



CLUSTER

FINANCE

UNIT

CITY FLEET

DEPARTMENT

SUPPORT SERVICES

PROCUREMENT DOCUMENT

GOODS / SERVICES

Documents are to be obtained, free of charge, in electronic format, from the [National Treasury's eTenders website](#) or the [eThekweni Municipality's website](#).

Tender No: 30007-1J

Title: MANUFACTURE, SUPPLY AND DELIVERY OF VARIOUS FIRE FIGHTING VEHICLES FOR A PERIOD OF THIRTY-SIX (36) MONTHS (as and when required)

CLARIFICATION MEETING AND QUERIES

Clarification Meeting:

A Non-Compulsory Clarification Meeting will be held [Ms Teams] on [07th of October 2024] at [10:30am]. All potential bidders seeking to participate must send their contact details (email addresses) to Nondumiso Khumalo no later than 04 of October 2024 before 16h00

Queries can be addressed to:

Email queries to be submitted by 24 October 2024 and consolidated question and answers to be uploaded 31 October 2024.

General / Contractual:

Nondumiso Khumalo; Tel: 031 322 5093; eMail: Nondumiso.Khumalo@durban.gov.za

Technical:

Yuvraj Dwarika; Tel: 031 322 5093; eMail: Yuvraj.dwarika@durban.gov.za

DELIVERY OF TENDERS

Sealed Tenders, addressed to the City Manager and marked with the Tender Number, are to be placed in the Tender Box **located in the ground floor foyer of the Municipal Buildings, 166 KE Masinga Road (Old Fort Rd), Durban** (and not any other municipal department), no later than:

Closing Date: **Friday, 08 November 2024**

Time: **11:00am**

FACSIMILE, eMAIL or POSTED TENDERS WILL NOT BE ACCEPTED

Issued by:

ETHEKWINI MUNICIPALITY

Deputy Head: **SUPPORT SERVICES**

Issued: **September 2024**

Document Version: 24/02/2023(b)

NAME OF TENDERER:

Tender Price: R

VAT Registered: YES / NO
(circle applicable)

PROCUREMENT DOCUMENT (Goods / Services)

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SECTION 1: GENERAL INFORMATION

YOU ARE HEREBY INVITED TO TENDER FOR REQUIREMENTS OF THE ETHEKWINI MUNICIPALITY

TENDER No.: 30007-1J

DESCRIPTION: **MANUFACTURE, SUPPLY AND DELIVERY OF VARIOUS FIRE FIGHTING VEHICLES FOR A PERIOD OF THIRTY-SIX (36) MONTHS (as and when required)**

CLOSING DATE / TIME: Friday, 08 November 2024 at 11:00am

All tenders must be submitted on official tender documentation issued (in electronic format) by the eThekweni Municipality from:

- the National Treasury's eTenders website (<https://www.etenders.gov.za/>), or
- the eThekweni Municipality's website (<https://www.durban.gov.za/pages/business/procurement>).

Electronically downloaded documentation should be printed by the tenderer.

Tenderers are required to be registered on the **National Treasury Central Supplier Database (CSD)** as a service provider. In the case of a Joint Venture, this requirement will apply individually to each party in the Joint Venture.

Registration on the **eThekweni Municipality's Database** can be done via website: <https://ethekwinivendor.durban.gov.za/>

Tenderers should ensure that tenders are delivered timeously to the correct address as stated in the Conditions of Tender. If a tender is late, it will not be accepted for consideration.

The Municipality will consider a tender submitted in response to this request for tender to be an offer from your company to perform the supply on the basis of that tender. Accordingly, please review the attached General and Special Terms and Conditions which will form the basis for any supply arrangement entered into between the Municipality and your company.

The Municipality is seeking tenders from potential suppliers only and makes no representation or promise in relation to procuring work from a supplier or suppliers. The Municipality will not be responsible for any costs associated with preparing and submitting a tender.

The Municipality does not bind itself to accept the lowest or any tender. It reserves the right to accept the whole or any part of a tender to place orders. Bidders shall not bind the Municipality to any minimum quantity per order. The successful Tenderer (s) shall be bound to provide any quantities stipulated in the specification.

The successful tenderer will be required to fill in and sign a written Contract Form (MBD 7).

NB: NO TENDER WILL BE CONSIDERED FROM PERSONS IN THE SERVICE OF THE STATE
(as defined in Regulation 44 of the Local Government: Municipal Supply Chain Management Regulations).

**THE FOLLOWING PARTICULARS MUST BE FURNISHED
(Failure to do so may result in your tender being disqualified)**

Name of Tenderer:

Postal Address:

Street Address:

E-Mail Address:

Telephone Number:

-

-

Cell phone Number:

Facsimile Number:

Circle Applicable

Is your entity registered on the **eThekwini Municipality's supplier database?**

YES / NO

- **If YES insert** your PR Number:

PR

Is your entity registered on the **National Treasury Central Supplier Database (CSD)?**

YES / NO

- **If YES, insert** your MAAA Number:

MAAA

Insert a SARS Tax Compliance Status PIN

.....

Is your entity VAT registered?

YES / NO

- **If YES insert** Vat Registration Number:

.....

Has a **Declaration of Municipal Fees** been submitted?

YES / NO

Has a **Declaration of Interest** (MBD 4) been submitted?

YES / NO

Has a **Declaration for Procurement Above R10 Million** (MBD 5) been submitted?

YES / NO

Has a **Preference Points Claim** (MBD 6.1) been submitted?

YES / NO

Has a **Declaration of Bidder's Past SCM Practices** (MBD 8) been submitted?

YES / NO

Has a **Certificate of Independent Bid Determination** (MBD 9) been submitted?

YES / NO

Are you the accredited representative in South Africa for the goods / services / works offered? **If YES, enclose proof** at the back of the tender submission.

YES / NO

Signature of Tenderer:

Date:

Name / Surname: (in block capitals)

Capacity under which
this tender is signed:

.....

SECTION 2 : CONDITIONS OF TENDER – (Goods / Services : June 2019)

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SPECIAL / ADDITIONAL CONDITIONS OF TENDER

1. DEFINITIONS**General:**

- (1) Defined words / phrases are printed in *Italic font*.
- (2) Definitions apply to the singular as well as the plural.
- (3) Any reference to the masculine gender shall be taken to include the feminine and any reference to the feminine gender shall be taken to include the masculine.
- (4) The words "bid" and "tender", and "bidder" and "tenderer" can be used interchangeably.
- (5) All definitions as defined in the **General Conditions of Contract** are applicable to these **Standard Conditions of Tender**. These definitions include:
 - "Closing time"
 - "Contract"
 - "Contract Price"
 - "Corrupt practice"
 - "Countervailing duties"
 - "Country of origin"
 - "Day"
 - "Delivery"
 - "Delivery ex stock"
 - "Delivery into consignees store or to his site"
 - "Dumping"
 - "Force majeure"
 - "Fraudulent practice"
 - "GCC"
 - "Goods"
 - "Imported content"
 - "Local content"
 - "Manufacture"
 - "Order"
 - "Project site"
 - "Purchaser"
 - "Republic"
 - "SCC"
 - "Services"
 - "Supplier"
 - "Tort"
 - "Turnkey"
 - "Written" or "in writing"
- (6) **Bid or Tender:** The offer submitted in respect of an invitation to submit such an offer.
- (7) **Bidder or Tenderer:** An entity (company, close corporation, partnership, joint venture, sole proprietor) which submits a *bid/tender*.
- (8) **Municipality:** The eThekweni Municipality, as represented by the duly authorised delegate, official or committee.
- (9) **SCT:** Special Conditions of Tender (found in Section 3).
- (10) **Week:** A period of seven (7) consecutive *days*.
- (11) **Material Deviation:** A material deviation or qualification is one which, in the *Municipality's* opinion, would:
 - (a) Detrimentally affect the scope, quality, or performance of the services or supply identified in the Scope;
 - (b) Significantly change the *Municipality's* or the *Tenderer's* risks and responsibilities under the contract; or
 - (c) Affect the competitive position of other *Tenderers* presenting responsive *tenders*, if it were to be rectified.

2. CONDITIONS OF TENDER & CONTRACT

The specification will be governed by the **Standard Conditions of Tender** (Goods and Services), **Special Conditions of Tender (SCT)**, **General Conditions of Contract (GCC)** (Government Procurement General Conditions (July 2010), as amended by National Treasury Circular 52 dated 30 July 2010), the **Special Conditions of Contract (SCC)**, the **Occupational Health and Safety Act** (Act No. 85 of 1993), and the **eThekweni Code of Conduct**.

Complete Acceptance of Conditions

Unless otherwise expressly stipulated in a letter covering the *tender*, every *Tenderer* shall be deemed to have waived, renounced, and abandoned any conditions printed or written upon any stationery used for the purpose of, or in connection with, the submission of their *tender*, which are in conflict with the **General Conditions of Contract** and **Special Conditions of Contract**. *Tenderers* are advised that any *material divergences / qualifications* from the official Conditions or Specification will render their *tenders* liable to disqualification.

3. TENDER INFORMATION

- (1) **General**
 - (a) *Tenders* will be liable for rejection unless made out on the official tendering documentation.
 - (b) Any alterations effected upon any of the tendering documents must be clearly shown by means of a hand written (black, non-erasable ink), or typed, entry and must be signed in full by the *Tenderer*. **The use of correction fluid is not permitted.**
 - (c) *Tenderers* may submit alternative solutions that, in the *Tenderer's* opinion, are to the *Municipality's* advantage economically and technically. Full technical details of the alternative *tender(s)* shall be submitted with the tender documents. Alternative *tender(s)* shall be submitted separately.
- (2) **Obtaining Tender Documentation**

All tenders must be submitted on official tender documentation issued, in electronic format, by the eThekweni Municipality. Electronically downloaded documentation (obtainable free of charge) should be printed and suitably bound by tenderer.
- (3) **Queries Relating to this Tender**

Queries can be directed to the person / Department as stated in the **SCT**.
- (4) **Briefing Session (Clarification Meeting)**

Details of the briefing session are stated in the **SCT**. Failure to attend a **compulsory** briefing session will invalidate the *tender*. *Tenderers* must sign the attendance list in the name of the tendering entity. Tenders will only be evaluated from those tendering entities appearing on the attendance list.

(5) Closing Date and Delivery of Tender Submissions

Sealed *tenders* made out on the enclosed Official Tender Form, which shall be signed by or on behalf of the *Tenderer*, and addressed to the City Manager, marked with the appropriate Tender number, must be placed in the **Tender Box** as stated in the **SCT** not later than the **date and time** as stated in the **SCT**, where after they will be opened publicly.

All tender documents **must** be placed directly into the Tender Box and should not be delivered to any other Municipal Department. *Bidders* are advised that *tenders* submitted by post, fax or email **will not** be considered. All couriered documents must be placed directly into the Tender Box and should not be delivered to any other Municipal Department.

Any *tender* received after the closing date and time stated for the receipt thereof **shall not** be accepted for consideration and shall be returned to the *Tenderer*.

(6) Tender Validity and Withdrawal of Tenders

Tenders must hold good until 16:00 of the 5th week following the date on which *tenders* are opened, or during such other period as may be specified in the **SCT**. The *Municipality* may, during the period for which *tenders* are to remain open for acceptance, authorize a *Tenderer* to withdraw their *tender* in whole or in part on condition that the *Tenderer* pays to the *Municipality* on demand, a sum of one thousand Rand (R1,000.00). The *Municipality* may, if it thinks fit, waive payment of such sum in whole or in part.

4. RETURNABLE SCHEDULES, FORMS, CERTIFICATES

Each *Tenderer* shall complete fully and accurately the following documents and submit these documents with the *tender*:

- (1) **Authority of Signatory:** In terms of Clause 4(5)(c) of the Conditions of Tender.
- (2) **Tax Compliance Status PIN / Tax Clearance Certificate:** SARS has introduced a new Tax Compliance Status System. Tenderers can submit a Tax Compliance Status PIN (TCS PIN) instead of an original Tax Clearance Certificate. This TCS PIN can be used by third parties to certify the taxpayer's real-time compliance status.
- (3) **Declaration of Municipal Fees:** Only those *Bidders* whose municipal fees are fully paid, or those that have concluded acknowledgement of debt agreements with the *Municipality*, are eligible to *tender*.
All *Bidders* must sign the Declaration of Municipal Fees returnable form, declaring that their municipal fees are in order or that acknowledgement of debt agreements have been concluded, and include the relevant account numbers in the declaration. Failure to include account numbers or sign will invalidate the *tender*. The completion of the declaration is also applicable to *Bidders* outside of the eThekweni Municipal Area.
- (4) **Declaration with respect to the Occupational Health and Safety Act:** Acceptance of undertaking in terms of the Occupational Health and Safety Act (Act 85 of 1993) and the relevant Regulations.

(5) Municipal Bidding Documents (which includes):

- (a) **MBD 4: Declaration of Interest:** All *Bidders* are to sign the Declaration of Interest wherein they declare any relationship that may exist with an official of the *Municipality* involved in the evaluation process.
Regulation 44 of the Supply Chain Management Regulations states that a *Municipality* or *Municipal Entity* may not make any award to a person:
 - (i) Who is in the service of the state;
 - (ii) If that person is not a natural person, of which any Director, Manager, Principal, Shareholder or Stakeholder is a person in the service of the state; or
 - (iii) Who is an advisor or consultant contracted with the *Municipality* or *municipal entity*.
 Should a contract be awarded, and it is subsequently established that Regulation 44 has been breached, the *Municipality* shall have the right to terminate the contract with immediate effect.
- (b) **MBD 5: Declaration for Procurement Above R10 Million (if applicable):** For all procurement expected to exceed R10 million (all applicable taxes included), tenderers must complete this questionnaire.
- (c) **MBD 6.1: Preference Points Claim Form:** For the awarding of Preference Points, *Bidders* are required to complete the attached MBD 6.1 form and return it with their tender submission. Failure on the part of a tenderer to complete and submit this form will be interpreted to mean that preference points for **Specific Goals** are not claimed.
The *Municipality* reserves the right to require of a tenderer, either before a bid is adjudicated or at any time subsequently, to substantiate any claim in regard to preferences, in any manner required by the *Municipality*.
- (d) **MBD 8: Declaration of Bidders Past Supply Chain Management Practices Form:** This form serves as a declaration to be used by municipalities and municipal entities in ensuring that when goods and services are being procured, all reasonable steps are taken to combat the abuse of the supply chain management system.
- (e) **MBD 9: Certificate of Independent Bid Determination:** Section 4(1)(b)(iii) of the Competition Act No. 89 of 1998, as amended, prohibits an agreement between, or concerted practice by, firms if it involves collusive tendering or tender rigging. In order to give effect to this, the Certificate of Bid Determination must be completed and submitted with the tender.

(5) **Official Tender Form** (see Section 9)**(a) Legal Status of Tenderer**

It is essential for the purpose of entering into a legal contract that *Bidders* state on the Official Tender Form, under "Name and Address of Tenderer", their full legal status:

- (i) the full registered name of the company making a *tender*; or
- (ii) if the *Tenderer* is a person conducting business under a recognised trading name then:
 - State the name of the person(s);
 - State recognised trading name; and
 - State whether an owner, co-owner, proprietor, etc.

(b) Signing of Official Tender Form

Failure of a *Tenderer* to complete, in its entirety, and sign the Official Tender Form will invalidate the *tender*.

(c) Authority of Signatory

Bidders are to complete and sign the Authority of Signatory returnable document, and attach the required additional documents.

(d) Differences or Discrepancies

Should there be any difference or discrepancy between the prices or price contained in the Official Tender Form and those contained in any covering letter from the *Tenderer*, the prices or price contained in the Official Tender Form shall prevail.

(6) **Any additional Schedules, Forms, or Certificates as stated in the SCT.**5. **INFORMATION TO BE SUPPLIED REGARDING SUB-CONTRACTORS**

Bidders are to state in their *tenders*, or covering letters, whether, if the contract were to be awarded to them, the whole of the work would be executed by them in their own workshop / factory. If the answer is in the negative, they are required to state which part(s) would be handed to sub-contractors and the name and address of such sub-contractors.

6. **SAMPLES**

Bidders may be required to state where samples of the full range of products can be inspected or be required to submit samples for inspection prior to the closing date of the *tender*.

7. **MANUFACTURERS**

The names of the manufacturers of the goods or equipment offered must be stated in the *tender*.

Bidders who are not manufacturers, accredited distributors, or agents must provide a valid agreement / Joint Venture Agreement, entered into with the manufacturer, accredited distributors, or agents, with their submission. This agreement must meet all the requirements as laid down in the *tender* document, and must cover the contract period.

8. **CLARIFICATION**

The Head: Supply Chain Management Unit, or an authorized representative, may request clarification or further information on any aspect of the *tender*. The *Tenderer must* supply the requested information within the time specified. Failure to comply will render the *tender* non-responsive.

9. **PRICING**

Bidders would be precluded from this *tender* if their pricing structure deviates from the Official Tender Form.

(1) **Nett Prices**

All prices shall be quoted in South African currency (Rand) after deduction of any brokerage or discount allowed to the Municipality.

(2) **Unit Prices**

Bidders shall quote only one price in respect of each item. Such price is to hold good for the full duration of the contract period, being subject to variation only in accordance with specified criteria, as stated in the ***Conditions of Contract***.

(3) **Firm Tenders**

Bidders may submit firm prices for each 12 month period. These prices shall be free from all fluctuations, including any statutory increases.

(4) **Value Added Tax (V.A.T)**

Prices exclusive and inclusive of VAT must be stated separately on the Official Tender Form.

10. **ESTIMATED QUANTITIES**

The estimated quantities are set out in Section 8 : Bill of Quantities / Schedule of Rates/Activities which forms part of the official tender documents. The quantities are stated purely for the information of the *Bidders* and are in order to ascertain an estimated total contract price. The *Supplier* will, however, be bound to supply whatever quantity or quantities the *Municipality* may actually require, and may exceed, or be less than, the estimated quantities stated.

11. **DELIVERY, RISK, PACKAGES, ETC**

- (1) Unless otherwise provided, all goods are to be supplied only against the form of order issued by the *Municipality*.
- (2) *Bidders* shall quote a unit price which shall include delivery to the specified delivery point, as stated in the ***SCT***.
- (3) The risk in all goods purchased by the *Municipality* under the contract shall remain with the *Supplier* until such goods shall have been duly delivered.
- (4) *Bidders* shall clearly state the period within which delivery will be made after receipt of the official order, as this may be material in the adjudication of the *tender*.

12. RATES OF EXCHANGE

- (1) Where the goods are imported the *Supplier* shall, within seven days of date of official Purchase Order, arrange through their bankers for the foreign commitment to be covered forward down to the Rand in order to fix the rate of exchange. The *Supplier* shall notify the *Municipality* as soon as possible thereafter regarding the rate which has been fixed on such forward exchange.

Any increase or decrease between the basic rate of exchange as at a date seven days prior to the date of closing of *tenders* and that existing at the date of establishment of the forward exchange cover within the period stipulated above shall be paid or deducted by the Municipality. Upon the failure of the *Supplier* to arrange forward exchange cover, the *Supplier* shall be liable should there be any increase in the basic rate of exchange occurring after the last mentioned date.

The bank charges incurred in obtaining the forward exchange cover shall be for the *Municipality's* account.

- (2) The *Supplier* shall on request:
- Submit documentary proof of the rate of exchange; and
 - When an adjustment is claimed in terms of this sub-clause, whether by the *Supplier* or the *Municipality*, submit documentary proof to the satisfaction of the Deputy City Manager: Treasury in respect of such claim.

13. IMPORT PERMITS

- (1) In order to minimise special importation, *Bidders* should, where possible, have recourse to local suppliers and / or manufacturers.
- (2) *Bidders* must state whether their *tender* is dependent upon the issue of a special import permit or whether they are able to supply the goods by making use of the import facilities available to them.
- (3) In the event of a tender being dependent upon the issue of a special import permit, application for such special import permit shall be made by the *Tenderer*, unless otherwise provided for in the *SCT*.

14. EVALUATION PROCESS

The procedure for evaluation of responsive Tender Offers will be in accordance with the eThekweni Municipality's current SCM Policy and the Preferential Procurement Policy Framework Act (5 of 2000), and the Preferential Procurement Policy Framework Act Regulations (November 2022).

Details of additional evaluation criteria, if applicable, are stated in the *SCT*.

Evaluation points for price and preference will only be calculated for *Bidders* who comply with the contractual and technical specification, and if applicable, have attained the minimum Functionality Score as stated in the *SCT*.

The evaluation process of responsive *tenders* will be as follows:

- Score each *tender* in respect of the financial offer made and preferences claimed (if any);
- Calculate the total number of evaluation points (T_{EV}) in accordance with the following formula:

$$T_{EV} = N_{FO} + N_P$$
 where: N_{FO} : is the number of evaluation points awarded for the financial offer; and N_P : is the number of evaluation points awarded for preferences claimed.
- Rank *tenders* from the highest number of evaluation points to the lowest.
- Recommend the *Tenderer* with the highest number of evaluation points for the award of the contract, unless there are compelling and justifiable reasons not to do so.
- Rescore and re-rank all *Bidders* should there be compelling and justifiable reasons not to recommend the *Tenderer* with the highest number of evaluation points, and recommend the *Tenderer* with the highest number of evaluation points, unless there are compelling and justifiable reasons not to do so, and the process set out in this sub-clause is repeated.

