

## **1. Incident Management**

The Contractor shall set up and maintain an Incident Management System (IMS) and supply regular incident statistics to NHAI.

Incident Management entails a set of co-ordinated activities initiated by the Contractor when an incident (an extraordinary event resulting in the reduction of road capacity or creates a hazard for users) occurs, in order to minimise the effects of the incident and restore normal capacity and safety levels to all affected road facilities as efficiently as possible.

The Contractor has to identify relevant agencies (e.g. rescue, fire, hazardous materials, traffic, police, ambulance, hospitals, alternative routes, cleanups) and their representatives and to liaise with these representatives on behalf of the employer.

The incident management centre shall be continuously staffed on a 24 hours basis. The Contractor shall maintain records of the details of all incidents (e.g. collision, hazardous material, breakdown, etc). After occurrence of any major incident, resulting in multiple loss of life, significant periods of road closure or major route rehabilitation work, an incident debriefing report shall be produced and forwarded to NHAI within fifteen days of occurrence.

Contractor will keep a record of the removal accidental/damaged vehicles by taking a dated photograph of the same and will submit the report on monthly basis to the Employer/Engineer.

Contractor will remove dead animals/birds from the carriageway and bury them at a suitable location as directed by the engineer/employer within two hours of the incident. If contractor fails to remove the dead animals/birds from the carriageway within two hours of the incident, he will be levied a penalty of Rs. 1,500/- per such incident.

### **1.1 Route Patrols**

The O&M contractor is required to provide 24 hrs per day route patrols to assist the road users of the highway, to provide information, feed back and perform functions in relation to incident management. To achieve this, the Patrol vehicles should be fully equipped as well as the patrol persons should be adequately trained in traffic management, road safety and primary first aid. The purpose of these patrols is to:

- Provide the users of the highway with basic mechanical help for vehicles that breakdown on the road and also protect other users from such vehicles.
- Immediately identify traffic hazards of whatever nature, such as unauthorized parking, public transport vehicles, obstructing traffic during passenger loading and unloading, debris, stray animals and the like. The operator shall take the necessary measures to remove such obstructions.

- Provide emergency management at accident scenes until such time as the appropriate authorities arrive.
- Assist with the removal of damaged or mechanically impaired vehicles from the highway.
- Provide road user information and to further the image of National Highway Section.
- Maintain daily records of assistance provided to road users.
- Observe, record and report suspect aspects of the highway, hazards and incidental damage caused by vehicles, floods, storms or other random events, such that the highway maintenance records and database are continuously improved.

## **1.2 Patrol Vehicles**

Vehicles should be (white colour ) having sufficient rear space for the required equipment storage, fitted with rotating light and hooter, and painted with a unique color pattern for quick recognition, with the NHAI name and emblem painted prominently on sides, back and front, together with the Control Centre and Help line numbers. Vehicle should be in good condition and be not older than two years.

Each vehicle should also carry the following equipment.

- a) Fire extinguisher 1 no.
- b) Gas cutter with protective glass (2 nos)
- c) Liquid container 2 no., Water container with fresh water 1 no. ,Funnel.
- d) Rubber Gloves, Leather Gloves (1 pair each)
- e) Brooms one hard bristle, other soft-2 no.
- f) Gum boot 4 pr, Rain coat 4 pr., Blanket 1.
- g) Torch lights – 4 nos., Spare Batteries. ,Flashing light 1 no.
- h) Hydraulic jack, towing chain, Animal hook, rope.
- i) Tool set (with standard set of spanners, pliers hammer etc), shovels.
- j) Digital Camera, measuring tape.
- k) Paper pad, Forms, pen/ pencils, folders.
- l) First aid kit, Rain Coat, water proof sheets, stretchers (two numbers)
- m) List of hospitals

Each vehicle should also carry the following Traffic Management Equipment, (used/ worn out items shall be replaced forthwith with new ones)

- a) Sign boards - “Accident ahead” - 3 Nos. “Lane merging” - 3 no. “Direction Arrows” - 3 no, “Speed Limit” (80/60/40)-3 no, “Keep left / right” - 2 no (all signs 1200 mm size and of retro reflective type (high intensity grade)
- b) Sign Stand set (one for triangular and other for circular sign) 6 sets.
- c) Flags, whistle, reflective hand signal.
- d) Traffic cones 500 mm size with solar bulb mounted on top - 20 No.s.

