

## Technical Specification For EMS Ambulance TOYOTA HAICE 3500cc

| SUBJECT       | FEATURES            | REQUIREMENTS                                                                                                                                                                                                                                                                                                                     | Bidder's Specification | points |
|---------------|---------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------|--------|
| EMS AMBULANCE | General Requirement | <ul style="list-style-type: none"> <li>Technical features of the ambulance or the related medical equipment/accessories/materials provided under this specification shall be in accordance with <b><u>the latest active version of Iranian standard IRSI 4374</u></b> and 10g crash test certificate shall be provide</li> </ul> |                        |        |
|               |                     | <ul style="list-style-type: none"> <li>Equipment and the accessories proposed shall include(standards of quality and production of their class)</li> </ul>                                                                                                                                                                       |                        |        |
|               |                     | <ul style="list-style-type: none"> <li>The vehicle with accessories proposed shall be the latest model of its type on the production line of the original producer. Renovated, modified second- hand systems, equipment and appliances or those involving used items and materials shall not be accepted.</li> </ul>             |                        |        |
|               |                     | <ul style="list-style-type: none"> <li>System and all the parts and the accessories related with it shall operate in compliance with each other and be under the warranty and the responsibility of the contractor firm or bidder submitting the proposal</li> </ul>                                                             |                        |        |
|               |                     | <ul style="list-style-type: none"> <li>All electrical equipment for medical use in the vehicle shall be operational with mains voltage of 220V- 50HZ and compensate +/- 10Vchange in voltage</li> </ul>                                                                                                                          |                        |        |

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|               |                       |                                                                                                                                                           |  |   |
|---------------|-----------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------|--|---|
| <b>ENGINE</b> | Power(HP)             | <ul style="list-style-type: none"> <li>Min 240 HP</li> </ul>                                                                                              |  | * |
|               | type                  | <ul style="list-style-type: none"> <li>6 cylinder</li> </ul>                                                                                              |  |   |
|               | Fuel type             | <ul style="list-style-type: none"> <li>Petrol</li> </ul>                                                                                                  |  | * |
|               | Fuel system           | <ul style="list-style-type: none"> <li>fuel injection</li> </ul>                                                                                          |  |   |
|               | Cooling system        | <ul style="list-style-type: none"> <li>Water cooled</li> </ul>                                                                                            |  |   |
|               | Fuel economy          | <ul style="list-style-type: none"> <li>(average)max 14 L/100 KM</li> </ul>                                                                                |  |   |
|               | Cruising range        | <ul style="list-style-type: none"> <li>Ability to cover a distance of 600 km without refueling on intercity roads</li> </ul>                              |  |   |
|               | Displacement (cc)     | <ul style="list-style-type: none"> <li>2500 – 3800 cc</li> </ul>                                                                                          |  | * |
|               | Torque (NM)           | <ul style="list-style-type: none"> <li>Min 320 NM</li> </ul>                                                                                              |  | * |
|               | Temperature condition | <ul style="list-style-type: none"> <li>Vehicle shall operate in ambient Temperature of min (-)30°C UP to (+) 60°C with an adequate performance</li> </ul> |  |   |
|               | Exhaust emission      | <ul style="list-style-type: none"> <li>Euro 4 or more</li> </ul>                                                                                          |  | * |
|               | Engine location       | <ul style="list-style-type: none"> <li>Front</li> </ul>                                                                                                   |  | * |