(1) Evaluation points awarded for the financial offer:

Reference is to be made to the Special Conditions of Tender (*SCT*), and returnable form 5(c) in Section 4.

INCOME-GENERATING CONTRACTS

The financial offer will be scored using the formula:

$$N_{FO} = W \left(1 + \frac{P_t - P_{max}}{P_{max}} \right)$$

GOODS and SERVICES

The financial offer will be scored using the formula:

$$N_{FO} = W \left(1 - \frac{P_t - P_{min}}{P_{min}} \right)$$

Where the value of W is:

- (a) **90** where the financial value inclusive of VAT of all responsive *tenders* received have a value in excess of R 50,000,000; OR
- 80** where the financial value inclusive of VAT of one or more responsive *tenders* offers have a value that equals or is less than R 50,000,000.
- It is unclear** (at the time of advertising) which of the two preference point systems applies. Either the 80/20 or 90/10 preference point system will apply, determined by the price offered by the lowest acceptable tender.

(b) **P_{max}** is the comparative offer of the most favourable comparative offer (highest acceptable tender).

(c) **P_{min}** is the comparative offer of the most favourable comparative offer (lowest acceptable tender).

(d) **P_t** is the comparative offer of the *tender* offer under consideration.

(2) Evaluation points awarded for preference:

The **Specific Goals** for Preference Points are specified in the *SCT*.

15. BRIBERY AND COMMUNICATION WITH COUNCILLORS / OFFICIALS**(1) Bribery**

No *Tenderer* shall offer, promise or give to any person or person connected with a *tender* or the awarding of a contract, any gratuity, bonus or discount etc, in connection with the obtaining of a contract.

(2) Communication, Councillors and Officials

A *Tenderer* shall not in any way communicate with a member of the *Municipality* or with any official of the *Municipality* on a question affecting any contract for the supply of goods or for any work, undertaking or services which is the subject of a *tender* during the period between the closing date for receipt of *tenders* and the dispatch of the written notification of the *Municipality's* decision on the award of the contract; provided that a *Tenderer* shall not hereby be precluded:

- (a) At the request of the Head: SCM Unit, or an authorized representative, from furnishing him with additional information or with a sample or specimen for testing purposes or otherwise from giving a demonstration so as to enable the recommendation to the Bid Committee on the award of the contract to be formulated;
- (b) From obtaining from the Head : SCM Unit, or an authorised representative, information as to the date upon which the award of the contract is likely to be made, or, after the decision upon the award has been made by the *Municipality* or any Committee to which the *Municipality* has delegated its powers, information as to the nature of the decision or such information as was publicly disclosed at the opening of *tenders* or from submitting to the Accounting Officer in writing any communication relating to their *tender* or the award of the contract or a request for leave to withdraw their *tender*; and
- (c) Provided further that nothing contained herein shall be construed so as to prevent information being sought and obtained from an Official in regard to any decision taken at an open Municipal meeting, or any Committee to which the *Municipality* has delegated its powers.

A contravention of subsection (1) and / or (2), or an attempt to contravene such subsection, shall be reported to the Accounting Officer, who may on receipt of such report disqualify the *tender* of the *Tenderer* concerned.

16. NEGOTIATIONS WITH PREFERRED BIDDERS

The *Municipality* reserves the right to invoke Regulation 24 of Municipal Finance Management Act if required.

- (1) The Accounting Officer may negotiate the final terms of a contract with *Bidders* identified through a competitive tendering process as preferred *Bidders*, provided that such negotiation:
 - Does not allow any preferred *Tenderer* a second or unfair opportunity;
 - Is not to the detriment of any other *Tenderer*; and
 - Does not lead to a higher price than the *tender* as submitted.
- (2) Minutes of such negotiations must be kept for record purposes.
- (3) Such negotiation may be delegated by the Accounting Officer.

17. CANCELLATION OF TENDER PROCESS

The municipality is entitled to cancel the tender at any time before the award of a tender and the decision to cancel the tender shall be published in the same manner in which the original tender invitation was advertised. The Municipality shall, in no way, be liable for any damages whatsoever, including, without limitation, damages for loss of profit, in any way connected with the cancellation of this bid.

18. ACCEPTANCE OF BID

- (1) The *Municipality* does not bind itself to accept the lowest or any *tender*, and reserves the right to accept the whole or any part of a *tender* to place orders.
- (2) The *Municipality* reserves the right to accept more than one technically and contractually compliant *tender* for part or the whole of the contract and to place orders on the price and availability.
- (3) *Bidders* shall not bind the *Municipality* to any minimum quantity per order.
- (4) The successful *Tenderer (s)* shall be bound to provide any quantities stipulated in the specification.
- (5) Tenders will only be accepted on condition that:
 - (a) The *tender* is signed by a person authorised to sign on behalf of the *Tenderer* .
 - (b) A valid (at time of close of tenders), original, Tax Clearance Certificate OR Tax Compliance Status PIN is included with the *tender* submission. Both should have sufficient validity to ensure the process is adequately covered;
 - (c) A *Tenderer* who submitted their *tender* as a Joint Venture has included an acceptable Joint Venture Agreement and a B-BBEE Certificate pertaining to the Joint Venture with their *tender*.
- (6) Financial Standing: The Head: Supply Chain Management reserves the right to require *Bidders* to submit evidence that their financial standing is adequate to meet their obligations under the contract should they be successful.
- (7) Change of Ownership or Major Policy: Where it is known to a *Tenderer* that a change in ownership or major policy (of the tendering entity) will occur, or is likely to occur, during a specified contract period, the scope and effect thereof must be fully defined in a covering letter to be submitted with the *tender*.
- (8) Purchase of Goods From Other Sources: Nothing contained in this contract shall be held to restrain the *Municipality* from purchasing from persons other than the *Supplier*, any of the goods described or referred to in this contract, if it shall in its discretion think fit to do so.
- (9) Capability and Breach of Contract: Tenderers that do not have the capability of undertaking this enquiry in terms of the requirements of the contract or have been in breach of contract previously will not be considered.

19. PAYMENT and FACTORING

Payment conditions will be as per the **Conditions of Contract**.

Payment will be made only to the *Supplier(s)*. Factoring arrangements will not be accepted.

20. APPEALS

In terms of Regulation 49 of the Municipal Supply Chain Management Regulations persons aggrieved by decisions or actions taken by the *Municipality*, may lodge an appeal within 14 days of the decision or action, in writing to the *Municipality*. The appeal (clearly setting out the reasons for the appeal) and queries with regard to decision of award are to be directed to the office of the City Manager, attention:

Ms. S. Pillay, P.O. Box 1394, Durban, 4000;
eMail: Simone.Pillay@durban.gov.za.

SECTION 3: SPECIAL / ADDITIONAL CONDITIONS OF TENDER

3.1 SPECIAL CONDITIONS OF TENDER (SCT)

The **Standard Conditions of Tender** (Goods / Services) make several references to the **Special Conditions of Tender** (SCT) for details that apply specifically to this tender. The **Special Conditions of Tender** shall have precedence in the interpretation of any ambiguity or inconsistency between it and the **Standard Conditions of Tender**.

Each item below is cross-referenced to the clause in the **Standard Conditions of Tender** to which it mainly applies.

SCT 3(1) TENDER INFORMATION: General

The tender document comprises of a cover page and 154 pages. If an electronic version is downloaded from the internet the entire document is to be printed on A4 sized paper and appropriately bound. **Bidders are required to submit alongside their hard copy submission a SOFT COPY of their complete tender scanned and saved onto a memory stick. Memory stick must be clearly marked (contract number and bidder's name).**

SCT 3(2) TENDER INFORMATION: Obtaining Tender Documentation

Documents are issued by the eThekweni Municipality electronic format.

Electronically downloaded documentation is obtainable from:

- the National Treasury's eTenders website
 - (<https://www.etenders.gov.za/>), or
- the eThekweni Municipality's website
 - (<https://www.durban.gov.za/pages/business/procurement>).

The entire document should be printed on A4 paper (one sided), and suitably bound by the tenderer.

SCT 3(3) TENDER INFORMATION: Queries Relating to this Tender

General and Contractual Queries are to be directed to:

Nondumiso Khumalo; Tel: 031 322 5093; eMail: Nondumiso.Khumalo@durban.gov.za

Technical Queries are to be directed to:

Yuvraj Dwarika; Tel: 031 322 5093; eMail: Yuvraj.dwarika@durban.gov.za

SCT 3(4) TENDER INFORMATION: Briefing Session

A Non-Compulsory Clarification Meeting will be held [Ms Teams] on [07th of October 2024] at [10:30am]. All potential bidders seeking to participate must send their contact details (email addresses) to Nondumiso Khumalo no later than 04 of October 2024

SCT 3(5) TENDER INFORMATION: Closing Date and Delivery of Tender Submissions

Sealed Tenders, addressed to the City Manager and marked with the Tender Number, are to be placed in the Tender Box **located in the ground floor foyer of the Municipal Buildings, 166 KE Masinga Road (Old Fort Rd), Durban** (and not any other municipal department), no later than: **Friday, 08 November 2024 at 11:00am.**

Bidders are required to also make an electronic submission via SSS. Bidders must ensure that the hard copy and electronic submission are the same, failing which the submission will be deemed invalid. Bidders are responsible for resolving all access rights and submission queries before the tender closing date.

SSS Queries Contact: Lindo Dlamini: Tel: 031-3227133/031-3227153 email: supplier.selfservice@durban.gov.za

SCT 3(6) TENDER INFORMATION: Tender Validity and Withdrawal of Tenders

Tenders must hold good for 120 days following the date on which tenders are opened.

SCT 4(6) RETURNABLE SCHEDULES, FORMS, CERTIFICATES

Bidders must submit the following mandatory returnable with the tender submission:

- Proof of registration on the Central Supplier Database (CSD)
- Documents in Section 4 and 6.
- Certified proof of Original Equipment Manufacturer (OEM) and/or accredited agent for the period of the said tender, of the respective OEM for the vehicle/equipment.
- Certified truck/body builder and/or supplier of vehicle/equipment

SCT 14 EVALUATION PROCESS

The evaluation will form a two-step process as outlined below:

Step 1

14.1 Offers will be accepted from bidder(s) who meet the following requirements.

- Original Equipment Manufacturer (OEM) or accredited agent of vehicles/commercial chassis cabs. In a case of a bidder being an agent a letter from the manufacturer stating the accreditation required.
- Bidder must provide a Manufacturer, Importer and Builder (MIB) certificate. Where the bidder is a body builder a letter of undertaking from the chassis cab supplier must be provided for the supply, maintenance, and support of the vehicles in the eThekweni Region.

Step 2

14.2 Price and Preference

The procedure for the evaluation of responsive tenders is **PRICE AND PREFERENCE** in accordance with the Employer's current SCM Policy, the Preferential Procurement Policy Framework Act (5 of 2000), and the Preferential Procurement Policy Framework Act Regulations (2022).

The **80/20** preference points system will be applied. The Formula used to calculate the **Price Points (max. 80)** will be according to that specified Regulation 4.1.

The **90/10** preference points system will be applied. The Formula used to calculate the **Price Points (max. 90)** will be according to that specified Regulation 5.1.

It is unclear (at the time of advertising) which of the two preference point systems applies. Either

the 80/20 or 90/10 preference point system will apply, determined by the price offered by the lowest acceptable tender.

14.3 Preference Point System and Specific Goals

The definitions as per the SCM Policy are applicable.

Preference Points (either 20 or 10) will be derived from points claimed on Returnable Document **MBD 6.1: “Preference Points Claim Form”** (in Section 4 of this procurement document) for the **Specific Goal(s)** as indicated on the table(s) below, and according to the specified **Goal Weightings**

Ownership Goal

The tendering entity's **Percentage Ownership**, in terms of the **Ownership Category(s)** listed below, is to be used in the determination of the tenderer's claim for **Preference Points**.

Goal Weighting 30%			
Ownership Categories	Criteria	80/20	90/10
Race: Black	0%	0	0
	>0% and <51%	8	4
	≥51% and <100%	15	7.5
	100%	20	10
Proof of claim as declared on MBD 6.1 (1 or more of the following will be used in verifying the tenderer's status) - Companies and Intellectual Property Commission registration document (CIPC) - CSD report. - B-BBEE Certificate of the tendering entity. - Consolidated B-BBEE Certificate if the tendering entity is a Consortium, Joint Venture, or Trust (Issued by verification agency accredited by the South African Accreditation System). - Agreement for a Consortium, Joint Venture, or Trust.			
The Category Weightings of the Ownership Categories will be: $w1 = 100\%$, $w2=0\%$, $w3=0\%$ (where $x + y + z = 100\%$)			

RDP Goal: The promotion of South African owned enterprises

The tendering entity's **Address** (as stated on the National Treasury Central Supplier Database (CSD) or on the eThekweni Municipality Vendor Portal) is to be used in the determination of the tenderer's claim for **Preference Points** for this Specific Goal.

Goal Weighting 70%		
Location	80/20	90/10
Not in South Africa	0	0
South Africa	5	2.5
KZN	10	5
ETM	20	10
Proof of claim as declared on MBD 6.1 (1 or more of the following will be used in verifying the tenderer's status) CSD report		

3.2 ADDITIONAL CONDITIONS OF TENDER (ACT)

ACT 1 ELIGIBILITY – CSD REGISTRATION

Tenderers are required to be registered on the National Treasury Central Supplier Database (CSD) as a service provider. In the case of a Joint Venture, this requirement will apply individually to each party in the Joint Venture. Tenderers not so registered, at time of closing of tenders, will not be eligible to submit tenders.

The Tenderer's CSD Supplier Number (starting with "MAAA") is to be provided on the information table in Section 1.

Tenderers who wish to register on the CSD may do so via web address <https://secure.csd.gov.za>.

SECTION 4: RETURNABLE TENDER DOCUMENTS

The required returnable documents are as detailed in [Section 2 \(Clause 4\)](#): “Returnable Schedules, Forms, Certificates” of the Conditions of Tender / Special Conditions of Tender.

- 1) Authority of Signatory
- 2) Tax Compliance Status PIN / Tax Clearance Certificate
- 3) Declaration of Municipal Fees
- 4) Declaration with respect to The Occupational Health and Safety Act
- 5(a) MBD 4: Declaration of Interest
- 5(b) MBD 5: Declaration for Procurement Above R10 Million
- 5(c) MBD 6.1: Preference Points Claim
- 5(d) MBD 8: Declaration of Bidder's Past Supply Chain Management Practices
- 5(e) MBD 9: Certificate of Independent Bid Determination

The Tender Form can be found in [Section 9](#): “Official Tender Form”, and any additional schedules, forms, certificates can be found in [Section 10](#): “Annexures”.

1) AUTHORITY OF SIGNATORY

Reference is made to the Conditions of Tender: [Clause 4\(5\)\(c\)](#).

Indicate the status of the tenderer by ticking the appropriate box hereunder.

COMPANY		CLOSE CORPORATION		PARTNERSHIP		JOINT VENTURE		SOLE PROPRIETOR	
Refer to Notes at the bottom of the page									

I / We, the undersigned, being the Chairperson (Company), Member(s) (Close Corporation), Partners (Partnership), Sole Owner (Sole Proprietor), Lead Partner (JV), in the company / business trading as:

.....

hereby authorise Mr/Mrs/Ms

acting in the capacity of

to sign all documents in connection with the tender for Contract No. [30007-1J](#) and any contract resulting from it on our behalf.

NAME	ADDRESS	SIGNATURE	DATE
------	---------	-----------	------

2) TAX COMPLIANCE STATUS PIN / TAX CLEARANCE CERTIFICATE

SARS has introduced a new Tax Compliance Status System. Tenderers can submit a Tax Compliance Status PIN (TCS PIN) instead of an original Tax Clearance Certificate. This TCS PIN can be used by third parties to certify the taxpayer's real-time compliance status.

Separate Tax Clearance Certificates / TCS PINs are required for each entity in a Joint Venture.

The TCS PIN(s) are to be entered on the information table in **SECTION 1: GENERAL INFORMATION**.

Tenderers are to include, at the back of their tender submission document, a printout of their Tax Compliance Status PIN (TCS PIN) OR an original Tax Clearance Certificate.

Failure to include the required document will make the tender submission non-responsive.

*I, the undersigned, who warrants that they are authorised to sign on behalf of the Tenderer, confirms that the information contained in this form is within my personal knowledge and is to the best of my belief both true and correct, **and that the requested documentation has been included in the tender submission.***

NAME (Block Capitals):

Date

SIGNATURE:

3) DECLARATION OF MUNICIPAL FEES

I, the undersigned, do hereby declare that the Municipal fees of

.....
(full name of Company / Close Corporation / partnership / sole proprietary/Joint Venture)

(hereinafter referred to as the TENDERER) are, as at the date hereunder, fully paid or an Acknowledgement of Debt has been concluded with the Municipality to pay the said charges in instalments.

The following account details relate to property of the said TENDERER:

Account

Account Number: to be completed by tenderer.

Consolidated Account No.

--	--	--	--	--	--	--	--	--	--	--	--	--

Electricity

--	--	--	--	--	--	--	--	--	--	--	--	--

Water

--	--	--	--	--	--	--	--	--	--	--	--	--

Rates

--	--	--	--	--	--	--	--	--	--	--	--	--

Other

--	--	--	--	--	--	--	--	--	--	--	--	--

I acknowledge that should the aforesaid Municipal charges fall into arrears, the Municipality may take such remedial action as is required, including termination of any contract, and any payments due to the Contractor by the Municipality shall be first set off against such arrears.

- Where the TENDERER'S place of business or business interests are outside the jurisdiction of eThekweni Municipality, a copy of the accounts/agreements from the relevant municipality must be attached (to the back inside cover of this document).
- Where the tenderer's Municipal Accounts are part of their lease agreement, then a copy of the agreement, or official letter to that effect is to be attached (to the back inside cover of this document).

Tenderers are to be include, at the back of their tender submission document, a printout of the above account's and or agreements signed with the municipality.

Failure to include the required document will make the tender submission non-responsive.

NAME (Block Capitals):

Date

SIGNATURE:

.....

.....

.....

4) DECLARATION WITH RESPECT TO THE OCCUPATIONAL HEALTH AND SAFETY ACT

Definitions

The Act: The Occupational Health and Safety Act No 85 of 1993 (as amended by the Occupational Health and Safety Amendment Act No 181 of 1993), and any associated / applicable Regulations.

Declaration by Tenderer

1. I, the undersigned, hereby declare and confirm that I am fully conversant with the Act.
2. I hereby declare that my company has the competence and the necessary resources to safely carry out the work / supply / services under this contract in compliance with the Act, and the Employer's / Purchaser's / Client's Health and Safety Specifications.
3. I hereby undertake, if my tender is accepted, to provide on request a suitable and sufficiently documented Health and Safety Plan which plan shall be subject to approval by the Employer / Purchaser / Client.
4. I hereby confirm that adequate provision has been made in my tendered rates to cover the cost of all resources, actions, training and all health and safety measures envisaged in the Act, and that I will be liable for any penalties that may be applied by the Employer / Purchaser / Client for failure to comply with the provisions of the Act.
5. I agree that my failure to complete and execute this declaration to the satisfaction of the Employer / Purchaser / Client will mean that I am unable to comply with the requirements of the Act and accept that my tender will be prejudiced and may be rejected at the discretion of the Employer / Purchaser / Client.

NAME (Block Capitals):**Date****SIGNATURE:**

5(a) MBD 4: DECLARATION OF INTEREST**NOTES**

MSCM Regulations: “in the service of the state” means to be:

- (a) a member of:
 - (i) any municipal council.
 - (ii) any provincial legislature.
 - (iii) the national Assembly or the national Council of provinces.
- (b) a member of the board of directors of any municipal enterprise.
- (c) an official of any municipality or municipal enterprise.
- (d) an employee of any national or provincial department, national or provincial public enterprise or constitutional institution within the meaning of the Public Finance Management Act, 1999 (Act No.1 of 1999).
- (e) a member of the accounting authority of any national or provincial public enterprise.
- (f) an employee of Parliament or a provincial legislature.

“Shareholder” means a person who owns shares in the company and is actively involved in the management of the company or business and exercises control over the company.

- 1 No bid will be accepted from persons **in the service of the state**.
- 2 Any person, having a kinship with persons **in the service of the state**, including a blood relationship, may make an offer or offers in terms of this invitation to bid. In view of possible allegations of favouritism, should the resulting bid, or part thereof, be awarded to persons connected with or related to **persons in service of the state**, it is required that the bidder or their authorised representative declare their position in relation to the evaluating/adjudicating authority and/or take an oath declaring his/her interest.
- 3 In order to give effect to the above, the following questionnaire must be completed and submitted with the bid.

3.1 Name of enterprise

Name of enterprise’s representative

3.2 ID Number of enterprise’s representative

3.3 Position enterprise’s representative occupies in the enterprise

3.4 Company Registration number

3.5 Tax Reference number

3.6 VAT registration number

3.7 The names of all directors / trustees / shareholders / members / sole proprietors / partners in partnerships, their individual identity numbers and state employee numbers must be indicated in paragraph 4 below. In the case of a joint venture, information in respect of each partnering enterprise must be completed and submitted.

3.8 Are you presently in the service of the state?

If yes, furnish particulars:

.....

.....

3.9 Have you been in the service of the state for the past twelve months?

If yes, furnish particulars:

.....

.....

Circle Applicable

YES

NO

YES

NO

3.10 Do you have any relationship (family, friend, other) with persons in the service of the state and who may be involved with the evaluation and or adjudication of this bid?

