page number.

City of Crete Type I Ambulance Specifications

This specification identifies the minimum requirements for new automotive Emergency Medical Services (EMS) ambulances (except military field ambulances) built on Original Equipment Manufacturer's Chassis (OEM) that are prepared by the OEM for use as an ambulance.

TYPE I Mid-Duty Ambulance

CAAS

The intent of the CAAS Standards is to define a “gold standard” for the medical transportation industry of a higher caliber than is typically required for state or local licensing. The revised CAAS Standards—updated to reflect today’s emergency medical services environment—are built upon this original intent.

Ambulance will be built in accordance to GVS V2.0, with any exceptions taken by customer. The bidding manufacturer shall build in accordance to CAAS GVS 1.0. A CAAS certification sticker, electrical load analysis sticker and payload sticker shall be installed in the oxygen compartment. Any deviations from the specification shall be listed in the vehicle delivery packet with a notation on the certification sticker.

All Ambulance equipment offered and sold hereunder must meet Federal Motor Vehicle Safety Standards (FMVSS) and all modifications and enhancements to that specification.

The manufacturer shall have a registration for ISO 9001(TM): 2015 for their Quality Management System (QMS). The QMS provides establishment, documentation, implementation, maintenance, and improvement of management systems that impact the final quality of the product. Registration of the vendor's QMS demonstrates an enduring commitment to quality, a sharp focus on the customer, and robust communication throughout the product process chain to the customer. This registration provides for oversight with routine inspection of the QMS to maintain certification status. Proof of Certification shall be provided shall be provided with this proposal.

Testing Capabilities

The ambulance manufacturer shall be equipped to do a majority of the ambulance testing at their facility. All pull tests, load tests, (including the module load test), lighting level tests and noise level tests shall be done at the manufacturer’s facility. The manufacturer shall have a full range of testing equipment proven by an independent engineering agency.

In-house testing facilities are preferred by this purchaser as this gives the manufacturer flexibility to perform tests on various designs and iterations on a continual basis. All testing shall be audited and documented by an engineering, which will all be accredited under the board of engineering and technology of their respective state or province.

If the Ambulance manufacturer does not have its own testing facility on-site, a detailed description of how continual testing is provided shall be detailed in the bid proposal.

Testing Requirements

The bidding manufacturer shall be capable of passing testing certifications for North America. All testing performed shall meet or exceed the highest requirement set forth in any of the North American standards listed here. The manufacturer shall be able to provide testing or certification results for the following requirements.

City of Crete Type I Ambulance Specifications

Copies of testing documentation and certification for the AMD requirements shall be provided with this proposal:

Copies of different vehicle certifications for the following vehicle specifications shall be provided with this proposal:

- KKK: Federal Specification for the Star of Life Ambulance (KKK-A-1822)
- FMVSS: US Federal Motor Vehicle Safety Standards and Regulations
- DOT: US Department of Transportation

Any manufacturer who exceeds these specifications is welcomed to provide data. However, it needs to be useful in the application of the purchaser to be considered a plus.

Additional Testing Requirements

In addition to the above-mentioned testing requirements the following tests shall be conducted on the specific model, passed, and documented.

Cot Retention Pull Test

Above and beyond the minimum required 2200 lbs., the bidding manufacturer must have completed a cot retention pull test to meet or exceed 10 times the weight of the cot plus the cot hardware and the weight of a male patient in the 90th percentile per the current NIHS / CCHS data. The minimum requirement may vary, depending on the specific cot and cot hardware. Results for both brands must be provided.

Sound Level Test

Above and beyond the minimum requirement of 80 decibels or less as tested in the patient compartment, the bidding manufacturer must also perform a sound level test in the front cab, with windows opened 6 inches and reach a minimum requirement of 89 decibels or less. Another sound level test in the front cab must be done with windows closed while reaching a minimum of 84 decibels or less.

Patient compartment Grab Rail Test

Above and beyond the minimum requirement of a 300 lbs. pull test on the overhead ceiling grab rail, the bidding manufacturer must perform pull tests on each grab handle inside the patient compartment. All grab handles and overhead grab rails will be pull tested to 500 lbs., however it is important to mention that deformation may occur at 500 lbs.

Interior Climate Control Test

Heating

Minimum Requirement: From 32°F to 68°F in 30 minutes or less

City of Crete Type I Ambulance Specifications

Above and beyond the minimum requirement, the bidding manufacturer must show that his test began at 1°F and reach 68°F in 30 minutes or less.

Air Conditioning

Minimum Requirement: From 95°F to 78°F in 30 minutes or less

Above and beyond the minimum requirement, the bidding manufacturer must perform the exact same test and reach 78°F in 20 minutes or less.

Weight Distribution

Above and beyond the minimum requirement of having 20% or more GVWR on the front axle, the bidding manufacturer will need to meet or exceed a minimum of 30% GVWR on the front axle. This added front axle weight distribution is a critical safety aspect in terms of added traction, braking capacity and increased handling capabilities.

Safety Net and Safety Net Anchor Points Pull Tests

The bidding manufacturer will need to meet or exceed a pull test on the safety net of 3000 lbs. The bidding manufacturer will also need to meet or exceed a pull test of the safety net anchor points of 6000 lbs., with each anchor point being subject to an equal amount of force.

Test Scope – Anchor Points

Attach a force application device to each fastener and applied the required load in a plane parallel to the fastener. Repeat the test procedure while applying the load perpendicular to the initial plane. Examine and record the results.

Test Scope – Safety Net

Apply a force in a forward direction at the center of the net using a suitable solid block to distribute the load. Examine and record results.

Street side Cabinetry Pull Test

The bidding manufacturer will need to meet or exceed a pull test on the street side medical cabinetry equivalent to 25 times the weight of the cabinet and action wall assembly or, in the case the cabinets are individual components of the wall assembly, the sum of every individual cabinet plus the cabinet shelves and action wall, in both lateral and longitudinal axis', with the force equally dispersed on the surface of the cabinet. The pull test shall be conducted on a final assembled cabinet installed in a similar module.

City of Crete Type I Ambulance Specifications

Test Scope – Street Side Cabinetry Pull Test

Apply the required force to the component using a force application device such that the force is spread equally over the fasteners. Apply the force in a lateral direction. Observe and record the results. Repeat the test procedure by applying the force in a longitudinal direction. Observe and record the results.

Equipment Restraint Devices Pull Tests

The bidding manufacturer will need to meet or exceed a pull test on all equipment restraining device, such as fasteners, O2 brackets or belts. The pull test will be a minimum of 10 times the weight of the restraint device and the restrained equipment.

Test Scope – Equipment Restraint Devices

Document and calculate the weight of the equipment and the equipment restraint to be pull tested. Apply the calculated force on each different installation in a parallel and perpendicular plane to the initial plane of the fasteners.

Certification Documents

Certification letters submitted for the ambulance model, components, and equipment being certified shall contain the following information on contractor's letterhead stationery in electronic format (pdf files):

1. To whom certifying
2. Date
3. Units or items
4. Contractor and address
5. Date product tested
6. Model number and specification data
7. Applicable specification references and test requirement
8. Summary of the test report
9. A certifying statement with official signature by a recognized and certified engineer

The testing documentation for each certification shall include the following supportive verification data and information on letterhead stationery in electronic format (pdf files):

1. For whom tested
2. Report date
3. Name of sample product or device

City of Crete Type I Ambulance Specifications

4. Contractor's address
5. Serial and model number(s)
6. Specification referral and amendment number(s), and test requirement(s)
7. Test facilities used and location
8. Test equipment used
9. Test procedure
10. Test results
11. Verifying test data
12. Photographs
13. Test conclusion(s)
14. Witness(es)
15. Authorized signature

Certification documentation shall be delivered with the ambulance, including results of the certification tests. Each model the manufacturer offers shall be tested and certified. The purchaser will not accept testing certification on the largest model size as a "blanket certification" for all models without detailed justification and/or calculation.

Chassis Tires

Chassis Shall have Max Traction Tires

Chassis Model year 2022

Chassis Model year 2022

Conversion RAM 4500 Chassis Cab 4X4

All bodies, systems, equipment, and interfaces with the chassis shall be done in accordance with OEM best practices.

6.7L CUMMINS Turbo Diesel Engine

Wheelbase 192.5" (4890 mm)

GVWR (Gross vehicle weight rating) 16,500 Lbs. / 7,486 Kg

PACKAGES

2YA Customer Preferred Order Package Includes:

- ETN Engine 6.7L I6 Cummins Turbo Diesel
- DF2 Transmission 6-speed automatic Aisin AS69RC HD
- MZZ Black wheel flares
- CLP Door Sill Scuff Pads
- JKH Glove box
- LME Halogen Quad Headlamps
- CEU Key Fob Black
- LBA Map/Courtesy Lamp
- LCH Rear Dome Lamp
- CV3 Urethane Shift Knob

City of Crete Type I Ambulance Specifications

ETN Package Includes:

- DMF 4.10 Axle Ratio
- JJ6 87 Mph Maximum Speed
- XXJ Bio Diesel Capability
- XKH Clean Idle Emissions Label
- MPG Cummins Turbo Diesel Badge
- NZC Current Generation Engine Controller
- BCC Dual 730 Amp Maintenance Free Batteries
- NHN Electronically Controlled Throttle
- XAL Selective Catalytic Reduction
- NEN Smart Diesel Exhaust Brake
- HDB Supplemental Heater

UAA Uconnect 3 Package Includes:

- RFU 5.0" Touch Screen Display
- RSD SiriusXM Satellite Radio
- X9B 1 Year SiriusXM Radio Service
- X9H For More Information Call 800-643-2112
- JLP GPS Antenna Input
- XRB Integrated Voice Command w/ Bluetooth
- JFJ Temperature and Compass Gauge

AMP Chrome Appearance Group Package includes:

- MCT Bright Front Bumper
- MAF Grille Matte Black Mesh w/Chrome
- MNQ Grille Surround Chrome

ADE Cold Weather Group Package includes:

- NHK Engine Block Heater
- XD6 Winter Front Grille Cover

AH6 Emergency/Fire/Rescue Special Emissions Package Includes:

- XF7 Dual 220 Amps Alternators Rated at 440 Amps
- XNR Manual DPF Regeneration
- HBC Rear A/C Heater Prep Group
- XKZ Special Emissions-Emergency Vehicle
- XF6 Voltage Monitoring Auto Idle Up System

A61 Tradesman Level 1 Equipment Group Package Includes:

- LEB Exterior Mirrors W/Supplemental Signals
- LEC Exterior Mirrors Courtesy Lamps

City of Crete Type I Ambulance Specifications

- NJH Exterior Mirrors W/Heating Element
- LYN Mirror Running Lights
- CUN Overhead Console
- LBT Overhead Cupholder Lamp
- GPG Power Black Trailer Tow Mirrors
- JPY Power Windows, Front 1-Touch Down
- GXM Remote Keyless Entry w/o 2TG
- MTN Satin Chrome Interior Door Handles
- JPH Speed Sensitive Power Locks
- CTY Upgraded Door Trim Panel w/o 2TG

PAINT/SEAT/TRIM

- PW7 Bright White Clear Coat
- APA Monotone Paint
- *V9 Cloth 40/20/40 Bench Seat
- -X8 Black/Diesel Gray

OTHER FEATURES

- GFD Rear Sliding Window
- TBB Full Size Spare Tire – 19" .5 steel spare wheel
- ME4 "RAM" Door Badges
- ME6 "RAM" Grille Badge
- CJT Delete Front Center Seat
- DJK 10.5" Front Axle
- CLY Front Rubber Floor Mats
- DRY 12.0" Banjo Rear Axle
- JCB 120 Mph Primary Speedometer
- JJJ 12v Auxiliary Power Outlet
- WP3 19.5x6.0 Steel Wheels
- TAE 225/70R 19.5G All Position Tires
- RCD 4 Speakers
- SCF 4-Spoke Steering Wheel
- NAS 50 State Emissions
- NFH 52 Gallon Rear Fuel Tank
- XFK 7 Pin Trailer Wiring Harness
- RD3 Accent Color Shark Fin Antenna
- MDX Active Grille Shutters
- CG3 Advanced Multistage Front Air Bags
- HAA Air Conditioning
- DR8 American Axle Brand
- BRT Anti-Lock 4-Wheel Disc Brakes
- DSA Anti-Spin Differential Rear Axle

City of Crete Type I Ambulance Specifications

- RSU Audio Jack Input for Mobile Devices
- LHL Auxiliary Switches - I/P Mounted
- NHB Auxiliary Transmission Oil Cooler
- CTL Base Door Trim Panel
- A6A Base Equipment Group
- CU3 Behind the Seat Storage / Bin
- MNA Black Door Handles
- LE4 Black Exterior Mirrors
- CKJ Black Vinyl Floor Covering
- MMZ Black Wheel Flares
- LB6 Bulb Out Detection Defeat for Led
- X75 Bumper Module II
- X8S Center Console Parts Module
- MFP Chrome Headlamp Bezels
- LNC Clearance Lamps
- JAE Cluster 3.5" TFT BW Display
- HGB Dash Liner Insulation
- LM1 Daytime Running Headlamps, Low Beam
- LP8 Delete Cargo Lamp
- XBC Delete Pickup Box
- X82 Door Parts Module
- CSP Driver/Passenger Assist Handles
- CDX Driver Passenger Headrest
- JVA Driver Seat - Manual Adjust 4-Way
- JJB Dual Note Electric Horns
- WLA Dual Rear Wheels
- DH4 Electronic Range Select
- BNB Electronic Stability Control
- NHJ Exterior Mirrors w/ Heating Elements
- HGF Floor Tunnel Insulation
- GPD Folding Trailer Tow Mirrors
- MXB Front Air Dam
- CDR Front Armrest w/Cupholders
- X83 Front End Parts Module
- SFB Front Heavy Duty Shock Absorbers
- CGD Front Height Adjust Shoulder Belts
- MDA Front License Plate Bracket
- SHA Front Stabilizer Bar
- MHR Front Wheel Well Liners
- JWA Front Pass Seat - Manual Adjust 4-Way
- LHD Headlamp Off Time Delay
- X8Y Headliner Parts Module

City of Crete Type I Ambulance Specifications

- NMC Heavy Duty Engine Cooling
- JE1 I/P Bezels-Painted
- JY1 Instrument Cluster Theme 1
- X81 Instrument Panel Parts Module
- XZG Job Rated
- RSF Media Hub-2 USB, Full Function, Auxiliary
- LNY Mirror Running Lights
- XA8 Non-Adjustable Pedals
- GNM Passenger Side Sun Visor W/Mirror
- JKY Power Accessory Delay
- SBE Power Steering
- GX4 Pushbutton Start
- MUP Ram 4500 Badge
- BHD Ready Alert Braking
- SGB Rear Heavy Duty Shock Absorbers
- SHD Rear Heavy Duty Stabilizer Bar
- GNA Rear View Day/Night Mirror
- RS3 Remote USB Port - Charge Only
- RSX Remote USB Port
- X8Z Seat Parts Module
- GXX Sentry Key Theft Deterrent System
- NHM Speed Control
- BNF Stationary Elevated Engine Idle
- SUA Tilt Steering Column
- GAC Tinted Glass Windows
- GBB Tinted Windshield Glass
- XBN Tip Start
- X88 Tire Wheel Parts Module
- XEA Tow Hooks
- LEG Trailer Tow Mirrors
- XXS Upfitter Electronic Module
- RF7 USB Host Flip
- JHA Var Intermittent Windshield Wipers
- LAZ Vehicle Information Center

GAWR FRONT 7,000 LBS

GAWR REAR 12,000 LBS

GVWR 16,500 LB

Chassis

Rear wheels to have valve stem extenders installed. Extenders shall allow the use of standard air chuck and pressure gauge.