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|                     |                       |                                                                                                                                                                                            |  |   |
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| Transmission        | type                  | <ul style="list-style-type: none"> <li>Manual Gear box or automatic gear box</li> </ul>                                                                                                    |  |   |
|                     | operation             | <ul style="list-style-type: none"> <li>Min 6 speed</li> </ul>                                                                                                                              |  |   |
|                     |                       | <ul style="list-style-type: none"> <li>Cruise control</li> </ul>                                                                                                                           |  |   |
|                     | Traction/drive system | <ul style="list-style-type: none"> <li>R.W.D(rear wheel drive)</li> </ul>                                                                                                                  |  | * |
| Suspension          | Front                 | <ul style="list-style-type: none"> <li>Independent: double wishbone with torsion bar or with parabolic Transverse leaf or MC pherson strut</li> <li>With torsion bar stabilizer</li> </ul> |  | * |
|                     | Rear                  | <ul style="list-style-type: none"> <li>Rigid (parabolic leaf spring or Anti – roll bar)</li> </ul>                                                                                         |  |   |
| Brake & performance | Type                  | <ul style="list-style-type: none"> <li>Power assisted – Dual Circuit</li> </ul>                                                                                                            |  | * |
|                     | Front                 | <ul style="list-style-type: none"> <li>Ventilated disc</li> </ul>                                                                                                                          |  | * |
|                     | Rear                  | <ul style="list-style-type: none"> <li>Ventilated disc</li> </ul>                                                                                                                          |  | * |
|                     | Safety system         | <ul style="list-style-type: none"> <li>ABS + TPMS</li> </ul>                                                                                                                               |  | * |
|                     | Ring Diameter         | <ul style="list-style-type: none"> <li>15 or 16 inch</li> </ul>                                                                                                                            |  |   |
|                     | Turning circle        | <ul style="list-style-type: none"> <li>TIRE MAX 13 m</li> </ul>                                                                                                                            |  | * |
|                     | Max Speed             | <ul style="list-style-type: none"> <li>Min .150 Km/h</li> </ul>                                                                                                                            |  |   |
|                     | Acceleration          | <ul style="list-style-type: none"> <li>0-100 km Max. 20 sec with total G.W .</li> </ul>                                                                                                    |  | * |
|                     | Air bags              | <ul style="list-style-type: none"> <li>Driver s cabin shall be equipped with min 2 air bag</li> </ul>                                                                                      |  | * |
|                     | Wheel base            | <ul style="list-style-type: none"> <li>Min. 3500 (mm)</li> </ul>                                                                                                                           |  | * |

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|                    |                                  |                                                                                                                       |  |   |
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| steering           | Type                             | <ul style="list-style-type: none"> <li>Left hand drive(L.H.D)</li> </ul>                                              |  | * |
|                    | Power                            | <ul style="list-style-type: none"> <li>Power assisted steering</li> </ul>                                             |  |   |
|                    | Safety column                    | <ul style="list-style-type: none"> <li>Tilt or collapsible</li> </ul>                                                 |  |   |
| weight             | pay load(kg)<br>(passenger type) | <ul style="list-style-type: none"> <li>Pay load with uneven load distribution Max. 1200Kg</li> </ul>                  |  | * |
| safety drivers cab | seat                             | <ul style="list-style-type: none"> <li>Shall be multiply adjustable Driver sit</li> </ul>                             |  | * |
|                    |                                  | <ul style="list-style-type: none"> <li>Three point seat belts with tension meters for driver and co-driver</li> </ul> |  |   |
|                    | glass                            | <ul style="list-style-type: none"> <li>Wind screen shall be made from laminated glass</li> </ul>                      |  |   |
|                    |                                  | <ul style="list-style-type: none"> <li>Heated windscreen only for back window</li> </ul>                              |  |   |
|                    | other                            | <ul style="list-style-type: none"> <li>Reversing aid with distance sensors for warning function</li> </ul>            |  | * |

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| Exterior dimensions             | Overall Length            |              | <ul style="list-style-type: none"> <li>5400 to 6200(mm)</li> </ul>                                                                                  |                        |        |
|                                 | Overall Height            |              | <ul style="list-style-type: none"> <li>Max. 2800(mm)</li> </ul>                                                                                     |                        |        |
|                                 | Overall width             |              | <ul style="list-style-type: none"> <li>Max. 2200(mm) without mirror</li> </ul>                                                                      |                        |        |
|                                 | Ground clearance          |              | <ul style="list-style-type: none"> <li>Min 180 mm</li> </ul>                                                                                        |                        |        |
|                                 | Doors                     | Drive cab    | <ul style="list-style-type: none"> <li>2 Doors</li> </ul>                                                                                           |                        |        |
|                                 |                           | Rear door    | <ul style="list-style-type: none"> <li>Double-wing or up down</li> <li>H<math>\geq</math>1200 and W<math>\geq</math>1050</li> </ul>                 |                        |        |
|                                 |                           | Sliding door | <ul style="list-style-type: none"> <li>One or two sliding doors</li> <li>Oxygen cylinder must be external loading( for two sliding type)</li> </ul> |                        |        |
| Patient cab dimensions interior | Tailgate height           |              | <ul style="list-style-type: none"> <li>In the open position min. 1800mm</li> </ul>                                                                  |                        |        |
|                                 | Patient cab floor heights |              | <ul style="list-style-type: none"> <li>Max. 750(mm)</li> </ul>                                                                                      |                        | *      |
|                                 | Loading angle             |              | <ul style="list-style-type: none"> <li>approx. 16 degree</li> </ul>                                                                                 |                        |        |
|                                 | length                    |              | <ul style="list-style-type: none"> <li>Min. 3200(mm)</li> </ul>                                                                                     |                        | *      |
| Patient cab dimensions interior | width                     |              | <ul style="list-style-type: none"> <li>Mid-level min. 1700(mm)</li> </ul>                                                                           |                        |        |
|                                 | height                    |              | <ul style="list-style-type: none"> <li>Min. 1600(mm)</li> </ul>                                                                                     |                        | *      |