YES

NO

If yes, furnish particulars:

.....

.....

3.11 Are you, aware of any relationship (family, friend, other) between any other bidder and any persons in the service of the state who may be involved with the evaluation and or adjudication of this bid?

YES

NO

If yes, furnish particulars:

.....

.....

3.12 Are any of the company's directors, trustees, managers, principle shareholders or stakeholders in service of the state?

YES

NO

If yes, furnish particulars:

.....

.....

3.13 Are any spouse, child or parent of the company's directors, trustees, managers, principle shareholders or stakeholders in service of the state?

YES

NO

If yes, furnish particulars:

.....

.....

3.14 Do you or any of the directors, trustees, managers, principle shareholders, or stakeholders of this company have any interest in any other related companies or business whether or not they are bidding for this contract?

YES

NO

If yes, furnish particulars:

.....

.....

- 4 The names of all directors / trustees / shareholders / members / sole proprietors / partners in partnerships, their individual identity numbers and state employee numbers must be indicated below. In the case of a joint venture, information in respect of each partnering enterprise must be completed and submitted

Full Name	Identity No.	State Employee No.	Personal income tax No.
Use additional pages if necessary			

I, the undersigned, who warrants that they are authorised to sign on behalf of the Tenderer, confirms that the information contained in this form is within my personal knowledge and is to the best of my belief both true and correct.

NAME (Block Capitals):

.....

Date

.....

SIGNATURE:

.....

5(b) **MBD 5: DECLARATION FOR PROCUREMENT ABOVE R10 MILLION**
(ALL APPLICABLE TAXES INCLUDED)

For all procurement expected to exceed R10 million (all applicable taxes included), bidders must complete the following questionnaire.

		Circle Applicable	
		YES	NO
1.0	Are you by law required to prepare annual financial statements for auditing?		
1.1	If YES, submit audited annual financial statements for the past three years or since the date of establishment if established during the past three years.		
2.0	Do you have any outstanding undisputed commitments for municipal services towards any municipality for more than three months or any other service provider in respect of which payment is overdue for more than 30 days?	YES	NO
2.1	If NO, this serves to certify that the bidder has no undisputed commitments for municipal services towards any municipality for more than three months or other service provider in respect of which payment is overdue for more than 30 days.		
2.2	If YES, provide particulars.		
3.0	Has any contract been awarded to you by an organ of state during the past five years, including particulars of any material non-compliance or dispute concerning the execution of such contract?	YES	NO
3.1	If YES, provide particulars.		
4.0	Will any portion of goods or services be sourced from outside the Republic, and, if so, what portion and whether any portion of payment from the municipality / municipal entity is expected to be transferred out of the Republic?	YES	NO
4.1	If YES, provide particulars.		

If required by 1.1 above, tenderers are to include, at the back of their tender submission document, a printout of their audited annual financial statements.

I, the undersigned, who warrants that they are authorised to sign on behalf of the Tenderer, confirms that the information contained in this form is within my personal knowledge and is to the best of my belief both true and correct, and, if required, that the requested documentation has been included in the tender submission.

NAME (Block Capitals):

Date

SIGNATURE:

5(c) MBD 6.1: PREFERENCE POINTS CLAIM
In terms of THE PREFERENTIAL PROCUREMENT REGULATIONS (2022)

This preference form must form part of all tenders invited. It contains general information and serves as a claim form for preference points for specific goals.

NB: BEFORE COMPLETING THIS FORM, TENDERERS MUST STUDY THE GENERAL CONDITIONS, DEFINITIONS AND DIRECTIVES APPLICABLE IN RESPECT OF THE TENDER AND PREFERENTIAL PROCUREMENT REGULATIONS, 2022

1.0 GENERAL CONDITIONS

1.1 The following preference point systems are applicable to invitations to tender:

- the 80/20 system for requirements with a Rand value of up to R50 000 000 (all applicable taxes included).
- the 90/10 system for requirements with a Rand value above R50 000 000 (all applicable taxes included).

1.2 The applicable preference point system for this tender is the **80/20 preference point system**.

1.3 Preference Points for this tender shall be awarded for:

- **Price and Specific Goals:** Either 80 or 90 (price) and 20 or 10 (specific goals), in terms of 1.2 above.
- The total Preference Points, for Price and Specific Goals, is 100.

1.4 Failure on the part of the tenderer to submit the required proof or documentation, in terms of the requirements in the (Special) Conditions of Tender for claiming **Specific Goal** preference points, will be interpreted that preference points for **Specific Goals** are not claimed.

1.5 The Municipality reserves the right to require of a tenderer, either before a tender is adjudicated or at any time subsequently, to substantiate any claim in regard of preferences, in any manner required by the Municipality.

2.0 DEFINITIONS

2.1 “**tender**” means a written offer in the form determined by an organ of state in response to an invitation to provide goods or services through price quotations, competitive tendering process or any other method envisaged in legislation.

2.2 “**price**” means an amount of money tendered for goods or services, and includes all applicable taxes less all unconditional discounts.

2.3 “**rand value**” means the total estimated value of a contract in Rand, calculated at the time of bid invitation, and includes all applicable taxes.

2.4 “**tender for income-generating contracts**” means a written offer in the form determined by Municipality in response to an invitation for the origination of income-generating contracts through any method envisaged in legislation that will result in a legal agreement between the Municipality and a third party that produces revenue for the Municipality, and includes, but is not limited to, leasing and disposal of assets and concession contracts, excluding direct sales and disposal of assets through public auctions.

2.5 “**the Act**” means the Preferential Procurement Policy Framework Act, 2000 (Act No. 5 of 2000).

3.0 FORMULA FOR CALCULATION OF PREFERENCE PRICE POINTS

3.1 PROCUREMENT OF GOODS AND SERVICES

PRICE POINTS: A maximum of 80 or 90 points is allocated for price on the following basis:

<u>80 / 20 Points System</u>	OR	<u>90 / 10 Points System</u>
$P_s = 80 \left(1 - \frac{P_t - P_{min}}{P_{min}} \right)$		$P_s = 90 \left(1 - \frac{P_t - P_{min}}{P_{min}} \right)$

Where:

Ps = Points scored for price of tender under consideration

Pt = Price of tender under consideration

Pmin = Price of lowest acceptable tender

4.0 POINTS AWARDED FOR SPECIFIC GOALS

- 4.1 In terms of Regulation 4(2); 5(2); 6(2) and 7(2) of the Preferential Procurement Regulations, preference points must be awarded for specific goals stated in the tender. For the purposes of this tender the tenderer will be allocated points based on the **points claimed** for the goal(s) stated in **Table 1** below, as supported by proof/ documentation stated in the **Conditions of Tender**:
- 4.2 In cases where the municipality intends to use Regulation 3(2) of the Regulations, which states that if it is unclear whether the 80/20 or 90/10 preference point system applies, the municipality must, in the tender documents, stipulate in the case of:
 - (a) an invitation for tender for income-generating contracts, that either the 80/20 or 90/10 preference point system will apply and that the highest acceptable tender will be used to determine the applicable preference point system, or
 - (b) any other invitation for tender, that either the 80/20 or 90/10 preference point system will apply and that the lowest acceptable tender will be used to determine the applicable preference point system,

then the municipality must indicate the points allocated for specific goals for both the 90/10 and 80/20 preference point system.

TABLE 1: Specific Goals for the tender and maximum points for each goal are indicated per the table below.

Tenderers are to indicate their points claim for each of the Specific Goals in the shaded blocks.

The Specific Goals to be allocated points in terms of this tender	Maximum Number of points ALLOCATED (80/20 system)	Maximum Number of points ALLOCATED (90/10 system)	Number of points CLAIMED (80/20 system)	Number of points CLAIMED (90/10 system)
Ownership Goal: Race (black)	6			
RDP Goal: The promotion of South African owned enterprises.	14			
Total CLAIMED Points (20/10 Maximum)				

I, the undersigned, who warrants that they are authorised to sign on behalf of the Tenderer, certify that the points claimed, based on the specific goals as specified in the tender, qualifies the tendering entity for the preference(s) shown.

I acknowledge that:

- 1) The information furnished is true and correct.
- 2) The preference points claimed are in accordance with the General Conditions as indicated in paragraph 1 of this form.
- 3) In the event of a contract being awarded as a result of points claimed as shown in paragraphs 1.4 and 4.2, the contractor may be required to furnish documentary proof to the satisfaction of the organ of state that the claims are correct.
- 4) If the specific goals have been claimed or obtained on a fraudulent basis, or any of the conditions of contract have not been fulfilled, the organ of state may, in addition to any other remedy it may have:
 - (a) disqualify the person from the tendering process.
 - (b) recover costs, losses or damages it has incurred or suffered as a result of that person's conduct.
 - (c) cancel the contract and claim any damages which it has suffered as a result of having to make less favourable arrangements due to such cancellation.
 - (d) recommend that the tenderer or contractor, its shareholders and directors, or only the shareholders and directors who acted on a fraudulent basis, be restricted from obtaining business from any organ of state for a period not exceeding 10 years, after the *audi alteram partem* (hear the other side) rule has been applied; and
 - (e) forward the matter for criminal prosecution, if deemed necessary.

NAME (Block Capitals):

Date

SIGNATURE:

5(d) MBD 8: DECLARATION OF BIDDER'S PAST SUPPLY CHAIN MANAGEMENT PRACTICES

- 1.0 This Municipal Bidding Document must form part of all bids invited.
- 2.0 It serves as a declaration to be used by municipalities and municipal entities in ensuring that when goods and services are being procured, all reasonable steps are taken to combat the abuse of the supply chain management system.
- 3.0 The bid of any bidder may be rejected if that bidder, or any of its directors have:
- abused the municipal entity's supply chain management system or committed any improper conduct in relation to such system.
 - been convicted for fraud or corruption during the past five years.
 - wilfully neglected, reneged on or failed to comply with any government, municipal or other public sector contract during the past five years.
 - been listed in the Register for Tender Defaulters in terms of section 29 of the Prevention and Combating of Corrupt Activities Act (No 12 of 2004).
- 4.0 In order to give effect to the above, the following questions must be completed and submitted with the bid.

- 4.1 Is the bidder or any of its directors listed on the National Treasury's Database of Restricted Suppliers as companies or persons prohibited from doing business with the public sector?

(Companies or persons who are listed on this Database were informed in writing of this restriction by the Accounting Officer / Authority of the institution that imposed the restriction after the audi alteram partem rule was applied.)

The Database of Restricted Suppliers now resides on the National Treasury's website (www.treasury.gov.za) and can be accessed by clicking on its link at the bottom of the home page.

- 4.1.1 If YES, provide particulars.

.....

.....

- 4.2 Is the bidder or any of its directors listed on the Register for Tender Defaulters in terms of section 29 of the Prevention and Combating of Corrupt Activities Act (No 12 of 2004)?

The Register for Tender Defaulters can be accessed on the National Treasury's website (www.treasury.gov.za) by clicking on its link at the bottom of the home page.

- 4.2.1 If YES, provide particulars.

.....

.....

- 4.3 Was the bidder or any of its directors convicted by a court of law (including a court of law outside the Republic of South Africa) for fraud or corruption during the past five years?

- 4.3.1 If YES, provide particulars.

.....

.....

Circle Applicable	
YES	NO

YES	NO
-----	----

YES	NO
-----	----

- 4.4 Does the bidder or any of its directors owe any municipal rates and taxes or municipal charges to the municipality / municipal entity, or to any other municipality / municipal entity, that is in arrears for more than three months?

YES

NO

4.4.1 If YES, provide particulars.

.....

- 4.5 Was any contract between the bidder and the municipality / municipal entity or any other organ of state terminated during the past five years on account of failure to perform on or comply with the contract?

YES

NO

4.5.1 If YES, provide particulars.

.....

I, the undersigned, who warrants that they are authorised to sign on behalf of the Tenderer, confirms that the information contained in this form is within my personal knowledge and is to the best of my belief both true and correct.

I accept that, in addition to cancellation of a contract, action may be taken against me should this declaration prove to be false.

NAME (Block Capitals):

Date

SIGNATURE:

5(e) MBD 9: CERTIFICATE OF INDEPENDENT BID DETERMINATION**NOTES**

- ¹ Includes price quotations, advertised competitive bids, limited bids and proposals.
- ² Bid rigging (or collusive bidding) occurs when businesses, that would otherwise be expected to compete, secretly conspire to raise prices or lower the quality of goods and / or services for purchasers who wish to acquire goods and / or services through a bidding process. Bid rigging is, therefore, an agreement between competitors not to compete.
- ³ Joint venture or Consortium means an association of persons for the purpose of combining their expertise, property, capital, efforts, skill and knowledge in an activity for the execution of a contract.

- 1.0 This Municipal Bidding Document (MBD) must form part of all **bids**¹ invited.
- 2.0 Section 4 (1) (b) (iii) of the Competition Act No. 89 of 1998, as amended, prohibits an agreement between, or concerted practice by, firms, or a decision by an association of firms, if it is between parties in a horizontal relationship and if it involves collusive bidding (or **bid rigging**).² Collusive bidding is a *pe se* prohibition meaning that it cannot be justified under any grounds.
- 3.0 Municipal Supply Regulation 38 (1) prescribes that a supply chain management policy must provide measures for the combating of abuse of the supply chain management system, and must enable the accounting officer, among others, to:
- a. take all reasonable steps to prevent such abuse;
 - b. reject the bid of any bidder if that bidder or any of its directors has abused the supply chain management system of the municipality or municipal entity or has committed any improper conduct in relation to such system; and
 - c. cancel a contract awarded to a person if the person committed any corrupt or fraudulent act during the bidding process or the execution of the contract.
- 4.0 This MBD serves as a certificate of declaration that would be used by institutions to ensure that, when bids are considered, reasonable steps are taken to prevent any form of **bid rigging**.
- 5.0 In order to give effect to the above, the attached Certificate of Bid Determination (MBD 9) must be completed and submitted with the bid.

CERTIFICATE OF INDEPENDENT BID DETERMINATION

I, the undersigned, in submitting the accompanying bid:

(Bid Number and Description)

in response to the invitation for the bid made by:

(Name of Municipality / Municipal Entity)

do hereby make the following statements that I certify to be true and complete in every respect.

I certify, on behalf of:

(Name of Bidder)

that:

1. I have read and I understand the contents of this Certificate.
2. I understand that the accompanying bid will be disqualified if this Certificate is found not to be true and complete in every respect.
3. I am authorized by the bidder to sign this Certificate, and to submit the accompanying bid, on behalf of the bidder;
4. Each person whose signature appears on the accompanying bid has been authorized by the bidder to determine the terms of, and to sign, the bid, on behalf of the bidder;
5. For the purposes of this Certificate and the accompanying bid, I understand that the word "competitor" shall include any individual or organization, other than the bidder, whether or not affiliated with the bidder, who:
 - (a) has been requested to submit a bid in response to this bid invitation.
 - (b) could potentially submit a bid in response to this bid invitation, based on their qualifications, abilities or experience.
 - (c) provides the same goods and services as the bidder and/or is in the same line of business as the bidder.
6. The bidder has arrived at the accompanying bid independently from, and without consultation, communication, agreement, or arrangement with any competitor. However, communication between partners in a joint venture or consortium³ will not be construed as collusive bidding.

-
7. In particular, without limiting the generality of paragraphs 6 above, there has been no consultation, communication, agreement or arrangement with any competitor regarding:
- (a) prices.
 - (b) geographical area where product or service will be rendered (market allocation).
 - (c) methods, factors or formulas used to calculate prices.
 - (d) the intention or decision to submit or not to submit, a bid.
 - (e) the submission of a bid which does not meet the specifications and conditions of the bid.
 - (f) bidding with the intention not to win the bid.
8. In addition, there have been no consultations, communications, agreements, or arrangements with any competitor regarding the quality, quantity, specifications and conditions or delivery particulars of the products or services to which this bid invitation relates.
9. The terms of the accompanying bid have not been, and will not be, disclosed by the bidder, directly or indirectly, to any competitor, prior to the date and time of the official bid opening or of the awarding of the contract.
10. I am aware that, in addition and without prejudice to any other remedy provided to combat any restrictive practices related to bids and contracts, bids that are suspicious will be reported to the Competition Commission for investigation and possible imposition of administrative penalties in terms of section 59 of the Competition Act No 89 of 1998 and or may be reported to the National Prosecuting Authority (NPA) for criminal investigation and or may be restricted from conducting business with the public sector for a period not exceeding ten (10) years in terms of the Prevention and Combating of Corrupt Activities Act No 12 of 2004 or any other applicable legislation.

NAME (Block Capitals): _____

Date

SIGNATURE: _____

SECTION 5: CONDITIONS OF CONTRACT

GOVERNMENT PROCUREMENT: CONDITIONS OF CONTRACT (July 2010)

The **Conditions of Contract** are the **General Conditions of Contract** as published by the National Treasury titled "Government Procurement: General Conditions of Contract (July 2010), as amended by National Treasury Circular 52 dated 30 July 2010, hereinafter referred to as **GCC**.

THE NATIONAL TREASURY

Republic of South Africa



**GOVERNMENT PROCUREMENT:
GENERAL CONDITIONS OF CONTRACT**

July 2010

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1. Definitions

The following terms shall be interpreted as indicated:

- 1.1 "Closing time" means the date and hour specified in the bidding documents for the receipt of bids.
- 1.2 "Contract" means the written agreement entered into between the purchaser and the supplier, as recorded in the contract form signed by the parties, including all attachments and appendices thereto and all documents incorporated by reference therein.
- 1.3 "Contract price" means the price payable to the supplier under the contract for the full and proper performance of his contractual obligations.
- 1.4 "Corrupt practice" means the offering, giving, receiving, or soliciting of anything of value to influence the action of a public official in the procurement process or in contract execution.
- 1.5 "Countervailing duties" are imposed in cases where an enterprise abroad is subsidized by its government and encouraged to market its products internationally.
- 1.6 "Country of origin" means the place where the goods were mined, grown or produced or from which the services are supplied. Goods are produced when, through manufacturing, processing or substantial and major assembly of components, a commercially recognized new product results that is substantially different in basic characteristics or in purpose or utility from its components.
- 1.7 "Day" means calendar day.
- 1.8 "Delivery" means delivery in compliance of the conditions of the contract or order.
- 1.9 "Delivery ex stock" means immediate delivery directly from stock actually on hand.
- 1.10 "Delivery into consignee store or to his site" means delivered and unloaded in the specified store or depot or on the specified site in compliance with the conditions of the contract or order, the supplier bearing all risks and charges involved until the goods are so delivered and a valid receipt is obtained.
- 1.11 "Dumping" occurs when a private enterprise abroad market its goods on own initiative in the RSA at lower prices than that of the country of origin and which have the potential to harm the local industries in the RSA.
- 1.12 "Force majeure" means an event beyond the control of the supplier and not involving the supplier's fault or negligence and not foreseeable. Such events may include, but is not restricted to, acts of the purchaser in its sovereign capacity, wars or revolutions, fires, floods, epidemics, quarantine restrictions and freight embargoes.
- 1.13 "Fraudulent practice" means a misrepresentation of facts in order to influence a procurement process or the execution of a contract to the detriment of any bidder, and includes collusive practice among bidders (prior to or after bid submission) designed to establish bid prices at artificial non-competitive levels and to deprive the bidder of the benefits of free and open competition.
- 1.14 "GCC" means the General Conditions of Contract.
- 1.15 "Goods" means all of the equipment, machinery, and/or other materials that the supplier is required to supply to the purchaser under the contract.

- 1.16 "Imported content" means that portion of the bidding price represented by the cost of components, parts or materials which have been or are still to be imported (whether by the supplier or his subcontractors) and which costs are inclusive of the costs abroad, plus freight and other direct importation costs such as landing costs, dock dues, import duty, sales duty or other similar tax or duty at the South African place of entry as well as transportation and handling charges to the factory in the Republic where the goods covered by the bid will be manufactured.
- 1.17 "Local content" means that portion of the bidding price, which is not included in the imported content provided that local manufacture does take place.
- 1.18 "Manufacture" means the production of products in a factory using labour, materials, components and machinery and includes other related value-adding activities.
- 1.19 "Order" means an official written order issued for the supply of goods or works or the rendering of a service.
- 1.20 "Project site," where applicable, means the place indicated in bidding documents.
- 1.21 "Purchaser" means the organization purchasing the goods.
- 1.22 "Republic" means the Republic of South Africa.
- 1.23 "SCC" means the Special Conditions of Contract.
- 1.24 "Services" means those functional services ancillary to the supply of the goods, such as transportation and any other incidental services, such as installation, commissioning, provision of technical assistance, training, catering, gardening, security, maintenance and other such obligations of the supplier covered under the contract.
- 1.25 "Supplier" means the successful bidder who is awarded the contract to maintain and administer the required and specified service(s) to the State.
- 1.26 "Tort" means in breach of contract.
- 1.27 "Turnkey" means a procurement process where one service provider assumes total responsibility for all aspects of the project and delivers the full end product / service required by the contract.
- 1.28 "Written" or "in writing" means hand-written in ink or any form of electronic or mechanical writing.

2. Application

- 2.1 These general conditions are applicable to all bids, contracts and orders including bids for functional and professional services (excluding professional services related to the building and construction industry), sales, hiring, letting and the granting or acquiring of rights, but excluding immovable property, unless otherwise indicated in the bidding documents.
- 2.2 Where applicable, special conditions of contract are also laid down to cover specific goods, services or works.
- 2.3 Where such special conditions of contract are in conflict with these general conditions, the special conditions shall apply.

