



TRANS AFRICAN CONCESSIONS (PTY) LTD

(Hereinafter referred to as TRAC)

SCOPE OF WORK AND PROJECT DOCUMENT

SCOPE OF WORK IN RESPECT OF THE ROUTE PATROL, ROAD ASSISTANCE AND EMERGENCY SERVICES ON THE N4 TOLL ROAD FROM PRETORIA TO MAPUTO

Part of the operation and maintenance of the
Toll road under the
Maputo N4 Concession
Contract No: SAPR NO 403801/1-184/conc/97

Contract No: TRAC/SERV-01/2019

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SECTION C3:

C3. SCOPE OF WORK AND PROJECT SPECIFICATIONS

C3.1. DEFINITIONS AND TERMS

C3.1.1. INTERPRETATION AND DEFINITIONS

Where an expression or word is not defined in this specification, but is defined in “The General Conditions applicable to this Contract, shall apply. The abbreviations and expressions used in this specification shall be interpreted in accordance with the ascribed meanings below, unless inconsistent with the context:

- a) “BAA” shall mean a qualification or level of medical competence equal to that of a Basic Ambulance Assistance or it shall mean Basic Ambulance Assistant as the context may require;
- b) “CCC” shall mean Central Communication Centres to perform communication services in relation to incidents and accidents reported along the N4 Toll Road, in the various metros and districts; e.g. Mbombela Local Municipality, Steve Tshwete Local Municipality, City of Tshwane; etc)
- c) “Customer” means any road user travelling along the N4 Toll Road;
- d) “CV” shall mean Curriculum Vitae and would normally record details of a staff member profile (inclusive of qualifications as approved by the South African Qualifications Authority (SAQA) or similar if applicable to Mozambique Sector, and relevant experience;
- e) “Dangerous Goods” or “DG” shall mean materials or chemicals of potentially hazardous nature and composition;
- f) “GPS” shall mean global positioning system;
- g) “Incident” shall mean for the purposes of this document, the occurrence of any extraordinary condition or event on the N4 Toll Road which results in a reduction of the road capacity, and/or creates or may potentially create a hazard for Customers and/or other affected parties, for any period of time. An incident is not merely a major accident. It can also be a minor accident, shoulder/lane blockage, spilled load, construction area or special event;
- h) “Incident Management” shall mean for the purpose of this document, that process whereby a set of co-ordinated activities is initiated by the Contractor when an Incident occurs on the N4 Toll Road in order to minimise the direct and secondary effects of the Incident and to restore normal capacity and safety levels to all affected road facilities as quickly and efficiently as possible. Incident Management also includes secondary or supportive activities in the interest of safety, security and capacity building along the N4 Toll Road;
- i) “Incident Management Manuals” shall mean the combined set of manuals that contains the protocols, procedures, alternative routes and guidelines pursuant to the IMS;
- j) “IMS” shall mean the Incident Management System adopted for the N4 Toll Road and which is that system which coordinates and pre-plans activities that must be performed and resources that must be provided by the Contractor and service providers associated with Incident Management to restore normal capacity and safety levels as efficiently and effectively as possible on the occurrence of an Incident.

- k) "Incident Management Specialists" shall mean the Contractor's staff located along the N4 Toll Road for the purpose of managing the Contractor's patrol sections, patrol services, response vehicles and supporting the route services manager with the Contractor's Incident Management tasks;
- l) "ISO" shall mean International Standards Organisation;
- m) "MVA" shall mean Motor Vehicle Accident;
- n) "N4 Toll Road" means the N4 National Road (including the Road Reserve and the Carriageway) comprising the portion of National Route 4 in the Republic of South Africa from the Solomon Mahlangu Drive (M10) Interchange (east of the eastern Interchange), Pretoria to the Lebombo Border Post as well as the portion of the National Route EN4 from Ressano Garcia Border Post to the Xai-Xai intersection near Maputo Harbour in Mozambique;
- o) "Patrol Officers" shall mean the Contractor's staff members performing the daily patrol service along the N4 Toll Road and on-scene management tasks pursuant to the requirements of this document;
- p) "Patrol Vehicles" shall be the Contractor's vehicles managed and operated by the Contractor's Patrol Officers;
- q) "PC" shall mean personal computer and peripherals or complete work station (Android/Tablets?);
- r) "Response Vehicles" shall be the Contractor's Accident Response vehicles managed and operated by the Contractor's Incident Management Specialists / Accident Response Officer and his team;
- s) "Route services" shall mean all assets and services to be provided by the Contractor in accordance with this document and related obligations, liabilities, warranties, indemnification and the like pursuant to the contract. The scope of the route services is detailed as Route Patrol Services, Accident Response Services and Road Assistance. The scope is detailed in the project specifications;
- t) "Route Services Staff" shall mean the Contractor's total staff compliment to perform the Route Services;
- u) "Service Providers" and "Authorities" shall mean: emergency services, amongst others provincial or private ambulance services, civil protection agencies, fire and emergency services, South African Police Services, Pathology Services, Traffic Authorities and non-emergency services, amongst others Automobile Association of South Africa, TRAC (within the application of the IMS), Road Authority and Maintenance Departments, Road Freight Association, South African Road Federation, local authorities, water authorities, specialised spill clean up companies, tow-in companies, Department of Water Affairs and Department of Environmental Affairs;
- v) "Small Tools" shall have the meaning ascribed thereto in the context of this document;
- w) "SMS" shall mean Short Message Service; and

- x) "TRAC" means Trans African Concessions (Pty) Ltd, registration number 1997/004427/07.

C3.2. SITE

The sites are defined as follows for South Africa (Schedule A) and Mozambique (Schedule B).

(a) South Africa

The N4 Toll Route between the Solomon Mahlangu (Hans Strijdom) Interchange east of Pretoria (N4/1 km 21.3) up to the Lebombo Border Post (South Africa) N4/8X km 70.63.

(b) Mozambique

The EN4/1 from Ressano Garcia Border post (EN4/1 km 0) up to the Xai-Xai intersection with the EN4 (EN4/2 km 50.95).

The sites will also include:

All areas necessary for accommodating the traffic during emergency situations.

All Ramps, and public over/under bridges over/under the N4 Toll Road as well as a distance of 600 metres along the cross-roads intersecting with the N4 Toll Road, measured from the centre of the intersection for level crossings and measured from the ramp intersections to both sides from the N4 Toll Road is also included along the route. Approximate lengths of N4 sections are available upon request.

C3.3. WORKS

The works are described in this document and contain the following elements that although separately described, are all integrated into ensuring that the N4 Toll Road provides safe travelling for their customers:

- (i) General Incident Management on the N4
- (ii) Emergency response in the event of incidents and accidents
- (iii) Daily Route Patrol Services
- (iv) Road side assistance to customers (TRACASSIST) through TRAC's Helpdesk.

On a continuous basis the Contractor shall aim to meet TRAC's general objectives that include:

Service	Description
Incident Management Service	Continuous improvement of the IMS along the N4 Toll Road Accurate and reliable incident and accident data collection Effective and efficient minimisation of road/lane closures and times Effective training and capacity building amongst service providers Improvement of Road Safety and Security

	Improvement of level of service to maximise mobility and convenience of customers along the N4 Toll Road
Route Patrol Service Accident Response Service And TRACASSIST Call-out service	Enhanced daily patrol / road assistance service Enhanced incident response service
Quality Assurance Service	Enhanced and improved route services performance levels and staff competency on a cost-effective basis.

C3.4. PROGRAMME AND PLANNING OF WORK

General requirements

- a) In planning the deployment of vehicles and labour, the Contractor shall take into account the requirements of the Labour Act.
- b) The contractor shall make allowance for the following:
 - (i) All special non-working days.
 - (ii) All religious days.
 - (iii) Holiday periods such as Easter and Christmas.
 - (iv) Road and Emergency call outs during and after hours
 - (v) Inclement weather.
 - (vi) Reaction time specified as less than 30 minutes.
 - (vii) Staff planning and patrol time revisions.
- c) The programme and planning must be flexible and updated on a monthly basis. It must show in sufficient detail how special events and holidays will be managed with adequate Services rendered to satisfy the needs of the Employer. These plans and programmes might be reviewed at the monthly site meetings. The contractor shall indicate what resources and programme changes he intends to implement in order to meet the Employer's requirements.

The contractor shall provide initial procedures / proposals regarding the following:

- Personnel structure/management/qualifications.
- Personnel salary packages – a breakdown of salary packages per category must be submitted prior to work commencing. This must include but not limited to basic salary, overtime, benefits such as: retirement, medical aid and any applicable deductions.
- Transport resources.
- Training programme.
- Incidents and management thereof

To be submitted as part of the intended programme.

C3.5. WORKMANSHIP, QUALITY CONTROL AND QUALITY ASSURANCE SERVICE

The frequency and details of Patrol and road assistance and emergency services to be conducted by the contractor shall be at least as specified in the relevant sections of this specification.

The Contractor shall submit to the Engineer the required plans, programmes, information and reports at the frequency as described in the contract document as proof that all requirements as specified are met.

C3.5.1. QUALITY ASSURANCE SERVICE

C3.5.1.1. Overview

The Contractor shall develop, implement, review, improve over time and maintain an appropriate Route Services Quality Assurance Service to the satisfaction of TRAC. This shall include meeting the following targets:

- Maintaining of an outstanding, well trained & effective Route Services Staff compliment,
- Maintaining of an acceptable level of Operator's performance compliance and continuous improvement.

C3.5.1.2. Scope

The scope of the quality assurance service basically include:

- Participation in N4's Management Activities,
- The development and maintaining of a Route Services Manual as part of the Operations and Maintenance Manuals,
- The development and maintaining of an Contractor's Performance Measurement System as part of the Operations and Maintenance Manuals, and
- The development and maintaining of an Annual Management Planner as part of the Operations and Maintenance Manuals.

C3.5.1.3. Measurement and Payment

- Upon successful delivery of the prescribed Quality Assurance Service, the Operator will be paid the fixed monthly tendered fees, subject to the adjustment and Variation provisions of the Contract as part of his general obligations.
- Penalties for poor performance may be applied pursuant to the provisions provided in the contract.
- Generally all obligations, liabilities, risks and specified Contractor's functions, tasks, provision of Assets, services, overheads and the like are deemed to be included in the fixed monthly tendered fees under general obligations (C3.12) unless specifically stated otherwise pursuant to the Contract provisions.

C3.6. PARTICIPATION IN TRAC'S MANAGEMENT ACTIVITIES

This section excludes the requirements of the Contractor's own in-house management activities required for the performance of the specified Route Services. The minimum functional requirements are:

C3.6.1. Meetings

Provision of a suitable Contractor's representative at periodic contract management meetings arranged by TRAC, to include:

- a) At least monthly meetings.
- b) Ad-hoc special meetings as and when required.

C3.6.2. Inspections and Audits

Provision of a suitable Contractor's representative(s) at periodic performance inspections and audits arranged by TRAC, to include:

- a) An annual Route Services audit,
- b) Interim periodic inspections / audits, and
- c) Ad-hoc inspections.

C3.7. OPERATIONS AND MAINTENANCE MANUALS

C3.7.1. Route Services Manual

The Contractor shall develop, submit for TRAC's acceptance / comment and implement procedures in accordance with a draft Route Services Manual within 6 months after commencement date. This must include consultation with the TRAC Helpdesk and include their Standard Operating Procedures in the Route Services Manual.

The Route Services Manual shall thereafter be reviewed, improved, updated and fully implement (on the job Route Services Staff training) by taking into account the actual learning curve, conclusions, substandard performance results recorded as well as TRAC's comments received.

Thereafter, the Contractor shall initiate and maintain an annual review process of the Route Services Manual starting on the contractual anniversary date, ending 2 months after the anniversary date and inclusive of all necessary review sub-processes (meetings, comments, evaluation of interim addenda/operating instructions issued, updating, submissions to TRAC, internal re-issue, etc).

During the interim periods between the annual review processes the Contractor shall issue (internally and copied to TRAC) consequentially numbered addenda or operating instructions when current procedures need to be altered or improved for whatever reason or purpose.