City of Crete Type I Ambulance Specifications

LiquidSpring™ Suspension Type I

Compressible Liquid Adaptive Suspension System is a smart suspension system. Liquid--based struts and an on--board processor provide better handling and control, and a smoother, softer ride. The reduced vehicle vibration increases comfort.

A CLASS®, or Compressible Liquid Adaptive Suspension System, shall be provided and installed. Utilizing a strut, with a compressible fluid as the spring/damping medium, and its sophisticated on-board microprocessor, CLASS® adapts the entire vehicle's response to road variations and the driver. Unlike current steel and air sprung suspension systems, CLASS® can automatically and instantaneously change the spring stiffness and damping at each wheel over a very broad range with minimal power consumption while the vehicle is being driven and without driver intervention. The system shall include an automatic lowering feature, which is activated by opening the rear patient compartment doors. There shall be a switch near the rear doors which will defeat the lowering feature.

Body Dimensions

The overall dimensions of the completed ambulance module shall be 170" long by 95" wide. The interior headroom shall be 72" from the floor to the ceiling.

Overall Construction

The entire modular body shall be engineered to provide the highest possible structural integrity while maintaining the lowest possible overall weight. This method of engineered construction shall provide an efficient ambulance design with greater usable payload, improved ride characteristics and greater maintenance intervals on brakes and suspension components.

The completed ambulance shall have no water leakage into the cab, compartments, patient compartment, or through any door seal, light seal, or pass-through seal.

All welding performed on the fabricated ambulance shall be completed by a welder certified in their particular welding discipline. Manufacturers providing only certification of department supervisors or final inspectors shall not be acceptable and shall be cause for rejection. Certified welders are desired by the purchaser as this proves the welder has met the requirements to perform the task at a high level of quality and consistency. The manufacturer shall provide proof of the welder's certification upon the purchaser's request.

Holes and cutouts, for lights and other components attached to the side of the ambulance, shall be painted or protected against corrosion. When installation hardware is of dissimilar metals, an anti-corrosive electrolysis inhibitor in addition to a plastic insert shall be installed to ensure no contact is made between the module body and hardware fastener.

Roof Construction

City of Crete Type I Ambulance Specifications

The ambulance roof shall be of aluminum construction utilizing a customized formed roof extrusion, a roof structure, and a single piece roof. The roof extrusion shall be constructed to integrate and accept the side wall tubes, side wall skin, roof skin and roof structure. A drip rail shall also be integrated into this extrusion.

The roof tube structure shall be 1.5" x 2", variable thickness tubes made of 6061-T6 aluminum. The extruded tube structure shall incorporate a .125 thickness on the longitudinal side and a .070 thickness on the lateral side with four (4) 1/4" radiuses to allow better welding. 5052-H32 1/8" formed C-channel shall be welded to the roof structure in each area where additional equipment will be installed. The safety net reinforcement structure utilizes the c-channel and an additional 1/4" 6061-T6 mounting plate welded inside the C-channel to provide the necessary strength to withstand the forces needed to keep the safety net secured.

The single sheet .090 5052-H32 roof shall be installed on the lip of the roof extrusion to allow the roof sheet to sit flush with the roof extrusion. The roof skin shall be attached to the roof structure using a chemical bonding agent. The roof skin and tubing surfaces shall be properly prepped and cleaned to accept this adhesive. The edges of the roof skin shall be fully welded and grinded to the roof extrusion to provide a single smooth paintable surface.

The module corner extrusions and the roof extrusions shall be constructed in a manner to properly fit without needing corner caps. Unwelded corner pieces allow for more torsion in the modular body and could compromise the structural integrity of the roof and corner construction.

The purchaser will not accept prototype build/models or untested construction methods used only to satisfy the detailed description of this specification.

Side Body Construction

The side of the ambulance body structure shall be constructed of 1.5" x 2", variable thickness tubes made of 6061-T6 aluminum. The extruded tube structure shall incorporate a .125 thickness on the longitudinal side and a .070 thickness on the lateral side with four (4) 1/4" radiuses to allow better welding. Side tubes shall be placed at a maximum of 16" on center. Corner extrusions are welded to the side structure.

A one (1) piece CNC machined cut side wall made of .090" 5052-H32 aluminum shall be chemically bonded to the side structure. The side wall and tubing surfaces shall be properly prepped and cleaned to accept this adhesive. This attachment method is preferred as it creates a side wall surface with no warpage as no heat transfer takes place as it would when the side wall is welded. The side wall shall be inserted into the roof extrusion lip and welded to this extrusion on the back side.

In areas where seating is going to be installed, the side wall shall have a 1/2" 6061-T6 mounting plate rail installed. It shall serve as a proper seat belt mounting point as well as an additional reinforcement in the event of a side impact.

Alternative side wall construction methods not complying with the above detailed specifications can be presented and shall be detailed in the exceptions section of this bid proposal. Photographs and a detailed documentation of the process shall be included in the bid specification.

City of Crete Type I Ambulance Specifications

The purchaser will not accept prototype build/models or untested construction methods used only to satisfy the detailed description of this specification.

Floor Construction

The floor structure shall be constructed of 2" x 2" tubes made of 6061-T6 aluminum. Different thicknesses, .125" and .250", shall be used to maximize strength/weight ratio to ensure maximum payload capacity while passing all required load testing. A thicker floor structure shall not be tolerated as an exception because it increases the loading height.

In areas where seating or cot anchoring is going to be installed, the floor shall have 1/2" 6061-T6 mounting plates welded in the structure.

A CNC machined cut skin made of .063" 5052-H32 aluminum shall be chemically bonded to the floor structure. The skin and tubing surfaces shall be properly prepped and cleaned to accept this adhesive.

A minimum .063 heat shield shall be installed under the floor and body structure to serve as additional protection against external heat generated by the exhaust system.

Drop Skirts

On both sides of the ambulance module, there shall be a 6" drop skirt.

This drop skirt will start forward of the rear wheel well up to the front of the ambulance module.

Consequently, the step-in height will be in a comfortable range and the S1/S2 street side exterior compartments will allow an easy loading height.

Wheel Wells

An aluminum wheel well shall be incorporated into the underbody structure. This wheel well shall be sealed to prevent water or debris from entering the module. The interior surface of the wheel well shall be insulated with foam to prevent noise caused from vibration and exterior road noise.

Compartment Construction

The sides of the storage compartment shall be constructed of a minimum .063 machine formed aluminum diamond plate. The sides, top and bottom of interior compartment shall be formed and welded to ensure a secure, square fit. All outside edges of the compartment shall be sealed with weatherproof sealer/ inhibitor. The compartments shall be properly anchored and reinforced to the door jamb extrusions and the floor structure. The bottom of each compartment shall be constructed of smooth 6061-T6 .090" aluminum and shall have a punched drain hole to facilitate water drainage.

City of Crete Type I Ambulance Specifications

Ventilation shall be provided in the side and/or ceiling of the compartments to allow for adequate air movement when the door is closed. The upper portion of the compartment shall be machine louvered to ensure an even distribution of air escaping the compartment. This even distribution of air movement shall allow the door to close with minimal external force and shall allow it to seal properly against the door jamb extrusion. Air shall flow into the interior of the module via the space between the side wall and the cabinetry. The oxygen bottle compartment shall only be vented to the outside of the ambulance.

Exact exterior compartment sizes and dimensions shall conform to the drawings provided with this bid proposal and shall conform to the layout detailed at the beginning of this section.

Alternative construction methods shall be detailed in the exceptions section of this bid proposal. Photographs of this construction method shall be provided to allow for adequate comparison.

The purchaser will not accept prototype build/models or untested construction methods used only to satisfy the detailed description of this specification.

Door Frame Construction

All exterior storage compartments shall be constructed of an extruded door frame structure which will be welded to the back of the door structure. The front of the extruded door shall not have any signs of welding as this causes distortion to the door and requires the use of body filler to create the illusion of a smooth surface. Holes for the door hinges shall be CNC machined into the jamb for exact fit when the door is installed. Extruded door jambs shall be sealed against the side wall skin. The extrusion shall be treated and adhered to the side skin to ensure debris and weather does not penetrate the extrusion area. This method is preferred as the extrusion attachments allow for an amount of necessary flex and torsion when the ambulance is in motion. This CNC machined method allows for the easy ordering and replacement of the door should it become damaged during the life of the ambulance.

Door Construction

General Construction

Each door shall be constructed from an extrusion that mates to the door jamb structure. Cut outs for the latches and hinges shall be machine cut and not manually hand cut or drilled out to ensure a consistent fit. The door extrusions shall be welded securely at the mitered edges and each corner shall have a welded reinforcement. The extrusion shall be designed such that the weather seal is placed ahead of the door latch to assist in keeping debris from getting into the latch. When closed, the door shall form a complete weather tight seal. A second formed rubber weather seal shall be installed on the door frame ensuring a durable weather seal for each compartment.

Adequate reinforcement shall be installed to ensure door rigidity and provide mounting locations for assist handles and / or other equipment.

City of Crete Type I Ambulance Specifications

The exterior door panel skin shall be constructed of one (1) piece .090 formed aluminum. The aluminum shall be engineered to wrap around the form door extrusion to create a complete aesthetically pleasing appearance without exposed seams. Exterior door panels shall be adhered to the extruded door structure with a chemical bonding adhesive. The completed exterior door shall be engineered to fit properly and square into the doorjamb extrusion.

Door hinges shall be screwed through the pre tapped door and door jamb extrusions. They shall be rust resistant piano hinges. Each door shall be equipped with an appropriate variable speed gas strut hold open to ensure a solid closure. Spring type hold opens are not desired due to their tendency to wear and break over time.

Compartment Door Panels

Exterior compartment interior door panels shall be constructed of .090" powder coated aluminum. Holes for the door panel mounting shall be CNC cut to ensure a proper fit. The interior door panel shall reside in a small recess in the formed exterior door extrusion to give the door panel a flush fit. Access points shall be included on the door panel to allow for easy maintenance of the latching or door opening mechanisms. A low-density open cell foam tape shall be installed on the door structure as a dampening insulator from any vibration that may occur.

Access Door Panels

Access door interior panels shall be divided in three (3) sections, top, middle, and lower. The top section shall be made of fiberglass. The recessed window section shall be covered by this trim. The lower section shall be made of stainless steel. The center section shall be made of powder coated aluminum. It shall cover the top and lower section joints via swags. The center sections must be removable for door handle maintenance without the need to remove any other components such as assist handles.

Body Mounting

The module body shall be installed using the OEM insulated rubber puck mounts securely bolted from the bottom to allow for ease of removal should the vehicle be remounted. The module body shall be mounted in 12 locations, six (6) on each side of the chassis frame rails. OEM supplied automotive style rubber puck mounts shall be bolted through ½" 6061 T6 aluminum structure plates to serve as reinforcement points of the bottom of the module as well as provide a solid single surface piece to absorb the natural torsion as the vehicle is in motion ("body roll").

Two additional steel, "L" bracket, one (1) on each side, shall be added to the rear chassis frame. These "L" brackets shall also serve as a mounting point for the rear bumper.

The body shall be mounted in such a manner as to allow the lowest possible load height.

Paint Chassis and Module

Chassis and module shall be repainted to match Dodge Flame Red.

C1 Door, ALS Access and Battery Location

City of Crete Type I Ambulance Specifications

First door on curbside (C1) for ALS compartment access and battery slide out sealed compartment.

This compartment shall be located on the curbside front of the module. It is designed to provide interior/exterior access to the ALS compartment. The lower section includes a battery drawer for conversion batteries. Lighting is to be provided by LED lights.

C2, Curbside Entry Door

Side entry door on curbside (C2) for patient compartment access, with flush-mounted, automotive-style window.

A side access door shall be located just behind the C1 compartment. This full height door shall allow for entering and exiting the module patient compartment. This door shall have an automotive style window as specified in the window section of this specification. Non-skid steps shall be built into the side entry doorstep well. The side surfaces shall be aluminum diamond plate and shall cover the entire step well area. Entry area is to be lit by an LED light. There shall be two (2) drains punched in the floor towards the front of the compartment, one (1) on each step.

The side access doors shall incorporate an emergency release latch at the top and the bottom of the doors. This emergency device shall directly trigger the door latch to an open position in the event the door handle becomes inoperative.

C3 Door, Storage Exterior Compartment

Third door on curbside (C3) for backboard or other storage.

This storage compartment shall be located at the rear curbside of the vehicle. Lighting is to be provided by LED light and the floor protected by a dry carpet.

Stair Chair Location, Two (2) Adjustable Shelves

Stair chair location with two (2) adjustable shelves and retaining safety belt for backboard in C3 compartment.

The C3 compartment shall be located at the rear curbside of the vehicle. It shall contain one (1) fixed divider and two (2) adjustable shelves made from high-strength aluminum alloy and steel for maximum durability with straps for backboard or spine board storage. The bottom section shall accommodate a stair chair storage area.

Third door (C3) Compartment In/Out Access

Third door (C3) Compartment In/Out Access with sliding windows

The top section of the C3 compartment should provide inside/outside access from the patient compartment. The storage compartment shall be accessed via the patient compartment by an extruded aluminum door with Lexan inserts.