3. General

- 3.1 Unless otherwise indicated in the bidding documents, the purchaser shall not be liable for any expense incurred in the preparation and submission of a bid. Where applicable a non-refundable fee for documents may be charged.
- 3.2 Invitations to bid are usually published in locally distributed news media and on the municipality/municipal entity website.

4. Standards

- 4.1 The goods supplied shall conform to the standards mentioned in the bidding documents and specifications.

5. Use of contract documents and information inspection

- 5.1 The supplier shall not, without the purchaser's prior written consent, disclose the contract, or any provision thereof, or any specification, plan, drawing, pattern, sample, or information furnished by or on behalf of the purchaser in connection therewith, to any person other than a person employed by the supplier in the performance of the contract. Disclosure to any such employed person shall be made in confidence and shall extend only so far as may be necessary for purposes of such performance.
- 5.2 The supplier shall not, without the purchaser's prior written consent, make use of any document or information mentioned in GCC clause 5.1 except for purposes of performing the contract.
- 5.3 Any document, other than the contract itself mentioned in GCC clause 5.1 shall remain the property of the purchaser and shall be returned (all copies) to the purchaser on completion of the supplier's performance under the contract if so required by the purchaser.
- 5.4 The supplier shall permit the purchaser to inspect the supplier's records relating to the performance of the supplier and to have them audited by auditors appointed by the purchaser, if so required by the purchaser.

6. Patent Rights

- 6.1 The supplier shall indemnify the purchaser against all third-party claims of infringement of patent, trademark, or industrial design rights arising from use of the goods or any part thereof by the purchaser.
- 6.2 When a supplier developed documentation / projects for the municipality / municipal entity, the intellectual, copy and patent rights or ownership of such documents or projects will vest in the municipality / municipal entity.

7. Performance security

- 7.1 Within thirty (30) days of receipt of the notification of contract award, the successful bidder shall furnish to the purchaser the performance security of the [amount specified in SCC](#).
- 7.2 The proceeds of the performance security shall be payable to the purchaser as compensation for any loss resulting from the supplier's failure to complete his obligations under the contract.
- 7.3 The performance security shall be denominated in the currency of the contract or in a freely convertible currency acceptable to the purchaser and shall be in one of the following forms:
- (a) a bank guarantee or an irrevocable letter of credit issued by a reputable bank located in the purchaser's country or abroad, acceptable to the purchaser, in the form provided in the bidding documents or another form acceptable to the purchaser; or
 - (b) a cashier's or certified cheque.
- 7.4 The performance security will be discharged by the purchaser and returned to the supplier not later than thirty (30) days following the date of completion of the supplier's performance obligations under the contract, including any warranty obligations, [unless otherwise specified](#).

8. Inspections, tests and analyses

- 8.1 All pre-bidding testing will be for the account of the bidder.
- 8.2 If it is a bid condition that goods to be produced or services to be rendered should at any stage be subject to inspections, tests and analyses, the bidder or contractor's premises shall be open, at all reasonable hours, for inspection by a representative of the purchaser or organization acting on behalf of the purchaser.

- 8.3 If there are no inspection requirements indicated in the bidding documents and no mention is made in the contract, but during the contract period it is decided that inspections shall be carried out, the purchaser shall itself make the necessary arrangements, including payment arrangements with the testing authority concerned.

- 8.4 If the inspections, tests and analyses referred to in clauses 8.2 and 8.3 show the goods to be in accordance with the contract requirements, the cost of the inspections, tests and analyses shall be defrayed by the purchaser.

- 8.5 Where the goods or services referred to in clauses 8.2 and 8.3 do not comply with the contract requirements, irrespective of whether such goods or services are accepted or not, the cost in connection with these inspections, tests or analyses shall be defrayed by the supplier.

- 8.6 Goods and services which are referred to in clauses 8.2 and 8.3 and which do not comply with the contract requirements may be rejected.

- 8.7 Any contract goods may on or after delivery be inspected, tested or analysed and may be rejected if found not to comply with the requirements of the contract. Such rejected goods shall be held at the cost and risk of the supplier who shall, when called upon, remove them immediately at his own cost and forthwith substitute them with goods, which do comply with the requirements of the contract. Failing such removal the rejected goods shall be returned at the suppliers cost and risk. Should the supplier fail to provide the substitute goods forthwith, the purchaser may, without giving the supplier further opportunity to substitute the rejected goods, purchase such goods as may be necessary at the expense of the supplier.

- 8.8 The provisions of clauses 8.4 to 8.7 shall not prejudice the right of the purchaser to cancel the contract on account of a breach of the conditions thereof, or to act in terms of Clause 22 of GCC.

9. Packing

- 9.1 The supplier shall provide such packing of the goods as is required to prevent their damage or deterioration during transit to their final destination, as indicated in the contract. The packing shall be sufficient to withstand, without limitation, rough handling during transit and exposure to extreme temperatures, salt and precipitation during transit, and open storage. Packing, case size weights shall take into consideration, where appropriate, the remoteness of the goods' final destination and the absence of heavy handling facilities at all points in transit.

- 9.2 The packing, marking, and documentation within and outside the packages shall comply strictly with such special requirements as shall be expressly provided for in the contract, [including additional requirements](#), if any, and in any subsequent instructions ordered by the purchaser.

10. Delivery and documents

- 10.1 Delivery of the goods and arrangements for shipping and clearance obligations, shall be made by the supplier in accordance with the terms [specified in the contract](#).

11. Insurance

- 11.1 The goods supplied under the contract shall be fully insured in a freely convertible currency against loss or damage incidental to manufacture or acquisition, transportation, storage and delivery [in the manner specified](#).

12. Transportation

- 12.1 Should a price other than an all-inclusive delivered price be required, [this shall be specified](#).

13. Incidental Services

13.1 The supplier may be required to provide any or all of the following services, [including additional services](#), if any:

- (a) performance or supervision of on-site assembly and/or commissioning of the supplied goods;
- (b) furnishing of tools required for assembly and/or maintenance of the supplied goods;
- (c) furnishing of a detailed operations and maintenance manual for each appropriate unit of the supplied goods;
- (d) performance or supervision or maintenance and/or repair of the supplied goods, for a period of time agreed by the parties, provided that this service shall not relieve the supplier of any warranty obligations under this contract; and
- (e) training of the purchaser's personnel, at the supplier's plant and/or on-site, in assembly, start-up, operation, maintenance, and/or repair of the supplied goods.

13.2 Prices charged by the supplier for incidental services, if not included in the contract price for the goods, shall be agreed upon in advance by the parties and shall not exceed the prevailing rates charged to other parties by the supplier for similar services.

14. Spare parts

14.1 [As specified](#), the supplier may be required to provide any or all of the following materials, notifications, and information pertaining to spare parts manufactured or distributed by the supplier:

- (a) such spare parts as the purchaser may elect to purchase from the supplier, provided that this election shall not relieve the supplier of any warranty obligations under the contract; and;
- (b) in the event of termination of production of the spare parts:
 - (i) advance notification to the purchaser of the pending termination, in sufficient time to permit the purchaser to procure needed requirements; and
 - (ii) following such termination, furnishing at no cost to the purchaser, the blueprints, drawings, and specifications of the spare parts, if requested.

15. Warranty

15.1 The supplier warrants that the goods supplied under the contract are new, unused, of the most recent or current models, and that they incorporate all recent improvements in design and materials unless provided otherwise in the contract. The supplier further warrants that all goods supplied under this contract shall have no defect, arising from design, materials, or workmanship (except when the design and/or material is required by the purchaser's specifications) or from any act or omission of the supplier, that may develop under normal use of the supplied goods in the conditions prevailing in the country of final destination.

15.2 This warranty shall remain valid for twelve (12) months after the goods, or any portion thereof as the case may be, have been delivered to and accepted at the final destination indicated in the contract, or for eighteen (18) months after the date of shipment from the port or place of loading in the source country, whichever period concludes earlier, [unless specified otherwise](#).

15.3 The purchaser shall promptly notify the supplier in writing of any claims arising under this warranty.

15.4 Upon receipt of such notice, the supplier shall, [within the period specified](#) and with all reasonable speed, repair or replace the defective goods or parts thereof, without costs to the purchaser.

15.5 If the supplier, having been notified, fails to remedy the defect(s) [within the period specified](#), the purchaser may proceed to take such remedial action as may be necessary, at the supplier's risk and expense and without prejudice to any other rights which the purchaser may have against the supplier under the contract.

16. Payment

16.1 The method and conditions of payment to be made to the supplier under this contract [shall be specified](#).

16.2 The supplier shall furnish the purchaser with an invoice accompanied by a copy of the delivery note and upon fulfilment of other obligations stipulated in the contract.

16.3 Payments shall be made promptly by the purchaser, but in no case later than thirty (30) days after submission of an invoice or claim by the supplier.

16.4 Payment will be made in Rand [unless otherwise stipulated](#).

17. Prices

17.1 Prices charged by the supplier for goods delivered and services performed under the contract shall not vary from the prices quoted by the supplier in his bid, with the exception of any [price adjustments authorized](#) or in the purchaser's request for bid validity extension, as the case may be.

18. Variation orders

18.1 In cases where the estimated value of the envisaged changes in purchase does not vary more than 15% of the total value of the original contract, the contractor may be instructed to deliver the goods or render the services as such. In cases of measurable quantities, the contractor may be approached to reduce the unit price, and such offers may be accepted provided that there is no escalation in price.

19. Assignment

19.1 The supplier shall not assign, in whole or in part, its obligations to perform under the contract, except with the purchaser's prior written consent.

20. Subcontracts

20.1 The supplier shall notify the purchaser in writing of all subcontracts awarded under this contract if not already specified in the bid. Such notification, in the original bid or later, shall not relieve the supplier from any liability or obligation under the contract.

21. Delays in the supplier's performance

21.1 Delivery of the goods and performance of services shall be made by the supplier in accordance with the [time schedule prescribed](#) by the purchaser in the contract.

21.2 If at any time during performance of the contract, the supplier or its subcontractor(s) should encounter conditions impeding timely delivery of the goods and performance of services, the supplier shall promptly notify the purchaser in writing of the fact of the delay, its likely duration and its cause(s). As soon as practicable after receipt of the supplier's notice, the purchaser shall evaluate the situation and may at his discretion extend the supplier's time for performance, with or without the imposition of penalties, in which case the extension shall be ratified by the parties by amendment of contract.

21.3 The right is reserved to procure outside of the contract small quantities or to have minor essential services executed if an emergency arises, the supplier's point of supply is not situated at or near the place where the goods are required, or the supplier's services are not readily available.

- 21.4 Except as provided under GCC Clause 25, a delay by the supplier in the performance of its delivery obligations shall render the supplier liable to the imposition of penalties, pursuant to GCC Clause 22, unless an extension of time is agreed upon pursuant to GCC Clause 22.2 without the application of penalties.
- 21.5 Upon any delay beyond the delivery period in the case of a goods contract, the purchaser shall, without cancelling the contract, be entitled to purchase goods of a similar quality and up to the same quantity in substitution of the goods not supplied in conformity with the contract and to return any goods delivered later at the supplier's expense and risk, or to cancel the contract and buy such goods as may be required to complete the contract and without prejudice to his other rights, be entitled to claim damages from the supplier.
- 22. Penalties**
- 22.1 Subject to GCC Clause 25, if the supplier fails to deliver any or all of the goods or to perform the services within the period(s) specified in the contract, the purchaser shall, without prejudice to its other remedies under the contract, deduct from the contract price, as a penalty, a sum calculated on the delivered price of the delayed goods or unperformed services using the current prime interest rate calculated for each day of the delay until actual delivery or performance. The purchaser may also consider termination of the contract pursuant to GCC Clause 23.
- 23. Termination for default**
- 23.1 The purchaser, without prejudice to any other remedy for breach of contract, by written notice of default sent to the supplier, may terminate this contract in whole or in part:
- if the supplier fails to deliver any or all of the goods within the period(s) specified in the contract, or within any extension thereof granted by the purchaser pursuant to GCC Clause 21.2;
 - if the supplier fails to perform any other obligation(s) under the contract; or
 - if the supplier, in the judgement of the purchaser, has engaged in corrupt or fraudulent practices in competing for or in executing the contract.
- 23.2 In the event the purchaser terminates the contract in whole or in part, the purchaser may procure, upon such terms and in such manner, as it deems appropriate, goods, works or services similar to those undelivered, and the supplier shall be liable to the purchaser for any excess costs for such similar goods, works or services. However, the supplier shall continue performance of the contract to the extent not terminated.
- 23.3 Where the purchaser terminates the contract in whole or in part, the purchaser may decide to impose a restriction penalty on the supplier by prohibiting such supplier from doing business with the public sector for a period not exceeding 10 years.
- 23.4 If a purchaser intends imposing a restriction on a supplier or any person associated with the supplier, the supplier will be allowed a time period of not more than fourteen (14) days to provide reasons why the envisaged restriction should not be imposed. Should the supplier fail to respond within the stipulated fourteen (14) days the purchaser may regard the supplier as having no objection and proceed with the restriction.
- 23.5 Any restriction imposed on any person by the purchaser will, at the discretion of the purchaser, also be applicable to any other enterprise or any partner, manager, director or other person who wholly or partly exercises or exercised or may exercise control over the enterprise of the first-mentioned person, and with which enterprise or person the first-mentioned person, is or was in the opinion of the purchaser actively associated.
- 23.6 If a restriction is imposed, the purchaser must, within five (5) working days of such imposition, furnish the National Treasury, with the following information:
- the name and address of the supplier and / or person restricted by the purchaser;
 - the date of commencement of the restriction
 - the period of restriction; and
 - the reasons for the restriction.
- These details will be loaded in the National Treasury's central database of suppliers or persons prohibited from doing business with the public sector.
- 23.7 If a court of law convicts a person of an offence as contemplated in sections 12 or 13 of the Prevention and Combating of Corrupt Activities Act, No. 12 of 2004, the court may also rule that such person's name be endorsed on the Register for Tender Defaulters. When a person's name has been endorsed on the Register, the person will be prohibited from doing business with the public sector for a period not less than five years and not more than 10 years. The National Treasury is empowered to determine the period of restriction and each case will be dealt with on its own merits. According to section 32 of the Act the Register must be open to the public. The Register can be perused on the National Treasury website.
- 24. Antidumping and countervailing duties and rights**
- 24.1 When, after the date of bid, provisional payments are required, or anti-dumping or countervailing duties are imposed, or the amount of a provisional payment or anti-dumping or countervailing right is increased in respect of any dumped or subsidized import, the State is not liable for any amount so required or imposed, or for the amount of any such increase. When, after the said date, such a provisional payment is no longer required or any such anti-dumping or countervailing right is abolished, or where the amount of such provisional payment or any such right is reduced, any such favourable difference shall on demand be paid forthwith by the supplier to the purchaser or the purchaser may deduct such amounts from moneys (if any) which may otherwise be due to the supplier in regard to goods or services which he delivered or rendered, or is to deliver or render in terms of the contract or any other contract or any other amount which may be due to him.
- 25. Force Majeure**
- 25.1 Notwithstanding the provisions of GCC Clauses 22 and 23, the supplier shall not be liable for forfeiture of its performance security, damages, or termination for default if and to the extent that his delay in performance or other failure to perform his obligations under the contract is the result of an event of force majeure.
- 25.2 If a force majeure situation arises, the supplier shall promptly notify the purchaser in writing of such condition and the cause thereof. Unless otherwise directed by the purchaser in writing, the supplier shall continue to perform its obligations under the contract as far as is reasonably practical, and shall seek all reasonable alternative means for performance not prevented by the force majeure event.
- 26. Termination for insolvency**
- 26.1 The purchaser may at any time terminate the contract by giving written notice to the supplier if the supplier becomes bankrupt or otherwise insolvent. In this event, termination will be without compensation to the supplier, provided that such termination will not prejudice or affect any right of action or remedy, which has accrued or will accrue thereafter to the purchaser.

27. Settlement of Disputes

- 27.1 If any dispute or difference of any kind whatsoever arises between the purchaser and the supplier in connection with or arising out of the contract, the parties shall make every effort to resolve amicably such dispute or difference by mutual consultation.
- 27.2 If, after thirty (30) days, the parties have failed to resolve their dispute or difference by such mutual consultation, then either the purchaser or the supplier may give notice to the other party of his intention to commence with mediation. No mediation in respect of this matter may be commenced unless such notice is given to the other party.
- 27.3 Should it not be possible to settle a dispute by means of mediation, it may be settled in a South African court of law.
- 27.4 Notwithstanding any reference to mediation and/or court proceedings herein,
- (a) the parties shall continue to perform their respective obligations under the contract unless they otherwise agree; and
 - (b) the purchaser shall pay the supplier any monies due the supplier for goods delivered and / or services rendered according to the prescripts of the contract.

28. Limitation of Liability

- 28.1 Except in cases of criminal negligence or wilful misconduct, and in the case of infringement pursuant to Clause 6;
- (a) the supplier shall not be liable to the purchaser, whether in contract, tort, or otherwise, for any indirect or consequential loss or damage, loss of use, loss of production, or loss of profits or interest costs, provided that this exclusion shall not apply to any obligation of the supplier to pay penalties and/or damages to the purchaser; and
 - (b) the aggregate liability of the supplier to the purchaser, whether under the contract, in tort or otherwise, shall not exceed the total contract price, provided that this limitation shall not apply to the cost of repairing or replacing defective equipment.

29. Governing language

- 29.1 The contract shall be written in English. All correspondence and other documents pertaining to the contract that is exchanged by the parties shall also be written in English.

30. Applicable law

- 30.1 The contract shall be interpreted in accordance with South African laws, unless otherwise specified.

31. Notices

- 31.1 Every written acceptance of a bid shall be posted to the supplier concerned by registered or certified mail and any other notice to him shall be posted by ordinary mail to the address furnished in his bid or to the address notified later by him in writing and such posting shall be deemed to be proper service of such notice.
- 31.2 The time mentioned in the contract documents for performing any act after such aforesaid notice has been given, shall be reckoned from the date of posting of such notice.

32. Taxes and duties

- 32.1 A foreign supplier shall be entirely responsible for all taxes, stamp duties, license fees, and other such levies imposed outside the purchaser's country.
- 32.2 A local supplier shall be entirely responsible for all taxes, duties, license fees, etc., incurred until delivery of the contracted goods to the purchaser.
- 32.3 No contract shall be concluded with any bidder whose tax matters are not in order. Prior to the award of a bid SARS must have certified that the tax matters of the preferred bidder are in order.
- 32.4 No contract shall be concluded with any bidder whose municipal rates and taxes and municipal services charges are in arrears.

33. Transfer of Contracts

- 33.1 The contractor shall not abandon, transfer, cede assign or sublet a contract or part thereof without the written permission of the purchaser.

34. Amendment of contracts

- 34.1 No agreement to amend or vary a contract or order or the conditions, stipulations or provisions thereof shall be valid and of any force unless such agreement to amend or vary is entered into in writing and signed by the contracting parties. Any waiver of the requirement that the agreement to amend or vary shall be in writing, shall also be in writing.

35. Prohibition of restrictive practices

- 35.1 In terms of section 4 (1) (b) (iii) of the Competition Act No. 89 of 1998, as amended, an agreement between, or concerted practice by, firms, or a decision by an association of firms, is prohibited if it is between parties in a horizontal relationship and if a bidder(s) is / are or a contractor(s) was / were involved in collusive bidding.
- 35.2 If a bidder(s) or contractor(s) based on reasonable grounds or evidence obtained by the purchaser has / have engaged in the restrictive practice referred to above, the purchaser may refer the matter to the Competition Commission for investigation and possible imposition of administrative penalties as contemplated in section 59 of the Competition Act No 89 Of 1998.
- 35.3 If a bidder(s) or contractor(s) has / have been found guilty by the Competition Commission of the restrictive practice referred to above, the purchaser may, in addition and without prejudice to any other remedy provided for, invalidate the bid(s) for such item(s) offered, and / or terminate the contract in whole or part, and / or restrict the bidder(s) or contractor(s) from conducting business with the public sector for a period not exceeding ten (10) years and / or claim damages from the bidder(s) or contractor(s) concerned.

SECTION 6: SPECIAL / ADDITIONAL CONDITIONS OF CONTRACT

The **Conditions of Contract** make reference to the **Special Conditions of Contract (SSC)** for details that apply specifically to this bid. The **Special Conditions of Contract** shall have precedence in the interpretation of any ambiguity or inconsistency between it and the **Conditions of Contract**.

Each item below is cross-referenced to the clause in the **Conditions of Contract** to which it mainly applies.

SCC 1.2 CONTRACT

The contract is for the period of thirty-six (36) months.

SCC 7.1 PERFORMANCE SECURITY

The liability of the Performance Security shall be Nil.

SCC 10.1 DELIVERY AND DOCUMENTS

The complete unit will have to be delivered to eThekweni Municipality Premises and have to be accompanied by an invoice. Delivery will only take place after the prototype and relevant documentation have been received and assessed by eThekweni Municipality's officials responsible.