Generally the Route Services Manual shall include a set of comprehensive Operator's procedures, operating guidelines and operating sub-systems. The operating procedures, guidelines and sub-systems shall be described in sufficient details in order to indicate clear answers to by who (which Route Services Staff members), when (frequency) and how the various activities need to be performed.

The compilation of the Route Services Manual shall follow an ISO 9000 approach.

The framework of the Route Services Manual shall be in accordance with the general framework of the Specifications (or a similar appropriate and practicable framework) as outlined in this Contract Document. The framework shall satisfy the Contractor's performance measurement and Route Services Staff training systems and should, therefore, focus on specific Route Services Staff functions, activities and tasks to be performed.

The Route Services Manual shall address the following key subjects:

a) Quality Assurance

- Contractor's Route Services Organization
 - Manager or coordinator(s)
 - Route patrol sections, Accident Response Sections, TRACAssist Sections
 - Route Patrol / Accident Response / TRACAssist Vehicles & numbers
 - Staff positions & numbers,
 - Incident/accident Management & Route Patrol management control center location(s),
 - Route management & administration staff positions and numbers,
 - Head office location, head office staff positions and numbers (Specific percentages allocated and dedicated to the N4 project)] and
 - Contractor's communication, interfacing and reporting lines.
- Participation in TRAC's activities;
- Contractor's internal meetings;
- Contractor's internal audits and performance measurement;
- Route Services filing system (electronic and hardcopies);
- Route Services Manual review, update and implementation processes (interim & annual);
- Personnel management – including the staff salary structures;
- Health, Safety and Environmental aspects; and
- Communication with the TRAC Helpdesk and Others

b) Accident Response

- Development and Maintaining of the IMS (CCC / Emergency / Customer / TRAC Liaison);
- Incident/Accident Data Collection;
- On-scene Incident Management;
- Incident clearing;
- Incident debriefings;
- Training;
- Special Road Safety Projects;
- Reporting and report formats;
- Interface with Concessionaire; and
- Others not named.

c) Route Patrol and TRACAssist

- N4 patrolling patterns / strategy;
- Day to day patrolling functions;
- Patrol and Response Vehicle control, shift change and maintenance;
- Patrol staff control, shift change & attendance;
- Interface with TRAC; and
- Others not named.

C3.7.2. Contractor's Performance Measurement System

Within 6 months of the Commencement Date the Contractor shall develop, submit for the TRAC's acceptance and implement a Contractor's Performance Measurement System as part of the Operations and Maintenance Manuals.

Thereafter, the Contractor shall give an exceptional high level of attention to review, improve, update and fully implement (on the job Route Services Staff training) the Contractor's Performance Measurement System by taking into account the actual learning curve conclusions, sub-standard performance results recorded as well as TRAC's comments received.

Thereafter, the Contractor shall initiate and maintain an annual review process of the Contractor's Performance Measurement System starting on the contractual anniversary date, ending 2 months after the anniversary date and inclusive of all necessary review sub-processes (meetings, comments, evaluation of interim addenda/operating instructions issued, updating, submissions to TRAC, internal re-issue, etc).

During the interim periods between the annual review process, the Contractor shall issue, internally and copied to the Concessionaire, consequentially numbered addenda or operating instructions when current procedures need to be altered or improved for whatever reason or purpose.

Generally the Contractor's Performance Measurement System shall include a set of comprehensive Contractor's audit/inspection procedures, operating guidelines and operating sub-processes. The operating procedures, guidelines and sub-processes shall be described in sufficient details in order to indicate clear answers to by who (which auditing staff members), when (frequency) and how the various performance measurement activities need to be performed.

The compilation of the Contractor's Performance Measurement System shall follow an ISO 9000 approach.

The framework of the Contractor's Performance Measurement System shall be in accordance with the general framework of the specifications (or a similar acceptable and practicable framework). The framework is to satisfy the Route Services Staff training systems & performance criteria and should, therefore, focus on specific performance indicators related to Route Services Staff functions, activities and tasks to be performed.

The Contractor's Performance Measurement System shall address the following key performance indicators as may be updated/improved and/or expanded in order to improve the service levels over time:

- a) Compliance and satisfactory progress in terms of the Contractor's initial program – initial progress and performance measurement;
- b) Compliance to the Annual Management Planner – monthly progress and performance measurement;

- c) Monthly Route Services Reporting – monthly performance measurement,
- d) Ongoing road furniture damage and defects reporting – monthly performance measurement,
- e) Ongoing Concessionaire's infrastructure failure notification – monthly performance measurement,
- f) Ongoing 3rd party systems failure notification – monthly performance measurement;
- g) Ongoing MVA's reporting – monthly performance measurement,
- h) Maintaining of proper Route Services filing systems – Quarterly performance measurement,
- i) Maintaining of a proper major documentation control index and appropriate library of documentation – quarterly performance measurement,
- j) Maintaining of proper and effective Route Services Staff attendance & shift change procedures – quarterly performance measurement,
- k) Maintaining of proper and effective patrol vehicle & equipment control procedures – quarterly performance measurement,
- l) Ongoing maintaining of satisfactorily on-scene Incident Management procedures – quarterly performance measurement,
- m) Ongoing maintaining of minimum Route Services Staff turn-around statistics – monthly performance measurement,
- n) Ongoing maintaining of appropriate and satisfactorily communication infrastructure and protocols – quarterly performance measurement,
- o) Ongoing effective monitoring & performance in accordance with the vehicle tracking systems and procedures – monthly performance measurement,
- p) Ongoing maintaining of acceptable interfacing protocols with TRAC – monthly performance measurement,
- q) Ongoing acceptable and complete recording of in-house management meeting minutes, specifically addressing actions related to Special Road Safety Projects, IMS problems and solutions, areas of Contractor's non-compliance or sub-standard performance and areas identified and targeted for Route Services improvements – monthly performance measurement, and
- r) Others as identified and planned in terms of the Contractor's Performance Measurement System and continuous improvement requirements.

C3.7.3. Annual Management Planner

The minimum functional requirements are the development, implementation, updating, management application and ongoing maintenance of a comprehensive electronic (MS compatible) Annual Management Planner to indicate all periodic pre-scheduled activities to be performed by the Contractor in relation to his general obligations as well as all other related Route Services requirements. This Annual Management Planner shall indicate all

planned activities and the ongoing progress status thereof to be reported at the routine Contract meetings set by TRAC. The Annual Management Planner shall, amongst others and for example, indicate activities in respect of:

- a) Submission of the Performance Bond,
- b) Annual renewal and submission of the Operator's insurances,
- c) Periodic renewal and submission of subcontract or service level agreement / sub-supply terms,
- d) Annual review plan of the Incident Management Manuals,
- e) Annual review plan of the Route Services Manual,
- f) Annual review plan of the Performance Measurement System,
- g) Quarterly Asset audit and submission of a report,
- h) Annual Asset condition & replacement plan and submission of a report,
- i) Refresher Route Services Staff training plans,
- j) Service Provider training plans,
- k) TRAC Contract meetings,
- l) Routine IMS meetings,
- m) Routine Contractor's (In-house) management meetings,
- n) Safety meetings,
- o) Special Road Safety Project plans,
- p) Bi-Annual cross border meetings,
- q) TRAC coordination meetings and CCC meetings as may be instructed,
- r) Police Station commanders and Traffic meetings,
- s) Scheduled Contractor's periodic route services inspections / audits / performance measurement,
- t) Planned Patrol / Response Vehicle / TRACASSIST Vehicle replacements,
- u) Substantial Asset improvement / procurement plans,
- v) Socio-economic development plans,
- w) Reports on Incident Management Manuals improvements,
- x) Periodic renewal / issue of Route Services Staff uniforms,
- y) Periodic reports, and

- z) Any other periodic or pre-scheduled ad-hoc activities derived at from the Contractor's general obligations and this Volume 3 (Route Services Specification).

C3.8. PERFORMANCE MEASUREMENT

TRAC will perform annual, interim and ad-hoc audits and observations on the quality, completeness, time line progress made and improvements achieved in relation to the services performed by the Contractor. These audits will be based on any or all of the Contractor's obligations and the applicable specifications of the contract.

On detecting items of poor performance or non-compliance TRAC may apply penalties in accordance with the Penalty Schedule below. Penalties will be applied in the month of detection, according to the scheduled category (defined as "CATEGORY" in the Penalty Schedule hereafter) and in relation to a reasonable time to remedy. Penalties will be escalated depending on the number of similar repetitive events detected pursuant to the schedule provided in C3.9.

When TRAC detects an item of poor performance for the first time during the Contract Period, the lowest penalty will be applicable pursuant to the model. Thereafter the Contractor may receive a notice for remedy together with a reasonable remedy period. In the event of the same item being detected subsequently, the penalty may be escalated depending on the number of times of repetition in accordance with the model provided in C3.9. The actual penalty amounts are calculated in accordance with the scheduled category and the automated model pursuant to C3.9.

Penalties may be deducted from the Contractor's monthly payment certificates as they become effective. Penalty deductions shall be limited to a maximum of 15% of the fixed monthly fee portion of the Operations Fee (Route Patrol Services, Emergency Services and Road Assistance services) in the specific month of application. Penalty deductions shall be construed as additional to the Contractor's other liabilities and related pursuant to the Contract.

C3.9. PENALTY SCHEDULE

If the Contractor fails to comply with the specifications and duties and requirements set out in the project specifications, the Contractor will be penalised as follows. Penalty values are escalated with CPI. Penalties for Schedule B in Mozambique will be determined using the average monthly exchange rate for the month in which non-conformances apply.

Cat	Basic Penalty	Escalating Factor	Penalty per event detected during the contract period						
			1	2	3	4	5	6	...n
A	R 12 000	1.4	R 12 000	R 16 800	R 23 520	R 32 928	R 46 099	R 64 539	R 64 539
B	R 9 000	1.3	R 9 000	R 11 700	R 15 210	R 19 773	R 25 705	R 33 416	R 33 416
C	R 7 000	1.2	R 7 000	R 8 400	R 10 080	R 12 096	R 14 515	R 17 418	R 17 418
D	R 3 000	1.2	R 3 000	R 3 600	R 4 320	R 5 184	R 6 220	R 7 465	R 7 465

C3.9.1. FAILURE TO MEET GENERAL OBLIGATIONS

Item Number	Activity	When	Category
	Failure to comply with GCC	Continuous	A
C3.12.1.4	Failure to comply with General Obligations as part of improvement and maintenance of IMS	Per meeting	B
C3.12.1	Failure to communicate as specified (not answering cell phone as per requirement) 24 hr cell phone stand by	Per incident	C
C3.12.1	Late submission of plans and reports	Penalty per day	D
C3.12	Failure to comply with TRAC's Management activities	Per month	D
C3.12	Failure to submit Route Services Manual	Per quarter	C
C3.12	Failure to comply with Contractor's Performance measurement	Per quarter	B
C3.12	Failure to comply with Annual Management Planner	Annual	C

C3.9.2. FAILURE TO MEET ROUTE PATROL DUTIES AND SPECIFICATIONS

Item Number	Activity	When	Category
C3.13	Not performing daily route patrol inspection duties in accordance with specifications	Daily per team	A
C3.13	Route patrol vehicle not compliant	Daily per vehicle	B
C3.13	Route Patrol officers not compliant (not wearing uniform and/or safety clothing)	Daily per team member	C
C3.13	Missing material or equipment identified during audit/inspection	Daily per vehicle	C
C3.13	Accommodation of traffic per incident not in accordance with requirement	Per Scene	C
C3.13	Failure to submit reports in time	Penalty per day	B

C3.9.3. FAILURE TO MEET ACCIDENT RESPONSE DUTIES AND SPECIFICATIONS

Item Number	Activity	When	Category
C3.14	Not performing duty in accordance with specifications	per incident	A
C3.14	Patrol vehicle not compliant	Daily per vehicle	D
C3.14	Accident Response officers not compliant (not wearing uniform and/or safety clothing)	Daily per team member	C
C3.14	Missing material or equipment identified during audit/inspection	Daily per vehicle	C
C3.14	Accommodation of traffic per incident not in accordance with requirement (on-scene management non-compliant)	Per Scene	C
C3.14	Failure to submit reports in time	Penalty per day	B
C3.14	Late arrival at incident/accident	Penalty per minute exceeding 40 min response time.	D

C3.10. PAYMENT

- a) Rates to be inclusive of management, procurement, delivery to site;
- b) Rates tendered shall be "VAT (IVA)" exclusive;
- c) Work during all hours is regarded as being conducted during normal daylight hours, except where provided for in the specifications and pricing schedule. No extra payment shall be made nor shall any claim for additional payment be considered for operation during normal working hours. The omission of standard pay items from the schedule of quantities shall be taken to be deliberate and any additional costs incurred shall be included in the bulk rate.