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| <b>Drivers cabin</b>            | radio             | <ul style="list-style-type: none"> <li>Origin type</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                  |                        |        |
|                                 | mirror            | <ul style="list-style-type: none"> <li>Origin type</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                  |                        |        |
|                                 | windows           | <ul style="list-style-type: none"> <li>A window dimension approximately of 45 x 45 Cm with max. Opening side of 12cm shall be built on the bulk head.</li> <li>A Curtain shall be handing in the patient 's cab to prevent light from patient's cab to driver's cab</li> <li>Front door windows shall be operating with electrical power system.</li> <li>A wind screen defrosting system operable when the road Ambulance is stationary or mobile.</li> </ul> |                        |        |
|                                 | Fire extinguisher | <ul style="list-style-type: none"> <li>Two (ABC dry chemical, carbon dioxide) min. 2kg unit, in a quick-release bracket one mounted in the driver's cab and one in the patient's cabin.</li> </ul>                                                                                                                                                                                                                                                             |                        |        |
| <b>Patient's cab conversion</b> | Floor covering    | <ul style="list-style-type: none"> <li>Floor – roof and side walls separately must be made of integrated composite (as one piece)</li> <li>No wood must used</li> <li>Antiskid- Washable- High Resistant- Fire resistant- Can be disinfected with disinfectant</li> </ul>                                                                                                                                                                                      |                        |        |
|                                 |                   | <ul style="list-style-type: none"> <li>antibacterial floor covering(resistant to radiation and chemicals) shall be easily clean</li> </ul>                                                                                                                                                                                                                                                                                                                     |                        |        |
|                                 |                   | <ul style="list-style-type: none"> <li>The covering of joints (corners, etc.) where the side-walls and covering meet shall be sealed and bordered with corrosion resistant and the covering shall extent at least 5cm up the sidewalls.</li> </ul>                                                                                                                                                                                                             |                        |        |

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|  | windows                                           | <ul style="list-style-type: none"> <li>• Patient cab doors shall have windows and 2/3 of the glass surfaces of the patient cabin shall be tinted</li> </ul>                                                                                                                                                                                                                                                                                                                                        |  |  |
|  | Interior surface                                  | <ul style="list-style-type: none"> <li>• The Interior of the body shall be free of all sharp projection. Exposed edges and corners shall be broken with 0 radius.</li> <li>• The finish of the interior patient cabin including interiors of storage cabinets shall be impervious to soap and water disinfectant mildew fire resistant</li> </ul>                                                                                                                                                  |  |  |
|  |                                                   | <ul style="list-style-type: none"> <li>• the color of the interior shall be white</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                       |  |  |
|  | Cabinet – drawers<br>and bench view from the back | <ul style="list-style-type: none"> <li>• the left wall cabinet must be made of integrated composite (as one piece)</li> <li>• One bench fixed on the right side of the stretcher</li> <li>• Dimensions shall be suitable for 3 persons with 2 points safety belt</li> <li>• The bench must be box type with top open door with control with 2 or 3 gas spring</li> <li>• It shall furnished for extra patient</li> <li>• The front cabinet (attached to partition ) must be made of PVC</li> </ul> |  |  |
|  |                                                   | <ul style="list-style-type: none"> <li>• Coating of cabinet doors shall be white colour</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                 |  |  |
|  |                                                   | <ul style="list-style-type: none"> <li>• A least 16 mm thickness PVC materials shall be used for building main frame and edges of the cabinet system.</li> <li>• At least 10mm thickness PVC material shall be used for drawers and the shelves.</li> <li>• drawers shall be secured against self-opening and should be equipped with Turning bottom or up/down security lock</li> </ul>                                                                                                           |  |  |
|  | windows                                           | <ul style="list-style-type: none"> <li>• Patient compartment should have enough windows with min total surface area of 1 square meter</li> </ul>                                                                                                                                                                                                                                                                                                                                                   |  |  |
|  | doors                                             | <ul style="list-style-type: none"> <li>• Shall be capable of being positively restrained in the open position</li> </ul>                                                                                                                                                                                                                                                                                                                                                                           |  |  |