10.1.1 The following documentation (soft and hard copies) shall accompany the vehicle:

- a) Detailed maintenance manual
- b) Operating manual
- c) Training manual
- d) Spares manual
- e) Electrical wiring circuit/diagram
- f) Design report showing that the criteria for SANS 1518 has been met.
- g) The vehicle complies to SANS 20013.
- h) A CAD model in. STEP format for the proposed customisation either on CD or USB (where applicable).
- i) Certificate showing vehicle and all serial numbers of main components (engine, gearbox, drivetrain, braking system, etc.) fitted from the factory according to the specification of the customer's requirements. No retro fitments of major components shall be undertaken.

10.1.2 The following documentation shall accompany the tender response:

- a) An assembly drawing indicating the general arrangement of the body and the subassemblies making up the customisation.
- b) A mass distribution diagram of the loading forces in relation to the vehicle chassis and axles.
- c) Design calculations (where applicable) showing supplied systems are operating safely.
- d) A catalogue of the primary vehicle and the equipment requested.

SCC 11.1 INSURANCE

The successful tenderer is to take adequate insurance to cover the unit when it leaves the premises of eThekweni Municipality to the bidder and until it is fully delivered and commissioned at eThekweni Municipality Premises.

SCC 12.1 TRANSPORTATION

No separate costs will be paid by the City for transportation of the goods, the tenderer must provide a price which is inclusive of delivery costs.

SCC 14.1 SPARE PARTS

The tenderer must have service representation in the eThekweni Municipal area or South Africa that can provide spare parts for the unit tendered on.

SCC 15.5 WARRANTY

The machines supplied to meet the warranties:

All components fitted (excl. chassis and structures) and the hydraulic system to be covered by a minimum 2-year warranty.

The customisation steel structures and pump (excluding the water tank) shall have a minimum of a 5-year warranty for its application.

The water tank structure and the complete vehicles paintwork shall be covered by a 10-year corrosion free warranty.

Above warranty periods shall initiate only when vehicle is delivered, licensed and commissioned at the delivery address.

SCC 16.1 PAYMENT

The Contractor shall submit to the Department concerned a detailed account which shall reflect the identifying number of each item / service. Payment will be made on this account when checked and substantiated by the authorised official.

Payment for goods received and accepted by the Municipality shall be made no later than 30 days after submission of invoice or claim, provided however that all the terms of the contract are duly complied with.

Payment will be made only to the supplier. Factoring arrangements will not be accepted.

SCC 17 PRICES

Prices must be fixed for the first six (6) months period and thereafter price adjustment will be in line with SEIFSA and Consumer Price Index. Such request for price adjustment must be supported by necessary documentation.

SCC 21.1 DELAYS IN THE SUPPLIER'S PERFORMANCE

Units are to be delivered within 20-30 weeks from confirmation of order

SCC 22.1 PENALTIES

"If the supplier fails to deliver any or all of the goods or to perform the services within the period(s) specified in the contract, the purchaser shall, without prejudice to its other remedies under the contract, deduct from the contract price (as a penalty):

- A penalty of R5000.00 per day for each day delivery is delayed.

The purchaser may also consider termination of the contract pursuant to GCC Clause 23."

ADDITIONAL CONDITIONS OF CONTRACT**ACC1 PERFORMANCE MONITORING & ASSESSMENT OF SERVICE PROVIDERS**

For contract awards that are greater than R10m, the Contractor shall be subjected to "Performance Monitoring" assessments in terms of the applicable Section of the Council's current Supply Chain Management Policy.

ACC2 QUALITY OF PRODUCTS

No inferior products will be accepted under this enquiry.

Should there be any cause for complaint against the standard of service or quality of products offered which is not resolved within a period of 10 working days, the Municipality reserves the right to cancel the contract after serving one month's notice, in writing, to the supplier involved. Should such notice be given, the supplier shall nevertheless be obliged to perform the duties covered by the contract up to the date of expiration of the period of notice.

ACC3 SATISFACTORY PERFORMANCE

The supplier shall employ for the purpose of this contract only such personnel as are careful and competent and the Municipality shall be at liberty to object to and require the supplier to remove from the job forthwith any person, including supervisory staff, employed by the supplier who, in the opinion of the Municipality, misconducts himself/herself or is incompetent or negligent in the proper performance of his/her duties and such person shall not again be employed upon this contract without the permission of the Municipality.

ACC4 OCCUPATIONAL INJURIES AND DISEASES ACT

This act replaces the Workmen's Compensation Act:

The supplier shall, before commencement of work, produce documentary proof to the Deputy Municipal Manager, Treasury: Finance that he has complied in all respects with the provisions of the Occupational Injuries and Diseases Act. The supplier undertakes that he/she will perform and comply with all provisions of the Occupational Injuries and Diseases Act and more particularly that he/she will render all returns and pay all assessments for which he/she is liable in terms of such Act.

ACC5 DAMAGE TO PERSONS AND PROPERTY

- (1) The supplier **shall** indemnify and keep indemnified the Council against any claim for death, injury, damage or loss to any person or property whatsoever in respect thereof or in relation thereto.

- (2) The supplier enters into this contract as an independent contractor and shall be solely liable in respect of any claim for death, injury, damage or loss to any person or property whatsoever in respect thereof or in relation thereto.

ACC6 **RATE OF EXCHANGE VARIATION**

Where the goods are imported the Contractor shall within seven days of date of Official Purchase Order, arrange through his bankers for the foreign commitment to be covered forward down to the Rand in order to fix the rate of exchange. The Contractor shall notify the Municipality as soon as possible thereafter regarding the rate which has been fixed on such forward exchange. The forward cover shall be from a reputable South African bank. The Contractor is to confirm with the employer prior to placing forward cover if the service provider is acceptable.

Any increase or decrease between the basic rate of exchange as at 12:00 on the date of close of the bid and that existing at the date of establishment of the forward exchange cover within the period stipulated above shall be paid or deducted by the Municipality. Upon the failure of the Contractor to arrange forward exchange cover, the Contractor shall be liable should there be an increase in the basic rate of exchange occurring after the last-mentioned date.

The bank charges incurred in obtaining the forward exchange cover must be included in the Tenderer's bid.

ACC7 **ESTIMATED QUANTITIES**

The quantities stated in Section 8 are applicable for evaluation purposes only. The final quantity of goods and services required shall vary, depending on the total number of actual instances a service/goods will be required over the Contract Period. The rates tendered shall be applicable, irrespective of the total quantity of goods and services procured over the contract's duration.

ACC8 **SERVICE PROVIDER OFFICE REQUIREMENTS**

The service provider must have, for the duration of the contract, a local presence (within the geographical eThekweni boundary).

ACC9 **FITMENT OF AUXILIARY EQUIPMENT**

It must be noted that once the vehicle(s) have been receipt by eThekweni Municipality there will be fitment of auxiliary equipment such as fuel monitoring and vehicle tracking systems.

The bidder will be required to provide an electrical diagram and tap off points for such fitments.

SECTION 7: SCOPE AND SPECIFICATION OF REQUIRED SUPPLY / SERVICES

This chapter has the following items which are further expanded on for various chassis cabs/configurations.

Item 1: Technical specification for a Rescue pumper vehicle

Item 2: Technical specification for a Water carrier vehicle

Item 3: Technical specification for rapid intervention vehicle

Item 4: Technical specification for a Heavy rescue vehicle

Item 5: Technical specification for a Breathing apparatus/Hazchem vehicle

Item 6: Technical specification for a Water tanker fire and rescue trailer

Item 7: Technical specification for a 6x4 Prime mover (Horse) with an option of a crane

ITEM 1: Technical specification for a Rescue pumper vehicle

1. Scope

The intent of this specification is to supply a commercial vehicle with a water tank and pump system which shall be used for emergency applications by the eThekweni Fire and Emergency Service department.

The bidder shall provide bids on a 4x2, 4x4, 6x4 and 6x6 crew chassis cab where possible.

Pre-delivery inspection of the completed vehicle and superstructure will be only deemed complete after acceptance test and used once in field operations and conditions.

The vehicles with the customization shall be supplied complete and fully assembled in all respects, including standard equipment supplied by the manufacturer and shall comply with the South African Occupational Health and Safety Act, Act 85 of 1993/as amended and the applicable current Road Traffic Legislation. All work on the vehicle including the customisation is to be constructed by an SABS/SANS approved body/coach/vehicle manufacturer/ builder. The total operating mass of the vehicle and its customisation should not exceed the trucks legal V rating less 1000 kg. The layout should also ensure that the laden individual axle loads do not exceed the legal limits.

The vehicle and its customization shall be to I.S.O. Metric Standards, and instrumentation gauges, dials, etc. shall be in Systeme International (S.I.) units.

Prospective tenderers must ensure that they read the specific Contractual Conditions applicable to this contract which appear in the section immediately preceding Section 7.

Each vehicle must be supplied with detailed maintenance, operating, training and spares manuals (in English), including technical data for each spare, as well as general arrangement drawings and a bill of materials.

There must be sufficient information to allow the capture of maintenance schedules in terms of inspections, servicing and replacement of parts. Three hardcopies and three electronic copies of the operating, maintenance, training and spare parts manuals shall be provided, as well as a training manual for each trainee.

PTO calibration shall be performed after tracking device is installed on the vehicle by eThekweni City Fleet.

Vehicle shall be accepted after field tested including all subsystems of the primary vehicle and superstructure equipment.

All exposed electrical wiring looms of the chassis cab shall be full encased in a flexible protective metallic conduit and securely clamped with fasteners to the chassis or the structure.

All primary vehicles (chassis cabs) shall be suitable for the specific application, this must be reinforced evidence as requested in Section 4.

In each listed item for supply, chapter 2 specifies accessories and additional equipment for the vehicle that is expected to be provided by the OEM ex-factory. If these are standard items available on the bidders make and model specify as such. Should these items be additional options/extras offered by the OEM itemize these accordingly in the submission. Should the OEM not offer these options and only offer aftermarket retro fitment solutions these items must accompany the bidder's response as an annexure stating so. Bidders are asked to be diligent in this process with attention to items like the sunroof, tyre pressure monitoring system, Bluetooth audio/hands free multimedia system with reverse camera, engine and fuel safety equipment and auto lubrication systems where applicable.

The CANBUS interface shall be able to read the following.

Factory remote Alarm

Factory's remote

Factory's remote - 3x Arm

Parking

Reverse

Parking lights

Dipped headlights

Full beam headlights

Rear fog lights

Front fog lights

AC turned on

Cruise

Automatic retarder

Manual retarder

Driver's seat belt

CHECK ENGINE (MIL)

ABS ESP ESP OFF

Oil pressure / level

Coolant temperature / level

Battery charging

Handbrake system

Warning Low fuel

Glow plug indicator

Rear PTO turned on
 Engine lifetime from dashboard
 Engine lifetime - Counted Vehicle mileage
 Vehicle mileage - Counted
 Total fuel consumption
 Total fuel consumption - Counted
 Fuel level (Dashboard)
 Fuel level (Dashboard) - Liters
 Engine speed (RPM)
 Engine temperature
 Vehicle speed
 Axle 1 load
 Axle 2 load
 Axle 3 load
 Axle 4 load
 Axle 5 load
 AdBlue level (Dashboard)
 Acceleration pedal position
 Engine torque
 Retarder torque
 Distance to service
 Outside temperature
 Weight load
 SIMPLE TACHO

CANBUS speed shall within a range of 33,33 to 500 kb/s or better.

Bidder shall provide a list of what can be read from their CANBUS interface and what system is required to interface it.

At the end Section 7 other specifications/standards are covered that will be adhered to.

2. Vehicle (chassis cab variants)

Item 1.1: 4x2 chassis cab for a rescue pumper vehicle

- 2.1 The chassis/body shall be a 4x2 crew cab truck with a minimum Gross Vehicle Mass (GVM) of 15 000 kg.
- 2.2 Transmission shall be automatic manual transmission (AMT) and fully automatic. Bidder shall provide a bid on /both options.
- 2.3 Minimum diesel engine requirements shall be of Euro 3 to 5, with a minimum 200 kW of power and 800 Nm of torque.
- 2.4 A fully laden minimum grade ability of 25 % shall be expected. Maximum speed of not less than 80 km/hr.

- 2.5 ABS brakes are mandatory with a retarder (operated via floor brake pedal).
- 2.6 Forward hydraulic operated tilt cab with safety holding mechanism. Underside of cab shall have heat shields to deflect heat from the floor and interior of the crew cab.

Item 1.2: 4x4 chassis cab for a rescue pumper vehicle

- 2.1 The chassis/body shall be a 4x4 crew cab truck with a minimum Gross Vehicle Mass (GVM) of 13 500 kg.
- 2.2 Transmission shall be manual, automatic manual transmission (AMT) and fully automatic. Bidder shall provide an option on one or all if offered with an integrated retarder operated via the foot brake pedal.
- 2.3 Minimum diesel engine requirements shall be of Euro 3 to 5, with a minimum 150 kW of power and 650 Nm of torque.
- 2.4 A fully laden minimum grade ability of 30 % shall be expected. Maximum speed of not less than 80 km/hr.
- 2.5 ABS brakes is mandatory with a retarder (operated via floor brake pedal).
- 2.6 Fitment of a steel under belly plate to protect the radiator & engine. Shall be fastened with lock washers. Minimum thickness of 4.5 mm.

Item 1.3: 6x4 chassis cab for a rescue pumper vehicle

- 2.1 The chassis/body shall be a 6x4 crew cab chassis cab truck, with a minimum Gross Vehicle Mass (GVM) of 24 000 kg.
- 2.2 Transmission shall be automatic manual transmission (AMT) and fully automatic. Bidder shall provide a bid on either/both options.
- 2.3 Minimum diesel engine requirements shall be a Euro 3 to 5, 220 kW of power and 950 Nm of torque.
- 2.4 A fully laden minimum grade ability of 25 % shall be expected. Maximum speed of not less than 80 km/hr.
- 2.5 ABS brakes is mandatory.
- 2.6 Forward hydraulic operated tilt cab with safety holding mechanism. Underside of cab shall have heat shields to deflect heat from the floor and interior of the crew cab.

Item 1.4: 6x6 chassis cab for a rescue pumper vehicle

- 2.1 The chassis/body shall be a 6x6 crew cab chassis cab truck, with a minimum Gross Vehicle Mass (GVM) of 25 000 kg.
- 2.2 Transmission shall be manual, automatic manual transmission (AMT) and fully automatic. Bidder shall provide an option on one or all if offered with an integrated retarder operated via the foot brake pedal.
- 2.3 Minimum diesel engine requirements shall be a Euro 3 to 5, 230 kW of power and 1 200 Nm of torque.
- 2.4 A fully laden minimum grade ability of 25 % shall be expected. Maximum speed of not less than 80 km/hr.
- 2.5 ABS brakes is mandatory with a retarder (operated via floor brake pedal).
- 2.6 Forward hydraulic operated tilt cab with safety holding mechanism. Underside of cab shall have heat shields to deflect heat from the floor and interior of the crew cab.

Chassis cab accessories and relevant standards that all chassis cabs must comply to;

- 2.1 Full rubber mat set with holders to prevent movement.
- 2.2 All seats to be fitted with heavy duty seat covers of a premium material for maximum protection of the primary seat cover/lining.
- 2.3 Smash and grab tinted windows. Film shall be 80% shade level and 150-micron thickness to be applied to all windows.

- 2.4 To safely and comfortably accommodate a driver and five passengers. Rear seating of the crew cab should afford the occupants with a range of 500 to 600 mm leg room or better.
- 2.5 Heater, windscreen demister and air-conditioning system should be adequate for the cab and its occupants.
- 2.6 Spotlight to be fitted in the driver's cab facing the front of the cab. Shall be in a position to be operated by the front passenger.
- 2.7 Bluetooth Radio and speakers/mic (with handsfree cellphone capability), 12v cigarette lighter/charger sockets.
- 2.8 Wireless/Bluetooth tyre pressure monitoring system.
- 2.9 Front bull bar for the width of the vehicle shall be installed. It shall follow the profile contour of the front of the vehicle. Shall be bolt on and constructed out of automotive grade stainless steel. The fitment of the front bulbar shall not inhibit the front tow hitch which must be in an easily accessible position.
- 2.10 Pair of LED fog lamps (minimum 30W) to be installed on the bulbar. Switch to be OEM type with relay and fuse.
- 2.11 Front and rear tow hitch points to be available.
- 2.12 Fuel tank shall be fitted with a lockable fuel cap. Minimum capacity of 200 liters is required.
- 2.13 No sunroof.
- 2.14 Three-point safety harness seat belts for each occupant.
- 2.15 SCBA brackets and Breathing apparatus (single tank) housing clamps for each occupant shall be mounted in the cab.
- 2.16 Winch
 - 2.16.1 Minimum 5 ton pull capacity (SAE -J706) planetary gearing system and wired remote control for the 4x2 and 4x4. Minimum 9 ton pull capacity (SAE -J706) planetary gearing system and wired remote control for the 6x4 and 6x6.
 - 2.16.2 Bidder to provide relevant hydroelectric system for the winch to operate including, hydraulic tank, motor/pump power pack, all necessary filters, piping, couplers, installation hardware and consumables including hydraulic oil. The winch should include automatic load holding brake, corded remote control (minimum 4 metres) and a minimum 25 m line with a snap safety hook.
 - 2.16.3 The winch shall be mounted at the front of the vehicle.
- 2.17 All items including structural members must be thoroughly sealed with an approved sealer to prevent rusting between mating surfaces and drain holes must be provided in areas where water can accumulate. Any floor that persons will use on the vehicle should be coated with a hard wearing, slip resistant material (Vastrap).
- 2.18 Provision shall be made for Homologation, compliance, and full licensing (with exemption) of the vehicle once completely built and approved with the superstructure.
- 2.19 The vehicle and the customization shall be designed according to these critical specifications (summary of evidence shall be provided):
 - a) SANS 1518 Transport of dangerous goods — Design, construction, testing, approval and maintenance of road vehicles and portable tanks.
 - b) SANS 20013 Surface vehicles. This specification covers the braking system of motor vehicles and trailers. Maximum design speed exceeding 35km/h intended for use on public roads.
 - c) National Roads Traffic Act with attention to Regulation 240: The carrying capacity of the road.
 - d) Pump to comply to NFPA standards as stipulated in section 7, chapter 4.3.

3. Material specification

The water tank will be made from polycarbonate or composite plastic or a similar material. The roll up locker doors shall be made of aluminium or a suitable alloy that is low mass and corrosion resistant for the

application. The superstructure enclosing the water tank, pump and the subsystems of the superstructure and the chassis shall be constructed of a lightweight corrosion resistant material.

4. Construction requirements

4.1 Water Tank

- 4.1.1 All mounting to be in accordance with directives specified by the Original Equipment Manufacturer (OEM). Mounting shall be rubber block system to resist the vigor of road and uneven terrain.
- 4.1.2 The tank shall have a minimum capacity of 3000 litres for the 4x2 and 4x4 chassis cabs and 8000 litres for the 6x4 and 6x6 chassis cabs and shall be suitable to handle grey and salt water.
- 4.1.3 Suitable baffles shall be designed and installed to the tank interior to increase the strength due to water surge and sloshing that will be experienced.
- 4.1.4 The water tank must have an anti-swirl plate mounted at the discharge side. The tank must have a suitable dump valve to discharge the excess water quickly and in a suitable location. Ball valve type shall be fitted.
- 4.1.5 Overflow and discharge shall be positioned behind the rear axle onto the surface the vehicle is parked on. Mounting brackets must be included for the overflow/discharge pipe.
- 4.1.6 A manhole/high level sealable hatch should be incorporated in an easily accessible location for each tank for filling, cleaning, and maintenance purposes. It shall incorporate a pressure relief valve and rupture disc protection.
- 4.1.7 Diameter of outflow to the pump shall be equal to the inlet.
- 4.1.8 Two tank filler inlets shall be fitted, one on the right and one on the left, with 65mm male couplings, female blank-caps and be provided with butterfly type valves complete with strainers and non-return valves.
- 4.1.9 All tanks shall be expected to be nondestructive tested, 10x x-ray, waterfill and pressure tested.

4.2 Equipment lockers

- 4.2.1 The interior of the crew cab shall have customised brackets installed for the breathing apparatus equipment of the rear passengers.
- 4.2.2 The superstructure shall be configured in the standard Euro format, with single locker compartments, excluding the pump bay locker.
- 4.2.3 The two lockers must be mounted behind the tank and the rear wheels and will house the high-pressure hose reels and space for equipment.
- 4.2.4 Locker compartments shall be segmented as per the requirement of the Department and locker space shall be adequate to accommodate the equipment. Provision shall be made for the equipment to be mounted with adjustable brackets and holders attached to the vehicle. The total mass of equipment that shall be stored in these lockers will be approx. 1 000 kg.
- 4.2.5 Provision must be allowed for the securing of four 110mm x 2-meter hard suction hoses on the roof in enclosed built housings.
- 4.2.6 The hoses shall have BS screw type thread, with a corrosion resistant strainer, which must all be matched to the fire pump specification.
- 4.2.7 These must be housed on the vehicle which is easily accessible. The hoses shall have roller guides on the locker doors such that they do not foul or bend on the superstructure in all directions.
- 4.2.8 All interior service panels shall be of an impact resistant, durable material, resistant to oils, greases and mild acids and alkalis.
- 4.2.9 Accesses to all levels of the equipment and pump compartment are to be made easy by the provision of heavy duty and durable fold-down steps. These steps shall have gas struts to assist the motion and are expected to handle a mass of 450 kg.
- 4.2.10 Locker floors and shelves shall be sufficiently braced and strengthened to accommodate the loads to be placed on them.