C3.11. TRADE NAMES

Where products and or materials are specified under trade names tenders must be based on these products/materials. Alternative materials may be submitted as alternative tenders and the Engineer may, after receipt of tenders, approve the use of equivalent materials. The tender must be clearly marked as an alternative tender, failing which the tender may be rejected".

C3.12. CONTRACTOR'S ESTABLISHMENT ON SITE AND GENERAL OBLIGATIONS

C3.12.1. GENERAL REQUIREMENTS

C3.12.1.1. CAMPS, VEHICLES

No camp site may be established or material be stockpiled within the road reserve. Accommodation, ablution and other facilities for personnel shall be in accordance with the laws, by-laws and rules of the authorities concerned. Vehicles shall at all times be operated legally and in accordance with the relevant road and traffic laws. All vehicles used for patrolling, TRACASSIST and Emergency Response must be fitted with a reliable and an approved Global Positioning System (GPS) tracking device and a Drivecam live camera device. The vehicles shall contain a cellular telephone, road maps, 9kg fire extinguisher, and be fitted with a hazard light with a minimum intensity of 100W. All vehicles used shall display the standard TRAC branding and insignia or any other branding as determined by TRAC from time to time. The contractor is responsible to ensure that all reflective stickers and emergency amber lights attached to the patrol vehicles are approved by the relevant provincial authorities. The vehicles shall be kept in a road worthy condition at all times.

C3.12.1.2. CONTRACTOR'S PERSONNEL/STAFF

The Contractor shall provide and ensure that all members of his Route Services Team on duty are neatly dressed in khaki uniforms or uniform as approved by TRAC. Labourers/Assistants shall wear orange/yellow overalls. Patrol Officers, Accident Response Team Leaders as well as the Coordinators shall wear name tags during official duty. Proper reflective clothing/jackets shall also be worn in accordance with TRAC's safety requirements when working on the N4 Toll Road. All should be neatly dressed at all times of operation.

Training, evaluation and certification of staff in accordance with the requirements of the project specifications shall be done by the contractor. Refresher training shall also be done to ensure that all staff has the necessary skills and expertise to perform the services as required throughout the contract period. Provision should also be made by the Contractor to send his Accident Response Team members for trauma counselling,

in the event of their involvement in traumatising accidents affecting their mental wellbeing.

CV's of the appointed manager(s) as well as the Route Patrol Officers, Accident Response Team Leaders and TRACASSIST Officers shall be provided for approval prior to being used in this capacity. The CV shall include certified copies of certificates required to undertake the respective duties.

C3.12.1.3. LEGAL AND CONTRACTUAL REQUIREMENTS AND RESPONSIBILITY TO THE PUBLIC

“All costs incurred to comply with the requirements of the Occupational Health and Safety Act of 1993 as well as additional requirements as specified in the TRAC Safety Health and Environmental document, shall be included in the fixed obligations tendered by the contractor.”

The contractor shall take all the necessary steps to comply with the general conditions of contract, particularly in respect of the insurances and sureties required and his general obligations to public and the Employer. He shall comply with all the regulations of statutory bodies.

C3.12.1.4. INCIDENT MANAGEMENT

i) General Overview

The purpose of the IMS is to promote teamwork and co-operation in a mutually agreed environment so as to assure the effective management of all Incidents in a quick and efficient manner. The Incident Management Manuals detail the manner in which various Service Providers may co-operate in terms of communication, Incident servicing requirements, organisational policies and operational procedures.

The main objectives pertaining to Incident Management are to:

- Establish and/or maintain an IMS steering committee for the route and / or route sections,
- Maintain and improve the IMS and ensure implementation and management thereof in compliance with this specification and agreed protocols,
- Facilitate effective co-ordination and communication between TRAC, CCC's and Service Providers,
- Assess and report on an ongoing basis on shortcomings encountered in respect of Service Providers,
- Identify and report on existing and potential problems,
- Minimise the direct and secondary effects of Incidents,
- Ensure proper management of Incidents in terms of the agreed procedures and restore normal capacity and safety levels at all affected road facilities without undue delay,

- Promote capacity building, adequate training and knowledge of the IMS amongst the emergency service personnel,
- Assist in preparation of monitoring reports and identification of high Incident clusters,
- Address critical issues impacting on the effective implementation of Incident Management, and
- Create awareness of the IMS in order to promote road safety and security.

TRAC already has an established IMS in place on the South African section consisting of a Highveld (Nkangala District), Lowveld (Ehlanzeni District) and Gauteng (City of Tshwane) IMS steering committee. Furthermore consultants have been appointed to manage the IMS on behalf of TRAC. The appointed Contractor in terms of this contract will be working closely with the consultants.

Information on the existing IMS, the Incident Management Manuals and related Incident information are available from TRAC. TRAC and its service provider appointed as agent for managing of the IMS will manage, supervise and direct the IMS. The Contractor shall acknowledge that the Route Services is an integral part of the overall IMS and require pro-active day to day liaison, interaction and reporting to TRAC and other relevant Service Providers.

ii) Scope for Incident Management

The minimum Incident Management functions to be performed by the Contractor on an ongoing basis are listed below.

- Assist with the improving and Maintaining of the IMS,
- Data Collection,
- On Scene Incident Management,
- Incident Clearing and Treatment,
- Incident Debriefings,
- Assist with training,
- Special Road Safety Projects,
- Route Services Sites, and
- Reporting

iii) Improve and Maintain IMS

The Contractor shall perform the following tasks in improving and maintaining the IMS, amongst others:

- Ongoing identification and recording of shortcomings encountered and lessons learnt in respect of the IMS.
- Ongoing development and proposals in consultation with TRAC and TRAC's IMS consultants in relation to protocols and guidelines with the aim of enhancing the Incident Management Manuals and IMS, and
- Structured annual review of existing Incident Management Manuals and improvement proposals.

iv) CCC Liaison

The Contractor shall on a continuous basis liaise with all CCC's along the N4 Toll Road in order to ensure the effective and efficient improvement of the IMS, inter alia, inclusive of the following key tasks:

- Maintain and improve good relations,
- Develop, propose, implement and maintain measures to improve the collection of information from the CCC's.

v) Service Provider Liaison

In order to ensure effective and efficient IMS improvements, the Contractor shall liaise with the Service Providers as detailed below:

- Attendance of relevant provincial / national workshops regarding road accidents and road safety as and when arranged.
- Prevention and IMS problem resolution, involving all relevant Service Providers.
- Attending safety and security meetings as and when required and reporting on problem areas such as:
 - Crime statistics and crime hotspots,
 - Accidents statistics and accident hotspots,
 - Community safety issues;
 - Concerns in respect of road safety, and
 - Suggestions on targeted law enforcement with the aim of improving road safety and curbing crime along the corridor;
- Arrange and perform bi-annual one-to-one level discussions with all relevant SAPS Station Commanders and officials from Provincial and Local Traffic stations along the N4 Toll Road and other important stakeholders as-and-when the need is identified;
- Develop, implement and maintain specific measures / protocols in order to participate, encourage and promote good and effective relationships between the emergency services at Incident scenes;
- Ongoing discussion with the emergency services concerning the implementation and improvement of on scene Incident Management;
- Co-ordination and monitoring of rehabilitation activities pertaining to Dangerous Goods (DG) incidents (to be performed by Service Providers in accordance with the agreed protocols of the Incident Management Manuals);

- Discussions concerning difficulties encountered by the emergency services as well as possible solutions;
- Request for debriefings where appropriate;
- Attendance of debriefings as-and-when requested by TRAC or other service providers;
- Liaison that may take the form of telephonic contact with or scheduled visits to the Service Providers. Written correspondence for specific issues raised and solutions concluded are required for record or auditing purposes.

vi) Customer Liaison

Formal liaison between the Contractor, Customers and industry stakeholders shall only take place when and where appropriate and subject to the approval of TRAC. The Contractor shall record relevant information in relation to Customers in order to evaluate and analyse the same for the purpose of improving the IMS.

vii) Liaison with TRAC

Effective interfacing and constant liaison between the Contractor and TRAC is of vital importance. The Contractor shall:

- Inform TRAC on a continuous and prompt basis of all Incidents encountered along the N4 Toll Road, in accordance with agreed interfacing protocols developed and to be improved by the Contractor;
- Report to TRAC in accordance with agreed interfacing/liaison protocols, to be developed, reviewed and improved by the Contractor in consultation with the TRAC Helpdesk and their Standard Operating Procedures;
- Identify shortcomings and propose to TRAC improvements to the interfacing/liaison protocols to enhance the level of service;
- Promptly provide all Route Services information in accordance with agreed protocols and/or on request of TRAC staff;
- Arrange and attend TRAC liaison meetings in order to promote continuous improvement of interface protocols; and
- Attend TRAC IMS steering group and working group meetings for the various sectors, such as the Gauteng IMS, Highveld IMS, Lowveld IMS.

viii) Data Collection

The accuracy, integrity, completeness and collection of all Incident Management data and data pertaining to other Route Services are the Contractor's responsibility.

The Contractor shall implement all things necessary to ensure the collection and submission of any outstanding data at any point in time.

The details of data to be collected, the data submission formats, the data distribution / interfacing mechanisms and the applicable media of data transfer by the Contractor (voice, visual image, written manually or written electronically) shall be established as part of the Contractor's procedures. The Contractor's procedures shall be in line with TRAC's requirements.

a) **Capturing**

The Contractor is required to capture the information electronically, and has to submit the required completed paper copy reports on the prescribed standard forms used for the capturing of information at incidents, accidents and TRACAssist at the frequency as determined by TRAC. (Examples available on request) TRAC provides copies of the relevant forms for completion.