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|                        |                        |                                                                                                                                                                                                                       |  |   |
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|                        | Seat                   | <ul style="list-style-type: none"> <li>• one seats shall be fixed above the stretcher</li> <li>• When not in use, it shall be folded through backrest.</li> </ul>                                                     |  |   |
|                        | Main stretcher         | <ul style="list-style-type: none"> <li>• Chair able stretcher</li> <li>• (multifunction) Simple patient handling by one person with adjustable backrest</li> </ul>                                                    |  |   |
|                        |                        | <ul style="list-style-type: none"> <li>• weight must be Less than 45 Kg according to EN 1865-1</li> <li>• 10 g crash test certificates for the main stretcher in compliance with EN 1789 shall be provided</li> </ul> |  | * |
|                        |                        | <ul style="list-style-type: none"> <li>• It Shall be fitted with IV holder</li> </ul>                                                                                                                                 |  | * |
|                        | Infusion bottle hanger | <ul style="list-style-type: none"> <li>• At least two infusion bottles hanger shall be installed on the ceiling.</li> <li>• They must have suitable space for 2 infusion bottles.</li> </ul>                          |  |   |
| Stretcher base support | Type                   | <ul style="list-style-type: none"> <li>• The base support tray shall be built from stainless steel or anodized aluminum</li> </ul>                                                                                    |  |   |



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| <b>power source</b> | main battery       | <ul style="list-style-type: none"> <li>Min. capacity of 80 (Ah) 12V</li> </ul>                                                                                                                                                                                                                                                                                                                         |                        |        |
|                     | additional battery | <ul style="list-style-type: none"> <li>Min. capacity of 80 (Ah)</li> </ul>                                                                                                                                                                                                                                                                                                                             |                        |        |
|                     | alternator         | <ul style="list-style-type: none"> <li>Min. 1200 w which could feed each one of two accumulators separately and hardware present in the ambulance required</li> </ul>                                                                                                                                                                                                                                  |                        |        |
|                     | rectifier          | <ul style="list-style-type: none"> <li>Vehicle shall be furnished with rectifier which could charge the accumulators when the vehicle is not operative.</li> </ul>                                                                                                                                                                                                                                     |                        |        |
|                     |                    | <ul style="list-style-type: none"> <li>One 220 v sockets shall be fitted externally at the patient compartment (driver's side) so that when the ambulance stopped all the internal sockets and electrical system must be active. In this position the engine must not be starting.</li> <li>The installation of the 220 volt outlet must be done in line with the driver's side door handle</li> </ul> |                        |        |
|                     |                    | <ul style="list-style-type: none"> <li>There will be an automatic system to cancel charging when the accumulators are fully charged.</li> </ul>                                                                                                                                                                                                                                                        |                        |        |
|                     |                    | <ul style="list-style-type: none"> <li>All the sockets shall be protected against current leaks.</li> </ul>                                                                                                                                                                                                                                                                                            |                        |        |
|                     | inverter           | An inverter fed from the 12v accumulators shall be provided on board which is capable of delivering 1600 w. regulated AC power when the ambulance is running                                                                                                                                                                                                                                           |                        |        |

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|----------------------------|--------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------|--|
| Patient's cab illumination | LED lighting | <ul style="list-style-type: none"> <li>shall be equipped with white illumination LED OR SMD lighting group</li> </ul>                                                              |                        |  |
|                            |              | <ul style="list-style-type: none"> <li>LED lighting shall be mercury-free and provide UV illumination</li> </ul>                                                                   |                        |  |
|                            |              | <ul style="list-style-type: none"> <li>LED lamps shall be resistant to 150 degrees connections heats.</li> </ul>                                                                   |                        |  |
|                            |              | <ul style="list-style-type: none"> <li>LED lighting lamps shall provide 70% of its lighting density as lumen after 50000 hours usage</li> </ul>                                    |                        |  |
|                            |              | <ul style="list-style-type: none"> <li>LED lighting lamps shall provide min.300 lux power illumination around the patient area and min.50lux-power for surrounding area</li> </ul> |                        |  |

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| sUBJECT                                  | FEATURES                      | REQUIREMENTS                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Bidder's Specification |  |
|------------------------------------------|-------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------|--|
| <b>Mandatory miscellaneous equipment</b> | Towing devices                | <ul style="list-style-type: none"> <li>• 2 towing devices (with capability of towing full loaded vehicle) shall be fixed one on the front and one on the rear of the vehicle.</li> </ul>                                                                                                                                                                                                                                                                                                                         |                        |  |
|                                          | Ambulance shall equipped with | <ul style="list-style-type: none"> <li>• A vest bin for "sharps objects"</li> <li>• An emergency hammer</li> <li>• A safety belt cuter</li> <li>• A parking wedges</li> <li>• Head lamp range adjustable</li> <li>• Two bi-directional reflective triangles</li> <li>• Plastic coated metal rope which could be easily mounted on the chassis are minimum 5 meters long powerful enough for towing the proposed ambulance.</li> <li>• high visibility reflective Jackets<br/>2 PCS for each ambulance</li> </ul> |                        |  |