- 4.2.11 Proper drainage facilities shall be provided to allow for the cleaning of the locker compartment.
- 4.2.12 Locker doors shall be roll up type.
- 4.2.13 Locker doors shall be constructed of light aluminum alloy.
- 4.2.14 All doors shall be equipped with adequate dust seals.
- 4.2.15 All doors shall be positive lock and lockable.
- 4.2.16 These doors must be dust and waterproof, light alloy roller shutters, doors must be fitted to all lockers and pump compartment.
- 4.2.17 All lockers shall be fitted with interior illumination (LED) and opening of the locker door must activate the light for that locker. The positioning of the light shall ensure maximum light distribution to all shelf levels and be so placed as to avoid accidental damage.

4.3 Pump

- 4.3.1 The pump must be combined centrifugal pump suitable for normal and high-pressure operations and be self-priming.
- 4.3.2 The pump housing and impellers must be manufactured from non-corrosive material, and it should have robust internals to be able to handle grey and salt water if necessary. All waterways and hoses must also be suitable to handle grey and salt water.
- 4.3.3 The pump be able to deliver high pressure and normal pressure operations simultaneously.
- 4.3.4 Normal pressure output of up to 3500 l/min at 10 bar
- 4.3.5 High pressure output of up to 400 l/min at 40 bar
- 4.3.6 Certified (normal pressure) according to EN1028 FPN 10-2000
- 4.3.7 Certified (high pressure) according to EN1028 FPN 40-250
- 4.3.8 UL classified in accordance with NFPA1901 150-500
- 4.3.9 The suction inlet must be fitted with a strainer. The diameter of the pump inlet must be suitable to the output of the pump and not less than 150mm in diameter.
- 4.3.10 A tank to pump valve suction line having a diameter to supply the pump under all conditions suitable to ratio capacity of the pump.
- 4.3.11 Two high pressure hose reels capable to withstand a minimum pressure of 40 bar.
- 4.3.12 Two valves for the high-pressure hose reel must be fitted at the pump operator's position.
- 4.3.13 Two pre-connected deliveries from the high-pressure side of the pump. The valves for these pre-connected deliveries must be fitted at the pump operator's position.
- 4.3.14 Four (4) normal pressure outlets which must have control valves, 65mm female B/S instantaneous adaptors with blank caps, all of which must be manufactured from corrosion resistant material.

4.4 Hosing and Nozzles

The two high pressure hose reels shall:

- a. Be 30 meters of rubber drag hose with an internal diameter of 25mm
- b. Have electric rewind with manual override
- c. The end of the hose shall be fitted with a high-pressure fog gun with a nominal output of 200L/min at 40 bars. It must be adjustable from straight stream to water fog. The output must be adjustable from 0 to 200 L/min.
- d. In order to facilitate unwinding of the hose and to protect the vehicle superstructure against abrasion and damage, metal guide rollers shall be provided.
- e. The pump must be fitted at the rear of the chassis.

4.5 Control Panel

All controls for the operation of the machine shall be fitted to an illuminated, lockable, water resistant control panel.

The controls shall where possible be electronic, and activate the necessary servos (either pneumatic or hydraulic) that will activate the operation. All actions will be fully adjustable at variable speeds for the operation of the machine. A plug in, modular type, control panel is preferred for ease of maintenance.

All servos and valves to be mounted in a safe and easily accessible place for ease of maintenance.

All electrical devices must be splash resistant.

The unit must have the following controls as a minimum:

- a) High pressure manometer
- b) Normal pressure manometer
- c) Manometer
- d) Water tank level indicator (electronic system)
- e) Control and pilot light for P.T.O. engagement
- f) Illumination of control panel
- g) Engine temperature indication
- h) Electronic control of engine speed
- i) Control for water tank suction valve
- j) Control for foam tank suction valve
- k) Digital counter for operation hours
- l) Pilot light for engine oil pressure
- m) Controls for High pressure hose reels
- n) EMERGENCY cut off switch (Push Button type)
- o) Engine temperature
- p) Diesel tank level gauge
- q) Rear work light

All functions must be clearly marked. Control panel shall have a lock-out feature to protect against unwarranted use.

4.6 Ladder/Gantry

A minimum 3 piece/section, 14-meter extension ladder certified to DIN 14715 and EN 1147 shall be supplied and fitted to the roof of the superstructure on the passenger side. It shall be housed within a ladder lowering device and it shall be remote controlled. Ladder should have a minimum width of 400 mm for the steps.

All items in chapter 4 must be thoroughly sealed with an approved sealer to prevent rusting between mating surfaces and drain holes must be provided in areas where water can accumulate. Any floor that persons will use on the body should be coated with a hard wearing, slip resistant material (Vastrap).

5 Power Take Off (PTO)

5.1 The hydraulic pumps must be driven from preferably a closed coupled P.T.O. capable of delivering at least 20 % more power than the maximum continuous power rating of the systems driven by it.

5.2 The PTO drive assembly shall be approved by the OEM mechanically and electrically for use on the engine and the wiring systems of the vehicle for the engagement of the PTO drive. Any modifications to the vehicle to accommodate the P.T.O. must be approved by the truck manufacturer and not affect the trucks warranty in any way.

5.3 The engine and transmission must not be harmed by use of the PTO.

5.4 The fitment of the P.T.O. should not negatively impact on the vehicles ground clearance.

5.5 Electronic control module and wiring harness which incorporates the “Rev Up Limiter” must be integrated into the existing OEM vehicle using the OEM 24 Volt system.

5.6 The PTO must only run when the PTO switch is engaged. The system will not allow the PTO to be engaged if the vehicle is in gear or if the handbrake is not engaged.

5.7 The accelerator pedal cannot be used, while the PTO is engaged.

5.8 The system shall allow for “pump and roll” operations in first gear whilst the PTO is engaged.

5.9 All exposed electrical wiring looms of the chassis cab and superstructure shall be full encased in a flexible protective metallic conduit and securely clamped with fasteners to the chassis or the structure.

5.10 The PTO is expected to handle operation for up to 10 hours therefore additional cooling must be provided if required for the PTO.

6. Lighting

6.1 A LED light should be installed in a suitable position illuminating the working area at the rear of the truck.

6.1 Suitable lighting should be installed within the body providing light for each locker, the pump and the couplings for the tank area.

6.3 Two LED hazard lights should be mounted as follows;

- a) A waterproof slim line bar light approx. 1200mm in length and 200mm in width to be installed on bracket on the front of the cab without drilling into the roof. Generation 3 or 4 type LED consisting of 3 watt, 6x4 modules to the front with end cap modules consisting of 1x2 head modules with red coloured polycarbonate lenses to be fitted to the bracket on the cab roof with on/off switch with random flash pattern positioned in the cab.
- b) Sixteen generation 3 or 4, minimum 3 watt, red LED eight head modules shall be installed on the vehicle. Four on each side, front and the rear of the vehicle. These modules shall have a random flashing pattern with the control switch clearly marked in the driver's cabin.
- c) There shall be LED scene lights to illuminate the vehicle and its surroundings. A minimum of two pairs per side is required and shall be integrated into the superstructure. The controls shall be clearly marked in the driver's cabin.
- d) LED marker lights shall be on the sides and rear of the body. A minimum of four is required per side.

7. Metal Preparation and Painting Procedure

The following procedure must be adhered to:

7.1 Descale all metal surfaces.

7.2 Grind down & smooth all rough edges.

7.3 Thoroughly clean all surfaces.

7.4 Surfaces should be surface blasted to the correct surface finish for the application of the primer and paint.

7.5 Prime all built parts and the superstructure using a two component self-curing inorganic zinc ethyl silicate or two component zinc rich polyamide cured epoxy primer.

7.6 Two primer coats and one-color coat shall be minimum.

7.7 Paint film thickness must not be less than 80 microns each.

8. Colors

Underside of Body (superstructure and chassis)	: Black
Cab and Body	: Chrome Yellow RAL 1023
Wheels (rims)	: Gloss white
Bumpers	: Grey
Bull bar	: Stainless Steel

9.

Electrical and towing requirements

All additional electrical circuits are to be suitably fused and must not interfere with or adversely affect the existing electrical system.

- 9.1 Existing taillight units to be replaced with premium quality equal light unit incorporating 30 LEDs or more approx. 100 mm in diameter that are screwed into position with a stainless-steel flange.
- 9.2 Dual indicator stop and taillight units to be fitted on top of the body.
- 9.3 Reversing camera, buzzer and warning flashing light to be installed when reverse gear is engaged in an optimum position. Monitor to be part of the vehicles multimedia system with Bluetooth hands free cellphone connectivity.
- 9.4 Uninterrupted power supply points shall be made available for the two-way radio, vehicle tracking and fuel master monitoring system.
- 9.5 Rear and front tow hitch shall be installed for towing of the vehicle.
- 9.6 Siren and amplifier incorporating public address system that is a 12/24-volt operating system. Capable of handling dual parallel speaker connection. Minimum speaker specification of 8 ohms impedance and 120 to 130-watt RMS. Built-in Thermo fan to allow for optimal cooling of amplifier. Amplifier should have a slim mounting footprint. Minimum 4 as per applicable legislation for vehicles including HRT functionality. Functions to include air horn, independent PA and amplifier to accommodate input and output auxiliary ports. PA volume control to be made easily accessible, either through the microphone or an adjustable volume port on the switch box. A high-quality microphone shall be included in the supply and installation.

10. Signage and Markings

10.1 Data plates shall be fitted for:

- a) The water tank and pump indicating tank capacity, system pressures, fluid type/grade, and other relevant data.
- b) The hydraulic system indicating tank capacity, system pressure, fluid type/grade, hydraulic cylinder specifications and test criteria.
- c) Safety, operation, technical data, dates of manufacture, manufacturer's details etc.

10.2 Rear underrun which shall be designed as a step with non-slip material.

10.3 50% of the rear body shall be a Chevron board with rear lights and rear mudguards (constructed of 3CR12) conforming with the appropriate SABS/SANS standard.

10.4 Durable, ultraviolet resistant and weather resistant warning signs shall be provided at all locations of the vehicle that impose a danger to persons.

10.5 Durable, ultraviolet resistant and weather resistant information signs (pump, lockers, tank valves, inlets and outlets, equipment lockers and critical info for the chassis like fuel, oil, washer fluid, hydraulic oil, transmission oil etc.) shall be provided in specific locations to assist the driver/maintenance staff with the operation/maintenance of the vehicle.

10.6 Retro-reflective tape shall be fitted to both sides and the rear of the superstructure as well as the rear bumper.

10.7 Two pairs of red prismatic retroreflectors shall be fitted to the rear of the vehicle and two pairs of amber prismatic retroreflectors shall be fitted to either side of the vehicle.

10.8 The term FIRE AND RESCUE shall be supplied and fitted at the rear and reverse writing of same in the front. Each side of the vehicle shall have sign writing in two languages including call sign, emergency phone number and eThekwini Fire and Safety decals.

11. Miscellaneous items

11.1 The batteries to have a weather proof cover to prevent debris and moisture ingress and shall be mounted in the rear locker in a well-ventilated suitable storage enclosure. Batteries shall be a high capacity maintenance free pair that shall not require auxiliary batteries.

- 11.2 Battery isolator switch shall be installed close to 12.1.
- 11.2 Fuel tank, batteries, pneumatic cylinders and hydraulic tank to have structures built around them for safety where the superstructure does not enclose it.
- 11.3 Bolt on covers for safety where parts are rotating, swinging or of high temperature.
- 11.5 Bolt on head and tail light guards.
- 11.6 Front and rear mud flaps.
- 11.7 One spare wheel to be included per vehicle.
- 11.8 One spare set of wheels for front and rear axles to be included per vehicle.
- 11.9 All tyres supplied shall keep their integrity for a minimum of five years.

Maintenance

There must be sufficient information to allow the capture of maintenance schedules in terms of inspections, servicing and replacement of parts. Three hardcopies and three electronic copies of the operating, maintenance, training and spare parts manuals shall be provided, as well as a training manual for each trainee (operator, maintenance staff and driver). Training shall be provided for 8 firemen, 4 training officers and 4 mechanics.

Important Notes

Prospective tenderers must ensure that they read the specific Contractual Conditions applicable to this contract which appear on the chapter immediately preceding the Technical Specification.

Applicable standards and specifications

The following, not necessarily comprehensive, list of standard specifications are relevant (latest revisions to be adhered to):

ANSI/AWS D1.1 Structural Welding Code

Steel BS-EN 287 Part 1 Approval testing of welders/fusion welding

BS-EN 288 Part 3 Specification and approval of welding procedures for metallic materials

BS 5135 Metal arc welding of carbon and carbon manganese steels

BS 3923 Methods for ultrasonic examination of welds

BS 2600 Radiographic examination of fusion welded butt joints in steel

BS 5493 Code of practice for protective coating of iron and steel structures against corrosion

DIN 1026 Metric channels

ISO R657 Angles

SANS 135 ISO metric bolts, screws and nuts (hexagon and square) (coarse thread, free fit series)

SANS 136 ISO metric precision hexagon-head bolts and screws, and hexagon nuts (coarse thread medium fit series)

SANS 064 Preparation of steel surfaces for coating

SANS 763 Hot-dip (galvanized) zinc coatings

SANS 1091 National colour standards for paint

SANS 1431 Weldable structural steels

SABS 1046, SABS 1376 Lights and retro-reflective devices

SABS 1051, 1447, SANS 20013, SANS 6292 Brakes and braking equipment

SABS 1329 Rear warning sign (chevron)
 SANS 1055 Rear underrun protection device
 SANS 1496 Wheel flaps
 SABS 1447 Pneumatic braking connections
 SANS 3779 Vehicle identification number
 Vehicle dimensions NRTA Act no.93 of 1996
 Data plates Compulsory Vehicle Standards

ITEM 2: Technical specification for a Water carrier vehicle

1. Scope

The intent of this specification is to supply a commercial vehicle with a water tank and pump system which shall be used for emergency applications by the eThekweni Fire and Emergency Service department.

The bidder shall provide bids on a 4x2, 4x4, 6x4 and 6x6 crew chassis cab where possible.

Pre-delivery inspection of the completed vehicle and superstructure will be only deemed complete after acceptance test and used once in field operations and conditions.

The vehicles with the customisation shall be supplied complete and fully assembled in all respects, including standard equipment supplied by the manufacturer and shall comply with the South African Occupational Health and Safety Act, Act 85 of 1993/as amended and the applicable current Road Traffic Legislation. All work on the vehicle including the customisation is to be constructed by an SABS/SANS approved body/coach/vehicle manufacturer/ builder. The total operating mass of the vehicle and its customisation should not exceed the trucks legal V rating less 1000 kg. The layout should also ensure that the laden individual axle loads do not exceed the legal limits.

The vehicle and its customisation shall be to I.S.O. Metric Standards, and instrumentation gauges, dials, etc. shall be in Systeme International (S.I.) units.

Prospective tenderers must ensure that they read the specific Contractual Conditions applicable to this contract which appear in the section immediately preceding Section 7.

Each vehicle must be supplied with detailed maintenance, operating, training and spares manuals (in English), including technical data for each spare, as well as general arrangement drawings and a bill of materials.

There must be sufficient information to allow the capture of maintenance schedules in terms of inspections, servicing and replacement of parts. Three hardcopies and three electronic copies of the operating, maintenance, training and spare parts manuals shall be provided, as well as a training manual for each trainee.

PTO calibration shall be performed after tracking device is installed on the vehicle by eThekweni City Fleet.

Vehicle shall be accepted after field tested including all subsystems of the primary vehicle and superstructure equipment.

All exposed electrical wiring looms of the chassis cab shall be full encased in a flexible protective metallic conduit and securely clamped with fasteners to the chassis or the structure.

All primary vehicles (chassis cabs) shall be suitable for the specific application, this must be reinforced evidence as requested in Section 4.

In each listed item for supply, chapter 2 specifies accessories and additional equipment for the vehicle that is expected to be provided by the OEM ex-factory. If these are standard items available on the bidders make and model specify as such. Should these items be additional options/extras offered by the OEM itemize these accordingly in the submission. Should the OEM not offer these options and only offer aftermarket retro fitment solutions these items must accompany the bidder's response as an annexure stating so. Bidders are asked to be diligent in this process with attention to items like the sunroof, tyre pressure monitoring system, Bluetooth audio/hands free multimedia system with reverse camera, engine and fuel safety equipment and auto lubrication systems where applicable.

The CANBUS interface shall be able to read the following;

Factory remote Alarm

Factory's remote

Factory's remote - 3x Arm

Parking

Reverse

Parking lights

Dipped headlights

Full beam headlights

Rear fog lights

Front fog lights

AC turned on

Cruise

Automatic retarder

Manual retarder

Driver's seat belt

CHECK ENGINE (MIL)

ABS ESP ESP OFF

Oil pressure / level

Coolant temperature / level

Battery charging

Handbrake system

Warning Low fuel

Glow plug indicator

Rear PTO turned on

Engine lifetime from dashboard

Engine lifetime - Counted Vehicle mileage

Vehicle mileage - Counted

Total fuel consumption

Total fuel consumption - Counted

Fuel level (Dashboard)

Fuel level (Dashboard) - Liters

Engine speed (RPM)

Engine temperature

Vehicle speed

Axle 1 load

Axle 2 load

Axle 3 load

Axle 4 load

Axle 5 load

AdBlue level (Dashboard)

Acceleration pedal position

Engine torque

Retarder torque

Distance to service

Outside temperature

Weight load

SIMPLE TACHO

CANBUS speed shall within a range of 33,33 to 500 kb/s or better.

Bidder shall provide a list of what can be read from their CANBUS interface and what system is required to interface it.

At the end Section 7 other specifications/standards are covered that will be adhered to.

2. Vehicle (chassis cab variants)

Item 1.1: 4x2 chassis cab for a water carrier vehicle

- 2.1 The chassis/body shall be a 4x2 single cab truck with a minimum Gross Vehicle Mass (GVM) of 15 000 kg.
- 2.2 Transmission shall be automatic manual transmission (AMT) and fully automatic. Bidder shall provide a bid on either/both options.
- 2.3 Minimum diesel engine requirements shall be of Euro 3 to 5, with a minimum 180 kW of power and 800 Nm of torque.
- 2.4 A fully laden minimum grade ability of 25 % shall be expected. Maximum speed of not less than 80 km/hr.
- 2.5 ABS brakes is mandatory with a retarder (operated via floor brake pedal).
- 2.6 Forward hydraulic operated tilt cab with safety holding mechanism. Underside of cab shall have heat shields to deflect heat from the floor and interior of the driver's cab.

Item 1.2: 4x4 chassis cab for a water carrier vehicle

- 2.1 The chassis/body shall be a 4x4 single cab truck with a minimum Gross Vehicle Mass (GVM) of 13 500 kg.
- 2.2 Transmission shall be manual, automatic manual transmission (AMT) and fully automatic. Bidder shall provide an option on one or all if offered with an integrated retarder operated via the foot brake pedal.
- 2.3 Minimum diesel engine requirements shall be of Euro 3 to 5, with a minimum 125 kW of power and 550 Nm of torque.
- 2.4 A fully laden minimum grade ability of 30 % shall be expected. Maximum speed of not less than 80 km/hr.
- 2.5 ABS brakes is mandatory with a retarder (operated via floor brake pedal).
- 2.6 Fitment of a steel under belly plate to protect the radiator & engine. Shall be fastened with lock washers. Minimum thickness of 4.5 mm.

Item 1.3: 6x4 chassis cab for a water carrier vehicle

- 2.1 The chassis/body shall be a 6x4 single cab chassis cab truck, with a minimum Gross Vehicle Mass (GVM) of 24 000 kg.
- 2.2 Transmission shall be automatic manual transmission (AMT) and fully automatic. Bidder shall provide a bid on either/both options.
- 2.3 Minimum diesel engine requirements shall be a Euro 3 to 5, 220 kW of power and 1200 Nm of torque.
- 2.4 A fully laden minimum grade ability of 25 % shall be expected. Maximum speed of not less than 80 km/hr.
- 2.5 ABS brakes is mandatory with a retarder (operated via floor brake pedal).
- 2.6 Forward hydraulic operated tilt cab with safety holding mechanism. Underside of cab shall have heat shields to deflect heat from the floor and interior of the driver's cab.

Item 1.4: 6x6 chassis cab for a water carrier vehicle

- 2.1 The chassis/body shall be a 6x6 single cab chassis cab truck, with a minimum Gross Vehicle Mass (GVM) of 25 000 kg.
- 2.2 Transmission shall be manual, automatic manual transmission (AMT) and fully automatic. Bidder shall provide an option on one or all if offered with an integrated retarder operated via the foot brake pedal.
- 2.3 Minimum diesel engine requirements shall be a Euro 3 to 5, 230 kW of power and 1 200 Nm of torque.
- 2.4 A fully laden minimum grade ability of 25 % shall be expected. Maximum speed of not less than 80 km/hr.
- 2.5 ABS brakes is mandatory.
- 2.6 Forward hydraulic operated tilt cab with safety holding mechanism. Underside of cab shall have heat shields to deflect heat from the floor and interior of the driver's cab.

Chassis cab accessories and relevant standards that all chassis cabs must comply to;

- 2.1 Full rubber mat set with holders to prevent movement.
- 2.2 All seats to be fitted with heavy duty seat covers of a premium material for maximum protection of the primary seat cover/lining.
- 2.3 Smash and grab tinted windows. Film shall be 80% shade level and 150-micron thickness to be applied to all windows.
- 2.4 To safely and comfortably accommodate a driver and five passengers.
- 2.5 Heater, windscreen demister and air-conditioning system should be adequate for the cab and its occupants.
- 2.6 Spotlight to be fitted in the driver's cab facing the front of the cab. Shall be in a position to be operated by the front passenger.