The Contractor's functions pertaining to the capturing of Route Services information, in particular Incident data, include amongst others:

- Maintain complete data capturing pertaining to Incident Management during the Contract Period; (CCC, Accident Response and TRACASSIST);
- Maintain complete data capturing pertaining to other Route Services during the Contract Period such as services provided to the Customers, services related to patrolling, services related to road infrastructure (inclusive of VMS) damage and the like; (Route Patrol forms);
- Maintain manual mode Incident data capturing procedures;
- Ensure data accuracy and integrity during collection, capturing and transfer, inclusive of the development, implementation and improvement of appropriate quality assurance protocols;
- Identify problems and propose, develop, implement, improve and maintain solutions in relation to accurate and reliable data collection and submission;
- Compile special reports and promptly and accurately report MVA's in terms of the IMS requirements and agreed Contractor's procedures;
- Capture visual footage and immediately (via Instant Social Media) submit images pertaining to accident scenes, road furniture damage and critical Incidents in accordance with TRAC's requirements and agreed procedures set from time to time;
- Compile damage reports and promptly and accurately report infrastructure damage to TRAC in accordance with the agreed Contractor's interface protocols;
- Ensure data security and confidentiality. No information on Route Services shall be released without the written approval of TRAC; and
- Capture and report in accordance with the Route Services reporting indicators and latest agreed Contractor's protocols.

b) Evaluation and Analysis

The following tasks relating to the evaluation and analysis of data shall be performed by the Contractor:

- Continuous evaluation of all Route Services data submitted to identify and follow up on outstanding data and assure the completeness thereof;
- Continuous evaluation of all Route Services data submitted in order to assure the integrity and quality thereof;
- Continuous evaluation of all Route Services data submitted in order to ensure compliance to the latest data collection and submission procedures;
- Periodic evaluation and manipulation of all Route Services data in order to ensure compliance to reporting requirements; and
- Continuous analysis of all Route Services data in order to conclude and report on lessons learnt and to propose effective improvement solutions.

ix) On Scene Incident Management

The Contractor shall ensure an effective on-scene Incident Management service and shall co-operate in terms of the latest procedures contained in the Incident Management Manuals. The minimum requirements of the Contractor in respect of on-scene functions to be performed are:

- response to all Incidents;
- immediate implementation of Incident Management response procedures and protocols on receipt of a call for an Incident;
- ensure compliance to the latest on scene Incident Management protocols (forward control point, management team, co-ordinator);
- ensure professional on scene co-ordination and liaison;
- where applicable and appropriate, provide an on scene medical service equal to the level of at least First Aid Level 1;
- conduct investigations at Incident scenes, specially pertaining to accident and road infrastructure including road furniture damage related scenes;
- aim to expedite traffic flow normalisation in case of an obstruction or an accident on the N4 Toll Road; and

- participate and actively identify, record and promote improvements to the on-scene incident management protocols at IMS meetings, training sessions and the like. These shall, amongst others, include ongoing discussions with emergency services organisations towards the implementation and maintenance of best practice on-scene management protocols. All discussions shall be focused to difficulties encountered and possible solutions.

x) Incident Clearing and Treatment

The Contractor is expected to perform certain ad-hoc functions pertaining to Incident clearing and treatment operations when instructed by TRAC. These may be required in the event of exceptional circumstances when traffic flow is obstructed and capacity constraints in relation to Service Providers are experienced. Such functions may also include additional Contractor's assistance during major crash cleaning up or treatment operations, including the use of DG or sign trailers, manual brooms and/or fire fighting equipment as specified.

xi) Towing Agreements

On instruction of and in consultation with TRAC, the Contractor shall establish and maintain an approved number of standby towing agreements with reputable towing operators appropriately selected along the N4 Toll Road. The objective is to assure prompt towing response at agreed rates as a result of a traffic flow obstruction and whenever elected and instructed by TRAC. For such exceptional events, only the cost of payment to the Service Provider shall be considered as additional to the Contractor's fixed monthly tendered fees and shall be paid in terms of a provisional sum and tendered commission.

xii) Fire Fighting Equipment

TRAC has 1000 liter fire fighting units that will be available for use by the Contractor. The unit will be signed over to the contractor for use during the fire season only.

This fire fighting unit is to be stored at an appropriate location along the N4 Toll Road, managed, maintained and operated (in the event of exceptional Incidents such as major fires or snow clearing operations) by the Contractor. TRAC shall bear the costs relating to the annual licensing renewal of this unit.

The Contractor shall procure that at least one (1) of his staff compliment on each of the IMS areas (Gauteng, Highveld and Lowveld and Mozambique) on the N4 Toll Road is on 24-hr standby duty and fully trained to perform the operation of this unit.

xiii) Incident Debriefings

The Contractor shall attend all debriefings during which representatives of the relevant Service Providers will perform a post mortem concerning the management of a specific Incident. Debriefings shall generally be conducted after the following:

- hazardous material Incidents;
- Incidents requiring road closure or use of alternative routes;
- Incidents of which the IMS protocols were not adhered to; and
- Well-managed Incidents that would provide a learning experience.

Debriefings shall be conducted as soon as possible after the date of the Incident being recorded. The Contractor shall entertain requests for debriefings from any member of the IMS. The Contractor shall assist TRAC and the service provider (consultant appointed by TRAC for IMS management, currently Aurecon Consulting Engineers) with inviting and arranging attendance of:

- all relevant Service Providers involved in the IMS;
- persons who were at the scene of the particular Incident/s;
- persons who attended the particular Incidents/s and who assisted with the Incident Management; and
- staff from the CCC's and TRAC who were involved in the Incident Management of the particular Incident/s.

TRAC or its appointed agent (consultant) shall arrange a suitable venue (i.e. regional offices, the Toll Plazas) for the debriefing and take minutes.

xiv) Training

The Contractor's Incident Management training functions include staff and involvement in Service Provider training as detailed below.

a) Staff Training

The Contractor shall ensure that his Route Services Staff is well and properly trained in order to comply with all contractual obligations and requirements. The training shall include initial training refresher training as well as ongoing training in relation to the replacement and promotion of staff.

The Contractor shall ensure that his Route Services Staff are fully conversant to the Operations and the Incident Management Manuals and Procedures and shall implement and maintain a formal acknowledgement procedure that constitutes successful completion of the relevant training courses. This procedure shall include the evaluation of all staff and the issue of training course certificates.

The Contractor shall also make provision for trauma counseling to staff.

It is specifically noted that new staff to be appointed pursuant to the stringent requirements may initially not comply with the full extent of the specifications. Therefore, the Contractor shall be expected to focus, attend to and direct special effort towards staff training and qualification requirements in order to ensure that all staff are fully trained and qualified. An initial, and thereafter annual, staff-training program shall be developed, implemented, maintained and progressively reported on by the Contractor.

b) Service Provider Training

The Contractor shall assist TRAC's IMS Consultants in the provision of general IMS training on an ongoing basis to representatives of the Service Providers where shortcomings and lack of skills are identified by the

Contractor and/or TRAC. The Contractor shall be responsible to assist with co-ordinate all training activities, inclusive of in-house and certified training.

The aim of this programme shall be to build capacity with all Service Providers along the N4 Toll Road Training topics shall include, amongst others:

- Background to IMS,
- Fundamental principles of IMS,
- Detailed procedures and protocols of IMS,
- Guideline plan,
- Debriefings,
- Case study exercise(s),
- On-Scene Incident Management,
- Managing DG crash scenes, and
- Traffic management.

xv) Special Road Safety Projects

Special Road Safety Projects are specific N4 Toll Road measures to be identified and implemented by the Contractor as part of TRAC's road safety initiative. Special Road Safety Projects shall be initiated & proposed by the Contractor and/or other service providers and approved by TRAC, such as:

- Animal impoundment;
- Pedestrian road safety education;
- Removal of hawkers;
- Customer safety;
- Identifying, analysing and reporting on crash hotspots;
- N4 Toll Road security & safety assistance projects, for example the identification of wanted vehicles and reporting thereof to applicable authorities, the identification of dangerous driving and reporting thereof to applicable authorities, etc; and
- Monitoring and reporting of site safety inadequacies during RRM operations and construction sites.

The Contractor's fixed tendered fees shall allow for an average of one (1) man-day per month for all activities including planning, execution, monitoring and documentation relating to Special Road Safety Projects for the duration of the Operations Period. Additional Payment for the performance of Special Road Safety Projects shall only be made in the event of the Contractor being able to justify and prove that such works does not form part of the services specified herein.

xvi) Reporting including Reporting Indicators on IMS

The Route Services reporting indicators are listed below. These indicators constitute the minimum requirements to be adhered to. The indicators may be revised from time to time in order to assure and maintain the most effective and

appropriate reporting system. In the event of such revisions, the Contractor shall adapt his procedures promptly to give effect.

Generally all report formats shall be a subject of the Contractor's procedures, systems and guidelines to be agreed, approved by TRAC, implemented, improved over time and maintained.

a) **Indicators for Monthly Reporting**

Summary of:

- Number of animals removed from the road,
- Number of tyres and other foreign objects removed from the road,
- Small grass fires extinguished in road reserve,
- Vehicle fires extinguished,
- Vehicles with breakdowns assisted,
- Advance warnings given during vehicle obstructions encountered in driveway,
- Route patrol kilometers traveled per section,
- Animals impounded,
- Wanted vehicles identified and reported,
- Dangerous driving reported,
- Hazardous conditions and events reported to Authorities,
- Possible hot spots,
- Capacity constraints of Service Providers,
- RRM activities and monitoring observations made,
- Fuel and / or water supplied to stranded vehicles / motorists; and
- Achievements in terms of response times – (Details of incidents where 45 minute response time could not be met).

b) **Indicators for Quarterly Reporting**

- Number of visits made to e.g. SAPS, Traffic, etc and details; and
- Number of visits made and/or meetings held with Service Providers & details.

c) **Indicators for Special Road Safety Project Monthly Reporting**

- In accordance with agreed Operator's procedure.

d) **Other Operator's Performance Reporting**

- In accordance with accepted procedures in relation to the Quality Assurance Service to be provided by the Operator.

Generally all report formats shall be a subject of the Contractor's procedures, systems and guidelines to be agreed, approved TRAC, implemented, improved over time and maintained.

C3.12.2. **PAYMENT**

The contractor will provide for the general ongoing actions and coordinating and liaison duties, and functions, attendance of meetings, reporting, development of procedure manuals, audits and inspections, etc as part of General Obligations.

Generally all obligations, liabilities, risks and specified Contractor's functions, tasks, provision of Assets, services, overheads and the like are deemed to be included in the fixed monthly tendered fees, unless specifically stated otherwise pursuant to the Contract provisions.

<u>Item</u>	<u>Unit</u>
12.01 The contractor's general obligations:	
(a) Fixed obligations	lump sum
(b) Time related obligations	month

All of the contractor's general obligations shall include full compensation for the contractor's charges in respect of the following items, collectively termed "contractor's general obligations":

1. Setting up and maintaining his organization and resources, e.g. route services team, route services sites and related assets and equipment, such as camps, vehicles, cell phones, signage, etc. The cost of the Contractor's cellular telephone is to be included in C3.12 : Contractor's Establishment on Site and General Obligations and will not be paid for separately.
2. Appointment of the Contractor's manager(s) and teams responsible for managing and coordinating all set-up activities during the appointed period and attendance of regular progress meetings, coordination meetings, IMS meetings, debriefings, inspections, etc.
3. Complying with the requirements of the General Conditions of Contract and section C3-12 of the project specifications.

4. All general office and satellite office overheads, profits, legal responsibilities and all items of a general nature.
5. Providing the performance or retention bond and compliance in terms of security and insurance and appointment of sub-suppliers and all authority registrations.
6. The lump sum tendered under item 12.01a shall represent full compensation for that part of the contract which is not a function of time.

The unit of measurement for item 12.01a shall be a lump sum that will be made in four instalments, as follows:

- First instalment, 40% of the lump sum when the contractor has met all his establishment obligations.
- The second instalment of 30% will be paid on the second anniversary of the contract.
- The third instalment of 30% shall be paid on the third anniversary of the contract when the Engineer certifies that the contract has been completed satisfactory.

The unit of measurement for item 12.01b will be the amount payable monthly and represents full payment for that part of his general obligations which are mainly a function of time such as running costs, salaries, completion of forms and reports, delivery/submission of forms and reports, attendance of meetings, etc.

C3.13. ROUTE PATROL SERVICES

C3.13.1. PATROLLING REQUIREMENT

The Contractor shall provide a route patrol service along the entire site as specified below. On dual carriageway roads or a single carriageway with 4 lanes continuous, each shall be travelled once a day in each direction on a seven day week basis, along its full extent. On single carriageway roads (which have less than 4 lanes), the route need only be travelled along in one direction once a day to fulfil route patrol duties on both sides of the road. The ramps/over-passes and underpasses and crossroads at interchanges/intersections with the N4 Toll Road shall be travelled at least weekly. During peak holiday periods the route patrol service shall be doubled to twice a day. Ramps, under/over passes and cross-roads shall be inspected daily during long-weekends and peak holiday periods as determined. Peak days include, inter alia:

- start of school holidays
- end of school holidays
- start of long weekends (such as Easter weekend)
- end of long weekends (such as Easter weekend)
- special event days
- public holidays

During inspection of the road the route patrol service shall notify TRAC's representative, and the relevant road traffic authority, police, emergency service or other appropriate agency of the particular activity, incident and accident. The Contractor shall follow up on incidents with the relevant agency and keep a record of all incidents as specified by the Incident Management System (IMS) in the format as

prescribed by TRAC for inclusion in TRAC's Junoviewer system. The Contractor will also provide the quality control of the works in accordance with the quality control procedures to be proposed by him and approved by the Employer before the works commence

In South Africa:

A minimum of five route patrol services shall be provided at any one time stationed in or near Bronkhorstspuit, Middelburg, Machadodorp, Nelspruit and Malalane.