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| Electrical system         | The ambulance must be equipped with 4 Electric systems | <ul style="list-style-type: none"> <li>• Supply system for compartment</li> <li>• Supply system for communication</li> <li>• Supply system for body mounted devices</li> <li>• Basic system in non-equipped vehicle or CAN BUS system</li> </ul> |                        |  |
|                           | Electrical installation                                | <ul style="list-style-type: none"> <li>• According to IEC 60364-7-708</li> </ul>                                                                                                                                                                 |                        |  |
| Siren – lighting speaking | Siren                                                  | <ul style="list-style-type: none"> <li>• A siren with a three different tones and Min. power 100 w</li> </ul>                                                                                                                                    |                        |  |
|                           | Rotary beacon                                          | <ul style="list-style-type: none"> <li>• LED Light bar suitable for width of ambulance</li> </ul>                                                                                                                                                |                        |  |
|                           | Flashing light                                         | <ul style="list-style-type: none"> <li>• Two flashing blue lights at the rear door and one on each side</li> </ul>                                                                                                                               |                        |  |
|                           | Flood light                                            | <ul style="list-style-type: none"> <li>• It shall be fitted at the rear which activated when the rear door is opened</li> </ul>                                                                                                                  |                        |  |
|                           | Speaker                                                | <ul style="list-style-type: none"> <li>• A public address system (Microphone + external speaker + amplifier)</li> </ul>                                                                                                                          |                        |  |
|                           |                                                        | <ul style="list-style-type: none"> <li>• A hands free interphone system (1 speaker in driver cab and 1 speaker in patient compartment)</li> </ul>                                                                                                |                        |  |

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| <b>Environmental system</b> | Ventilation      | <ul style="list-style-type: none"> <li>Which shall provide a Min. of 20 air changes per hour</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                        |  |
|                             | Air conditioning | <ul style="list-style-type: none"> <li>Two separate air conditioning for both driver's cab and patient's compartment with min 7.5 kW compressor which can be controlled separately and independently and compatible with EN1789 standard.</li> </ul>                                                                                                                                                                                                                                                                                                                                                     |                        |  |
|                             |                  | <ul style="list-style-type: none"> <li>High quality air condition system suitable for ambient temperature of up to 43oC and 90% humidity</li> <li>It shall be able to decrees from (32°C) temperature inside the patient's compartment to (27°C) during 15 Minutes and also after 30 minutes shall be able to decrease to 22 °C</li> </ul>                                                                                                                                                                                                                                                               |                        |  |
|                             |                  | <ul style="list-style-type: none"> <li>Fitted with temperature controller for maintaining suitable temperature during a Trip.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                        |  |
|                             | Heating System   | <ul style="list-style-type: none"> <li>Two heating system for both driver's cab and patient's compartment with 15 kW which can be controlled separately and independently.</li> <li>This system shall be such that given outside and inside of -20°C the heating up to at least 5°C shall not take longer than 15 Minutes.</li> <li>After 30 minutes a temperature at least 22°C shall be reached in the patient's compartment. The heating shall be adjustable by a thermostat in such a way that the temperature does not exceed ±5 degrees.</li> <li>Automatic heating control temperature</li> </ul> |                        |  |

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| Control panel and Noise | Control panel                   | <ul style="list-style-type: none"> <li>It shall be installed in patient cab which is available easily for patient compartment attendant.</li> </ul>                                                                                                                                                                                               |                        |  |
|                         | Items on control panel          | <ul style="list-style-type: none"> <li>Illumination</li> <li>Heating system</li> <li>ventilation</li> <li>internal communication</li> <li>air conditioner</li> </ul>                                                                                                                                                                              |                        |  |
|                         | Interior noise level            | <ul style="list-style-type: none"> <li>Max. 78 db. According to EN 1789 2007</li> </ul>                                                                                                                                                                                                                                                           |                        |  |
| Medical Gas System      | Oxygen cylinders                | <ul style="list-style-type: none"> <li>Two oxygen cylinders with capacity of 2000 liters each (under normal pressure and temperature) along with pressure regulators and pressure gauges with max. Capacity of (at least 15 l/min according to EN 737-1) shall be provided in an appropriate space outside of the patient compartment.</li> </ul> |                        |  |
|                         | Oxygen outlet                   | <ul style="list-style-type: none"> <li>Shall be fitted above the patient head on the wall and bench</li> </ul>                                                                                                                                                                                                                                    |                        |  |
|                         | Oxygen equipment                | <ul style="list-style-type: none"> <li>Humidifier – flow motor – outlet piped to cylinders' storage.</li> </ul>                                                                                                                                                                                                                                   |                        |  |
| Stationary suction      | Stationary suction (chargeable) | <ul style="list-style-type: none"> <li>One chargeable suction with min. negative pressure of 500 mmHg and capacity of one liter (according to EN 150 – 10079 –1) to be fixed on the wall. It shall be also portable.</li> </ul>                                                                                                                   |                        |  |