- e) Barricades 4 No.s reflective type (100 m), tape, stands, Flags of 600 mm by 600 mm made of good read cloth secured to a staff at 1 M length, Paddles of at least 600 mm wide and provided with rigid handle with markings SLOW, STOP.
- f) Reflective jackets - 12 No..  
As a minimum, each patrol vehicle should carry sufficient communication equipment to render its staff capable of direct communication with the incident Management Control Center established.

Manpower:

The team which is to be deployed with each patrol vehicle, needs adequate training for their tasks, especially in first aid, vehicle maintenance and minor repairs. The contractor must employ sufficient manpower to work in shifts for each patrol vehicle. Typical staffing shall be:

- a) Route Patrol In-Charge
- b) Route patrol assistant
- c) Driver, with knowledge of vehicle repairs.

Typical duties of the Route Patrol In-Charge are:

- a) Patrol the corridor to ensure obstruction free flow as per shift standards
- b) to report to police and assist injured at accident scene and remove all obstructions from road when the vehicles are cleared
- c) To provide first aid to injured, contact control room and ambulance service if needed, assist police
- d) Report all incidents on radio control, to control room.
- e) To ensure safety of traffic with minimal delay at accidents.
- f) To assist motorists on broken down vehicles and to ensure that they do not obstruct free flow
- g) Maintain relations with all emergency services, and local safety councils
- h) To report carriageway condition, especially traffic guidance aids, signs, markings condition, condition of drainage, ROW plantations, medians plantation etc.
- i) Check on Encroachment irregularities taking place within ROW , and prevent unauthorized entry into the corridor.
- j) prevent theft of assets and report
- k) attend to urgent maintenance for safety requirements.

At all times, the Route Patrol In-Charge should have with him a list of telephone numbers and address of all concerned in providing the Road Users Services.

**On duty, all staff shall wear distinctive standard jackets having company LOGO, with night visibility. They are to deal with public and hence should be well trained to be courteous and helpful.**

**Number of Patrol Vehicle: Two**

### **1.3 Ambulance:**

The vehicle shall be Matador Van/ Swaraj Mazda/ Tempo Traveller or equivalent preferably white colour with the provision of two stretchers, fitted with rotating light for easy recognition, with NHAH name and emblem painted prominently on sides, back and front, together with control center help numbers, The ambulance is required to have the following medicines and equipments and also the paramedical staff:

#### **A) General Ambulance:**

Folding Doctor Seat with Belt with adequate height in relation to the stretcher, Antistatic, water proof ply board vinyl/flooring, Channel/Locking system for rolling stretcher, High intensity blinkers, light bar/siren/beacon, Electronic siren with Public Addressing System, Internal lighting with three spot light embedded in ceiling, AC/DC connection and outlet points, Wash basin with Stainless Steel Tank, SS Trash bin Cabinet integrated with interiors, Head racks and cupboard, Attendant seat with seat belt to double as second stretcher for stable patients, Provision for communication system where the location of ambulance can be located, Provision for fog light on sides, Cool/Warm boxes, Provision of Fire Extinguishers, Handheld Spotlight, Inverter with the facility re-charging from 220V AC and Vehicle's alternative. Oxygen delivery system comprising of Cylinder Trolley, pressure tubing with regulators, Roof mounted Air-conditioner with appropriate cooling capacity with additional blower for Patient Cabin, Extrication equipment and Good Suspension to cater for smooth transportation.

#### **B) Basic Life Support system**

Automatic loading stretcher, Scoop stretcher, Folding stretcher, Spine board full, Vacuum splint kit/foldable splints, C-Collars, Oxygen Cylinder with accessories mounted/with manifold and pressure indicators, Oxygen Cylinder (aluminium portable), BP Instruments (Wall mounted-Aneroid), Stethoscope, Automatic defibrillator, Resuscitation bag (ambu bag, laryngoscope, airways and mask of different size including pediatric), Manual foot operated suction pump. I.V Fluid and I.V Sets, Tourniquet, First-Aid Box (Dressing material/Antiseptic lotion/Analgesic etc), Linen/Blanket, Laryngeal mask airway of all sizes.

The following paramedical staff are required with proper uniform and name of the person written on the uniform:

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|----|---|---|
| a) | Trained Paramedical staff                 | 1 |
| c) | Nursing staff with knowledge of first aid | 1 |
| d) | Driver for ambulance                      | 1 |