High-Intensity Compartment Tube Lighting

High-intensity tube lighting for Compartments. With Side entry Doorsteps.

There shall be a high-intensity tube lighting in the storage compartment. They shall be made with Whelen Fluorent Plus™ Series lighting and utilizes two Super-LED diodes per inch.

City of Crete Type I Ambulance Specifications

E Door, Electrical Exterior Compartment

Upper door (E) for electrical panel access.

This compartment shall contain all electrical components, including Electronic Controller Units for the multiplex system. It shall be locked with a different key and not part of the electronic lock and unlock system. Lighting is to be provided by LED light.

A1 and A2, Rear Entry Doors, Individual Door Handles

Two (2) rear entry doors for patient compartment access, each with its individual exterior door handle.

Two (2) rear access doors shall allow for patient loading. Each door shall have fixed automotive style windows as specified in the windows section.

The rear access doors shall incorporate an emergency release latch at the top and the bottom of the doors. This emergency device shall directly trigger the door latch to an open position in the event the door handle becomes inoperative.

S1 Door, Main Oxygen Exterior Compartment

First door on streetside (S1) for main vertical oxygen cylinder.

This compartment shall be located on the driver's side front of the module directly behind the cab. This compartment shall be used for the storage of the oxygen cylinder(s). Lighting is to be provided by a LED light and the floor protected by a dry carpet.

Full-Depth Shelf, One (1), Adjustable

One (1) full-depth, adjustable shelf in S2 compartment.

The compartment used for the storage shall have an adjustable shelf.

Fire Extinguisher, ABC-Rated, 5 lbs., with Bracket

Fire extinguisher, 5 lbs., ABC-rated, with heavy duty bracket in S2 compartment.

There shall be a fire extinguisher mounted in the compartment with a heavy-duty bracket.

S2 Door, Storage Exterior Comp

Second door on streetside (S2) for equipment storage.

This compartment shall contain all electrical components, including Electronic Controller Units for the multiplex system. It shall be locked with a different key and not part of the electronic lock and unlock system. Lighting is to be provided by a LED light.

S3 Compartment, Equipment Storage, In/Out Access

City of Crete Type I Ambulance Specifications

Third door on streetside (S3) for equipment storage, with interior/exterior access.

This compartment shall be located at the rear of the driver side behind the fuel filler. The top section should provide inside access to the medical cabinet. The lower section shall house the spare tire and tools. Lighting is to be provided by an LED light and the floor protected by a dry carpet.

Stair Chair Holder on Compartment Door

Stair chair holder on S3 compartment door.

The lower section shall house a door mounted stair chair.

Half-Depth Shelves, Two (2), Adjustable

Two (2) half-depth, adjustable shelves in S3 compartment.

The lower section shall house two (2) adjustable half depth shelves for general storage.

Turn Signal Arrows, Amber (2), LED

Two (2) amber turn-signal arrows, installed on the front of the module. Whelen M6 series (6 x 4) LED lights.

Two (2) Whelen M6 series (6 x 4) LED amber arrows with chrome bezel shall be installed high on the front plane.

Turn Signal Lights, Amber (2), LED

Two (2) amber turn-signal lights, intermediate side mount. Whelen M7 series (7 x 3) LED lights.

Two (2) amber turn-signal lights, intermediate side mount. Whelen M7 series (7 x 3) LED lights shall be installed above the wheel well fenderette, one (1) on each side.

Third Upper Brake Light, LED

Third upper brake light at rear of module. Whelen M6 series (6 x 4) LED light.

Third upper brake light Whelen M6 series (6 x 4) LED light shall be installed at rear of module.

Mid-Height Lights: Arrow, Brake, Reverse

Two (2) amber arrows, two (2) red brake lights, and two (2) reverse lights at mid height. Whelen M6 series LED lights (6 x 4).

The stop, tail, turn and reverse lights shall be integrated at the rear of the module at mid-height. They shall all be two (2) amber arrows, two (2) red brake lights, and two (2) reverse lights. Whelen M6 series LED lights (6 x 4).

Rear Step Plate, without Lighting

City of Crete Type I Ambulance Specifications

Rear step plate without lighting.

No stop, tail, turn and reverse lights shall be integrated in the rear kick panel.

Marker Lights, Amber (7) and Red (7), LED

Seven (7) front upper center and corner amber LED marker lights. Seven (7) rear upper center and corner red LED marker lights.

Fourteen (14) TecNiq S21 LED clearance marker lights shall be installed on the ambulance. Seven (7) Amber clearance marker lights shall be installed on the front plane of the module, three (3) in the center and two (2) in the corners. Two (2) Amber ICC lights shall be installed on the side planes of the ambulance, one (1) on each side towards the front.

Seven (7) red clearance marker lights shall be installed on the rear plane of the module, three (3) in the center and two (2) in the corners. Two (2) red ICC lights shall be installed on the side planes of the ambulance, one (1) on each side towards the rear.

Marker Lights, Two (2) rear mid-height red LED

Two (2) rear mid-height red LED marker lights.

Two (2) TecNiq S21 LED red clearance marker lights shall be installed on the side planes, on the corner extrusion, just above the corner stainless steel guards.

C1 compartment

C1 compartment to have Two (2) LED strip lights in each FA and FC compartments

Emergency and Working Lights (EWL)

Clear lenses.

All lenses shall be clear.

Chrome bezels

All bezels shall be chrome.

Emergency Lights, Red (3), White (1), Red (3), LED

Seven (7) emergency lights installed on the front of the module. Includes three (3) red, one (1) white, and three (3) red. Whelen M9 series (10 x 6) LED lights.

Seven (7) Whelen M9 series LED lights with chrome bezels shall be installed on the front plane. The lighting shall include a mix of six (6) red and one (1) clear light. These lights shall flash in an alternating pattern where all red lights flash together first followed by the clear light. These lights shall flash in a pattern programmed by the multiplexing electrical system.

City of Crete Type I Ambulance Specifications

Lights in Front Grille, Red (2), LED M7

Two (2) red lights in front grille. Whelen M7 series (7 x 3) LED lights.

Two (2) red Whelen M7 Series (7x3) LED lights with chrome bezels shall be installed in the front grille. The grille lights shall not interfere with air flow into the chassis. These lights shall flash in a pattern programmed by the multiplexing electrical system.

Emergency Lights on Inside of Doors, One (1) each

One red emergency light on each compartment and entry door inside panel. Total of eight (8) round LED lights.

One (1) Whelen 2" Round series red LED with rubber flange shall be installed high on each door. Each light shall flash when the door is opened.

Intersection Lights, Clear/Red (2), LED

Two (2) clear/red intersection lights with turning priority. Whelen M7 series (7 x 3) LED lights.

Two Whelen M7 Series LED clear/red lights with bezels shall be installed on the fenders of the chassis. These lights shall be in a forward position to provide adequate visibility at an intersection. The clear portion shall be continuously lit when the turn signal is activated. These lights shall flash in a pattern programmed by the multiplexing electrical system.

Bezel fiberglass for intersection lights

Fiberglass bezel for intersection lights on cabin fenders

The vehicle shall have surface mounted fiberglass 15 deg bezel for intersection lights over cabin wings.

Emergency Lights, Red (2), LED, Inter. Side Mount

Two (2) red emergency lights, intermediate side mount. Whelen M7 series (7 x 3) LED lights.

Two (2) Whelen M7 series (7 X 3) LED red warning lights with chrome Bezels shall be installed on the side plane of the ambulance, one (1) on each side towards the center, above the fenderettes.

Four (4) red LED lateral emergency lights (M9)

Four (4) red lateral emergency lights (two (2) on each side). Whelen M9 series (10 x 6) LED lights.

Four (4) Whelen M9 Series (7 X 9) LED scene lights with chrome bezels shall be installed on the side planes of the ambulance. The scene lights shall project at a downward angle to allow for adequate lighting of the area surrounding the sides of the ambulance. They shall be controlled independently for each side by a switch in the front console. The curbside scene lights shall also be activated when the side entry door is opened. This feature can be cancelled by pressing one (1) second on the door switch.

City of Crete Type I Ambulance Specifications

Three (3) position switch is not tolerated as the signal for the open door is cancelled when the switch is pulled in the third position, which could lead to a safety issue. Adding a second switch is also not tolerated as it adds unnecessary wiring and components.

Scene Lights, Four (4), Clear LED, (M9)

Four (4) lateral scene lights (two (2) on each side). Whelen M9 series (10 x 6) LED scene lights.

Four (4) Whelen M9 Series (7 X 9) LED scene lights with chrome bezels shall be installed on the side planes of the ambulance. The scene lights shall project at a downward angle to allow for adequate lighting of the area surrounding the sides of the ambulance. They shall be controlled independently for each side by a switch in the front console. The curbside scene lights shall also be activated when the side entry door is opened. This feature can be cancelled by pressing one (1) second on the door switch.

Three (3) position switch is not tolerated as the signal for the open door is cancelled when the switch is pulled in the third position, which could lead to a safety issue. Adding a second switch is also not tolerated as it adds unnecessary wiring and components.

Emergency Lights, Red (2), LED, Rear Corners

Two (2) red rear emergency lights at upper rear corners. Whelen M9 series (10 x 6) LED lights.

Two (2) Whelen M9 Series (7 X 9) LED red warning lights with chrome bezels shall be installed on the rear plane of the ambulance, one (1) in each corner. These lights shall flash in a pattern programmed by the multiplexing electrical system.

Emergency Lights, Amber (2), LED

Two (2) rear upper amber lights. Whelen M6 series (6 x 4) LED lights.

Two (2) Whelen M6 Series (6 X 4) LED amber warning lights with chrome bezels shall be installed above the rear doors. These lights shall flash in a pattern programmed by the multiplexing electrical system.

Loading Lights, Two (2), LED

Two (2) rear loading lights. Whelen M6 series (6 x 4) LED lights.

Two (2) Whelen M6 Series (6 X 4) LED load lights with chrome bezels shall be installed on the rear plane of the ambulance, above the rear doors. The load lights shall project at a downward angle to allow for adequate lighting of the area surrounding the rear of the ambulance.

They shall be controlled by a switch in the front console. The lights shall also be activated when the rear entry door is opened. This feature can be cancelled by pressing one (1) second on the door switch. Three (3) position switch is not tolerated as the signal for the open door is cancelled when the switch is pulled in the third position, which could lead to a safety issue. Adding a second switch is also not tolerated as it adds unnecessary wiring and components.

City of Crete Type I Ambulance Specifications

Emergency Lights, Red (2), LED, Additional, Window Height

Two (2) additional red lights at window height. Whelen M9 series (10 x 6) LED lights.

Two (2) Whelen M9 Series (7 X 9) LED red warning lights with chrome bezels shall be installed on the rear plane of the ambulance, two (2) on each side of the doors, visible through the window when the door is opened. These lights shall flash in a pattern programmed by the multiplexing electrical system.

Warning lights

Warning lights on front of module to be R, W, R, W, R, W, R

All emergency warning lights shall be wired separate and flash randomly.

Front grill lights

Front bumper warning lights to be Red/White split

Intersector Lights and over rear wheel lights

Front fender warning lights to be Red/White split the over the rear wheel warning lights to be red.

Audible Warning System (WRN)

Back-Up Alarm

Back up alarm (97dB) with override switch.

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

Whelen 295SLS Hands-Free Siren

Whelen model 295HFSA1 siren amplifier with 17 Scan-Lock™ siren tones.

The ambulances primary audible warning equipment shall be in the form of one (1) automotive traffic horn and one (1) Whelen 295HFSA1 multiple tone siren. This siren shall be easy for the driver to access as it shall be mounted in the front console.

Switch to Mute OEM Horn when Siren Speakers Active

Switch to mute the OEM horn when the siren speakers are activated.

There shall be a switch to mute the OEM horn when the siren speakers are activated.

City of Crete Type I Ambulance Specifications

Whelen SA315 Series Speakers

Whelen SA315 series speakers is a compact speaker, meeting SAE Class A requirements when paired with Whelen 100-watt siren amplifier.

Whelen low profile siren speakers shall be concealed behind the front bumper of the chassis or surface mounted and housed behind stainless box. They shall be securely mounted in an engineered housing to fit without modifying the chassis. This housing shall be designed not to restrict airflow or to reduce the effective of the siren speaker.

Exterior Vehicle features (VFT)

Rear Tow Hooks

Two (2) tow hooks are installed in the rear step plate.

Two (2) tow hooks shall be recessed in the rear step area and securely fastened to the rear chassis.

Quarter-Tank Fuel Fill

Quarter-tank fuel fill.

There shall be a quarter-tank fuel fill.

OEM exterior mirrors

Keep OEM exterior mirrors.

The OEM exterior mirrors shall be installed.

Module Rub Rails, Aluminum

Aluminum rub rails on module sides.

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

Module Corner Protectors, Stainless-Steel

Stainless-steel protectors on module corners.

There shall be stainless steel module corner protectors.

Module Wheel Trims, Fiberglass

Formed fiberglass wheel trimming on module.

There shall be formed fiberglass wheel trimming on module.

Undercoating Protection

Undercoating protection for module and chassis.

City of Crete Type I Ambulance Specifications

There shall be undercoating protection.

Rear Wheel Mud Guards

Mud guards on module for rear wheels.

There shall be rear wheel mud guards.

Stainless Steel Protectors Below Fillers

Stainless Steel Protectors Below Fillers

A stainless-steel tank fill protector shall be provided and installed.

License Plate with Light

Surface mounted license plate location with LED light.

There shall be a license plate holder with LED light.

Cab Steps, Anti-Skid Material with Mud Guards

Anti-skid lateral steps. Includes mud guards for front wheels.

Full length exterior running boards shall be installed on the chassis. They shall be constructed of a sure grip material no less than 7" wide with machine punched holes to facilitate water and debris runoff.

Aluminum mud flaps shall be added to reinforce the running boards and prevent road debris intrusion. End plates are also installed to reinforce the rear section.

Rear Step Bumper, Retractable Center Section

Anti-skid rear retractable step. Diamond plate corner bumper. Rubber bumperette.

A full width rear step bumper with integrated flip up rear stepping surface shall be installed on the rear of the vehicle. It shall be constructed of a sure grip material no less than 9" wide with machine punched holes to facilitate water and debris runoff. Corners are made of aluminum diamond plate. A 3" rubber bumper is bolted on each corner to protect the bumper. The structure is to be bolted to the chassis for easy replacement and adjustment.