In Mozambique:

At least one route patrol service shall be provided at any one time stationed in or near Matola.

No separate payment will be made for transport as part of the daily route patrols as specified. The contractor should make provision for costs for travel as part of his monthly obligations to provide the service as specified.

C3.13.2. THE DUTIES OF THE ROUTE PATROL SERVICE

The Contractor shall perform the following day-to-day patrol service functions on the N4 Toll Road as part of the daily inspections when encountered en-route:

C3.13.2.1. CUSTOMER ASSISTANCE

- a) Assist Customers with mechanical breakdowns such as changing tyres and small repairs, inclusive of the provision and use of Small Tools when necessary;
- b) Secure the scenes in cases of stranded vehicles or other obstructions on the N4 Toll Road;
- c) Assist Customers requiring emergency supply of fuel and water, the cost of the latter may be recovered by the Contractor from the stranded motorist;
- d) Detect Customer complaints and requests; and
- e) Promptly record and notify all Customer assistance activities in accordance with the data collection requirements and the related agreed Operator's protocols.

C3.13.2.2. INCIDENT FUNCTIONS

- a) Prompt response by Patrol Vehicles (manned by a Patrol Officer) to all Incident scenes, inclusive of response to TRACASSIST, Service Provider calls or the like;
- b) Promptly record and notify the details of all Incidents in accordance with the data collection requirements and the related agreed IMS / Contractor's protocols. This may include immediately transmitting a photograph (via Instant Social Media) using suitable mobile device to the TRAC Helpdesk.
- c) In the event of a Major Incident, an additional prompt response by a Response Vehicle (manned by an Incident Management Specialist/Accident Response Officer) is an explicit requirement. For the purpose of this clause, a "Major Incident" is defined as an Incident that will or could potentially result in a road closure of longer than three (3) hours;

- d) Provide temporary advance warning of hazardous conditions or obstructions on the N4 Toll Road until the Traffic Officers arrive, amongst others, in the event of water or smoke on the road, dropped loads, crash scenes or the like;
- e) Monitor and record (inclusive of visual images) all Incidents in connection with damage to road infrastructure / furniture or other related road infrastructure along the N4 Toll Road. This may include immediately transmitting a photograph (via Instant Social Media) using suitable mobile device to the TRAC Helpdesk.
- f) Monitor and record (inclusive of visual images) all Major Incidents and Incidents of a critical nature;
- g) Extinguish small grass fires and vehicle fires on the N4 Toll Road; The route patrol service shall perform the fire fighting duties until the emergency standby team or emergency services arrive.
- h) On scene Incident Management functions are to be performed in accordance with the requirements specified in this document as part of IMS procedures.

C3.13.2.3. EQUIPMENT FUNCTIONS

- a) Provide, maintain and operate Patrol and Response Vehicle communication equipment, inclusive of cell phones. The cellphone must be suitable to transmit photographs and communicate using 'WhatsApp' or similar;
- b) Provide and maintain GPS monitoring and reporting for all Patrol and Response vehicles;
- c) Perform daily inspections, monitor and ensure acceptable performance of all Patrol Vehicle equipment;
- d) Perform daily inspections and monitor performance of VMS installations (when and where in operation). Promptly record and notify all faults detected in accordance with the data collection requirements and the related agreed Contractor's protocols.

C3.13.2.4. GENERAL FUNCTIONS

- a) Monitor environmental conditions such as bad weather, road reserve pollution, veld fires and all MVA scene rehabilitation activities and liaise with TRAC, Service Providers, landowners or other 3rd parties. Promptly record and notify all such conditions in accordance with the data collection requirements and agreed IMS and/or Contractor's protocols;
- b) Apply best endeavours to obtain perpetrator particulars in respect of non-crash related damage to TRAC's infrastructure and liaise with the relevant Service Providers. Promptly record and notify the details (inclusive of visual images) of such damage and related activities in accordance with the data collection requirements and the related agreed Contractor's protocols,
- c) On detection of fence damage, immediately carry out temporary repairs thereof. Promptly record and notify the details of such damage and all repair activities to TRAC in accordance with the data collection requirements and the related agreed Contractor's protocols;

- d) On detection of foreign objects, immediately carry out the removal thereof off the Highway, for example tyre treads or the like. Promptly record and notify the details of all such activities to TRAC in accordance with the data collection requirements and the related agreed Contractor's protocols;
- e) On detection of livestock, immediately notify the relevant pound master and/or service provider and carry out the removal thereof off the N4 Toll Road. Promptly record and notify the details of all such activities to TRAC in accordance with the data collection requirements and related agreed Contractor's protocols; and
- f) Monitoring of Routine Road Maintenance (RRM) activities along the N4 Toll Road in accordance with the TRAC's RRM program and notifying TRAC of findings or potential problems observed. The RRM program includes scheduled (ongoing, daily, monthly, quarterly, annually) activities in relation to site clearing, accommodation of traffic, repairs to road furniture (guard rails, signs, fencing, structures, concrete and the like), notification and/or removal of illegal signs, illegal development mitigation, clearing of drainage infrastructure, cleaning of structures, clearing around trees & shrubs, maintenance of cut & fill slopes, road studs and markings repairs, landscaping & grass-cutting, shoulder stepping, road pavement repairs, fire breaks, etc. The route patrol service shall perform temporary and minor sign repairs where necessary. Road Safety issues take priority and must be immediately addressed by the route patrol. Other minor actions that may be requested for the route patrol to action but not limited to include pothole repair, hazard/kilometre marker replacement, guardrail reflector replacement, one pole sign repairs and cleaning out blocked drains.
- g) The route patrol service shall remove all illegal signs within the road reserve such as banners, posters, signs less than 1m² and deliver these to the nearest Maintenance Depot (situated at/near Toll Plazas and Nelspruit Regional Office). Larger illegal signs must be reported to the relevant Sector Manager to have them removed.
- h) The route patrol service shall inspect the route reporting any damage to the road network or theft of road furniture including *inter alia* potholes, damaged guard-rails, damaged structures, damaged road signs, blocked drains, ponding of water, weather damage and veld fires and theft of fencing, road signs, grids and bridge handrails. The inspection shall include incidents occurring outside the road reserve, which may have an influence on the safety and integrity of the road network. Observations affecting road user safety must be recorded and immediately actioned to safe guard or make good.
- i) The route patrol service shall remove all foreign articles from the carriageway, which shall include *inter alia* any debris, spilt loads, concentrated piles of refuse, animal carcasses, branches, trees, dangerous objects, stripped tyre treads and accident debris.
- j) All foreign articles shall be loaded and carted away by the route patrol service and disposed of in a legal rubbish dump. An arrangement may be made with TRAC's nearest maintenance manager (Sector Manager) to temporarily store such debris at the maintenance yard at an indicated place with the clear understanding that it be removed by the Contractor, at least one a month, for disposal at a legal dump site. All large objects that cannot be picked up by the team and excessive accident debris or large spilt loads shall be removed under day-works or the applicable pay items.

k) The route patrol service shall inspect the route and report any infringements (within the road reserve and including the building restricted area) to TRAC's representative without delay and if so required by the Employer, shall act on his behalf when instructed. Some examples are:

- Illegal advertisement (when new signs have or are being erected inside or visible from the N4);
- Illegal trading within the road reserve;
- Illegal accesses (opening of fences for access);
- Illegal occupation of the road reserve;
- Building line transgressions. (new buildings/services being erected/installed adjacent to or within the road reserve).

C3.13.2.5. PROCEDURAL ADHERENCE

- a) Maintain Patrol and Accident Response Vehicle inspection and log sheets in accordance with Contractor's procedures as approved by TRAC;
- b) Maintain Patrol / Response Vehicles, equipment, tools and consumables in a high standard and good condition in accordance with Contractor's procedures as approved by TRAC;
- c) Maintain Route Services Staff appearance in accordance with the proposed uniform or dress code as approved by the Concessionaire; and
- d) Adhere to all patrolling procedures in accordance with agreed Operator's and IMS protocols.

The necessary comments and notes will be included in the Daily Action Form (TR-12) or in the format as advised by TRAC to be completed. (Examples of Forms are available upon request).

C3.13.3. ROUTE PATROL VEHICLE, EQUIPMENT AND PERSONNEL

The minimum requirements in respect of vehicles and equipment to be supplied by the Contractor are:

C3.13.3.1. PATROL VEHICLE

The route patrol vehicle shall be a double cab LDV driven by a competent driver capable of providing a high standard of service according to the requirements. and will be fitted with a reliable and an approved Global Positioning System (GPS) tracking device as well as a Drivecam live camera device . It shall also be fitted with a tow bar and two map reading lights and a high visibility hazard light with a minimum intensity of 100W to the satisfaction of TRAC. All vehicles used shall display the standard TRAC branding and insignia or any other branding as determined by TRAC from time to time. The contractor is responsible to ensure that all reflective stickers and emergency amber lights attached to the patrol vehicles are approved by the relevant provincial authorities. TRAC shall also be provided access and access passwords to view the status and position of patrol vehicles on the internet.

The route patrol vehicles shall be kept in a road worthy condition and shall be legally loaded at all times, capable to carry all equipment, materials and consumables as specified herein.

Please note: all patrol vehicles need to be exempted from exceeding the speed limit and operating an orange light when responding to incidents. Exemption to be obtained from the Mpumalanga Provincial Traffic Department.

C3.13.3.2. MINIMUM ROUTE PATROL EQUIPMENT

Each route patrol vehicle and the vehicle will carry the following equipment items, which is the minimum requirements to be met, and is not necessarily indicative of the comprehensive equipment requirement. The contractor shall ensure that the listed equipment shall at all times be available and in a good and proper serviceable manner. This list may be revised from time to time in consultation with the contractor:

- a) 9 kg Fire extinguisher;
- b) 20 x 475 mm day-glow orange cones (with high visibility reflective tape);
- c) 2 x Shovels;
- d) 2 x Hard Brooms;
- e) 2 x Fire Slappers / Beaters;
- f) Complete set of small tools (toolbox) and battery jumper leads;
 - Set of flat ring spanners (8 to 22mm)
 - Set of sockets (8 to 22mm)
 - Universal type of wheel spanner
 - 2 ton jack
 - Electric pump (cigarette lighter type)
 - Tube pump to inflate tyres (cigarette lighter type)
 - 2 No. Appropriate shifting spanners
 - Appropriate pump spanner
 - Appropriate screw driver set
 - Set of pliers to be suitable for electric wire cutting and cleaning
 - 2 No. rolls of plastic fence
 - Heavy duty bolt cutter
- g) Cans for fuel (5 liter can), oil (5 liter can) and water (20 liter can)
- h) Spotlight (removable) and 2 flashlights
- i) Warning signs – appropriate set of temporary warning signs in accordance with the most recent relevant traffic regulations (Chapter 13, SA Road Traffic Signs Manual – Typical layouts are attached as Annexure)
- j) Basic fence and sign repair materials for minor repairs
- k) Safety clothing: Adequate fire fighting gear, helmets (hard hats), overalls, safety vests (extras for service providers on scene) and safety boots, Appropriate rain coats, gum boots and umbrellas, Appropriate gloves, suitable for heavy duty works, safety glasses and dust masks.

- l) Plastic bags for rubble
- m) 2 x Red Flags with reflective strips
- n) Medical bag inclusive of first aid medical supplies
- o) Tow cable
- p) Bow saw
- q) Jack
- r) Wheel spanner
- s) Cell phone capable of taking photographs and immediately sending the photos to the TRAC Helpdesk via Instant Social Media and be able to communicate by Instant Social Media (such as 'Whats App') as well as a hands free car kit;
- t) Tablet with equivalent 5GB data for the purposes of email, Whatsapp and capturing on the TRAC Junoviewer app.
- u) Incident management book
- v) Disaster management plan and incident management plan
- w) TRAC patrol and incident forms
- x) Weatherproof digital camera
- y) Black ball point pen and paper, including sufficient copies of the Incident and Accident Forms to cover incidents and accidents encountered during the daily inspection.