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| <b>Paint and marking</b>                     | Exterior painting                                                                                                                       | <ul style="list-style-type: none"> <li>Must be white color</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                      |                        |  |
|                                              | Symbol                                                                                                                                  | <ul style="list-style-type: none"> <li>(Star of life) must be located to the right – left – rear and roof</li> </ul>                                                                                                                                                                                                                                                                                                                                       |                        |  |
|                                              | Ambulance                                                                                                                               | <ul style="list-style-type: none"> <li>The mirror image of the word (Ambulance) located in the front</li> </ul>                                                                                                                                                                                                                                                                                                                                            |                        |  |
|                                              | Color band                                                                                                                              | <ul style="list-style-type: none"> <li>Red bands must be located around ambulance. According to (expert's emergency viewpoints)</li> </ul>                                                                                                                                                                                                                                                                                                                 |                        |  |
| <b>Over all safety</b>                       | Fire extinguisher                                                                                                                       | <ul style="list-style-type: none"> <li>Driver and patient cab must be equipped with one fire extinguisher cylinder in each compartment (one in driver cab and one in patient compartment)</li> </ul>                                                                                                                                                                                                                                                       |                        |  |
| <b>Portable advance resuscitation system</b> | <p>Portable advance resuscitation system including:</p> <p>Dimension and shape must be according to (expert's emergency viewpoints)</p> | <ul style="list-style-type: none"> <li>2-liter oxygen cylinder</li> <li>face mask</li> <li>Tracheal tubes</li> <li>Air ways</li> <li>Resuscitator in two sizes</li> <li>sphygmomanometer</li> <li>stethoscope</li> <li>forceps</li> <li>scissors</li> <li>optical fiber laryngoscope with (3-stainless steel blades)</li> <li>manual suction</li> <li>mouth gag</li> <li>An area for storing infusion solutions</li> <li>medicine storage space</li> </ul> |                        |  |

## Technical Specification For EMS Ambulance TOYOTA HAICE 3500cc

| SUBJECT                                | FEATURES          | REQUIREMENTS                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Bidder's Specification |  |
|----------------------------------------|-------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------|--|
| Designing accommodations for equipment | Medical equipment | <p>Following list of the medical equipment <i><u>is part of the bid</u></i> so that manufacturer must provide suitable safe separate area (cabinet and shelf)</p> <ul style="list-style-type: none"> <li>• Scoop stretcher According to EN standard with FDA or CE or IMED Certificate</li> <li>• Chair stretcher According to EN standard with FDA or CE or IMED Certificate</li> <li>• Cervical collar- set</li> <li>• Long spinal board with head immobilizer According to EN standard with FDA or CE or IMED Certificate</li> <li>• Short back board According to EN standard with FDA or CE or IMED Certificate</li> <li>• Immobilization set for fractures</li> <li>• AED according to <u>table 1</u> specification</li> <li>• Ventilator according to <u>table 2</u> specification</li> <li>• Tele monitoring JAM H1 with IMED Certificate</li> </ul> |                        |  |



## Technical Specification For EMS Ambulance TOYOTA HAICE 3500cc

| SUBJECT  | FEATURES                                   | REQUIREMENTS                                                                                                                                                                                                                                                            | Bidder's Specification |   |
|----------|--------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------|---|
| Standard | Vehicle (Van or chassis)                   | <ul style="list-style-type: none"> <li>According to ISO, SAE, DIN or JIS or JSO standard</li> </ul>                                                                                                                                                                     |                        |   |
|          | Complete Ambulance AND patient compartment | <ul style="list-style-type: none"> <li>It shall meet last version of ISIRI 4374</li> </ul>                                                                                                                                                                              |                        |   |
| Others   | Guaranty                                   | <ul style="list-style-type: none"> <li>120000 km operation or 24 months from acceptance of ambulance whichever occurs earlier.</li> </ul>                                                                                                                               |                        | * |
|          | After Sale Service with Spare parts        | <ul style="list-style-type: none"> <li>10 Years</li> </ul>                                                                                                                                                                                                              |                        | * |
|          | Communication preparation                  | <ul style="list-style-type: none"> <li>Driver cabin shall be furnished with essential cabling for communication radio wireless.</li> <li>At least one Antenna shall be installed on the roof.</li> <li>Wireless communication device is not part of the bid.</li> </ul> |                        |   |