Valet Switch in Front Grille

The door unlock valet switch is located on the back of the front grille, on the driver's side half portion of the grille. It allows to unlock all doors of the vehicle but cannot lock the doors.

City of Crete Type I Ambulance Specifications

An exterior waterproof hidden door unlock switch shall be provided and installed in the front grill area.

Black Back-Up Camera

Zone Defense standard back-up camera with build-in audio support and infra-red night vision.

A color camera system connected to the cab display screen shall be installed, providing rear view monitoring to the rear exterior of the module. The camera shall be connected to the video input provided in the cab's screen. The viewing angle meets FMVSS 111 field of view requirements. A built-in audio support shall be integrated so you can hear what is happening around the camera. This Infra-red camera provides driver with night vision. The camera image shall automatically be displayed on the monitor when the vehicle is placed in reverse. The monitor shall resume normal operation when the vehicle is taken out of reverse.

Anti-Theft System

The anti-theft allows to leave the vehicle with the keys with the engine running to keep the vehicle at the ideal operating temperature. It protects against theft by running off the engine if the vehicle moves.

Provides a method to remove the keys while the ambulance is running, and automatically shutting down the engine if any attempt is made to put the vehicle into gear without reinserting the key.

ECOSMART Anti-Idling System

The ECOSMART Anti-Idling System automatically stops the engine and restarts the engine of the vehicle in idling conditions. The ECOSMART Anti-Idling System is managed by the Electronic Multiplex System (DEMS).

There shall be a fully integrated anti idle system installed in the ambulance. The system shall be fully automated and shall not require interaction by the end user. The smart system shall monitor voltage and temperature within the patient module. This system shall automatically shut the engine off while allowing all user functions to be maintained while in "park" mode. The system will automatically restart the unit, if either the voltage shall drop or there is a set temperature change in the patient module. Prior to shut down or start up the system will alert the operator that the system is entering smart mode. The system shall be capable of providing significant fuel reduction by preventing long idle times. This system shall also assist in decreasing service intervals, based on reducing engine hours life by reducing significant idle times.

Disable EcoSmart Anti-idling

Disable EcoSmart Anti-idling

Center Console

Glove holders for 2 boxes at the rear of the cab console

Sharps and Waste

Additional sharps container with bracket (same as use on the A bar) to be shipped loose.

Dash Camera

City of Crete Type I Ambulance Specifications

Install a Dash Camera with record capabilities ZONEDEFENDER® DRIVER CAMERA (R.AVS.20.1)

Tri-Star Urethane Paint

Two (2) coats of primer with two (2) coats of urethane. All four (4) sides and roof. No sanding. No buffing.

All exposed metal surfaces that are not plated or stainless steel shall be cleaned and prepared and shall be painted or coated. The paint or coating, including any primer, shall be applied in accordance with the manufacturer's recommendation. The paint used shall be from Tristar, a high built polyurethane surface over epoxy primer application using one (1) acid stabilizing treatment. This paint is preferred by the purchaser as it has a durable lifespan, is resilient to harsh climates and remains pliable even in its hardened state to prevent cracking and chipping from normal ambulance body torsion.

The paint process will consist of two (2) coats of primer and two (2) topcoats. The primer will be an epoxy/polyamide strontium chromate primer boasting excellent impact and chemical resistance designed specifically for the aerospace industry's high-performance requirements.

The base primer coat will need to pass the following tests, with testing documentation:

Impact Resistance: No flaking or cracking when subjected to 40 inch pounds direct impact or a 40 inch pounds reverse impact.

Hardness: Pencil Hardness 2H minimum.

Fuel Resistance: Withstands immersion of Jet A1 Fuel for 14 days at ambient temperatures without showing any defects. After a 24-hour recovery period, the primer regains its pretest hardness.

Lubricating Oil Resistance: Withstands immersion in lubricating oil at 25° C for 14 days without showing any softening, blistering, or loss of adhesion.

Hydraulic Fluid Resistance: Withstands immersion in Skydrol hydraulic fluid without showing any defects for 30 days.

Salt Spray Resistance: With a scribed film at an angle of 6°, it exhibits no blistering, lifting of the primer, or substrate corrosion after exposure to 5% salt spray following ASTM B117 on treated aluminum substrate 3000 hours.

Water Resistance: No blistering or loss of adhesion after 14 hours immersion in distilled water at ambient temperature. Will regain its pretest hardness after a recovery period of 24 hours.

The manufacturer's paint facility shall be free of dust and contaminants that could have an adverse effect on the paint finish. The manufacturer's paint facility shall also be certified to apply the paint specified.

The aluminum structure shall be prepared by thoroughly washing the aluminum body with wax and grease remover, preferred product is PPG DX440.

City of Crete Type I Ambulance Specifications

The surfaces shall be sanded smooth. All sand and dust shall be removed with air when sanding is complete and rewashing with PPG DX-440.

A pre-treatment shall be used for better adhesion. This pre-treatment is a phosphoric acid base, non-flammable and specifically designed for aluminum substrate. The process of using a non-flammable phosphoric acid involves removing any surface contaminants, then chemically preparing a clean surface. This process increases the overall surface area, promote adhesion, enhanced corrosion and blister resistance.

A two (2) stage epoxy primer layering process shall be applied to the module and all painted components. This primer stage is critical to the adhesion of the paint and shall be necessary to the paint process. A 1.5 mil of Starproxy primer application shall be used. After adequate drying time, a second layer of the Starproxy primer shall be applied. When completed, the finished primer layer shall be two (2) layers thick and shall be sanded smooth to a surface grade of 9 or 10. If during the sanding process the primer is partially removed and the aluminum is no longer covered by the primer layer, a primer layer must be added in the exposed area. This application allows for superior adhesion to the module body.

The finish coat shall be applied and be allowed to dry for the paint manufacturers recommended amount of time. A second finish coat shall be applied. All imperfections shall be sanded; the finish shall be free of any runs, fisheyes and other paint blemishes.

Bidders may propose alternative paint process methods. A detailed description of the process and certifications by the paint manufacturer shall be provided in this bid proposal.

Floor-Mounted Console with control

Floor-mounted console in front cab.

A powder-coated aluminum floor mounted console shall be installed on the floor of the cab between the driver's and passenger's seats. The console shall include an angled face to accommodate all controls and switches to operate all necessary emergency or mission critical functions. The lower portion of the console shall consist of a flat area that shall contain cup holders and blanks for additional equipment. The console face plates shall be removable for accessibility and serviceability. The Console System is to be SAE J3043 Ambulance Equipment Mount Device or Systems compliant.

Storage for Flare and Fire Extinguisher

Storage compartment in front cab for flares and one (1) five-pound (5 lbs) fire extinguisher.

A storage compartment capable of carrying four (4) 30-minute emergency road flare/fuses and one (1) five-pound (5 lbs) fire extinguisher shall be installed in front cab.

Armrests, Driver and Passenger, Individual

Individual driver- and passenger-side armrests on sides of floor-mounted console.

City of Crete Type I Ambulance Specifications

Individual driver- and passenger-side armrests with adjustable height shall be installed on sides of floor-mounted console.

Cup Holders, Dual, in Floor-Mounted Console

Dual cup holders in floor-mounted console.

A dual cup holders shall be integrated in floor-mounted console.

Control Center with Switches and Touch Pad

Control center with switches and LED backlit pictograms in the floor mounted console.

The operator shall have easy access to ambulance features and controls on the floor mount console. The control center shall include switches and touch pad to control the necessary emergency or mission critical functions. The switches shall be wired to a multiplex node located in the front console. Wiring directly to the electrical panel will not be tolerated as it adds unnecessary wires and connections. The master switch shall be lockable in the "ON" position to ensure that the power shall not be inadvertently cut.

Cab headliner with Reading Lights, Red/Clear (2)

Two (2) clear and red overhead LED reading lights.

A red/clear LED reading lamp shall be installed above the passenger and driver to assist in nighttime vision. This light shall be installed in the cab headliner and shall be switched from the light head.

Removable "A"-bar with sharps and trash.

Removable "A"-bar mounted at the front end of the squad bench with sharps and trash.

A 1-1/4" diameter anti-microbial stainless steel "A"-Bar shall be installed at the forward end of the squad bench. The "A"-bar system shall have the capacity to be removed to allow for placing a long board patient on the squad bench.

Full-Length Seat Cushion

Full-length, thermoformed, molded seat cushion.

One (1) full length seamless thermoformed seat cushion shall be installed and have no exposed stitching. The color of these cushions and backrests shall match the interior vinyl cushions.

Seat Backrest

Individual, thermoformed, molded backrests.

High bucket seamless thermoformed backrest cushions shall be fixed on the wall for each seating position. The backrests shall be contoured and include lumbar support for comfort and fatigue resistance. The color of these cushions and backrests shall match the interior vinyl cushions.

City of Crete Type I Ambulance Specifications

Seating, Three (3) Passengers, 6-Pt Safety Belts

Seating for three (3) passengers with 6-point safety belts. Space for Flip-down and hands-free opening mechanism.

A squad bench capable of seating three (3) attendants shall be located on the curbside of the vehicle. To maintain structural integrity and maximize weight and storage, the squad bench shall be made of .090 aluminum pieces welded together. The belts will be located on a main frame with reinforcement plates strong enough to resist to required pull tests. The squad bench shall be attached to the side wall structure as well as to the roll up floor extrusion and to the floor.

Access to the storage area under the squad bench shall be via a positive closing latching system on the squad bench lid and face. When the latch is released, the bench shall automatically raise open via the compressed gas struts attached to the squad bench lid and to the bottom of the squad bench storage area. The bottom of the storage area shall be cover with a single piece of covering matching the one (1) in the patient compartment.

Three sets of 6-point safety belts shall be located on the back of the squad bench permanently bolted through ½” plates. Holes shall be tapped to allow for seat belt removable after the squad bench is installed in the vehicle.

Compartment C3

Compartment C3 to have a mounting strap, rear bulkhead, large enough to go around 2 boards and the scoop stretcher.

C2 Side entry Door

Glove box holders x 3, interior of the C2 door, above the window

Head End of the Squad Bench

Removable A Bar with waste and sharps at the head end of the squad bench

Flip-Up Door, Tinted Self Latching Sliding Windows

Aluminum flip-up frames, self-latching for easy restocking of cabinets. Polycarbonate tinted self-latching sliding windows.

Flip up style restocking cabinets shall be installed on all of the street side cabinets. Restocking cabinet shall be constructed of interlocking extrusions, smaller than cabinet structure extrusion but of matching style, color, and material. A piano style hinge shall be securely fastened to the top of the cabinet structure. Two (2) gas struts, one (1) on each side, shall be installed on the side of the cabinet to lift the cabinet's face when the two elbow latches are released. The bottom lip of the cavity shall have a door stopper on which a pvc coating is applied to eliminate vibrations of the flip up. The window itself shall be outfitted with slots at the extremities in which a UHMW skate shall be inserted to retain the window in the extrusion structure. Cabinets with sliding windows shall have window track felt installed in the dedicated channels of the cabinet extrusion.

The cabinet windows shall be made of 3/16” polycarbonate tinted sliding windows and shall incorporate a full-length aluminum handle. The window itself shall be outfitted with slots at the extremities to which a UHMW skate shall be inserted to retain the window in the extrusion structure.

City of Crete Type I Ambulance Specifications

The compartment and closure device of the doors must meet KKK-A-1822F Change Notice 10 compliant to meet: SAE J3058 - Ambulance Interior Storage Compartment Integrity. The SAE J3058 explains dynamic and static testing procedures for evaluating the integrity of the cabinet and cabinet latch integrity standard, which will ensure cabinets retain rated equipment up to 40lbs.

Techni mount for Lifepak® 15 Cardiac Monitor

Techni mount cardiac monitor base with Lifepak® 15 mounting system.

There shall be a Techni mount for Lifepak 15 Cardiac Monitor.

Medical Cabinet, CPR Bench Seat, Int/Ext Access

Medical cabinet with CPR bench seat, the rear lower storage compartment is accessible from the S3 exterior compartment.

All cabinet structure, cabinet doors, shelves and openings described here shall be manufactured in fiberglass or aluminum. Over time, wood products tend to warp, distort and shrink creating potential for premature structural wear. The purchaser prefers fiberglass and aluminum construction for its resiliency to harsh environments and cleaners as well as its lightweight size and overall strength.

The overall cabinet structure shall consist of interlocking extrusions. Extruded framework shall provide the structural integrity of the cabinets as well as creating the individual cabinet sections. These extrusions shall be custom fit and CNC cut to form the particular cabinet configuration. All cabinet extrusions shall incorporate a rounded edge to give an aesthetically pleasing appearance as well as providing a smooth, safe surface for the crew member. Mitered box framed cabinetry will not be accepted as a mitered corner produces sharp edges and potential gaps. Each interlocking extrusion joint shall be attached by two (2) hex machine bolts into the extrusion via a tap and die holes. These fasteners shall lock the cabinet frame structure into place and shall prevent the cabinet sections from twisting. Cabinet inserts shall be placed on the lip of the extrusion and shall be fixed with an adhesive as well as mechanically fastened into position. This structure alone shall resist to the pull test, the structural integrity of the cabinetry is not reliant on the interior storage cavity.

Unless specified for a particular purpose, all interior cabinets shall be constructed of preformed fiberglass inserts. Cabinets designed for a particular purpose may be constructed of formed aluminum depending on the application. All cabinets shall be equipped to accept removable adjustable shelves with dividers.

All cabinets shall be easy to clean, impervious to soap, water, body fluids, and disinfectants and shall be mildew resistant.

Cabinets with sliding windows shall have window track felt installed in the dedicated channels of the cabinet extrusion. The cabinet windows shall be made of 3/16" Lexan and shall incorporate a full-length aluminum handle. The window itself shall be outfitted with slots at the extremities to which a UHMW skates shall be inserts to retain the window in the extrusion structure.

The compartment and closure device of the doors must meet KKK-A-1822F Change Notice 10 compliant to meet: SAE J3058 - Ambulance Interior Storage Compartment Integrity. The SAE J3058 explains dynamic and static testing procedures

City of Crete Type I Ambulance Specifications

for evaluating the integrity of the cabinet and cabinet latch integrity standard, which will ensure cabinets retain rated equipment up to 40 lbs.