C3.13.3.3. MAINTENANCE MATERIALS AND TOOLS

TRAC shall provide adequate maintenance materials and tools for every Patrol Vehicle to perform the Operations which shall include, inter alia:

- 5 kg soft wire
- 5 No. 1.2 m steel droppers
- 2 No. rolls of plastic fence / barb wire
- 25 kg road mix
- 10 kg stamp hammer
- 2 No. bags of absorbent material
- Basic vehicle repair items, e.g. V-belts, globes, fuses, etc for 5 different popular vehicle types.

C3.13.3.4. ROUTE PATROL PERSONNEL

Each patrol vehicle deployed at any time along the N4 Toll Route shall be manned by a Route Patrol Officer, capable and competent to perform all functional requirements and the operation of the route patrol vehicle, as well as two (2) labourers to assist during the patrol.

All personnel used to man the route patrol vehicle shall be well equipped and trained to undertake all the route patrol service duties as specified. Previous related supervision experience is an added advantage. CV's and certified copies of the training certificates of Route Patrol Officers must be provided for approval prior to being used in this capacity.

a) Qualifications

- All patrol officers (appropriate drivers license)
- All patrol officers (5 day fire fighting certificate and DG awareness certificate)
- All patrol officers (IMS Certificate)
- All patrol officers (First Aid Level 3 qualified)
- All staff (Language: two or more languages of which English is a prerequisite and must be proficient in English - read, write and speak)

b) Personality

All patrol officers shall be/have:

- Self driven
- Positive outlook
- Clear focus and high quality service
- Results orientated
- Natural forward planner
- Mature, credible and reliable
- Critical in respect of personal objectives and performances
- Comfortable to deal with different types of people, sympathetic communicator, and people management skills
- Tolerant
- Determined
- Well presented and business orientated
- Physically healthy and fit
- Multi tasking ability
- Meticulous and accurate with recording information

Ongoing training shall be provided to employed staff, and records of training must be provided to TRAC as part of the quarterly report.

C3.13.4.REPORTING

C3.13.4.1. DAILY RECORDS

The route patrol service shall use Global Positioning Systems (GPS) to record his activities and positions. The route patrol service will record its position every half hour on the GPS as well as every activity or incident. This information will be submitted weekly to TRAC in a format acceptable to TRAC.

The Contractor shall submit to TRAC daily records of any damage to the road network and work executed by the route patrol services. The records shall include information such as the description of damage, location, measurements where applicable and all other information the Engineer may require for record purposes as well as timesheets of all activities and work executed by the route patrol services. The necessary forms (Daily Action Form) will also be completed daily and submitted to TRAC.

Submission of the following weekly reports, completed in legible writing as per the TRAC format which includes but is not limited to;

- Completed TRAC Incident and Accident reports and forms with photographs of each incident and or accident responded to.
- Completed daily inspection TRAC Maintenance forms.
- All incidents responded to, reaction times and type of service.

Copies of TRAC incident as well as accident forms will be provided to be completed by the Contractor.

C3.13.4.2. MONTHLY / QUARTERLY / ANNUAL REPORTING

The Contractor shall provide updates and reports on:

- Personnel structure/management/qualifications.
- Transport resources
- Training programme and training registers

in accordance with the requirements as specified in the Quality Assurance section (C3.4) and as stipulated as part of the General Obligations (C3.12)

C3.13.5. MEASUREMENT AND PAYMENT

<u>Item</u>	<u>Rate</u>
13.01 Provision of patrol services	Month

The unit of measurement is the completed calendar month for which the specified services have been rendered.

Upon successful delivery of the prescribed Route Patrol Service, the Operator will be paid fixed monthly tendered fees, subject to the adjustment and Variation provisions of the Contract.

The tendered rate shall include full compensation for the provision of personnel, vehicles, tools and all incidentals required or specified to provide the service as specified. It shall also include compensation for reporting of all incidents and/or transgressions and problems identified in terms of the specified duties, activities and reporting requirements as specified including all resources required in that regard. Transport for actual kilometres travelled is not separately provided for and should be included in the rate under item 14.01. Costs for the removal/temporary storage of the

debris at maintenance yards to legal dump sites should also be provided for under this item.

C3.14. EMERGENCY ASSISTANCE (ACCIDENT/INCIDENT RESPONSE)

C3.14.1. EMERGENCY ASSISTANCE REQUIREMENT

This section covers the provision by the Contractor of standby teams to provide emergency assistance for the normalisation of emergency events as part of TRAC's Incident Management System as per the general IMS guidelines and procedures stated in Section C3.12.1.4 and sub-sections. The Contractor shall have a Coordinator / Manager on stand-by, available on his set emergency cell phone number at all times. **One** emergency number for the contractor shall be used to avoid confusion and to ensure that all service providers are familiar with the Contractor's Emergency Contact Number. TRAC's Helpdesk will also be linked to the Contractor's Emergency Tel/Cell Number.

Please note: The final decision regarding which vehicle/person on duty will be dispatched in the event of an emergency or incident will lie strictly, and at all times, with the TRAC Helpdesk agent on duty.

Emergency Response Vehicles and Emergency Patrol Officers (Incident Management Specialists) should be on stand-by at all times to assist with the normalisation of emergency events along the N4 Toll Road.

The Contractor shall provide emergency response teams on stand-by along the entire site as specified below to assist as and when accidents or major incidents occur on the N4 Toll Road.

The Contractor shall follow up on incidents with the relevant agency and keep a record of all incidents and accidents as specified by the Incident Management System (IMS) in the format as prescribed by TRAC. The Contractor will also provide the quality control of the works in accordance with the quality control procedures to be proposed by him and approved by the Employer before the works commence.

In South Africa:

A minimum of five accident response teams shall be provided at any one time stationed in or near Bronkhorstspuit, Middelburg, Machadodorp, Nelspruit/Malalane/Komatipoort, stationed in order to meet the 45 minute maximum response time as stipulated.

In Mozambique:

At least one accident response team shall be provided at any one time stationed in or near Matola, stationed in order to meet the 45 minute maximum response time as stipulated, which shall be available for call out at any time. The Engineer may call upon the Contractor's staff for emergency assistance during, as well as outside normal working hours, over weekends, or on public holidays.

Any part or section of the N4 must have access to emergency medical services and extrication/rescue services within the "golden hour" with treatment intervention for injured accident victims. The Contractor shall keep TRAC's representative informed of the name, address and 24 hours contact telephone number of the supervisor on emergency standby duty who shall have access to any tools, equipment and transport ordered by TRAC or a member of the public or officials that may require such service.

The following functions shall be undertaken but are not limited to:

- Response to any incident, hazardous road safety situation, TRAC call-out and Central Communications Centre (CCC) call-out.
- Co-ordination of all Emergency and non-emergency services.
- Traffic accommodation and management at incident/accident scenes in accordance with the latest traffic regulations and/in Incident Management Guideline documents.
- Implementation of safety procedures (securing accident sites, sign posting, informing local authorities).
- Manning and managing points on the road in the event of road closures or when there may be a danger to the travelling public.
- Liaison with relevant service providers (police, traffic authorities, emergency services, security authorities), customers and TRAC.
- Ensuring the protocols as contained in the N4 Incident Management Guideline Document is adhered to at all times.
- Accident response services.
- Response services to situations of a potential hazardous nature.
- Coordination and interaction of the emergency services along the route.
- Burning of pre-planned firebreaks as instructed by the TRAC Helpdesk.

The Contactor shall perform the following activities in responding to an accident and or incident:

- Adhere to all protocols and procedures as detailed in the TRAC IMS Guideline Document;
- Assist at accident scenes by notifying the law enforcement and other agencies for emergency assistance and/or removal of damaged vehicles from the Roadway;
- The Contractor shall verify all Incidents of which they may be notified or encountered and assess the response needed.
- Complete an entry for each Incident and or accident in the TRAC format;
- Record the exact position of the incident with reference to the roadside km markers
- 24 (twenty-four) hour manning of the Accident response reaction unit;
- all the required Equipment shall be provided by the Contractor as specified;

- Responding to all incoming calls. All calls shall be recorded with a description of the nature of the call and actions taken. The Contractor shall detail (on the incident / accident report form) all types of call outs (collision, secondary collision, hazardous material, breakdown, information required, other) and all services alerted (rescue, fire, hazardous material, traffic, South African Police Services, ambulance services, alternative routes, and clean ups);
- Reacting to all emergency or N4 Toll Road related information requests. Emergency requests shall involve the notification of the appropriate emergency service in terms of the IMS protocols and relaying this information back to the caller. Requests for User information shall be courteously answered;
- Notify TRAC of any high incident areas, which may be determined from the regularity of incidents which may occur at certain points along the route, and the report on the reasons for the high incidence of crashes.

The contractor shall provide initial procedures / proposals regarding the following:

- Personnel structure/management/qualifications.
- Transport resources.
- Training programme as well as a proposed trauma counselling programme.
- Accidents and management thereof.

as part of the Quality Assurance Service programming and reporting requirements as stated.

C3.14.2. ON SCENE INCIDENT MANAGEMENT

The Contractor shall ensure an effective on-scene Incident Management service and shall co-operate in terms of the latest procedures contained in the Incident Management Manuals. The minimum requirements of the Contractor in respect of on-scene functions to be performed are:

- response to all Incidents;
- immediate implementation of Incident Management response procedures and protocols on receipt of a call for an Incident;
- ensure compliance to the latest on scene Incident Management protocols (forward control point, management team, co-ordinator);
- safe accommodation of traffic on scene in accordance with the latest traffic regulations and SADC Road Signs Manuals;
- ensure professional on scene co-ordination and liaison;
- where applicable and appropriate, provide and on scene medial service equal to the level of at least First Aid Level 3;
- conduct investigations at Incident scenes, specially pertaining to accident and road infrastructure including road furniture damage related scenes; and

- aim to expedite traffic flow normalisation in case of an obstruction or an accident on the N4 Toll Road.

C3.14.3. INCIDENT CLEARING AND TREATMENT

The Contractor is expected to perform certain ad-hoc functions pertaining to Incident clearing and treatment operations when instructed by TRAC. These may be required in the event of exceptional circumstances when traffic flow is obstructed and capacity constraints in relation to Service Providers are experienced. Such functions may also include additional Contractor's assistance during major crash cleaning up or treatment operations, including the use of DG or sign trailers, manual brooms and/or fire fighting equipment as specified.

The Contractor is expected to ensure that all accident debris is immediately removed from the road and road reserve.

C3.14.4. EMERGENCY RESPONSE VEHICLE

The emergency response vehicle shall be an appropriate vehicle driven by a competent driver capable of providing a high standard of service according to the requirements and will be fitted with a reliable and an approved Global Positioning System (GPS) tracking device as well as a Drivecam live camera device. TRAC shall also be provided access and access passwords to view the status and position of response vehicles on the internet.

It shall also be fitted with a tow bar and two map reading lights and a high visibility hazard light with a minimum intensity of 100W to the satisfaction of TRAC. All vehicles used shall display the standard TRAC branding and insignia or any other branding as determined by TRAC from time to time. The contractor is responsible to ensure that all reflective stickers and emergency amber lights attached to the vehicles are approved by the relevant provincial authorities.

The vehicles shall be kept in a road worthy condition and shall be legally loaded at all times, capable to carry all equipment, materials and consumables as specified herein.

Please note: all patrol vehicles need to be exempted from exceeding the speed limit and operating an orange light when responding to incidents. Exemption to be obtained from the Mpumalanga Provincial Traffic Department.

C3.14.5. EMERGENCY STANDBY EQUIPMENT

The following list illustrates the minimum requirements to be met, and is not necessarily complete. The contractor shall ensure that the listed equipment shall at all times be available in a good and proper serviceable manner.