توجه:

- ۱- در صورت خرید تجهیزات پزشکی خارجی هر قلم از این تجهیزات داخل آمبولانس، می بایست دارای نمایندگی فعال و مجوز ورود کالا از اداره کل تجهیزات پزشکی بوده و حداقل دارای دو سال سابقه فعالیت داخل ایران باشند. شرکتهای نمایندگی موظف به ارائه دو سال گارانتی و ۱۰ سال خدمات پس از فروش می باشند. شرکتهای تولید کننده در صورت ارائه کالای تولید داخل و انطباق با مشخصات فنی ملزم به تامین استانداردهای اداره کل تجهیزات پزشکی می باشند.
- ۲- فروشنده می بایست جانمایی داخلی جهت نصب بیسیم مطابق درخواست خریدار ایجاد نماید
- ۳- خرید و نصب آنتن بی سیم مطابق مشخصات ذیل به عهده فروشنده می باشد.

## Technical Specification For EMS Ambulance TOYOTA HAICE 3500cc

### مشخصات آنتن روی سقف خودرو

آنتن خودرویی با قابلیت چرخش ۱۸۰ درجه و تمام استیل  
قابل جدا شدن برای دسترسی به کارواش  
قابل تنظیم با برش شلاقی  
قابل تنظیم کارخانه با توجه به فرکانس مشتری  
دارای فنر استیل ضد زنگ قوی  
قطبش: عمودی  
حداکثر توان: ۱۰۰ وات  
محدوده فرکانس: قابل تنظیم از ۱۴۰ تا ۱۷۵ مگاهرتز  
طول کابل ۵ متری از نوع RG 58  
ارتفاع (تقریبا): ۱۴۴۰ میلی متر

**Technical Specification For EMS Ambulance TOYOTA HAICE 3500cc**  
**Table 1-Technical specification for MBULANCE AED**

| <b>Subject</b>  | <b>Features</b>                 | <b>Requirements</b>                                                                                                                                                                  | <b>Bidder's Specification &amp; Comments</b> |
|-----------------|---------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------|
| <b>Physical</b> | <b>Multi functional device</b>  | Semi automatic AED                                                                                                                                                                   |                                              |
|                 | <b>Weight</b>                   | Included options, battery & external paddles & Bag Max: 3.5 Kg                                                                                                                       |                                              |
|                 | <b>Operating Temperature</b>    | 0° C to 45° C                                                                                                                                                                        |                                              |
|                 | <b>Storage Temperature</b>      | -5° C to 50° C                                                                                                                                                                       |                                              |
| <b>Safety</b>   | <b>Safety Function</b>          | Solid Foreign Object: According to IEC or other valid standards                                                                                                                      |                                              |
|                 |                                 | for enclosure protection, water ingress: According to IEC other valid standards, IP44                                                                                                |                                              |
|                 |                                 | Shock test in accordance with IEC or other valid standards                                                                                                                           |                                              |
|                 |                                 | Vibration test in accordance with IEC or other valid standards                                                                                                                       |                                              |
| <b>Display</b>  | <b>Display Size</b>             | Min. 4 inch                                                                                                                                                                          |                                              |
| <b>AED</b>      | <b>Mode</b>                     | AED Mode (Adult and pediatric therapy mode)                                                                                                                                          |                                              |
|                 | <b>Paddles and paddles</b>      | Reusable External Hard Paddles for Adult and Pediatric (in case of availability)                                                                                                     |                                              |
|                 |                                 | Disposable Paddles (for each device, 40 pairs for adults and 5 pairs for Pediatrics)                                                                                                 |                                              |
|                 | <b>waveform</b>                 | Biphasic (Mandatory)                                                                                                                                                                 |                                              |
|                 | <b>Charge Time</b>              | Less than 10 seconds for maximum energy level                                                                                                                                        |                                              |
|                 | <b>Voice Prompting language</b> | Voice Prompting (english and persian )                                                                                                                                               |                                              |
|                 | <b>ECG CABLE</b>                | ECG CABLE According to IEC standard, CF and Fully Defibrillator Protection                                                                                                           |                                              |
|                 | <b>Monitoring</b>               | ECG LEADS min 6 leads , Arrhythmia Analysis, Heart Rate 0 to 270 bpm<br>ECG Leads from the Paddles or paddels                                                                        |                                              |
|                 | <b>Alarm</b>                    | Vt , VF Amplitude, Low batteries audible and indication alarm, ECG cable connected, A systole, Electrode Disconnected                                                                |                                              |
|                 | <b>Battery and charger</b>      | Rechargeable Li-Ion with max 4 hours of charging time<br>Capacity : Min 100 shocks at the max 200 joules biophasic.<br>Battery Life, 5 years or 1000 Battery charge-discharge cycles |                                              |
|                 |                                 | One separate standing charger<br>Charging with 220 volts AC charger and 12 volts DC power supply                                                                                     |                                              |
|                 | <b>Case</b>                     | Comfortable carrying case                                                                                                                                                            |                                              |