The street side cabinetry layout shall consist of the following cabinetry:

A CPR seat shall be located on the street side wall. This seat shall be positioned at the patient's torso position. The CPR seat shall be at least 32" wide with a two (2) point safety belt and include a thermoformed bottom seat cushion as well as a thermoformed high bucket style back rest. This backrest shall be contoured and include lumbar support for comfort and fatigue resistance.

A large storage cabinet shall be located above the action area and shall continue from the bulkhead cabinetry to the CPR seat. The interior dimensions shall be a minimum of (L) 41 x (H) 16 x (D) 11 in.

A large storage cabinet shall be in the upper section towards the rear. This cabinet shall extend from the CPR seat to rear door area. The interior dimensions shall be a minimum of (L) 41 x (H) 16 x (D) 11 in.

A smaller full depth cabinet shall be installed under the upper rear street side cabinet. The cabinet shall be adjacent to the second action area. The cabinet shall be accessible from the interior and from the exterior compartment. The interior dimensions shall be a minimum of (L) 25 X (H) 20 x (D) 16 in.

There shall be one (1) pull out drawer on either side of the CPR seating area. These drawers shall pull out toward the aisle way and incorporate a sliding Lexan cover. Drawers shall be constructed of formed smooth powder coated .063" aluminum. These drawers shall be uniform in size for ease of replacement should the need arise. The drawer should be track mounted and have a self-locking stop to prevent opening past a safe designated point. All drawer faces shall be constructed in an overlapping style to ensure a consistent tight fit over the drawer opening. Handles for the drawer shall be positive catch stainless steel pull latch.

The exact cabinetry layout shall match the drawings specified in this bid proposal.

CPR Seat, 6-Pt Safety Belt

Seating for one EMT with 6-point safety belt.

A CPR seat shall be located on the street side wall. This seat shall be positioned at the patient's torso position. The CPR seat shall be at least 32" wide with a six (6) point safety belt and include a thermoformed bottom seat cushion as well as a thermoformed high bucket style back rest. This backrest shall be contoured and include lumbar support for comfort and fatigue resistance.

Street Side Layout

Tip out compartment, rearward of CPR seat, tip out box with open top.

forward counter to extend to make for a single CPR seat with increased counter area.

Compartment with sliding door and 1 adjustable shelf, ahead of the recessed suction.

City of Crete Type I Ambulance Specifications

Compartment at head end of the medical counter with a vertically hinged door

Compartment above the CPR seat with lift up door.

45-degree, upper cabinet, vertically hinged door with 1 adjustable shelf,

SE/S3 upper in/out cabinet with two (2) full dept adjustable shelves, one at bottom of SE and 1 in the middle

Move and mount Fire extinguisher from S-2 to S-1

Make sure that the tip out has sharps and trash bins.

Countertop lip to stop short of the Life pak 15 mount.

Sliding Door Crawl-Through

Crawl-through with sliding door on front division to access to the cab.

The area between the cab and the patient compartment shall be a crawl through opening. The exterior seal between the rear cab crawl through and the front of the module shall be a rubber extrusion clipped and sealed to ensure no water or wind penetration. The gap between the cabin and the module shall be 2".

The 4" polyurethane seal shall remain flexible in extreme temperatures. It needs to withstand the natural body and chassis torsion when the vehicle is in motion. The material shall be resistant to ozone, sunlight, oil, water, ice and other harsh exterior elements.

The ambulance shall be equipped with a bulkhead wall partition. It shall be placed between the driver and patient's compartment, to the front of the module. It shall be constructed of aluminum. A sliding door shall be installed to separate the cab and patient compartment. The height shall be maximized according to the chassis and the width minimum 20". A pad will be added in the upper section to provide head protection.

Corner Cabinet, Streetside, Two Adjustable Shelves

Corner cabinet on streetside of front wall. Includes two (2) aluminum extruded doors with see through windows, two (2) adjustable shelves and LED strip lighting.

There shall be a compartment behind the head seat. This compartment shall be accessible by two (2) aluminum extruded doors with see through windows, two (2) adjustable shelves and shall include LED strip lighting.

The compartment and closure device of the doors must meet KKK-A-1822F Change Notice 10 compliant to meet: SAE J3058 - Ambulance Interior Storage Compartment Integrity. The SAE J3058 explains dynamic and static testing procedures for evaluating the integrity of the cabinet and cabinet latch integrity standard, which will ensure cabinets retain equipment using established crash pulses.

Locking Radio Communication Compartment

City of Crete Type I Ambulance Specifications

Lockable compartment on street side for radio communication

A lockable compartment for radio communication shall be installed in an upper portion of the front partition.

ALS Cabinet, with Drawer

ALS cabinet on curbside of front wall. Includes four (4) aluminum extruded doors with see-through windows, adjustable shelf(s), one (1) drawer at mid-height, LED strip lighting, and inside/outside access via curbside door.

The ALS cabinet shall be made of an aluminum structure with smooth powder coated aluminum cavities and shelves.

The upper section shall be accessed via two (2) extruded aluminum doors with Lexan inserts. The doors shall be operated by a cam sliding system in which sliding the knob will release the two (2) plunger bolts located at the top and bottom side of the door. The whole mechanism is to be protected by an aluminum cover on the inside of the door. Section dimensions shall be similar to 26 X 22 in. This section of the ALS cabinet shall have one (1) adjustable shelf, LED strip lighting and shall be accessible via the curbside door.

The center section shall be a drawer compartment. It shall include a self-locking, 22 in. flat style steel handle that is spring loaded to lock onto the ALS structure. Compartment shall have dimensions similar to 18 X 4 X 21 in. The drawer shall be equipped with steel rails rated for 100 lbs.

The lower section shall be accessed via two (2) extruded aluminum doors with Lexan inserts. The doors shall be operated by a cam sliding system in which sliding the knob will release the two (2) plunger bolts located at the top and bottom side of the door. The whole mechanism is to be protected by an aluminum cover on the inside of the door. Section dimensions shall be similar to 26 X 22 in. This section of the ALS cabinet shall have one (1) adjustable shelf, LED strip lighting and shall be accessible via the curbside door.

ALS cabinet layout and dimensions shall match the drawings included in this bid proposal.

Compartment above ALS Cabinet, Lockable

Lockable compartment located above the front wall ALS cabinet.

A lockable compartment shall be installed above the front wall ALS cabinet.

See-Through Door, Two Handles

Four (4) extruded doors with see through windows and handles.

There shall be four (4) extruded doors with see through windows and handles.

EVS Left Vac-Form Standard Armrest

Left armrest made of vac-form, seamless material to match the seat color.

A left armrest shall be included made of vac-form and seamless material to match the seat color.

City of Crete Type I Ambulance Specifications

EVS Right Vac-Form Standard Armrest

Right armrest made of vac-form, seamless material to match the seat color.

A right armrest shall be included made of vac-form and seamless material to match the seat color.

EVS Swivel Seat Base, Two (2) Positions

EVS swivel 360 degrees seat base, locking in two (2) positions, forward and rearward positions.

The seat shall be equipped with a swivel 360 degrees seat base, locking in two (2) positions, forward and rearward positions. The seat and the base shall be KKK-1822-F change notice 8 compliant.

EVS 1880 3Pts Vac-Formed Seamless Child Seat

The EVS 1880 is a vac-form, seamless ambulance attendant's seat. Integrated child restraint system that allows uninjured children weighing between 20-65 lbs to be transported in a five-point safety harness. When it is not needed, the child-insert can be folded into the seat and allow an adult to use the seat as a standard attendant's seat.

A rear facing EVS HiBAC attendant seat shall be installed at the head of the patient cot. The seat shall be a vac-form seamless. An integrated fold down 5-point child safety seat shall be incorporated into this seat.

The seat shall be KKK-A-1822F Change Notice 8 compliant with seat belt and conform to all applicable FMVSS and SAE J3026 requirements. Documentation from a certified independent testing facility shall be required stating the seat has passed SAE J3026 requirements and tested in accordance with SAE J2917, Occupant Restraint and Equipment Mounting Integrity – Frontal Impact System-Level Ambulance Patient Compartment and SAE J2956, Occupant Restraint and Equipment Mounting Integrity – Side Impact System-Level Ambulance Patient Compartment.

Ferno Stat Trac®

Ferno Stat Trac® Cot Fastening System (86").

A Ferno Stat Trac, manual-loading cot fastener system shall be installed on the module floor to accommodate a Ferno cot. It shall be center mounted and loaded through the rear doorway. The floor structure shall have 1/2" 6061-T6 mounting plates installed to secure the cot floor mounting plate. Backer plates that are not integral to the floor structure shall not be permitted as these may have a tendency to vibrate loose over time.

Inductive Charging for Ferno Stat Trac®

Provide and install an Inductive Charging for Ferno Stat trac to charge only when the Shoreline is plugged in or when the system is active.

Center Floor-Mount Cot Configuration

The floor structure shall have 1/2" 6061-T6 mounting plates installed to secure the cot floor mounting plate. Backer plates that are not integral to the floor structure shall not be permitted as these may have a tendency to vibrate loose over time.

FERNO Floor Plate

City of Crete Type I Ambulance Specifications

Make sure that the floor plate is able to accept the Ferno INX cot, in line power. Dealership will install the Ferno cot and mount from the customers old ambulance.

Rocker Switch Controls with LED Backlit Pictograms

The completed ambulance shall have a rear action area console. It shall include all controls and switches to operate all necessary emergency or mission critical functions such as:

- Rear heat and AC controls with digital interior temperature display
- Patient compartment lights, bank 1
- Patient compartment lights, bank 2
- Action area reading light.
- Cabinet lights
- Suction pump
- Patient compartment exhaust
- Patient status indicator (intercodes, red, yellow, green)

Switches shall be easily cleaned and sanitized.

The detail above describes the minimum features the rear console shall activate. All switches shall be wired to a multiplex node located in the rear console. Wiring directly to the electrical panel will not be tolerated as it adds unnecessary wires.

Flowmeter, 0-15 LPM

There shall be a flowmeter, 0-15 LPM.

Flowmeter, 0-25 LPM

There shall be a flowmeter, 0-25 LPM.

Oxygen Outlets, Four (4)

Four (4) oxygen outlets. Two (2) in ECC, one (1) on curbside, and one (1) on the ceiling.

The completed ambulance shall have a piped medical oxygen system capable of storing and supplying a minimum of 3,000 liters of medical oxygen. The main oxygen supply shall be from a compressed gas cylinder that the purchaser will provide and install at the time the vehicle is placed in service. Low pressure, electrically conductive hose and fittings approved for medical oxygen only shall be used. All oxygen piping shall be concealed, loomed and not exposed. Where oxygen lines may travel through a hole, a grommet shall be used to prevent premature wear of the oxygen line. All oxygen tubing shall be secured yet shall be still accessible for maintenance. Oxygen shall be piped to self-sealing oxygen outlets. The system shall be tested prior to delivery and the results of the test shall be provided with the end user documentation.

Four (4) Quick Connect surface mounted oxygen outlets shall be installed in the completed ambulance. Two (2) shall be installed on the medical center wall in the main action area, one (1) shall be located on the curbside wall towards the forward end of the squad bench and one (1) shall be located on the ceiling. These outlets shall be tested prior to delivery of the ambulance.

City of Crete Type I Ambulance Specifications

Additional Oxygen Outlet

Modification of selected oxygen network to add additional outlet. Details and location are as follows: (1) ECC

(1) Curbside

(1) Ceiling

There shall be an additional oxygen outlet.

Oxygen Outlet, Quick-Connect

Ohio Medical flush mounted, quick release wall outlets shall be installed.

Oxygen Regulator, Manual, Sensor and Dig. Read-Out

Manual oxygen regulator with pressure sensor and digital read-out.

The ambulance shall have a 50 PSI oxygen regulator with a pressure sensor. The remaining tank pressure shall be displayed in the rear touch pad or touch screen.

Oxygen Control Valve, Electronic, Manual By-Pass

Electronic oxygen control valve with manual by-pass.

The ambulance shall have an electronic control valve with manual by-pass. It shall be located in the rear console and shall be activated with the master switch.

Universal Vertical Holder for Main Oxygen Cylinder

Universal vertical holder for types "K" or "M" main oxygen cylinder in S1 streetside exterior compartment.

A Ziamatic QR-MV oxygen cylinder bracket shall be installed in the oxygen compartment to accommodate different sizes of oxygen cylinders. This bracket shall be securely fastened to reinforcement mounting plates.

Pass Through

Two (2) Vertical size D, Oxygen bottle brackets, pass through area, passenger side.

Suction System location in ECC

Main suction system is located in front streetside action area.

One (1) RICO RS4 electrically controlled suction system shall be installed in the patient compartment. The suction pump shall be located behind the street side cabinetry and be easily accessible for maintenance. It shall be securely mounted with rubber pads to eliminate any unnecessary noise. A vacuum indicator gauge ranging from 0 to 760 mm Hg shall be provided.

City of Crete Type I Ambulance Specifications

Suction System Below Action Area (ECC)

Suction system recesses below action area (ECC), forward of medical cabinet

One (1) RICO RS4 electrically controlled suction system shall be installed in the patient compartment. The outlet shall be on the action area wall with the control in the rear switch panel. The canister shall be recessed below the action area. The suction pump shall be located behind the street side cabinetry and be easily accessible for maintenance. It shall be securely mounted with rubber pads to eliminate any unnecessary noise. A vacuum indicator gauge ranging from 0 to 760 mm Hg shall be provided.

Thomas high flow vacuum pump

There shall be an aspirator system that provides a free air flow of at least 50 LPM and achieve a minimum of 300 mmHg vacuum within four (4) seconds after the suction tube is closed.

Vacuum outlet QD in action area

Vacuum outlet QD Puritan with yellow 5/16" hose 4 ft long

The outlet shall be QD Puritan with yellow 5/16" hose. There shall be installed on the action area wall with the control in the rear switch panel.

Vacuum regulator with disposable canister

Vacuum regulator with disposable canister (Rico RS-4X)

One (1) RICO RS4 electrically controlled suction system shall be installed in the patient compartment. The outlet shall be on the action area wall with the control in the rear switch panel. The suction pump shall be located behind the street side cabinetry and be easily accessible for maintenance. It shall be securely mounted with rubber pads to eliminate any unnecessary noise. A vacuum indicator gauge ranging from 0 to 760 mm Hg shall be provided.

Recessed Suction

The customer uses a 1200 ML Canister, please make the recess big enough for it to fit. Comments: Upgrade to fit 1200ML - RN

Power Inverter, Xantrex Freedom, True Sine, 1000W

The inverter/charger provides AC power using the DC power from the conversion battery bank.