As a minimum the following tools and equipment shall be available, at any time, with each emergency standby team for emergency assistance, this may be revised from time to time in consultation with the contractor:

1. 9kg Fire extinguisher
2. Fully equipped medical bag
3. 2 No hard hats, goggles, gloves

4. Binoculars (to read the label if a tanker overturn with hazardous chemicals)
5. Camera (to take photos for incident reports)
6. Haschem Book (To analyse the label on the tanker)
7. Disaster / Incident Management Book / Plans to be in each vehicle
8. Cell phones capable of immediately transmitting photographs or messages via Instant Social Media. A hand free cellphone kit must also be made available to the driver.
9. Tablets with equivalent 5GB data for the purposes of email, Whatsapp and capturing on the TRAC Junoviewer app.
10. Signs: 100Km, 80Km, 60Km, Road Narrow, Workmen, Smoke, Accident, Danger, Stop ahead, Stop/ Go (in accordance with the latest relevant traffic regulations and Road Traffic Signs Manuals)
 - 2 No Road Closure sign with boom, parking zone sign (For incident Management purposes).
 - 7 No delineators (TW401/TW402) and accessories.
 - 4 No alternative route signs with magnetic arrow.
 - 4 No Hard Brooms, 4 No Fire slappers/beaters, 4 No spades, 4 No red flags, 4 No lime green flags with high visibility reflective tape, check flag?.
11. Additional equipment for bad sight:
 - 2 No Flashing cones (placed next to first Accident sign).
 - 2 No Big Flashing triangles (In front of the Incident).
 - 4 No small flashing triangles (Round the incident).
 - 2 No small flashing arrows (to divert traffic)
 - Flashing digital arrow.
 - Cordon equipment.
 - 30m Reflective rope and 30m pipe with high visibility reflective strips.
 - 20m Barb tape
 - 4 No LED head torches
12. 2 No Flash lights (To control and warn traffic at night)
13. Spotlight
14. Box of latex protective gloves
15. 2 x reflective gloves (to regulate traffic in day and night)
16. Incident management Jackets for all responders including press
17. Weatherproof digital camera
18. Day glow spray paint – orange
19. Devices to measure tyre tread thickness and tyre pressure
20. Black ball point pen and paper, including sufficient copies of the Incident and
21. Accident Forms to cover incidents and accidents encountered during the daily inspection.

All of the above-mentioned equipment should be neatly packed into the vehicle and/or a trailer used specifically for the rendering of emergency assistance.

Accident response vehicles shall at all times be equipped to deal with emergency situations and kept in a road worthy condition at all times. First aid kits shall be maintained and the consumables replenished within 48 hours.

Penalties will be charged for non-conformance, e.g. missing equipment as indicated in the project specifications section C2.9.

The GPS tracking records recording all vehicle movements to and from emergency scenes shall be submitted monthly together with the monthly distance claim.

C3.14.6. MAINTENANCE MATERIALS AND TOOLS

TRAC shall provide adequate maintenance materials and tools for every Emergency Response Vehicle to perform the Operations which shall include, inter alia:

- 5 kg soft wire
- 5 No. 1.2 m steel droppers
- 2 No. rolls of plastic fence / barb wire
- 25 kg road mix
- 10 kg stamp hammer
- 5Kg Spillsorb (Environmental friendly spillsorb to clean up oil, paint, diesel and other spills on the road).
-

C3.14.7. EMERGENCY PATROL PERSONNEL STAND-BY TEAM

Each emergency patrol vehicle deployed at any time along the N4 Toll Route shall be manned by a Accident Response Officer / Accident Response Specialist, capable and competent to perform all functional requirements and the operation of the accident response vehicle, as well as at least four (4) assistants to assist during the incident.

All personnel used to man the accident response vehicle shall be well equipped and trained to undertake all the accident response duties as specified. Previous related experience is an added advantage. CV's of Accident Response Officers must be provided for approval prior to being used in this capacity.

Each Accident Response Officer's management and skill level must be of such nature as to make informative decisions, effectively organise the team and be able to take the responsibilities inherent in the emergency assistance. The assistants must be able to effectively and efficiently operate the tools and equipment and be prepared to work as a team and accept orders from a higher authority. Staff deployed shall be suitably qualified (and will receive ongoing training as well as bi-annual trauma counselling) with basic medical rescue qualifications to afford the customers good professional assistance. The accident officer (driver) deployed should be suitably qualified to render first aid support (CPR and pressure bandages) to break down and / or accident victims until such time as the victims can be transferred to the nearest medical facility.

Each team shall be located optimally to minimise the responding time for emergencies. During peak holiday periods, accident response standbys adjacent to the N4 Toll Road over peak holiday periods will be required at strategic positions.

Mobilising time for any incident shall not exceed 5 minutes from time of first call received through the CCC, TRAC's Call Centre – (TRACAssist or TRAC officials) or other mode of communication. Arrival at the scene shall not exceed 40 minutes from time of mobilising. Should the response time be longer than 45 minutes (5 minutes mobilising plus 40 minutes arrival on scene) a written report must be provided to TRAC detailing the reasons for exceeding the 45 minute response time. This report can be provided on the TRAC incident/accident report form. Failure to meet the specified times or lack of service will result in penalties being charged as stipulated in section C2.9).

C3.14.7.1. QUALIFICATIONS OF EMERGENCY RESPONSE TEAM

- All accident response officers (appropriate drivers license);
- All accident response officers (5 day fire fighting certificate and DG awareness certificate);
- All accident response officers (IMS Certificate);
- All accident response officers (First Aid Level 1 qualified);
- All staff (Language: two or more languages of which English is a prerequisite).

C3.14.7.2. PERSONALITY OF EMERGENCY RESPONSE TEAM

All accident response officers shall be/have:

- Self driven;
- Positive outlook;
- Clear focus and high quality service;
- Results orientated;
- Natural forward planner;
- Mature, credible and reliable;
- Critical in respect of personal objectives and performances;
- Comfortable to deal with different types of people, sympathetic communicator, and people management skills;
- Tolerant;
- Determined;
- Well presented and business orientated;
- Physically healthy and fit;
- Multi tasking ability;

- Meticulous and accurate with recording information.
- Proficient in English – speak , read and write.

Ongoing training shall be provided to employed staff, and records of training must be provided to TRAC as part of the quarterly report.

C3.14.8. **REPORTING**

C3.14.8.1. **DAILY RECORDS**

The accident response service shall use Global Positioning Systems (GPS) to record his activities and positions. It will record the location of the accident/incident using chainage markers. This information will be submitted weekly to TRAC in a format acceptable to TRAC.

The Contractor shall submit to TRAC daily records of any damage to the road network and work executed by the accident response services. The records shall include information such as the description of damage, location, measurements where applicable and all other information the Engineer may require for record purposes as well as timesheets of all activities and work executed by the emergency patrol services. The necessary forms (Accident/Incident Details Form) will also be completed per incident/accident and submitted to TRAC.

Submission of the following weekly reports, completed in legible writing as per the TRAC format which includes but is not limited to:

- Completed TRAC Incident and Accident reports and forms with photographs of each incident and or accident responded to as well as a photograph of the respective drivers licences involved in the incidents/accidents.
- Completed TRAC Accident/Incident forms (electronic and paper).
- Summary of all incidents/accidents responded to, reaction times and type of service.
- Relevant information.

Copies of TRAC accident and incident forms will be provided by TRAC to be completed by the Contractor.

If the Contractor fails to comply with the specifications and duties set out for the emergency patrol services or fails to supply the service for a period of time, the Contractor will be penalised in accordance with Section C2.9. The penalty specified in the pay-item will be applied as a negative amount against the payment certificate for failing to respond or late arrival of an emergency team at the site of an incident unless the following mitigating circumstances can be proven:

- The emergency team for that specific area was involved in another incident that made immediate response impossible.
- The emergency team had to simultaneously respond to a proven more serious incident elsewhere.

C3.14.8.2. MONTHLY / QUARTERLY / ANNUAL REPORTING

The Contractor shall provide updates and reports at the frequency as stipulated by TRAC on:

- Personnel structure (including staff salary packages)/management/qualifications.
- Transport resources.
- Training programme and training registers.
- Monthly reports on achievements of previous month.
- Monthly intended programme for following month.
- Trauma counselling programme and register of counselling provided to contractor's accident response team personnel.
- Feedback report on liaison meetings attended.

in accordance with the requirements as specified in the Quality Assurance section (Section C2.5 and subsections and as stipulated as part of the General Obligations (C2.12).

C3.14.9. RESPONDING TIME

Depending on the seriousness of the event for which emergency assistance is being called for, the emergency standby team shall report for duty where assistance is required, within the specific time, as indicated in the Project Specifications, on the receipt of the instruction. The Contractor shall take these requirements into account when deciding on the site of the Contractor's labourers' accommodation.

Any failure or neglect by the Contractor to comply strictly with the provisions of this specification, or any omission or neglect by the Contractor in adhering to or applying the principles as are described and inherent in this specification, shall be deemed to constitute as a warrant for the Engineer to act in terms of the Standard Conditions of Contract.

Deductions from the monthly payment certificate for each occurrence of not arriving at the scene of an incident that can be proved by any TRAC official or police record unless mitigating circumstances can be proven as well as a penalty per minute when an emergency vehicle arrive outside the specified time frame at the scene of an incident unless mitigating circumstances can be proven, will be charged as indicated in section C3.9.

C3.14.10. COMMUNICATION

The Contractor is to ensure, that communication between the Engineers representative and the Contractor's representative is maintained 24 hours a day at one single predefined cell/tel number as provided to TRAC as well as Call Centres and Emergency Service Providers. This can be reached by means of the provision of cellular telephones to the responsible persons. The cost of the Contractor's cellular telephone is to be included in C3.12 : Contractor's Establishment on Site and General Obligations and will not be paid for separately. The Contractor is to ensure that contact persons are available

at the relevant contact numbers 24 hours a day. The mobile number of the contractor must be answered within 30 seconds or routed immediately to an alternative number if that number is busy or not available.

Please note: The final decision regarding which vehicle/person on duty will be dispatched in the event of an emergency or incident will lie strictly, and at all times, with the TRAC Helpdesk agent on duty.

C3.14.11. **MEASUREMENT AND PAYMENT**

Payment under this section will be for maintaining the specified emergency teams and equipment on standby and for the call-out cost thereof.

<u>Item</u>	<u>Unit</u>
14.01 Supply of emergency services	
(a) Emergency standby costs	month
(b) Call-out cost: Transport.	Kilometre (km).

The unit of measurement for item 14.01 (a) shall be the completed calendar month during which the service was rendered.

The unit of measurement for item 14.01 (b) shall be the official distance travelled to and from the scene of an incident requiring emergency services as verified with the print-out or report from an approved, calibrated tracking device.

The tendered rate for item 14.01 (a) shall include full compensation for the provision of the specified vehicles, personnel, equipment and incidentals required for the delivery of the specified emergency services and the cost of remaining on standby to the satisfaction of the Engineer. It shall also include time costs as part of liaison and attendance of liaison meetings, the completion and submission of accident report forms, etc. as specified, except where otherwise provided (e.g. establishment and general obligations).

The tendered rate for item 14.01 (b) shall include full compensation for travelling costs to transport the emergency team and equipment to and from the point of incidence and other required commitments as verified by an approved tracking device and system, including the provision of the device and system.

C3.15. **ASSISTANCE TO ROAD USERS: CALL OUTS (TRACASSIST)**

C3.15.1. **GENERAL REQUIREMENTS**

The scope of this function is to provide assistance to stranded motorists requiring water, fuel, tyre change, jump-start with booster cables and minor repairs. It shall include assistance to stranded motorists by notifying relevant agencies when major repairs are required, pushing disabled vehicles off the roadway, and providing emergency transportation. They shall also stay with a stranded motorist or leave a guard with the motorist for safety reasons until either the problem has been solved or technical assistance, such as a mechanic, arrives at the scene. It shall also give assistance and travel information to lost motorists.