### Technical Specification For EMS Ambulance TOYOTA HAICE 3500cc

|                              |                                         |                                                                                                          |  |
|------------------------------|-----------------------------------------|----------------------------------------------------------------------------------------------------------|--|
| <b>Standard and Guaranty</b> | <b>Guaranty</b>                         | 2 years from the installation time for all parts- Battery 5 years                                        |  |
|                              |                                         | 10 years after sale services in any cities of Iran                                                       |  |
|                              | <b>Standard</b>                         | FDA or CE                                                                                                |  |
|                              | <b>Ambulance Braket Certification .</b> | Ambulance Braket Certification .                                                                         |  |
|                              | <b>Shock and Vibration tested.</b>      | Shock and Vibration tested.                                                                              |  |
| <b>Data Transfer</b>         | <b>Data Interface</b>                   | Via SD Card or Usb flash or direct wifi : cardiac monitoring, AED report,Alarm and Event report and etc. |  |

**Technical Specification For EMS Ambulance TOYOTA HAICE 3500cc**  
**Table-2 Specification for portable ambulance ventilator**

| Subject                | Features                | Requirements                                                                  | Bidder's Specifications & Comments |
|------------------------|-------------------------|-------------------------------------------------------------------------------|------------------------------------|
| PHYSICAL               | Application             | for adults and child (weight upper than 10 kg)                                |                                    |
|                        |                         | Emergency and transport ventilation                                           |                                    |
|                        | Dimensions              | Suitable for ambulance                                                        |                                    |
|                        | Weight                  | max 1.5 kg with batteries (Lightweight)                                       |                                    |
|                        | Temperature - Operation | -10° to 45°C                                                                  |                                    |
|                        | Temperature – Storage   | -10 o to 50 °C                                                                |                                    |
|                        | Safety Function         | Shock Resistance                                                              |                                    |
|                        |                         | Easy Handling                                                                 |                                    |
| Principle of operation | Ventilation mode        | Manual or automatic with Assist-Control Triggers-<br>Simple control interface |                                    |
|                        |                         | Flow Rate: Up to 36 Liters per Minute                                         |                                    |
|                        |                         | Breathing Rate: Adjustable, Up to 20 breaths per minute                       |                                    |
|                        |                         | Tidal Volume: Adjustable, Up to 1000 ml                                       |                                    |
|                        |                         | Min coverage of PEEP: 0-5 cm H2O (with PEEP adapter)                          |                                    |
|                        |                         | FiO2: 100% or air mix                                                         |                                    |
|                        |                         | Low maintenance cost                                                          |                                    |

## Technical Specification For EMS Ambulance TOYOTA HAICE 3500cc

|                                                                                              |                                                         |                                                                                        |                                                                                                                                 |
|----------------------------------------------------------------------------------------------|---------------------------------------------------------|----------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------|
| Principle of operation                                                                       | ALARMS                                                  | High Airway Pressure alarm<br>Circuit Disconnect<br>Low Source Gas at a fixed pressure |                                                                                                                                 |
|                                                                                              |                                                         | The device easily connected to Oxygen outlets according to the requirement of NEMO.    |                                                                                                                                 |
|                                                                                              |                                                         | The device shall be equipped with one appropriate manometer and carrying bag           |                                                                                                                                 |
|                                                                                              | Standard Guaranty                                       | Guaranty                                                                               | 2 years from the installation time for all parts<br>And 10 years after sale services in any cities in the whole country of Iran |
| Standard                                                                                     |                                                         | According to EN 794-3 standard                                                         |                                                                                                                                 |
| Certificate                                                                                  |                                                         | FDA or CE or IMED                                                                      |                                                                                                                                 |
| Standard accessories                                                                         | Carrying case                                           |                                                                                        |                                                                                                                                 |
|                                                                                              | Silicone patient mask with expiratory valve             |                                                                                        |                                                                                                                                 |
|                                                                                              | Disposable patient circuit in PVC with expiratory valve |                                                                                        |                                                                                                                                 |
|                                                                                              | Standard Manometer and o2 tube                          |                                                                                        |                                                                                                                                 |
|                                                                                              | User manual in Farsi                                    |                                                                                        |                                                                                                                                 |
| Cleaning and disinfection procedures shall be fairly easy with the use of routine detergents |                                                         |                                                                                        |                                                                                                                                 |