Recharge all battery banks and power all 120 volts AC outlets when the external shoreline is connected.

A Xantrex Freedom CX power inverter rated for 1000 watts shall be installed in the patient compartment, behind the street side cabinetry, in a ventilated storage area. The inverter shall be powered via a control panel in the rear attendant console. When this inverter is activated, all 110VAC outlets shall be energized. An inverter integrated battery charger shall be provided for maintaining, in conjunction with the multiplex isolator and the shoreline, OEM and conversion batteries in a fully charged condition when the shoreline is plugged.

City of Crete Type I Ambulance Specifications

Super Auto Eject Power Inlet, 20 Amps, Yellow

Kussmaul 120 Volts AC, 20 Amps Automatically disconnects shoreline Completely sealed Yellow cover Indicator light

A Kussmaul Super 20 Auto Eject Model # 091-55-20-120, 3-pin 20 amp 120 volt pin and sleeve contact shore power assembly, cover, and plug shall be installed. The 12 volt unit shall eject the shore power cord away from vehicle path upon sensing engine start; after ejection, the weatherproof cover snaps into position over inlet. The unit shall have a waterproof sculpted cover with no sharp edges and back enclosure with watertight cable fittings, which protect mechanism from road contamination. The unit shall sequence energizing of the Auto Eject, eliminating terminal arcing when connecting and disconnecting power cord.

Electrical Outlet, 120V AC with Indicator

120V AC hospital-grade electrical outlets with indicator.

120VAC outlets shall be energized from the shoreline and/or from the inverter if equipped. All 120VAC outlets shall be UL certified, Nema 5-15, clearly identified on the unit, rated to 60Hz and have a pilot light when powered. A 120VAC GFCI shall be installed beyond the shoreline and shall disable all 110VAC outlets when tripped. The GFCI shall be located in the rear attendant console for ease of consulting and/or resetting if needed.

Add 120V AC Duplex outlet with indicator.

Additional 120V AC Duplex outlet with indicator. Details and location are as follows: Add outlet in cab, behind the driver's seat.

Add outlet to upper ALS cabinet, as per drawing.

Add Two (2) addition 120 volt outlets, 1 upper bulkhead FA cabinet(this will make for a total of in the in the FA cabinet) and 1 medical counter(1 forward and 1 rearward)

Additional 120VAC GFCI shall be installed at a specific location to be determined. 120VAC outlets shall be energized from the shoreline and/or from the inverter if equipped. All 120VAC outlets shall be UL certified, Nema 5-15, clearly identified on the unit, rated to 60Hz, and have a pilot light when powered.

AC Delco Conversion Batteries

Two (2) AC Delco conversion Batteries.

Two (2) AC Delco batteries shall be installed in addition to the OEM batteries. The OEM batteries shall not be relocated from their original position(s) while the additional conversion batteries shall be located in a ventilated drawer under the ALS compartment.

A programmable multiplex battery isolator shall be installed to separate the chassis batteries from the patient compartment batteries. It shall monitor battery voltage and allow for OEM battery boost by the conversion batteries and full OEM battery charging via the shoreline. The different voltage limits will be programmable. A system comprised of an

City of Crete Type I Ambulance Specifications

isolator, boost solenoid and trickle charger shall not be acceptable as this requires more components, cables and connections.

Electrical Outlet, 12V DC 20 amp with Indicator

12V DC, 20-amp Duplex electrical outlets.

All 12VDC power point outlets specified here shall be properly tested and shall be protected with a Schottky-style diode to isolate the medical equipment batteries from other loads. The diode shall be located in the electrical panel and shall be wired to the conversion batteries. It shall be designed to handle voltage of at least 48VDC. All wiring to the 12VDC outlets shall be clearly labeled and shall be one (1) continuous run from the diode to the outlet.

12V DC outlet with indicator

Additional 12V DC outlet with indicator. Details and location are as follows: Add 12-volt power lead, 3', upper front bulkhead cabinet, for Med safe. Battery direct with ground

Additional 12VDC power point outlets specified here shall be properly tested and shall be protected with a Schottky-style diode to isolate the medical equipment batteries from other loads. The diode shall be located in the electrical panel and shall be wired to the conversion batteries. It shall be designed to handle voltage of at least 48VDC. All wiring to the 12VDC outlets shall be clearly labeled and shall be one (1) continuous run from the diode to the outlet.

Dual USB DC outlet with indicator

Additional dual USB DC outlet with indicator. Details and location are as follows: Below the 12 V plugs

Additional Dual USB outlet specified here with protective cap shall be installed A13-194B2: 5V 2.4A+2.4A max DC, 2 ports.

Multiplex Electronic Management System

A 12VDC electrical system shall be added in junction with the OEM system. They shall be isolated from each other, yet they still exchange data. This is achieved by using a multiplex system in combination with a CAN BUS connectivity between the two (2) systems. It reduces the number of wires in the harness, thus reduces the number of welds and connections. Using programmable solid-state devices allows for easy updating and customizing of the vehicle without needing to add relays or modify the wiring system, even at a later stage while the vehicle is in the field. Printed circuit board or, so called "hardwired" electrical systems shall not be acceptable.

The ambulance manufacturer shall have significant experience in installing multiplex and electrical systems. The purchaser is not interested in prototypical or logical systems that are untested or unproven by the ambulance manufacturer. The multiplex system specified here shall be fully developed, tested, in service for at least 15 years and shall be installed on at least 9000 units. Documentation of electrical systems installed, and in-service shall be provided at the purchaser's request.

Electronic Controller Units (ECU)

Multiplexing electrical system shall consist of solid-state electronic controller units mounted in the electrical control panel. Electronic controller units shall act as the central communications system for the entire electrical system. These electrical controller units shall command all electrical components installed by the ambulance manufacturer in the cab and in the

City of Crete Type I Ambulance Specifications

patient compartment. Each electronic controller unit shall be self-diagnostic with easy-to-read LED. A CD of the programming and the electrical schematics as well as detailed printed schematics of all components and wiring shall be provided with the completed ambulance.

All Electronic controller units shall be sealed in a weatherproof exterior casing. The ECUs main control panel shall be coated in weather resistant from the factory. All electronic controller units shall be installed in electrical control panel compartment for centralized location.

Electronic controller units shall be programmed using already established automotive communication language. Electronic controller units shall be programmed to communicate and receive signals in the SAE J1939 protocol via the CAN BUS connection. This type of system is preferred to allow for future expansion and. No auxiliary printed circuit boards, circuit breakers or relays shall be needed in future expansion or to assist in the functionality of standard electrical components.

Serviceability

The ambulance multiplexing electrical system shall be designed to be maintained and serviced easily. In the unlikely event of an electrical problem, the ambulance's electrical system shall be able to be connected remotely to the Internet and shall be able to be diagnosed or reprogrammed by a service technician at the ambulance manufacturer's main facility. This multiplex electrical system shall be proven to be virtually maintenance free. A failure (warranty) rate of less than 1% is required because this agency wishes to purchase an ambulance with the utmost reliability in service. Documentation of warranty claims relating to the electrical system shall be provided to the purchaser upon request.

Wiring

All wiring for the electrical systems shall be stranded copper or copper alloy conductors of a gauge rated to carry 125 percent of the maximum current for which the circuit is protected. Voltage drops in all wiring from the power source to the component shall not exceed 10 percent. All circuits shall be wired in conformance with SAE J1292, Automobile, Truck, Truck-Tractor, Trailer, and Motor Coach Wiring. None of the ambulances electrical wiring and components shall terminate or originate in the oxygen storage compartment except for the oxygen flow control solenoid, compartment light, and switch plunger or trigger device.

Wiring Harness

The ambulance wiring harnesses shall be a continuous run to each electrical component. The ambulance wiring shall contain no splices in the main wiring harness. The terminals on connectors of each end shall be machined crimped. Hand crimped electrical connectors are not permitted by the purchaser as they have been proven to be prone to premature failure and/or irregularities.

City of Crete Type I Ambulance Specifications

All ambulance wiring harnesses shall be enclosed in a plastic loom. This loom shall run from the electronic controller units to each specified electrical component. Instances where conduit must travel through a tube structure, a rubber grommet shall be placed in the hole to prevent premature wear of the plastic loom and/or wiring. All wiring harnesses shall be secured to the roof and walls tube structures with insulated clamping fasteners.

The overall covering of jacketed cables shall be moisture resistant and have a minimum continuous temperature rating of 194°F (90°C), except for cable installations where the wiring may be exposed to higher temperatures. All wiring connections and terminations shall use a method that provides a positive standard connection. Wiring connections and terminations shall be installed in accordance with the device manufacturer's instructions. Wire nut, insulation displacement, and insulation piercing connections shall not be used.

All connections to the electrical components shall include a minimum 6 in. service loop of. All wiring connections shall utilize easy plug-in style connectors.

Wiring Identification

All wiring shall be identified every 6" at a minimum. The wiring identification code shall be the position on the electronic controller unit for easy maintenance and diagnosis. Wiring identification shall be clearly visible and shall be printed on the insulated wire. No stickers will be allowed.

Circuit Protection

Circuits shall be provided with properly rated low voltage overcurrent protective devices. Such devices shall be readily accessible and protected against heat in excess of the overcurrent device's design range, mechanical damage, and water spray. Circuit protection shall be accomplished by utilizing fuses, circuit breakers, fusible links, or solid-state equivalent devices.

Wiring Schematics

The complete set of wiring schematics shall clearly identify all wiring locations, routing, and component connection. A sample document shall be available to the purchaser on request to examine the quality of the electrical schematic. All instances of wiring not conforming to the standards established in this document shall be documented at the time of the proposal. Failure to comply with this requirement shall be cause for rejection of the proposal.

Electric Panel

The electrical panel shall be protected by a removable panel or a compartment door. It shall include in addition to the ECUs all block fuses and other electronic devices.

For future upgradability, one (1) extra 15-amp 12VDC circuit breaker shall be provided. It shall be wired and shall be ready for a future programmable function with the multiplexing electrical system.

City of Crete Type I Ambulance Specifications

Grounding

Dedicated grounding locations for all appliances, circuits, etc. shall be supplied. Appliance mounting screws/hardware shall not be used for grounding purposes, nor shall the body of the ambulance be used as a ground location. Star washers or unapproved, untested grounding methods shall not be used.

OEM grounds shall not be used as grounding location for the conversion circuits.

Switching Requirements

Switches, relays, terminals, and connectors shall have a direct current (dc) rating of 125 percent of maximum current for which the circuit is protected.

Voltage Alarm

The multiplex system shall incorporate an audible voltage warning should the system voltage at the battery or at the master load disconnect switch drops below 11.8VDC for a duration of 120 seconds for 12VDC nominal systems.

Load Management

The multiplexing electrical system shall be programmed to automatically shed electrical load should the electrical output rating of the installed alternator drop below a programmed voltage level. Electrical components shall shed in order of priority. External load management systems or load management systems not programmable shall not be considered as the purchaser requires this electrical system to be flexible and customizable.

Inverter

Inverter to be wired ignition hot.

Front Wall Cabinet NS6

Add a 12 gauged wire, Power and Ground with a rubber grommet for future install of a portable suction machine. Upper left-hand corner of cabinet NS6.

120V outlet in NS6 upper

Delete upper 120V outlet in cabinet NS6

Pre-Wiring for 2-Way Radio, Two (2) Antenna Cables

Wiring preparation for two-way radio, with two (2) antenna cables. (Routed from front cab to radio communication compartment)

The ambulance shall include two cables going to the radio compartment from the front cabin. These cables shall be protected against the elements.

City of Crete Type I Ambulance Specifications

Radio Communications Compartment

Radio communications compartment universal board, Bussmann blade-type fuse panels, and harness to power the radio communication devices. (12V battery feed, ground, ignition).

A ventilated radio compartment with a door should be easily accessible and shall contain universal board, Bussmann blade-type fuse panels, and harness.

Radio Communications Front Console

Radio communications front console universal board, Bussmann blade-type fuse panels, and harness.

The front console in the driver's compartment shall have a universal board, Bussmann blade-type fuse panels, and harness for radio communication systems.

Data Recorder Available Signals

Data recorder available signals through a universal connector in the electrical compartment.

A universal connector shall be provided to get signals such as brake, park brake, turn signals, engine RPM, reverse, etc., for use by a driver or vehicle monitoring telematics system.

Dual In-Line condenser 45000 BTU, Front LP

Auxiliary dual in line condenser low profile installed on front of module - Hoseline 45000 BTU

A dual-In Line Condenser 45,000 BTU Low Profile, (Hoseline TMC2007) shall be installed on the front of the module. The condenser shall be top center mounted with aluminum mounting brackets. Condenser and brackets are to be painted to match the module.

OEM Tie-In Air Conditioning/ Auxiliary Condenser

The condenser and evaporator are tied-in to the OEM air conditioning system, cooling the air of the patient compartment through the ducted outlets.

The air conditioning unit shall be tie-in to the OEM air conditioning system, cooling the air of the patient compartment through the ducted outlets. The module HVAC system shall employ a separate condenser for the enhancement of the A/C system and maximizing the cooling performance especially in hot conditions helping the OEM condenser so that maximizing the performance of the patient environmental cooling systems. The location and capacity shall contribute to a well balance system for a higher efficiency.

The Hoseline evaporator unit shall have a capacity of 580 CFM and cooling capacity of 30,000 BTU. The evaporator shall be installed in the patient compartment above the oxygen compartment. An AC high-capacity filter-drier shall be installed to the inlet of the evaporator to prevent debris and moisture in the system. It shall be accessible by removing the partition ceiling protector.

Five (5) adjustable vents with manual closures are installed above the street side cabinet in a padded diffuser and shall project at a downward angle toward the patient and crew. Cold air runs from the front evaporator to the vents through a one-piece angled duct to maximize and regulate air flow. It is made of a lightweight material and insulated with high performance insulation to reduce thermal transfers and condensation.

City of Crete Type I Ambulance Specifications

The patient compartment HVAC system shall be controlled by the driver or the patient compartment attendant via the multiplex touch pad or touch screen located in the front console or the rear switch panel.

The patient compartment temperature shall be monitored by a thermostat incorporated in the multiplexing electrical system. Additional to the three (3) preprogrammed speeds, an automatic mode shall be able to decide between heating, cooling, and fan speed in function of the set temperature versus the patient compartment temperature.