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- 2.7 Bluetooth Radio and speakers/mic (with handsfree cellphone capability), 12v cigarette lighter/charger sockets.
 - 2.8 Wireless/Bluetooth tyre pressure monitoring system.
 - 2.9 Front bull bar for the width of the vehicle shall be installed. It shall follow the profile contour of the front of the vehicle. Shall be bolt on and constructed out of automotive grade stainless steel. The fitment of the front bulbar shall not inhibit the front tow hitch which must be in an easily accessible position.
 - 2.10 Pair of LED fog lamps (minimum 30W) to be installed on the bulbar. Switch to be OEM type with relay and fuse.
 - 2.11 Front and rear tow hitch points to be available.
 - 2.12 Fuel tank shall be fitted with a lockable fuel cap. Minimum capacity of 200 liters is required.
 - 2.13 No sunroof.
 - 2.14 Winch
 - 2.14.1 Minimum 5 ton pull capacity (SAE -J706) planetary gearing system and wired remote control for the 4x2 and 4x4. Minimum 9 ton pull capacity (SAE -J706) planetary gearing system and wired remote control for the 6x4 and 6x6.
 - 2.14.2 Bidder to provide relevant hydroelectric system for the winch to operate including, hydraulic tank, motor/pump power pack, all necessary filters, piping, couplers, installation hardware and consumables including hydraulic oil. The winch should include; automatic load holding brake, corded remote control (minimum 4 metres) and a minimum 25 m line with a snap safety hook.
 - 2.14.3 The winch shall be mounted at the front of the vehicle.
 - 2.15 All items including structural members must be thoroughly sealed with an approved sealer to prevent rusting between mating surfaces and drain holes must be provided in areas where water can accumulate. Any floor that persons will use on the vehicle should be coated with a hard wearing, slip resistant material (Vastap).
 - 2.16 Provision shall be made for Homologation, compliance and full licensing (with exemption) of the vehicle once completely built and approved with the superstructure.
 - 2.17 The vehicle and the customisation shall be designed according to these critical specifications (summary of evidence shall be provided):
 - a) SANS 1518 Transport of dangerous goods — Design, construction, testing, approval and maintenance of road vehicles and portable tanks.
 - b) SANS 20013 Surface vehicles. This specification covers the braking system of motor vehicles and trailers. Maximum design speed exceeding 35km/h intended for use on public roads.
 - c) National Roads Traffic Act with attention to Regulation 240: The carrying capacity of the road.
 - d) Pump to comply to NFPA standards as stipulated in section 7, chapter 4.3.

3. Material specification

The water tank will be made from an automotive grade stainless steel, polycarbonate or composite plastic or a similar material. The roll up locker doors shall be made of aluminium or a suitable alloy that is low mass and corrosion resistant for the application. The superstructure enclosing the water tank, pump and the subsystems of the superstructure and the chassis shall be constructed of a lightweight corrosion resistant material.

4. Construction requirements

4.1 Water Tank

- 4.1.1 All mounting to be in accordance with directives specified by the Original Equipment Manufacturer (OEM). Mounting shall be rubber block system to resist the vigor of road and uneven terrain.

- 4.1.2 The tank shall have a minimum capacity of 7000 litres for the 4x2, 6000 litres for the 4x4 and 12 000 litres for the 6x4 and 6x6. It shall be suitable to handle grey and salt water.
- 4.1.3 Suitable baffles shall be designed and installed to the tank interior to increase the strength due to water surge and sloshing that will be experienced.
- 4.1.4 The water tank must have an anti swirl plate mounted at the discharge side. The tank must have a suitable dump valve to discharge the excess water quickly and in a suitable location. Ball valve type shall be fitted.
- 4.1.5 Overflow and discharge shall be positioned behind the rear axle onto the surface the vehicle is parked on. Mounting brackets must be included for the overflow/discharge pipe.
- 4.1.6 A manhole/high level sealable hatch should be incorporated in an easily accessible location for each tank for filling, cleaning and maintenance purposes. It shall incorporate a pressure relief valve and rupture disc protection.
- 4.1.7 Diameter of outflow to the pump shall be equal to the inlet.
- 4.1.8 Two tank filler inlets shall be fitted, one on the right and one on the left, with 65mm male couplings, female blank-caps and be provided with butterfly type valves complete with strainers and non-return valves.
- 4.1.9 All tanks shall be expected to be nondestructive tested, 10x x-ray, waterfill and pressure tested.

4.2 Equipment lockers

- 4.2.1 The superstructure shall be configured in the standard Euro format, with single locker compartments, excluding the pump bay locker.
- 4.2.2 The two lockers must be mounted behind the tank and the rear wheels and will house the high-pressure hose reels and space for equipment.
- 4.2.3 Locker compartments shall be segmented as per the requirement of the Department and locker space shall be adequate to accommodate the equipment. Provision shall be made for the equipment to be mounted with adjustable brackets and holders attached to the vehicle. The total mass of equipment that shall be stored in these lockers will be approx. 1 000 kg;
Storage of (4) suction hoses is accommodated between driver cab and water tank.
 - Pump Bay: Locators for 2 x suction spanners
 - Fixture to hold 3 way collecting breeching
 - Offside locker: Fixed Hose Reel with branch
 - Curbside locker: Fixed Hose Reel with branch
- 4.2.4 Provision must be allowed for the securing of four 110mm x 2-meter hard suction hoses on the roof in enclosed built housings.
- 4.2.5 The hoses shall have BS screw type thread, with a corrosion resistant strainer, which must all be matched to the fire pump specification.
- 4.2.6 These must be housed on the vehicle which is easily accessible. The hoses shall have roller guides on the locker doors such that they do not foul or bend on the superstructure in all directions.
- 4.2.7 All interior service panels shall be of an impact resistant, durable material, resistant to oils, greases and mild acids and alkalis.
- 4.2.8 Accesses to all levels of the equipment and pump compartment are to be made easy by the provision of heavy duty and durable fold-down steps. These steps shall have gas struts to assist the motion and are expected to handle a mass of 450 kg.
- 4.2.9 Locker floors and shelves shall be sufficiently braced and strengthened to accommodate the loads to be placed on them.
- 4.2.10 Proper drainage facilities shall be provided to allow for the cleaning of the locker compartment.
- 4.2.11 Locker doors shall be roll up type.
- 4.2.12 Locker doors shall be constructed of light aluminum alloy.
- 4.2.13 All doors shall be equipped with adequate dust seals.

- 4.2.14 All doors shall be positive lock and lockable.
- 4.2.15 These doors must be dust and waterproof, light alloy roller shutters, doors must be fitted to all lockers and pump compartment.
- 4.2.16 All lockers shall be fitted with interior illumination (LED) and opening of the locker door must activate the light for that locker. The positioning of the light shall ensure maximum light distribution to all shelf levels and be so placed as to avoid accidental damage.

4.3 Pump

- 4.3.1 The pump must be combined centrifugal pump suitable for normal and high-pressure operations and be self priming.
- 4.3.2 The pump housing and impellers must be manufactured from non-corrosive material and it should have robust internals to be able to handle grey and salt water if necessary. All waterways and hoses must also be suitable to handle grey and salt water.
- 4.3.3 The pump be able to deliver high pressure and normal pressure operations simultaneously.
- 4.3.4 Normal pressure output of up to 3500 l/min at 10 bar
- 4.3.5 High pressure output of up to 400 l/min at 40 bar
- 4.3.6 Certified (normal pressure) according to EN1028 FPN 10-2000
- 4.3.7 Certified (high pressure) according to EN1028 FPN 40-250
- 4.3.8 UL classified in accordance with NFPA1901 150-500
- 4.3.9 The suction inlet must be fitted with a strainer. The diameter of the pump inlet must be suitable to the output of the pump and not less than 150mm in diameter.
- 4.3.10 A tank to pump valve suction line having a diameter to supply the pump under all conditions suitable to ratio capacity of the pump.
- 4.3.11 Two high pressure hose reels capable to withstand a minimum pressure of 40 bar.
- 4.3.12 Two valves for the high-pressure hose reel must be fitted at the pump operator's position.
- 4.3.13 Two pre-connected deliveries from the high-pressure side of the pump. The valves for these pre-connected deliveries must be fitted at the pump operator's position.
- 4.3.14 Four (4) normal pressure outlets which must have control valves, 65mm female B/S instantaneous adaptors with blank caps, all of which must be manufactured from corrosion resistant material.

4.4 Hosing and Nozzles

The two high pressure hose reels shall:

- a. Be 30 meters of rubber drag hose with an internal diameter of 25mm
- b. Have electric rewind with manual override
- c. The end of the hose shall be fitted with a high-pressure fog gun with a nominal output of 200L/min at 40 bars. It must be adjustable from straight stream to water fog. The output must be adjustable from 0 to 200 L/min.
- d. In order to facilitate unwinding of the hose and to protect the vehicle superstructure against abrasion and damage, metal guide rollers shall be provided.
- e. The pump must be fitted at the rear of the chassis.

4.5 Water Monitor/Canon

There shall be a water canon mounted on the rear platform;

- a. Have a range of at least 60 meters with full 360-degree rotation.
- b. The device must be connected such that it can utilize the water supply from the tank via the pump.
- c. A valve system shall be employed to use either the hose reels and/or the water monitor via a suitable system splitter.

4.6 Control Panel

All controls for the operation of the machine shall be fitted to an illuminated, lockable, water resistant control panel.

The controls shall where possible be electronic and activate the necessary servos (either pneumatic or hydraulic) that will activate the operation. All actions will be fully adjustable at variable speeds for the operation of the machine. A plug in, modular type, control panel is preferred for ease of maintenance.

All servos and valves to be mounted in a safe and easily accessible place for ease of maintenance.

All electrical devices must be splash resistant.

The unit must have the following controls as a minimum:

- a. Manometer
- b. High pressure manometer
- c. Normal pressure manometer
- d. Water tank level indicator (electronic system)
- e. Control and pilot light for P.T.O. engagement
- f. Illumination of control panel
- g. Engine temperature indication
- h. Electronic control of engine speed
- i. Control for water tank suction valve
- j. Control for foam tank suction valve
- k. Digital counter for operation hours
- l. Pilot light for engine oil pressure
- m. Controls for High pressure hose reels
- n. EMERGENCY cut off switch (Push Button type)
- o. Engine temperature
- p. Diesel tank level gauge
- q. Rear work light

All functions must be clearly marked. Control panel shall have a lock-out feature to protect against unwarranted use.

All items in chapter 4 must be thoroughly sealed with an approved sealer to prevent rusting between mating surfaces and drain holes must be provided in areas where water can accumulate. Any floor that persons will use on the body should be coated with a hard wearing, slip resistant material (Vastap).

1. Power Take Off (PTO)

5.1 The hydraulic pump must be driven either from a closed coupled P.T.O. or a shaft driven system capable of delivering at least 20 % more power than the maximum continuous power rating of the systems driven by it.

5.2 The PTO drive assembly shall be approved by the OEM mechanically and electrically for use on the engine, transmission and the wiring systems of the vehicle for the engagement of the PTO drive. Any modifications to the vehicle to accommodate the P.T.O. must be approved by the truck manufacturer and not affect the trucks warranty in any way.

5.3 The engine, transmission and the other drive line components must not be harmed by use of the PTO.

5.4 The fitment of the P.T.O. should not negatively impact on the vehicles ground clearance.

5.5 Electronic control module and wiring harness which incorporates the “Rev Up Limiter” must be integrated into the existing OEM vehicle using the OEM 24 Volt system.

5.6 The PTO must only run when the PTO switch is engaged.

5.7 The system shall allow for “pump and roll” operations in first gear whilst the PTO is engaged.

5.8 All exposed electrical wiring looms of the chassis cab and superstructure shall be full encased in a flexible protective metallic conduit and securely clamped with fasteners to the chassis or the structure.

5.9 The PTO is expected to handle operation for up to 10 hours therefore additional cooling must be provided if required for the PTO.

5.10 A cardan shaft brake system is preferred to disengage the PTO from the drive shaft when switched off.

6. Lighting

6.1 A LED light should be installed in a suitable position illuminating the working area at the rear of the truck.

6.2 Suitable lighting should be installed within the body providing light for each locker, the pump and the couplings for the tank area.

6.3 Two LED hazard lights should be mounted as follows;

- a) A waterproof slim line bar light approx. 1200mm in length and 200mm in width to be installed on bracket on the front of the cab without drilling into the roof. Generation 3 or 4 type LED consisting of 3 watt, 6x4 modules to the front with end cap modules consisting of 1x2 head modules with red coloured polycarbonate lenses to be fitted to the bracket on the cab roof with on/off switch with random flash pattern positioned in the cab.
- b) Sixteen generation 3 or 4, minimum 3-watt, red LED eight head modules shall be installed on the vehicle. Four on each side, front and the rear of the vehicle. These modules shall have a random flashing pattern with the control switch clearly marked in the driver's cabin.
- c) There shall be LED scene lights to illuminate the vehicle and its surroundings. A minimum of two pairs per side is required and shall be integrated into the superstructure. The controls shall be clearly marked in the driver's cabin.
- d) LED marker lights shall be on the sides and rear of the body. A minimum of four is required per side.

7. Metal Preparation and Painting Procedure

The following procedure must be adhered to:

7.1 Descale all metal surfaces.

7.2 Grind down & smooth all rough edges.

7.3 Thoroughly clean all surfaces.

7.4 Surfaces should be surface blasted to the correct surface finish for the application of the primer and paint.

7.5 Prime all built parts and the superstructure using a two component self-curing inorganic zinc ethyl silicate or two component zinc rich polyamide cured epoxy primer.

7.6 Two primer coats and one-color coat shall be minimum.

7.7 Paint film thickness must not be less than 80 microns each.

8. Colors

Underside of Body (superstructure and chassis)	: Black
Cab and Body	: Chrome Yellow RAL 1023
Wheels (rims)	: Gloss white
Bumpers	: Grey
Bull Bar	: Stainless Steel

9. Electrical and towing requirements

All additional electrical circuits are to be suitably fused and must not interfere with or adversely affect the existing electrical system.

- 9.1 Existing taillight units to be replaced with premium quality equal light unit incorporating 30 LEDs or more approx. 100 mm in diameter that are screwed into position with a stainless-steel flange.
- 9.2 Dual indicator stop and taillight units to be fitted on top of the body.
- 9.3 Reversing camera, buzzer and warning flashing light to be installed when reverse gear is engaged in an optimum position. Monitor to be part of the vehicles multimedia system with Bluetooth hands free cellphone connectivity.
- 9.4 Uninterrupted power supply points shall be made available for the two-way radio, vehicle tracking and fuel master monitoring system.
- 9.5 Rear and front tow hitch shall be installed for towing of the vehicle.
- 9.6 Siren and amplifier incorporating public address system that is a 12/24-volt operating system. Capable of handling dual parallel speaker connection. Minimum speaker specification of 8 ohms impedance and 120 to 130-watt RMS. Built-in Thermo fan to allow for optimal cooling of amplifier. Amplifier should have a slim mounting footprint. Minimum 4 as per applicable legislation for vehicles including HRT functionality. Functions to include air horn, independent PA and amplifier to accommodate input and output auxiliary ports. PA volume control to be made easily accessible, either through the microphone or an adjustable volume port on the switch box. A high-quality microphone shall be included in the supply and installation.

10. Signage and Markings

10.1 Data plates shall be fitted for:

- a) The water tank and pump indicating tank capacity, system pressures, fluid type/grade, and other relevant data.
- b) The hydraulic system indicating tank capacity, system pressure, fluid type/grade, hydraulic cylinder specifications and test criteria.
- c) Safety, operation, technical data, dates of manufacture, manufacturer's details etc.

10.2 Rear underrun which shall be designed as a step with non-slip material.

10.3 50% of the rear body shall be a Chevron board with rear lights and rear mudguards (constructed of 3CR12) conforming with the appropriate SABS/SANS standard.

10.4 Durable, ultraviolet resistant and weather resistant warning signs shall be provided at all locations of the vehicle that impose a danger to persons.

10.5 Durable, ultraviolet resistant and weather resistant information signs (pump, lockers, tank valves, inlets and outlets, equipment lockers and critical info for the chassis like fuel, oil, washer fluid, hydraulic oil, transmission oil etc.) shall be provided in specific locations to assist the driver/maintenance staff with the operation/maintenance of the vehicle.

10.6 Retro-reflective tape shall be fitted to both sides and the rear of the superstructure as well as the rear bumper.

10.7 Two pairs of red prismatic retroreflectors shall be fitted to the rear of the vehicle and two pairs of amber prismatic retroreflectors shall be fitted to either side of the vehicle.

10.8 The term FIRE AND RESCUE shall be supplied and fitted at the rear and reverse writing of same in the front. Each side of the vehicle shall have sign writing in two languages including call sign, emergency phone number and eThekwini Fire and Safety decals.

12. Miscellaneous items

12.1 The batteries to have a weather proof cover to prevent debris and moisture ingress and shall be mounted in the rear locker in a well-ventilated suitable storage enclosure. Batteries shall be a high capacity maintenance free pair that shall not require auxiliary batteries.

- 12.2 Battery isolator switch shall be installed close to 12.1.
- 12.2 Fuel tank, batteries, pneumatic cylinders and hydraulic tank to have structures built around them for safety where the superstructure does not enclose it.
- 12.3 Bolt on covers for safety where parts are rotating, swinging or of high temperature.
- 12.5 Bolt on head and tail light guards.
- 12.6 Front and rear mud flaps.
- 12.7 One spare wheel to be included per vehicle.
- 12.8 One spare set of wheels for front and rear axles to be included per vehicle.
- 12.9 All tyres supplied shall keep their integrity for a minimum of five years.

Maintenance

There must be sufficient information to allow the capture of maintenance schedules in terms of inspections, servicing and replacement of parts. Three hardcopies and three electronic copies of the operating, maintenance, training and spare parts manuals shall be provided, as well as a training manual for each trainee (operator, maintenance staff and driver). Training shall be provided for 8 firemen, 4 training officers and 4 mechanics.

Important Notes

Prospective tenderers must ensure that they read the specific Contractual Conditions applicable to this contract which appear on the chapter immediately preceding the Technical Specification.

Applicable standards and specifications

The following, not necessarily comprehensive, list of standard specifications are relevant (latest revisions to be adhered to):

ANSI/AWS D1.1 Structural Welding Code

Steel BS-EN 287 Part 1 Approval testing of welders/fusion welding

BS-EN 288 Part 3 Specification and approval of welding procedures for metallic materials

BS 5135 Metal arc welding of carbon and carbon manganese steels

BS 3923 Methods for ultrasonic examination of welds

BS 2600 Radiographic examination of fusion welded butt joints in steel

BS 5493 Code of practice for protective coating of iron and steel structures against corrosion

DIN 1026 Metric channels

ISO R657 Angles

SANS 135 ISO metric bolts, screws and nuts (hexagon and square) (coarse thread, free fit series)

SANS 136 ISO metric precision hexagon-head bolts and screws, and hexagon nuts (coarse thread medium fit series)

SANS 064 Preparation of steel surfaces for coating

SANS 763 Hot-dip (galvanized) zinc coatings

SANS 1091 National colour standards for paint

SANS 1431 Weldable structural steels

SABS 1046, SABS 1376 Lights and retro-reflective devices

SABS 1051, 1447, SANS 20013, SANS 6292 Brakes and braking equipment

SABS 1329 Rear warning sign (chevron)
 SANS 1055 Rear underrun protection device
 SANS 1496 Wheel flaps
 SABS 1447 Pneumatic braking connections
 SANS 3779 Vehicle identification number
 Vehicle dimensions NRTA Act no.93 of 1996
 Data plates Compulsory Vehicle Standards

Item 3: Technical specification for rapid intervention vehicle

1. Scope

The intent of this specification is to provide modifications and customization for a fully operational vehicle, which has the capability to do on site fire, rescue and safety application.

2. Vehicle

- 2.1 The vehicle for the customization for this item shall be a manual/automatic transmission 4x4 high powered single/double cab LDV. Bidder shall provide bids on vehicles including make and model that they can offer in Section 8. The engine capacity should be a minimum of 140 kW power and 400 Nm torque.
- 2.2 The vehicle shall be fit with the following accessories (if they are not standard on the vehicle);
 - 2.2.1 Multimedia Radio unit with Bluetooth handsfree cellphone capability and speakers and mic.
 - 2.2.2 Reverse camera which should integrate with monitor in 2.2.1.
 - 2.2.3 Heavy duty ADR compliant front bull bar with fog lamps (should use existing fog lamp switching of vehicle's). The bull bar must follow the entire front contour of the vehicle and guard the entire front of the vehicle and its components. It shall have the strength resistance to push a vehicle out of the way in an emergency situation.
 - 2.2.4 Heavy duty winch (M9000) with safety hook.
 - 2.2.5 Side steps (left and right) for front and rear persons to enter the cabin easily.
 - 2.2.6 Underbelly protection for the radiator, intercooler, engine and transmission. Light weight anti-corrosion structural steel shall be used with lock washers and bolted on.
 - 2.2.7 All glass windows (excl. windscreen) to be smash and grab tinted to the maximum allowed legal limit.
 - 2.2.8 All seats to be fitted with heavy duty seat covers of a premium material for maximum protection of the primary seat cover/lining.
 - 2.2.9 Suspension upgrade for front and rear axles including;
 - Spring toy and bush kit
 - Dakar/Rally specification leaf springs
 - Coil spring toy
 - Sway bar kit
 - Sport shock absorbers
 - Or similar heavy-duty OEM suspension upgrade.
 - 2.2.8 Tyres to be upgraded to BF Goodrich 285x70x17 or similar all terrain type (old/original tyres to be returned)

3. Material specification

The load bearing structures shall be made from light weight structural steel to withstand the payload and wear. Aluminium and/or stainless steel is recommended.

