



health

Department:
Health

REPUBLIC OF SOUTH AFRICA

NATIONAL TREASURY: REPUBLIC OF SOUTH AFRICA

EMERGENCY MEDICAL SERVICES

**Rapid Response Vehicle 4x4
EMS 002/2022**

NOTE:

1. All materials used in the construction of the ambulance conversion are to meet SANAS/SABS standards.
2. Conversion is to be approved by the relevant End-User Department after a "prototype" has been inspected and approved.
3. Contractor must be an accredited ISO 9000 manufacturer.
4. All conversion aspects related workmanship must carry at least 36 months warranty.
5. Contractors to submit detailed project plan which should include midway inspection or at any time during production of each vehicle by the end user.
6. Sign off will depend on end user acceptance as per the prototype specification.

List of abbreviations

LHS –	Left Hand Side (passenger side)
RHS –	Right hand side (driver side)
OEM –	Original equipment manufacturer
GMAW –	Gas metal arc welding
GTAW -	Gas tungsten arc welding

Rapid Response Medical Rescue Canopy and Drawer Specification

Specification and General Layout detail on Rapid Response Medical Rescue Canopy and Drawer as follows.

The base vehicle for the following specification is a suitably specified Double Cab Bakkie.

Conversion Objectives:

1. Provide a Specialised vehicle for the Rapid conveyance of trained personnel and Medical Rescue equipment.
2. Provide safe and secure transportation for personnel and Medical Rescue equipment.
3. Provide a very high degree of Visibility and Audibility, both in day and night operations.
4. Provide housing and mounting for all Medical Rescue equipment onto or within vehicle via custom built facilities, these in turn are to be fitted to OE manufacture base vehicle.
5. Medical Rescue equipment housing and securing facilities should be manufactured for low mass materials, this whilst taking into account at all times durability and ease of function.
6. All components utilised in the construction are to be of the highest quality, fit for purpose and with a guaranteed 2 to 1 warranty ratio. (see Note) #
7. Vehicle mounted Medical Rescue equipment to be contained on vehicle in a safe, secure and logical manner.
8. Custom build facilities to offer ease of transfer across vehicle types, when need be.
9. Custom build facilities to offer ease of interior reconfiguration, when need be.
10. Emergency Electrical System to consist of the most up to date power efficient technology.

Note: Warranty Ratio Definition:

Being the Choice of materials and or components selected for use in manufacture process.

Which are likely to offer a life span that is minimum twice the warranty period offered by the manufacturer.

Conversion Specification

Apparatus Body:

Retain Existing Bakkie Load Body
Manufacture and Fit Double Cab Canopy.
Canopy layout to be as per attached general layout drawings.
Rapid Response LDV 09 2012 Front
Rapid Response LDV 09 2012 LH S
Rapid Response LDV 09 2012 Rear
Rapid Response LDV 09 2012 RH S

Construction:

Canopy to be constructed from 1050 H14 Grade Aluminum plate.
All sections to be custom fabricated for purpose.
Sections to incorporating water gutters and door aperture returns as necessary.
All sections to be and fully welded to form an integral body frame.

Bonding material:

To be a single pack Polyuathane adhesive.
All surfaces are to be cleaned, prepared and primed in accordance with the adhesive manufacture's guild lines.
This process being undertaken, prior to mounting/bonding of any integral or roof and outer body side panels.

Side Doors:

1 x L/H 1 x R/H (2 x Doors in-Total).
2 x Flush push locks fitted per door
Locks keyed alike.
Both canopy Door locking systems are controlled via a (vehicle interface) remote control unit
Full D-Rubber aperture seals fitted to each door.
2 x Gas Struts support each door in open position.
Top hinged with continues Polyethene hinges

Roof and Exterior:

External roof manufactured from 1050 H14 Grade Aluminum Checker Plate
External body side panels manufactured from 1050 H14 Grade Aluminum Plate.
All panels bonded to Integral frame as described above.

External Roof:

Roof fitted with 4 x lashing eyes.

External Finish:

To be prepared to best paint shop practice taking account of any applicable material application directives.