In order to achieve maximum efficiency and optimization of this system, the fans' speed shall be optimized via Pulse Width Modulation (PWM) to allow the heating and cooling system to run at its most effective speed.

Adequate room for hose connections and hose lines shall be provided when installing HVAC components. The hoses shall be protected and insulated to optimize performance and longevity. They shall also be clamped every 18" with high strength clips and routed without sharp bends and kinks.

Air Conditioning Outlets, Round

Round outlets for ducted air conditioning unit.

There shall be round outlets for ducted air conditioning.

OEM Tie-In Heating Unit

The heating system is an extension of the OEM heating system, heating the patient compartment area through invisible opening underneath the medical cabinet at floor level.

The heating unit shall be installed in the patient compartment in a location behind the street side cabinet, in the wheel well area. The heated air shall blow from below the side wall and just above the roll up floor in a cabinet full length vent. This ventilation system shall blow heat below the patient immediately and circulate upward, also creating a radiator effect as the heated air warms the side wall. The interior ducting shall be designed such that debris or liquids cannot enter vent.

Exhaust Fans (2)

Two (2) exhaust fans for contaminated air. Activated by front control interface or rear console switch.

Two (2) exhaust fans shall be installed. These fans shall allow adequate air exchange within cab and patient compartment while parked or in motion. The exhaust fans shall be controlled by the multiplexing electrical system and shall operate on 3 speeds (Low, Medium, and High). To move air in a more efficient manner while keeping noise level to a minimum, a dual exhaust vent system with two (2) exterior exhaust ports shall be installed. The exhaust vents shall exit from the street side of the vehicle.

LED Dome Lights, Adjustable, Dig. Timer

The ceiling lights have four (4) different intensities. Each time the ceiling lights button is pushed, the intensity increases, until maximum intensity is reached.

City of Crete Type I Ambulance Specifications

Whelen round Super LED dome lights, Whelen #80C0EHCR, shall be provided in the patient compartment. The dome lights shall be controlled by separate switches for the left bank and right bank of lights. The dome lights shall be activated by switches on both the attendant control panel and the master control console. The ceiling lights shall have four (4) different intensities. Each time the ceiling lights button is pushed, the intensity shall increase, until maximum intensity is reached. One curbside bank of LED lights of the patient compartment shall be illuminated when the patient compartment entry doors are opened.

Grab Bar Color, Chrome

Selected Grab bars is to be color Chrome (or stainless-steel).

Color of selected grab bars shall be chrome (or stainless-steel).

Rear Door-Mounted Grab Bars, 16" x 16"

Two (2) door-mounted grab bars, 16" x 16", inside of rear doors (A1 and A2).

Two (2) handrails shall be installed at the rear access doors to allow ease of entry into the patient compartment. The handrails shall be 90 degree "L" shaped 16" x 16". These handles shall be designed to give the persons exiting and entering the patient compartment multiple points of contact to maintain safe entry and exit of the vehicle. The access handrails shall be installed on the top and lower interior door panels through mounting plates in the door extrusions. Handrails attached through the door panel only are not accepted as they have a tendency to pull loose after an extended period of time. They should not need to be removed for handle and locking mechanism lubrication.

Curbside Door-Mounted Grab Bar, 12"

One (1) door-mounted grab bar, 12" each, on the inside of the side entry door (C2).

One (1) 12" handrail shall be mounted on the inside of the side entry door (C2). This additional grab handle shall be positioned in a location that is easy for the attendant to grip when entering the vehicle.

Embarking Grab Bars, 12"

Two (2) entry grab bars, 12" each, mounted inside the patient compartment. One (1) near the curbside entry door, and one (1) near the R2 rear entry door.

Two additional 12" handrails shall be mounted in the patient compartment, one (1) right of rear access door and one (1) right of side access door. These additional grab handles shall be positioned in a location that is easy for the attendant to grip when entering the vehicle.

Ceiling Grab Rails, 90", Two (2)

Two (2) ceiling-mounted grab rails, 90".

Two (2) 90" overhead steel grab rails shall be mounted in the patient compartment ceiling. The grab rails shall be securely fastened to the roof structure in the patient compartment ceiling at each mounting location. The grab rails shall be at least 1" in diameter.

City of Crete Type I Ambulance Specifications

Lonseal, Lonplate II, Gun metal

Lonseal, Lonplate II, Gun Metal floor covering.

Lonseal Lon Plate II floorings shall be installed in the completed ambulance. The non-slip floor covering shall be rolled at least 3" up both sides of the patient compartment. This floor shall be rolled on the coved floor extrusion and shall be adhered at every point of the floor cove giving a tight secure fit that will not bubble or prematurely tear. The floor shall be a one (1) seamless piece and shall be able to be cleaned without having to purchase special or potentially harmful cleaning agents. This roll up floor shall cover the entire length and width of the compartment's working area. Areas in the floor where the sidewalls and floor meet shall be sealed to prevent any blood borne pathogens from entering.

Safety Yellow Upholstery

Yellow vinyl upholstery for safety exit padding covering.

There shall be Yellow vinyl upholstery for safety exit padding covering.

Ash Grey Upholstery

Ash grey vinyl upholstery for seat and padding covering.

There shall be Ash grey vinyl upholstery for seat and padding covering.

Wood Flooring

The floor shall be constructed of ¾" marine grade 7-ply plywood and shall extend the length and width of the patient compartment. Where additional sections of plywood are needed, the sections shall utilize lap joint construction to maintain a continuous lay of the floor and eliminate the possibility of gaps or cracking. It shall be bonded to the aluminum panel and screwed only where there are beams or plates. Screws only through the aluminum skin will not be tolerated as the present a potential injury risk and add close to no value to the floor integrity. Holes in the floor for patient handling options shall be CNC pre-cut to ensure maximum precision.

Fiberglass Ceiling

Fiberglass ceiling in Patient Compartment.

The interior of the ambulance shall be constructed in such a way that is free of sharp edges. All interior surfaces shall be easy to clean, impervious to soap, water, body fluids, disinfectants and shall be mildew resistant. Ceiling in patient compartment shall be CNC cut fiberglass matching the interior color.

Premium Countertop(s) for Medical Cabinet

Solid Gelcoat countertop with an appearance similar to engineered stone or natural granite surface. Includes a lip around the front action area countertop, for configurations with a rear action area, the solid surface countertop in that area does not include a lip.

A solid Gelcoat Stone Ridge #SGE263 Moonscape countertop, with a 6/8" lip around the front action area shall be installed to prevent equipment from sliding off. The rear action area does not include a lip in order to not obstruct the used of cardiac monitor.

City of Crete Type I Ambulance Specifications

Radio Speakers, Recessed, Two (2)

Two (2) recessed radio speakers.

A pair of rear radio speakers shall be installed in an upper portion of the patient compartment in an area not interfering with patient care. The speakers shall be controlled by a rheostat volume control on the action area wall.

IV Hooks, Recessed in Ceiling, Flexible, Four (4)

Four (4) recessed flexible IV hooks in ceiling.

Four (4) recessed mounted IV hangers specifically designed for holding IV containers shall be installed, including hook and loop straps to adequately secure an IV bag/bottle. The IV holder shall recess into the ceiling creating minimal protrusion into the patient compartment when not in use.

Storage Compartment, Sliding Doors

Storage compartment, two (2) cabinets, LED strip lighting, and sliding doors.

There shall be a cabinet over the seating area on the curbside wall. It shall be divided into two (2) sections and accessible via sliding polycarbonate windows. A vinyl pad shall wrap the cabinet for head protection.

Sharps and Trash Container, Flip-Down, Hands-Free

Red 1L sharps container combine with 3L trash container in curbside flip-down container.

A kick out style sharps and waste disposal shall be installed in the squad bench area. This type of system shall allow the attendant to quickly discard any biologic waste via a tip outdoor with his or her foot to avoid unnecessary contamination from their hands.

Digital Clock, Driver and Step Indicator Lights

Digital clock, rear step indicator light, driver intention indicator lights (direction, braker) located in padding above the rear doors.

A digital clock shall be installed in the patient compartment. It shall display seconds and integrates indicator lights for rear step position and driver intention and be flush mounted in the protector above the rear doors.

C3 Stair Chair location

Add a seat belt with seat belt type buckle to secure the Stair Chair in place

Center Console

Two panel in the cab console to be cut out for 2 Motorola XPR5550E mobile radios. The department will install the radio equipment.

Glove Boxes

Two (2) glove boxes, one above each rear door.

City of Crete Type I Ambulance Specifications

CHECKLIST – INDICATE ON DOTTED LINE IF SPECIFICATION IS MET OR NOT WITH EXPLANATION IF NOT. USE ADDITIONAL PAGES IF NEEDED.

| | |
|--|----|
| CAAS..... | 4 |
| Testing Capabilities | 4 |
| Testing Requirements | 4 |
| Additional Testing Requirements | 5 |
| Cot Retention Pull Test | 5 |
| Sound Level Test | 5 |
| Patient compartment Grab Rail Test | 5 |
| Interior Climate Control Test | 5 |
| Heating..... | 5 |
| Air Conditioning | 6 |
| Weight Distribution..... | 6 |
| Safety Net and Safety Net Anchor Points Pull Tests | 6 |
| Test Scope – Anchor Points..... | 6 |
| Test Scope – Safety Net | 6 |
| Street side Cabinetry Pull Test | 6 |
| Test Scope – Street Side Cabinetry Pull Test..... | 7 |
| Equipment Restraint Devices Pull Tests..... | 7 |
| Test Scope – Equipment Restraint Devices..... | 7 |
| Certification Documents | 7 |
| Chassis Tires | 8 |
| Chassis Model year 2022 | 8 |
| Conversion RAM 4500 Chassis Cab 4X4..... | 8 |
| Chassis..... | 12 |
| LiquidSpring™ Suspension Type I..... | 13 |
| Body Dimensions..... | 13 |
| Overall Construction | 13 |

City of Crete Type I Ambulance Specifications

| | |
|--|----|
| Roof Construction | 13 |
| Side Body Construction | 14 |
| Floor Construction | 15 |
| Drop Skirts..... | 15 |
| Wheel Wells | 15 |
| Compartment Construction | 15 |
| Door Frame Construction..... | 16 |
| Door Construction..... | 16 |
| General Construction | 16 |
| Compartment Door Panels | 17 |
| Access Door Panels | 17 |
| Body Mounting | 17 |
| Paint Chassis and Module | 17 |
| C1 Door, ALS Access and Battery Location | 17 |
| C2, Curbside Entry Door | 18 |
| C3 Door, Storage Exterior Compartment..... | 18 |
| Stair Chair Location, Two (2) Adjustable Shelves..... | 18 |
| Third door (C3) Compartment In/Out Access | 18 |
| High-Intensity Compartment Tube Lighting | 18 |
| E Door, Electrical Exterior Compartment..... | 19 |
| A1 and A2, Rear Entry Doors, Individual Door Handles | 19 |
| S1 Door, Main Oxygen Exterior Compartment | 19 |
| Full-Depth Shelf, One (1), Adjustable | 19 |
| Fire Extinguisher, ABC-Rated, 5 lbs., with Bracket..... | 19 |
| S2 Door, Storage Exterior Comp | 19 |
| S3 Compartment, Equipment Storage, In/Out Access..... | 19 |
| Stair Chair Holder on Compartment Door | 20 |
| Half-Depth Shelves, Two (2), Adjustable | 20 |

City of Crete Type I Ambulance Specifications

| | |
|--|----|
| Turn Signal Arrows, Amber (2), LED..... | 20 |
| Turn Signal Lights, Amber (2), LED..... | 20 |
| Third Upper Brake Light, LED..... | 20 |
| Mid-Height Lights: Arrow, Brake, Reverse..... | 20 |
| Rear Step Plate, without Lighting..... | 20 |
| Marker Lights, Amber (7) and Red (7), LED..... | 21 |
| Marker Lights, Two (2) rear mid-height red LED..... | 21 |
| C1 compartment..... | 21 |
| Emergency and Working Lights (EWL)..... | 21 |
| Clear lenses..... | 21 |
| Chrome bezels..... | 21 |
| Emergency Lights, Red (3), White (1), Red (3), LED..... | 21 |
| Lights in Front Grille, Red (2), LED M7..... | 22 |
| Emergency Lights on Inside of Doors, One (1) each..... | 22 |
| Intersection Lights, Clear/Red (2), LED..... | 22 |
| Bezel fiberglass for intersection lights..... | 22 |
| Emergency Lights, Red (2), LED, Inter. Side Mount..... | 22 |
| Four (4) red LED lateral emergency lights (M9)..... | 22 |
| Scene Lights, Four (4), Clear LED, (M9)..... | 23 |
| Emergency Lights, Red (2), LED, Rear Corners..... | 23 |
| Emergency Lights, Amber (2), LED..... | 23 |
| Loading Lights, Two (2), LED..... | 23 |
| Emergency Lights, Red (2), LED, Additional, Window Height..... | 24 |
| Warning lights..... | 24 |
| Front grill lights..... | 24 |
| Intersector Lights and over rear wheel lights..... | 24 |
| Audible Warning System (WRN)..... | 24 |
| Back-Up Alarm..... | 24 |

City of Crete Type I Ambulance Specifications

| | |
|--|----|
| Whelen 295SLS Hands-Free Siren | 24 |
| Switch to Mute OEM Horn when Siren Speakers Active | 24 |
| Whelen SA315 Series Speakers | 25 |
| Exterior Vehicle features (VFT) | 25 |
| Rear Tow Hooks | 25 |
| Quarter-Tank Fuel Fill..... | 25 |
| OEM exterior mirrors..... | 25 |
| Module Rub Rails, Aluminum..... | 25 |
| Module Corner Protectors, Stainless-Steel..... | 25 |
| Module Wheel Trims, Fiberglass..... | 25 |
| Undercoating Protection..... | 25 |
| Rear Wheel Mud Guards..... | 26 |
| Stainless Steel Protectors Below Fillers | 26 |
| License Plate with Light..... | 26 |
| Cab Steps, Anti-Skid Material with Mud Guards..... | 26 |
| Rear Step Bumper, Retractable Center Section..... | 26 |
| Valet Switch in Front Grille | 26 |
| Black Back-Up Camera | 27 |
| Anti-Theft System | 27 |
| ECOSMART Anti-Idling System..... | 27 |
| Disable EcoSmart Anti-idling..... | 27 |
| Center Console..... | 27 |
| Sharps and Waste | 27 |
| Dash Camera | 27 |
| Tri-Star Urethane Paint | 28 |
| Floor-Mounted Console with control | 29 |
| Storage for Flare and Fire Extinguisher..... | 29 |
| Armrests, Driver and Passenger, Individual..... | 29 |