C3.15.2. **CALL-OUT**

Assistance to road users shall be provided on a call-out basis when the TRACASSIST number or other emergency number is called. The response shall be such that assistance is rendered within 45 minutes after receiving a call. During a call out, the person responding shall be able and equipped to render the following services:

Please note: The final decision regarding which vehicle/person on duty will be dispatched in the event of an emergency or incident will lie strictly, and at all times, with the TRAC Helpdesk agent on duty.

- Provision of TRACASSIST vehicles and associated teams.
- Calls pertaining to roadside assistance received on the toll free TRACASSIST number, any Central Communication Centre (CCC) or from any other source will be routed directly to the mobile number of the contractor whom shall supply and maintain a cell phone number manned 24 hours, 7days a week.
- The mobile number of the contractor must be answered within 30 seconds or routed immediately to an alternative number if that number is busy or not available.
- Communicate telephonically with the motorist seeking assistance and provide them with details as to the timing of the arrival of the TRACASSIST team.
- The nearest TRACASSIST team shall then be mobilised to arrive at the stranded motorist within 45 minutes of the call being made by the motorist. If the TRACAssist vehicle is busy or not available, the Accident Response team may be sent in stead.
- Do Traffic accommodation and management in accordance with the latest traffic regulations and/or Incident Management Guideline Document.
- Remain with the motorist until such time as their vehicle is mobile or they have been picked up and their vehicle is placed in such a manner that it does not cause any hazard or danger to any other motorist travelling on the N4.
- Replace blown tyres with a spare (except trucks). If the spare tyre is unserviceable, the vehicle owner shall, at his own cost, order a replacement from a nearby supplier. The traffic assistant officer shall not be responsible for the acquisition and or transport of such a replacement.
- Be able to identify elementary vehicle problems such as broken fan belts, flat batteries, lack of fuel, etc.
- Assist vehicles that ran out of fuel or water by helping with the emergency fuel or water supply to be carried by the patrol vehicle. (Fuel for large trucks excluded.)
- Arrange for tow-in services for stranded vehicles with the co-operation of the owner of the vehicle.

C3.15.3. **CALL-OUT PERSONNEL**

Call-out personnel shall be capable of delivering the specified services. They must have at least a basic mechanical knowledge to be able to assist the motorist as specified. They must always be courteous to the motorists and be neat and

presentable to enhance the TRAC image. They must also be able to assist with traffic control if required and know the principles and laws governing emergency traffic control on freeways and other roads. Each call-out vehicle shall have at least one assistant to help and to stay with a broken down vehicle while the driver is obliged to leave the scene for a period of time. All personnel shall be equipped with clean, high visibility yellow safety jackets and a means of communication with their control centre.

C3.15.4. **CALL-OUT VEHICLE**

As part of TRAC's TRACASSIST initiative a team must be available at all times, 24 hours per day, 7 days per week for the duration of the contract to attend to incoming telephonic calls regarding any incident, hazardous road safety situation and/or TRACASSIST or Central Communications Centre (CCC) call-out supplementing the route patrol service.

The call-out vehicle shall be fitted with a yellow high intensity hazard light and shall display the standard TRAC branding and insignia as determined from time to time.

The vehicle shall be fitted with a tracking device from which the position of the vehicle and distance travelled can be determined continuously while in service as well as a Drivecam live camera device. TRAC shall also be provided access and access passwords to view the status and position of patrol vehicles on the internet.

The call-out vehicle shall have at least the following basic equipment on board:

- 9 kg Fire extinguisher
- 10 x 475 mm day-glow orange cones (with high visibility reflective tape)
- 2 x Shovels
- 2 x Hard Brooms
- 2 x Fire Slappers / Beaters
- Complete set of small tools (toolbox) and high capacity battery jumper leads suitable for 12v battery:
 - Set of flat ring spanners (8 to 22mm)
 - Set of sockets (8 to 22mm)
 - Universal type of wheel spanner
 - 2 ton jack
 - Electric pump (cigarette lighter type)
 - Tube pump to inflate tyres (cigarette lighter type)
 - 2 No. Appropriate shifting spanners
 - Appropriate pump spanner
 - Appropriate screw driver set
 - Set of pliers to be suitable for electric wire cutting and cleaning
 - 2 No. rolls of plastic fence
 - Heavy duty bolt cutter
- Cans for fuel (5 liter cans with petrol and diesel), oil (5 liter can) and water (20 liter can).
- Spotlight (removable) and 2 flashlights.
- Warning signs – appropriate set of temporary warning signs in accordance with the most recent relevant traffic regulations (Chapter 13, SA Road Traffic Signs Manual as well as TRAC's IMS Guideline documentation for on-scene management – Typical layouts from IMS Guideline document are attached as Annexure).

- Binoculars.
- Basic fence and sign repair materials for minor repairs.
- Safety clothing: Adequate fire fighting gear, helmets (hard hats), overalls, safety vests (extras for service providers on scene) and safety boots, Appropriate rain coats, gum boots and umbrellas, Appropriate gloves, suitable for heavy duty works, safety glasses and dust masks.
- Plastic bags for rubble.
- 2 x Lime Green Flags with reflective strips.
- Medical bag inclusive of first aid medical supplies.
- Tow cable.
- Bow saw.
- Jack.
- Wheel spanner.
- Cell phone capable of immediately transmitting photographs and messages via Instant Social Media.
- Incident management book.
- Disaster management plan and incident management plan.
- TRAC patrol and incident forms.
- Weatherproof digital camera.
- Black ball point pen and paper, including sufficient copies of the Incident, TRACASSIST and Accident Forms to cover incidents and accidents encountered during the daily inspection.

C3.15.5. **REPORTING**

The Contractor shall submit to TRAC daily records of incidents attended by the TRACASSIST teams. The records shall include information such as the description of service provided, location, measurements where applicable and all other information the Engineer may require for record purposes such as timesheets of all activities and work executed by the team. The necessary forms (TRAC's standard Incident Report) will also be completed for each incident and submitted to TRAC.

Submission of the following weekly reports, completed electronically and in legible writing as per the TRAC format which includes but is not limited to:

- Completed TRAC Incident reports and forms with photographs of each incident responded to.
- All incidents responded to, reaction times and type of service.
- Relevant information.

Copies of TRAC incident forms will be provided by TRAC to be completed by the Contractor.

C3.15.6. **MEASUREMENT AND PAYMENT**

Payment under this section will be for maintaining the specified call-out teams and equipment on standby and for the call-out cost thereof.

<u>Item</u>		<u>Unit</u>
15.01	Supply of a call-out services:	
(a)	Standby costs	month
(b)	Call-out cost: Transport.	Kilometre (km)

The unit of measurement for item 15.01 (a) shall be the completed calendar month during which the service was rendered.

The unit of measurement for item 15.01 (b) shall be the official distance travelled to and from the scene of an incident as verified with the print-out or report from an approved, calibrated tracking device.

The tendered rate for item 15.01 (a) shall include full compensation for the provision of the specified vehicles, personnel, equipment and incidentals required for the delivery of the specified call-out services and the cost of remaining on standby to the satisfaction of the Engineer.

The tendered rate for item 15.01 (b) shall include full compensation for travelling costs to render the call-out service as specified.

C3.16. **DAYWORKS**

C3.16.1. **SCOPE AND GENERAL REQUIREMENTS**

In this section, the contractor is obliged to assist TRAC and or road users with aspects such as traffic control, fire control, the cleaning of hazardous chemicals, etc. not covered by the rates for other specified services.

Pre-approval from the Engineer should be obtained in all situations where time and costs are claimed under this section of the contract and this item should not be used to claim for normal expenses forming part of any other of the contractual duties specified under any of the other sections.

The services to be rendered for which daywork rates may be claimed are, for example, the following but may include other services approved by the Engineer.:

- Assist the TRAC maintenance teams, contractors or sub-contractors with traffic accommodation whilst working on the road.
- Assist TRAC with accommodation of traffic for stopping of vehicles during blasting activities outside the normal scope of incident management.
- Assist TRAC personnel with fire fighting next to the N4 outside the scope of incident management.
- Assist TRAC personnel, contractors or sub-contractors with accompanying road construction plant or heavy vehicles.
- Assist with the cleaning up of hazardous or other road spills outside the scope of normal patrol duties.

C3.16.2. **SUPPLY OF LABOUR**

Labourers shall be used as flagmen, clean-up staff etc. All labourers and supervisors working on or next to the road shall be outfitted with the following:

- Clean yellow or orange overalls or T-shirts and trousers.
- Clean high visibility reflective safety jackets.
- Safety boots that complies with the latest available edition of SANS 741 or SANS 1114.
- All labour shall at all times be sober and properly trained for the intended application such as flagmen, specialist cleaning people, etc.

C3.16.3. **SUPPLY OF TRANSPORT**

On request, transport shall be provided for the following:

- Transport of personnel to and from the work place where they have been deployed.
- Transport to serve as accompanying vehicle for travelling construction machines, etc requiring an accompanying vehicle.
- Transport for tools, cleaning materials, etc. required at the work place where day works are being done.
- All vehicles shall be fitting with an amber flashing light with a high enough intensity to be clearly visible for at least 300m during day light. The vehicle shall also be fitted with a tracking device coupled to a central monitoring station.
- Vehicles used for staff transport shall comply with the legal requirements for that type of transport and the driver must be in possession of the required drivers license and permit.

C3.16.4. **PROVISION OF ROAD SIGNS**

Road signs for temporary traffic control, including stop-go signs, shall be provided on request by the Engineer for use on the N4 where such traffic accommodation do not form part of the scheduled activities of the contractor. The traffic signs shall be paid for by set where a set consists of at least the following:

- 900mm signs as follows:
- One No of each of 100, 80 and 60 speed limit signs: TR 201.
- One No of Workman ahead sign: TW336
- One No of Left lane closure sign TGS 101
- One No of Right lane closure sign TGS 102
- One No of Arrow sign TR103/104 (Reversible or one of each)

- Two No of 450mm X 450mm red flags with reflective tape
- Two No of 450mm X 450mm lime yellow flags with reflective tape
- 20 No of 750mm orange cones
- 2 No stop-go signs on suitable supports if required.

The signs may be made of a collapsible material for ease of transport and must all be fitted with a means of support to keep it upright. The supports shall be stabilised with sand bags to prevent it from being blown over. The signs shall be clean and clearly visible to the satisfaction of the Engineer.

C3.16.5. **MEASUREMENT AND PAYMENT**

<u>Item</u>		<u>Unit</u>
16.01	Day work rates for personnel	
(a)	Unskilled labour	Hour (h)
(b)	Semi skilled labour	Hour (h)
(c)	Skilled labour	Hour (h)
(d)	Supervision.	

The unit of measurement shall be the hour when the personnel is actively busy working including travel time to and from the starting point when the request for personnel was given.

The rate shall include full compensation for supply of the specified personnel unit including uniforms, overalls, personal protective equipment, etc.

<u>Item</u>		<u>Unit</u>
16.02	Transport	
(a)	LDV - at least 1.6l engine capacity	kilometre (km)
(b)	Panel van, at least 2.5 l engine capacity	kilometre (km)

The unit of measurement shall be the kilometre that the vehicle has travelled to the work site and back for the intended purpose, verified by a print-out of a tracking device fitted to the vehicle.

The rate shall include full compensation for the use of the vehicle including driver, fuel, etc.

<u>Item</u>		<u>Unit</u>
16.03	Provision of road signs for traffic accommodation	No

The unit of measurement is the number of sign sets normally required for temporary closing of a road in accordance with the SARSM Chapter 13.

The rate shall include full compensation for the supply of the road signs required to safely close the road for a specific requested purpose where it falls outside the scope of other scheduled duties.

<u>Item</u>		<u>Unit</u>
16.04	Procurement of certain materials	
(a)	Procurement of the materials	Provisional sum

(b) Contractors handling charges and profit on (a) Percentage (%)
The Unit of measurement for (a) shall be the real cost of any material required for or on the N4 road that has to be used to effect a request by the Engineer and is not supplied by TRAC. The unit of measurement for (b) shall be the mark-up tendered as a percentage by the contractor to cover all his handling costs and profit on item (a)

The rate for (a) shall be the real cost of material as described above and for (b) shall include all handling and other costs by the contractor as well as his profit.