Upon completion of this the exterior of the canopy is to be finished in a white gloss finish which matches in colour and finish of the base vehicle.

Internal Layout: (Canopy)

Manufacture horizontal deck, fitted level to bottom edge of canopy.

Upper section of deck finished as detailed below.

Where possible, removable lids are fitted into deck on each side for accessing lower level.

Canopy internal access from Left Hand side of vehicle is via a single top hinged door as described above.

This accesses a multiply partitioned area, details of which are shown on the accompanying drawing. The Right Hand side of the vehicle is again depicted in the accompanying sketch.

In detail: all drawers shown are fitted with mesh faces for internal visibility, all locking is via marine type push and drawer rollers are heavy duty roller ball type.

Brackets are provided in their respective locations for oxygen bottles, fire extinguisher and road cones etc.

Internal Finish:

All interior surfaces are fully prepared and coated with Grey Polyurethane coating

All brackets are epoxy coated and colour coded as required.

Fire Extinguisher:

Supply and Fit 1 x 2.5 Kg Dry Powder Fire Extinguisher

Complete with vehicle mounting bracket.

Sundry:

Wiring cavities and trunking are to be provided along with bracket provisions for mounting of gas support struts and interior lighting.

Roller Drawer System:

Manufacture and fit 1 x Free Standing single roller deck system, onto rear load body floor.
2 x Heavy duty roller bearing sliders allowing with extension of deck rearward of +/- 900 mm.

Roller sliders consisting of 5 mm thick runner with correctly (sized for load) sealed rollers.
Deep flanged deck fitted for additional rigidity.

Roller deck equipped with durable and functional bracketry, this for accommodating of all Rescue Hydraulic components and related Rescue recovery equipment.

Deck retention is via rubber cone and cup (2 off) located one on each side of roller deck.

Outer sides of deck are closed off to create storage to each side of deck in-between rear tail gate and wheel arches this being for sundry items.

Deck and all components are to be finished with Epoxy coating (Choice of Colours)

Electrical System:

Lighting position and type as depicted in attached drawing detail.

Supply and Fit:**Power Efficient G3 Type LED Emergency Lighting and Public Address / Siren System****Lighting:**

1 x Roof Mounted Slimline Light Bar Clear Lenses 18 x RED LED clusters.

Mounted within light bar:

6 x Front Facing 6 x Rear Facing 3 x Left Hand Side Facing 3 x Right Hand facing.

Alley Lighting fitted to L/H and R/H sides Each Clear white with 3 LED Heads

26 x Umbane 3x3 G3 RED Mounted as per depiction around vehicle

2 x Umbane 3x3 G3 White Grill Mounted as per depiction

2 x Vertex Strobe Red Mounted and Angled on L/H and R/H sides of Front Bumper or as required by end user.

2 x Vertex Strobe Red Mounted in L/H and R/H reversing light cluster or as required by end user.

Notes: Vertex Super- LED strobes on bumper provide wide field of view.

All LED Panels use the latest Gen-3 high intensity LEDs. They offer cruise mode as well as flash patterns for response mode.

Flood Lighting:

2 x Retractable flood lights are installed onto L/H front and R/H rear corners of Rescue Canopy.

Each housed when retracted in a lidded recessed storage area within roof of canopy.

Flood Light Heads are Multi LED 36W 60 Deg Field, 330 Deg Rotation, 252 x 138 mm.

Extended length 900 mm over Canopy.

PA/Siren:

Supply and Install

1 x Logic 552 PA Siren Touch control.

2 x Siren Driver unit system complete 11 Ohm

Note:

200W siren provides dual tones simultaneously through two speakers by phase shifting one tone from the other. The audible effect is equivalent to multiple sirens

External Graphics:

Effect Vehicle Exterior High Visibility Markings

Detail subject to final layout and End-User approval.

Product Warranty:

All workmanship and materials are to be covered by a 12 month (one year) unlimited KM Warranty

Rust, Corrosion and Structural defects are to be covered by a 60 month (Five years) unlimited KM

Electrical or Other equipment Warranties are "As Offered" by the Manufactures or Suppliers of that Equipment.