City of Crete Type I Ambulance Specifications

| | |
|---|----|
| Cup Holders, Dual, in Floor-Mounted Console | 30 |
| Control Center with Switches and Touch Pad..... | 30 |
| Cab headliner with Reading Lights, Red/Clear (2) | 30 |
| Removable "A"-bar with sharps and trash..... | 30 |
| Full-Length Seat Cushion..... | 30 |
| Seat Backrest..... | 30 |
| Seating, Three (3) Passengers, 6-Pt Safety Belts..... | 31 |
| Compartment C3..... | 31 |
| C2 Side entry Door | 31 |
| Head End of the Squad Bench..... | 31 |
| Flip-Up Door, Tinted Self Latching Sliding Windows..... | 31 |
| Techni mount for Lifepak® 15 Cardiac Monitor..... | 32 |
| Medical Cabinet, CPR Bench Seat, Int/Ext Access..... | 32 |
| CPR Seat, 6-Pt Safety Belt | 33 |
| Street Side Layout | 33 |
| Sliding Door Crawl-Through | 34 |
| Corner Cabinet, Streetside, Two Adjustable Shelves..... | 34 |
| Locking Radio Communication Compartment..... | 34 |
| ALS Cabinet, with Drawer | 35 |
| Compartment above ALS Cabinet, Lockable..... | 35 |
| See-Through Door, Two Handles | 35 |
| EVS Left Vac-Form Standard Armrest | 35 |
| EVS Right Vac-Form Standard Armrest | 36 |
| EVS Swivel Seat Base, Two (2) Positions | 36 |
| EVS 1880 3Pts Vac-Formed Seamless Child Seat | 36 |
| Ferno Stat Trac® | 36 |
| Inductive Charging for Ferno Stat Trac® | 36 |
| Center Floor-Mount Cot Configuration..... | 36 |

City of Crete Type I Ambulance Specifications

| | |
|--|----|
| FERNO Floor Plate | 36 |
| Rocker Switch Controls with LED Backlit Pictograms..... | 37 |
| Flowmeter, 0-15 LPM..... | 37 |
| Flowmeter, 0-25 LPM..... | 37 |
| Oxygen Outlets, Four (4) | 37 |
| Additional Oxygen Outlet..... | 38 |
| Oxygen Outlet, Quick-Connect | 38 |
| Oxygen Regulator, Manual, Sensor and Dig. Read-Out | 38 |
| Oxygen Control Valve, Electronic, Manual By-Pass | 38 |
| Universal Vertical Holder for Main Oxygen Cylinder | 38 |
| Pass Through..... | 38 |
| Suction System location in ECC..... | 38 |
| Suction System Below Action Area (ECC)..... | 39 |
| Thomas high flow vacuum pump..... | 39 |
| Vacuum outlet QD in action area..... | 39 |
| Vacuum regulator with disposable canister | 39 |
| Recessed Suction..... | 39 |
| Power Inverter, Xantrex Freedom, True Sine, 1000W..... | 39 |
| Super Auto Eject Power Inlet, 20 Amps, Yellow | 40 |
| Electrical Outlet, 120V AC with Indicator..... | 40 |
| Add 120V AC Duplex outlet with indicator. | 40 |
| AC Delco Conversion Batteries | 40 |
| Electrical Outlet, 12V DC 20 amp with Indicator | 41 |
| 12V DC outlet with indicator..... | 41 |
| Dual USB DC outlet with indicator | 41 |
| Multiplex Electronic Management System | 41 |
| Electronic Controller Units (ECU)..... | 41 |
| Serviceability | 42 |

City of Crete Type I Ambulance Specifications

| | |
|---|----|
| Wiring..... | 42 |
| Wiring Harness..... | 42 |
| Wiring Identification | 43 |
| Circuit Protection | 43 |
| Wiring Schematics..... | 43 |
| Electric Panel..... | 43 |
| Grounding | 44 |
| Switching Requirements | 44 |
| Voltage Alarm | 44 |
| Load Management..... | 44 |
| Inverter | 44 |
| Front Wall Cabinet NS6..... | 44 |
| 120V outlet in NS6 upper..... | 44 |
| Pre-Wiring for 2-Way Radio, Two (2) Antenna Cables..... | 44 |
| Radio Communications Compartment | 45 |
| Radio Communications Front Console..... | 45 |
| Data Recorder Available Signals..... | 45 |
| Dual In-Line condenser 45000 BTU, Front LP | 45 |
| OEM Tie-In Air Conditioning/ Auxiliary Condenser..... | 45 |
| Air Conditioning Outlets, Round | 46 |
| OEM Tie-In Heating Unit | 46 |
| Exhaust Fans (2) | 46 |
| LED Dome Lights, Adjustable, Dig. Timer | 46 |
| Grab Bar Color, Chrome | 47 |
| Rear Door-Mounted Grab Bars, 16" x 16" | 47 |
| Curbside Door-Mounted Grab Bar, 12" | 47 |
| Embarking Grab Bars, 12" | 47 |
| Ceiling Grab Rails, 90", Two (2)..... | 47 |

City of Crete Type I Ambulance Specifications

| | |
|---|----|
| Lonseal, Lonplate II, Gun metal..... | 48 |
| Safety Yellow Upholstery | 48 |
| Ash Grey Upholstery | 48 |
| Wood Flooring..... | 48 |
| Fiberglass Ceiling..... | 48 |
| Premium Countertop(s) for Medical Cabinet | 48 |
| Radio Speakers, Recessed, Two (2)..... | 49 |
| IV Hooks, Recessed in Ceiling, Flexible, Four (4)..... | 49 |
| Storage Compartment, Sliding Doors | 49 |
| Sharps and Trash Container, Flip-Down, Hands-Free | 49 |
| Digital Clock, Driver and Step Indicator Lights..... | 49 |
| C3 Stair Chair location..... | 49 |
| Center Console..... | 49 |
| Glove Boxes..... | 49 |



Change Order #1

City of Crete, NE. / Crete Fire & Rescue Department
243 East 13th Street
Central Platte, MO. 64079

Date: 08-26-2021

We Hereby Agree to Make the Change(s) Specified Below:

- 1.) Supply 3 TFT Metro 1" pistol grip nozzles, model ME1V-212 in lieu of the TFT 1 1/2" Thunderfog pistol grip nozzle YES NO \$ (60.00)
- 2.) Supply 3 TFT Metro 2 1/2" nozzles, model ME22V-354 in lieu of the TFT 2 1/2" Thunderfog nozzle YES NO \$ 241.50
- 3.) Supply 4 additional North American hose 8D 2 1/2" x 50' DBL jacket5 rubber lined, Red in color YES NO \$ 1,108.50
- 4.) Change 4 North American hose 8D 2 1/2" x 50' DBL jacket rubber lined, Yellow in color to 1 3/4" YES NO \$ (200.00)
- 5.) Deduct for 2 horizontal wheel chock mounting brackets, model QCH 32-H. (Wheel Chock to be shipped loose) YES NO \$ (140.00)
- 6.) Upcharge for additional lettering TAN98KER on the upper forward body panel. YES NO \$ 465.00
- 7.) Change the (5) TecNiq Do7 upper hosebed area/accent lights to (2) Unity 6" spot lights with on/off switch on the lighthouse, to be mounted (1) on each rear outer corners next to the beacons YES NO \$ 325.00
- 8.) Add (2) additional LED strip light (1) in each lower compartment YES NO \$ 140.00
- 9.) To add an 36" Stainless Steel extension chute on the rear dump valve in lieu of the 12" diamond treadplate flip down chute YES NO \$ 825.00

Copy

ADDED CHARGES

We Agree hereby to make change(s) specified above at this price

| | | | |
|-----------------------|---------------------------------|----|------------|
| Apparatus Only | Previous Contract Amount | \$ | 317,920.00 |
| Apparatus Only | Revised Contract Total | | |

ACCEPTED-The above price and specifications of the Change Order are satisfactory and are hereby accepted


Authorized Signature (Heiman Fire, Inc.)

8-26-2021
Date

Authorized Signature: City of Crete

Date of acceptance: _____

Copy



CITY OF CRETE
APPLICATION FOR SPECIAL EVENT PERMIT

Date of Event _____

Start Time of Event _____

Finish Time of Event _____

Location of Event _____

[] This request is for temporary occupation of the street or sidewalk right-of-way.

Streets or Alleys requesting to be closed _____

Special Equipment _____

Organization _____

Responsible Party _____

Address _____

Phone _____

[Handwritten Signature]

Signature of Responsible Party

DO NOT WRITE IN THIS SPACE
Application # _____
Public Works Review _____
Emergency Services Review _____
Council Meeting Date _____
Approved _____
Denied _____
Insurance Certificate Required _____
Ins. Cert. Received _____
Conditions listed on back

REQUIRED ATTACHMENTS:

- Diagram or print of location of event.
- If alcoholic liquor will be served, copy of SDL.
- If alcoholic liquor will be served, description of barricades, devices, security measures, etc. to ensure compliance with The Nebraska Liquor Control Act:

- Copy of insurance covering event with City of Crete as named insured.



CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY)

9/16/2021

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

IMPORTANT: If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must have ADDITIONAL INSURED provisions or be endorsed. If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

| | | |
|--|---|-------------------------------------|
| PRODUCER SilverStone Group, LLC, a HUB International Company 11516 Miracle Hills Drive Suite 100 Omaha NE 68154 | CONTACT NAME: David Bruck | |
| | PHONE (A/C. No. Ext): 402-964-5740 | FAX (A/C. No.): 402-557-6321 |
| E-MAIL ADDRESS: david.bruck@hubinternational.com | | |
| INSURER(S) AFFORDING COVERAGE | | NAIC # |
| INSURER A: United Educators Insurance | | 10020 |
| INSURER B: | | |
| INSURER C: | | |
| INSURER D: | | |
| INSURER E: | | |
| INSURER F: | | |

COVERAGES

CERTIFICATE NUMBER: 1531346987

REVISION NUMBER:

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

| INSR LTR | TYPE OF INSURANCE | ADDL INSD | SUBR WVD | POLICY NUMBER | POLICY EFF (MM/DD/YYYY) | POLICY EXP (MM/DD/YYYY) | LIMITS |
|----------|---|-----------|----------|---------------|-------------------------|-------------------------|--|
| A | <input checked="" type="checkbox"/> COMMERCIAL GENERAL LIABILITY <input type="checkbox"/> CLAIMS-MADE <input checked="" type="checkbox"/> OCCUR GEN'L AGGREGATE LIMIT APPLIES PER: <input checked="" type="checkbox"/> POLICY <input type="checkbox"/> PRO-JECT <input type="checkbox"/> LOC OTHER: | | | S83-57V | 9/16/2021 | 9/16/2022 | EACH OCCURRENCE \$ 1,000,000 DAMAGE TO RENTED PREMISES (Ea occurrence) \$ 1,000,000 MED EXP (Any one person) \$ 5,000 PERSONAL & ADV INJURY \$ GENERAL AGGREGATE \$ 3,000,000 PRODUCTS - COMP/OP AGG \$ \$ |
| | AUTOMOBILE LIABILITY <input type="checkbox"/> ANY AUTO <input type="checkbox"/> OWNED AUTOS ONLY <input type="checkbox"/> SCHEDULED AUTOS <input type="checkbox"/> HIRED AUTOS ONLY <input type="checkbox"/> NON-OWNED AUTOS ONLY | | | | | | COMBINED SINGLE LIMIT (Ea accident) \$ BODILY INJURY (Per person) \$ BODILY INJURY (Per accident) \$ PROPERTY DAMAGE (Per accident) \$ \$ |
| | <input type="checkbox"/> UMBRELLA LIAB <input type="checkbox"/> OCCUR <input type="checkbox"/> EXCESS LIAB <input type="checkbox"/> CLAIMS-MADE DED RETENTION \$ | | | | | | EACH OCCURRENCE \$ AGGREGATE \$ \$ |
| | WORKERS COMPENSATION AND EMPLOYERS' LIABILITY ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? <input type="checkbox"/> Y/N <input checked="" type="checkbox"/> N/A (Mandatory in NH) If yes, describe under DESCRIPTION OF OPERATIONS below | | | | | | <input type="checkbox"/> PER STATUTE <input type="checkbox"/> OTHER E.L. EACH ACCIDENT \$ E.L. DISEASE - EA EMPLOYEE \$ E.L. DISEASE - POLICY LIMIT \$ |

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (ACORD 101, Additional Remarks Schedule, may be attached if more space is required)

The City of Crete, Nebraska, is an Additional Insured for General Liability when required by written contract executed prior to loss.

CERTIFICATE HOLDER**CANCELLATION**

City of Crete
 PO Box 86
 Crete NE 68333

SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS.

AUTHORIZED REPRESENTATIVE

© 1988-2015 ACORD CORPORATION. All rights reserved.



THURSDAY, SEPT. 30

Event: **Campus/Community Parade**

Event Time: 6 - 7:30 p.m.

Event Description:

- This event will include (potentially) multiple floats which feature student organizations, community businesses, and more. If those attending the event cannot secure a trailer to make an official “float,” they’re being encouraged to walk the loop with members of their group and signs/flags, etc. [The parade route is drawn above in blue.](#)
- The two sections of the Communications parking lot not blocked off will house guests (students, community members, etc.).
- We will have a caricaturist and other “parking lot” games, etc.
- We will also have the Doane Band, Cheer/Dance team, etc. perform, as well as speeches from athletics coaches and team captains, as well as student leaders and campus leadership team members.
- Hurts Donuts will be here to provide free donuts to guests.

REQUEST(S):

- **Close the middle and eastern sections of the Communications parking lot** at 5 p.m. day-of, once the work day is over for most. Keep the western-most section open for Sodexo, students, community guests, etc.
- **Close the parking north of Communications** by 5 p.m. day-of (if not earlier?). This should include Stadium Drive, too - [the parade route.](#)
- **Close the Field House parking lot by 5 p.m.** This lot would be the “staging” area to set up the order of the parade and keep it moving.
- **Add signage to Doane Drive** saying “parade route, watch out for extra traffic” (or something that reminds people to slow down and/or expect moving floats/student groups/etc.)