4. Construction requirements

All items shall be bolted and fastened with lock washers onto the rear body. Adaptor plates/assemblies shall be welded where necessary to create a sub-mounting point for the various storage compartments and equipment. The configuration shall be such that all equipment and structures fitted can be removed to return the vehicle to close to original as possible.

4.1 Rear access loading area

- 4.1.1 Aluminium gullwing lockers to be built to height of the driver's cab. Locking system with gas lifts for each door is required. Equipment shelves and brackets to accommodate equipment and tooling as described in chapter 5.
- 4.1.2 25 kg DCP Fire extinguisher.
- 4.1.3 First attack 300-550 litre stainless steel tank foam system with water canon system.

4.2 Equipment requirements

4.2.1 Hydraulic tools:

- a) Combi tool Gct 5111 Evo
- b) RAM GRA 4331 Set with Telescopic Extensions
- c) Batteries BPA 285 28V 5Ah
- d) Charger BCH3 12 -24V AC 28V DC

4.2.2 Category 3 Equipment

- a) Adjustable wrench
- b) Axe, Rescue, Large non-Wedge Type
- c) Axe, Rescue, Small Non-Wedge or Aircraft Type
- d) Bolt cutter 61cm
- e) Crowbar 95cm
- f) Cold Chisel 2,5cm
- g) Flashlight/ Hand Lamps LED Rechargeable 800 Lumen
- h) Hammer 1.8kg
- i) Hook, Grab or Salving
- j) Saw, Metal Cutting or Hacksaw, Heavy Duty, complete with spare blades
- k) Fire Resisting Blanket
- l) Ladder, 4.2m extending certified appropriate to the aircraft types in use
- m) Rope lines, Karabiners, in carry bag
- n) Pliers 17.8cm, side cutting
- o) Pliers slip joint 25cm
- p) Screwdrivers, assorted (set)
- q) Tin snippers
- r) Chocks 10cm high
- s) Powered Rescue Saw Complete with two blades; Hilti Reciprocating Saw – 22v Battery Powered
- t) Seat Belt/Harness Cutting Tool
- u) Flame resistant pair of gloves
- v) Breathing Apparatus Complete with Back Plate, demand valve and 300 bar cylinder
- w) Spare 300 bar cylinder
- x) Spine board c/w head blocks and spider harness
- y) Medical first aid kit – jump bag

- z) Tarpaulin salvage sheet
- aa) Basket stretcher c/w sling
- bb) Rescue Roll
- cc) Supply and fit 6.5lb 40" TNT multi-purpose fire tool
- dd) High lift jacks
- ee) Hooligan tool
- ff) Fireman's axe
- gg) Tripod with LED lights

All items in chapter 4 must be thoroughly sealed with an approved sealer to prevent rusting between mating surfaces. Any floor that persons will use on the body should be coated with a hard wearing, slip resistant material, preferably rubber or polyurethane. The shelving shall have a non-slip rubber lining to reduce movement of items placed on it.

5. Lighting

5.1 A waterproof slim line bar light 1200 mm in length and 200 mm in width to be installed on bracket on the front of the cab without drilling into the roof. Generation 3 type LED consisting of 3 watt, 6x4 modules to the front with end cap modules consisting of 1x2 head modules with red coloured polycarbonate lenses to be fitted to the bracket on the cab roof with on/off switch with random flash pattern positioned in the cab. A pair of emergency LED lights to be installed on the top of the rear tailgate.

5.2 Three adjustable rubber encased 48w LED spotlight shall be installed to the rear top of loading area. A pair of LED scene lights on each side of the vehicle. Switches shall be in an easy reachable position at the side access door.

5.3 A 100-120 w Spot Light 430-450 mm 7560 LM.

5.4 Four amber 3/4watt three head modules to be installed on the side of the vehicle. Two per side. Shall be connected to the existing lighting system of the vehicle.

5.4 Storage boxes in 4.1 shall have interior LED lights, minimum of four. Switches to be installed close to the opening.

6. Metal Preparation and Painting Procedure

The following procedure must be adhered to:

- 6.1 Descale all metal surfaces
- 6.2 Grind down & smooth all rough edges
- 6.3 Thoroughly clean all surfaces
- 6.4 Untreated steel should be galvanized, and powder coated.

7. Colors

Shelving internal	Rubberized interior
Vehicle exterior	Chrome Yellow RAL 1023
Load Bin internal	Polyurethane coated

8. Electrical and coupling requirements

All additional electrical circuits are to be suitably fused and must not interfere with or adversely affect the existing electrical system.

- 8.1 Uninterrupted power supply points shall be made available for the vehicle tracking and fuel master monitoring system.

- 8.2 Trailer light socket to be fitted adjacent to the slimline tow hitch. Electrical connector complying to; SANS 1327: Electrical connectors for towing and towed vehicles and,
- 8.3 SANS 11446/ ISO 11446: Passenger cars and light commercial vehicles with 12 V systems -3-pole connectors between towing vehicles and trailers - Dimensions and contact allocation
- 8.4 Trailer coupling to comply with SABS 1505, Ball type couplings and towing brackets for towing caravans and light trailers.

9. Signage and Markings

- 9.1 Data plates shall be fitted labelling the storage areas and capacity. Safe working loads should be labelled where necessary on the items mention in chapter 4.
- 9.2 Safety, operation, technical data, dates of manufacture, manufacturer's details etc.
- 9.3 Durable, ultraviolet resistant and weather resistant warning signs shall be provided at all locations of the vehicle that impose a danger to persons.
- 9.4 Durable, ultraviolet resistant and weather resistant information signs shall be provided in specific locations to assist the driver/maintenance staff with the operation/maintenance of the vehicle.
- 9.5 Retro-reflective tape shall be fitted to both sides and the rear of the vehicle as well as the rear bumper.
- 9.6 Registration number to be clearly marked on roof.

ITEM 4: Technical specification for a Heavy rescue vehicle

1. Scope

The intent of this specification is to supply a commercial vehicle with a rear mounted which shall be used for emergency applications by the eThekweni Fire and Emergency Service department.

The bidder shall provide bids on a 6x4 and 6x6 chassis cab where possible.

Pre-delivery inspection of the completed vehicle and superstructure will be only deemed complete after acceptance test and used once in field operations and conditions.

The vehicles with the customisation shall be supplied complete and fully assembled in all respects, including standard equipment supplied by the manufacturer and shall comply with the South African Occupational Health and Safety Act, Act 85 of 1993/as amended and the applicable current Road Traffic Legislation. All work on the vehicle including the customisation is to be constructed by an SABS/SANS approved body/coach/vehicle manufacturer/ builder. The total operating mass of the vehicle and its customisation should not exceed the trucks legal V rating less 1000 kg. The layout should also ensure that the laden individual axle loads do not exceed the legal limits.

The vehicle and its customisation shall be to I.S.O. Metric Standards, and instrumentation gauges, dials, etc. shall be in Systeme International (S.I.) units.

Prospective tenderers must ensure that they read the specific Contractual Conditions applicable to this contract which appear in the section immediately preceding Section 7.

Each vehicle must be supplied with detailed maintenance, operating, training and spares manuals (in English), including technical data for each spare, as well as general arrangement drawings and a bill of materials.

There must be sufficient information to allow the capture of maintenance schedules in terms of inspections, servicing and replacement of parts. Three hardcopies and three electronic copies of the

operating, maintenance, training and spare parts manuals shall be provided, as well as a training manual for each trainee.

PTO calibration shall be performed after tracking device is installed on the vehicle by eThekweni City Fleet.

Vehicle shall be accepted after field tested including all subsystems of the primary vehicle and superstructure equipment.

All exposed electrical wiring looms of the chassis cab shall be full encased in a flexible protective metallic conduit and securely clamped with fasteners to the chassis or the structure.

All primary vehicles (chassis cabs) shall be suitable for the specific application, this must be reinforced evidence as requested in Section 4.

In each listed item for supply, chapter 2 specifies accessories and additional equipment for the vehicle that is expected to be provided by the OEM ex-factory. If these are standard items available on the bidders make and model specify as such. Should these items be additional options/extras offered by the OEM itemize these accordingly in the submission. Should the OEM not offer these options and only offer aftermarket retro fitment solutions these items must accompany the bidder's response as an annexure stating so. Bidders are asked to be diligent in this process with attention to items like the sunroof, tyre pressure monitoring system, Bluetooth audio/hands free multimedia system with reverse camera, engine and fuel safety equipment and auto lubrication systems where applicable.

The CANBUS interface shall be able to read the following;

Factory remote Alarm

Factory's remote

Factory's remote - 3x Arm

Parking

Reverse

Parking lights

Dipped headlights

Full beam headlights

Rear fog lights

Front fog lights

AC turned on

Cruise

Automatic retarder

Manual retarder

Driver's seat belt

CHECK ENGINE (MIL)

ABS ESP ESP OFF

Oil pressure / level

Coolant temperature / level

Battery charging

Handbrake system

Warning Low fuel
 Glow plug indicator
 Rear PTO turned on
 Engine lifetime from dashboard
 Engine lifetime - Counted Vehicle mileage
 Vehicle mileage - Counted
 Total fuel consumption
 Total fuel consumption - Counted
 Fuel level (Dashboard)
 Fuel level (Dashboard) - Liters
 Engine speed (RPM)
 Engine temperature
 Vehicle speed
 Axle 1 load
 Axle 2 load
 Axle 3 load
 Axle 4 load
 Axle 5 load
 AdBlue level (Dashboard)
 Acceleration pedal position
 Engine torque
 Retarder torque
 Distance to service
 Outside temperature
 Weight load
 SIMPLE TACHO

CANBUS speed shall within a range of 33,33 to 500 kb/s or better.

Bidder shall provide a list of what can be read from their CANBUS interface and what system is required to interface it.

At the end Section 7 other specifications/standards are covered that will be adhered to.

2. Vehicle (chassis cab variants)

Item 1.1: 6x4 chassis cab for a water carrier vehicle

2.1 The chassis/body shall be a 6x4 single cab chassis cab truck, with a minimum Gross Vehicle Mass (GVM) of 24 000 kg.

2.2 Transmission shall be automatic manual transmission (AMT) and fully automatic. Bidder shall provide a bid on either/both options.

- 2.3 Minimum diesel engine requirements shall be a Euro 3 to 5, 230 kW of power and 1200 Nm of torque.
- 2.4 A fully laden minimum grade ability of 25 % shall be expected. Maximum speed of not less than 80 km/hr.
- 2.5 ABS brakes is mandatory with a retarder (operated via floor brake pedal).
- 2.6 Rear axle shall have full hub reduction.
- 2.7 Forward hydraulic operated tilt cab with safety holding mechanism. Underside of cab shall have heat shields to deflect heat from the floor and interior of the driver's cab.

Item 1.2: 6x6 chassis cab for a water carrier vehicle

- 2.1 The chassis/body shall be a 6x6 single cab chassis cab truck, with a minimum Gross Vehicle Mass (GVM) of 25 000 kg.
- 2.2 Transmission shall be manual, automatic manual transmission (AMT) and fully automatic. Bidder shall provide an option on one or all if offered with an integrated retarder operated via the foot brake pedal.
- 2.3 Minimum diesel engine requirements shall be a Euro 3 to 5, 230 kW of power and 1 200 Nm of torque.
- 2.4 A fully laden minimum grade ability of 25 % shall be expected. Maximum speed of not less than 80 km/hr.
- 2.5 ABS brakes is mandatory.
- 2.6 Forward hydraulic operated tilt cab with safety holding mechanism. Underside of cab shall have heat shields to deflect heat from the floor and interior of the driver's cab.

Chassis cab accessories and relevant standards that all chassis cabs must comply to;

- 2.1 Full rubber mat set with holders to prevent movement.
- 2.2 All seats to be fitted with heavy duty seat covers of a premium material for maximum protection of the primary seat cover/lining.
- 2.3 Smash and grab tinted windows. Film shall be 80% shade level and 150-micron thickness to be applied to all windows.
- 2.4 To safely and comfortably accommodate a driver and five passengers.
- 2.5 Heater, windscreen demister and air-conditioning system should be adequate for the cab and its occupants.
- 2.6 Spotlight to be fitted in the driver's cab facing the front of the cab. Shall be in a position to be operated by the front passenger.
- 2.7 Bluetooth Radio and speakers/mic (with handsfree cellphone capability), 12v cigarette lighter/charger sockets.
- 2.8 Wireless/Bluetooth tyre pressure monitoring system.
- 2.9 Front bull bar for the width of the vehicle shall be installed. It shall follow the profile contour of the front of the vehicle. Shall be bolt on and constructed out of automotive grade stainless steel. The fitment of the front bulbar shall not inhibit the front tow hitch which must be in an easily accessible position.
- 2.10 Pair of LED fog lamps (minimum 30W) to be installed on the bulbar. Switch to be OEM type with relay and fuse.
- 2.11 Front and rear tow hitch points to be available.
- 2.12 Fuel tank shall be fitted with a lockable fuel cap. Minimum capacity of 200 liters is required.
- 2.13 No sunroof.
- 2.14 All items including structural members must be thoroughly sealed with an approved sealer to prevent rusting between mating surfaces and drain holes must be provided in areas where water can accumulate. Any floor that persons will use on the vehicle should be coated with a hard wearing, slip resistant material (Vastrap).
- 2.15 Provision shall be made for Homologation, compliance and full licensing (with exemption) of the vehicle once completely built and approved with the superstructure.

2.16 The vehicle and the customisation shall be designed according to these critical specifications (summary of evidence shall be provided):

- a) SANS 1518 Transport of dangerous goods — Design, construction, testing, approval and maintenance of road vehicles and portable tanks.
- b) SANS 20013 Surface vehicles. This specification covers the braking system of motor vehicles and trailers. Maximum design speed exceeding 35km/h intended for use on public roads.
- c) National Roads Traffic Act with attention to Regulation 240: The carrying capacity of the road.
- d) Pump to comply to NFPA standards as stipulated in section 7, chapter 4.3.

3. Material specification

The superstructure will be made from an automotive grade stainless steel, 3CR12 or a similar lightweight corrosion resistant material. The roll up locker doors shall be made of aluminium or a suitable alloy that is low mass and corrosion resistant for the application.

4. Construction requirements

4.1 Crane

- 4.1.1 The crane shall be mounted at the rear of the chassis/body on a suitable subframe for the application.
- 4.1.2 There shall be a pair of hydraulic outriggers mounted at the crane and the rear body.
- 4.1.3 The crane and the outriggers shall be preferably a single unit including sub systems and components to power it.
- 4.1.4 The crane shall have a minimum lifting capacity of 30 tons/meter and an outreach of 22 meters.
- 4.1.5 Crane shall be ergonomically designed with an agile profile and low tare mass.
- 4.1.6 The crane shall have the following interchangeable options for the lift accessories:
 - 4.1.6.1 30 000 kg Rotator knuckle with a hook and safety catch.
 - 4.1.6.2 Lifting tackle (SANS 10388) to recover various vehicles/equipment.
 - 4.1.6.3 Lifting bar with tackle (SANS 10388) to recover various vehicles/equipment.
- 4.1.7 Shall comply to DIN 15018.
- 4.1.8 Shall comply to shall the South African Occupational Health and Safety Act, Act 85 of 1993, Driven Machinery Regulations 2015.
- 4.1.9 Shall comply to SANS 1599 with particular attention to Part 2: Power driven mobile cranes.
- 4.1.10 The crane should have a light illuminating its hydraulic controls and adjustable light on the sides of the vehicle to illuminate the reached work area.

4.2 Crane Controls

- 4.2.1 Should have controls for complete articulation and movement in all degrees of freedom except movement that can inflict damage to itself and the chassis/driver's cab.
- 4.2.2 Load sensing devices to warn when maximum payload and dimensional limits are reached.
- 4.2.3 Crane must only be operable with hydraulic outriggers in their extended position.
- 4.2.4 A hold valve/ safety device shall be installed to hold the crane in the raised position in case of hydraulic failure. An alternative method (manual, pneumatic, electric) shall be used to return the crane to "home" position.
- 4.2.5 Manual and remote-control system to operate the crane with a rechargeable port for the remote control in the location holder.

4.3 Winch

- 4.3.1 Minimum 9 ton pull capacity (SAE -J706), minimum 12 mm cable diameter, planetary gearing system and wired remote control.
- 4.3.2 Bidder to provide relevant hydroelectric system for the winch to operate including, hydraulic tank, motor/pump power pack, all necessary filters, piping, couplers, installation hardware and

consumables including hydraulic oil. The winch should include; automatic load holding brake, corded remote control (minimum 4 metres) and a minimum 25 m line with a snap safety hook.

4.3.3 The winch shall be mounted at the rear of the vehicle where the tow hitch would normally be located.

4.4 Generator

4.4.1 A minimum 9kVA generator. Voltage shall be AC 220-240V. Electronic start.

4.4.2 The generator's mounting shall be designed to eliminate any vibrations. Preferably rubber block type on a suitable frame. It shall be mounted in of the lockers on a pull out subframe.

4.4.3 Generator shall have a fully enclosed sound and waterproof enclosure with adequate ventilation for the self powered engine with cooling fans if required.

4.4.4 Preferably low noise set.

4.4.5 Fuel tank for the generator shall be of adequate capacity for a 4-6 hour shift of continuous use.

4.4.6 All functions must be clearly marked.

4.4.7 The system shall be a self powered. Lockable battery unit to be fitted on the unit. A solar panel should provide charge to the battery.

4.4.8 Battery shall be maintenance free high capacity unit.

4.4.9 The engine shall be a "famous" brand with adequate suppliers of service and spare parts available.

4.4.10 Emergency shut down.

4.4.11 Overload cut off.

4.4.12 Engine protection device for overheating and low oil pressure.

4.4.13 Automatic turn on/off when loss/gain of power detected.

4.4.14 All consumables and cabling for installation to be supplied.

4.4.15 One ac outlet in a weatherproof box shall be mounted on each side on the rear of the vehicle.

4.4.16 It shall be mounted in of the lockers on a pull out subframe.

4.5 Equipment lockers

4.5.1 The superstructure shall be configured in the standard Euro format, with eight locker compartments of which one will house the generator.

4.5.2 Locker compartments shall be segmented as per the requirement of the Department and locker space shall be adequate to accommodate the equipment. Provision shall be made for the equipment to be mounted with adjustable brackets and holders attached to the vehicle.

4.5.3 Two lockers on each side must be fitted with a vertical pull out panel for equipment stowage.

4.5.4 One locker on each side of the vehicle must have a shelf fitted with a minimum load of 150 kg constructed from aluminum.

4.5.5 All interior service panels shall be of an impact resistant, durable material, resistant to oils, greases and mild acids and alkalis.

4.5.6 Accesses to all levels of the equipment and pump compartment are to be made easy by the provision of heavy duty and durable fold-down steps. These steps shall have gas struts to assist the motion and are expected to handle a mass of 450 kg.

4.5.7 Locker floors and shelves shall be sufficiently braced and strengthened to accommodate the loads to be placed on them.

4.5.8 Proper drainage facilities shall be provided to allow for the cleaning of the locker compartment.

4.5.9 Locker doors shall be roll up type.

4.5.10 Locker doors shall be constructed of light aluminum alloy.

4.5.11 All doors shall be equipped with adequate dust seals.

4.5.12 All doors shall be positive lock and lockable.

4.5.13 These doors must be dust and waterproof, light alloy roller shutters, doors must be fitted to all lockers and pump compartment.

4.5.14 All lockers shall be fitted with interior illumination (LED) and opening of the locker door must activate the light for that locker. The positioning of the light shall ensure maximum light distribution to all shelf levels and be so placed as to avoid accidental damage.

All items in chapter 4 must be thoroughly sealed with an approved sealer to prevent rusting between mating surfaces and drain holes must be provided in areas where water can accumulate. Any floor that persons will use on the body should be coated with a hard wearing, slip resistant material (Vastrap).

5. Power Take Off (PTO)

5.1 The hydraulic pump must be driven either from a closed coupled P.T.O. or a shaft driven system capable of delivering at least 20 % more power than the maximum continuous power rating of the systems driven by it.

5.2 The PTO drive assembly shall be approved by the OEM mechanically and electrically for use on the engine, transmission and the wiring systems of the vehicle for the engagement of the PTO drive. Any modifications to the vehicle to accommodate the P.T.O. must be approved by the truck manufacturer and not affect the trucks warranty in any way.

5.3 The engine, transmission and the other drive line components must not be harmed by use of the PTO.

5.4 The fitment of the P.T.O. should not negatively impact on the vehicles ground clearance.

5.5 Electronic control module and wiring harness which incorporates the “Rev Up Limiter” must be integrated into the existing OEM vehicle using the OEM 24 Volt system.

5.6 The PTO must only run when the PTO switch is engaged.

5.7 The system shall allow for “pump and roll” operations in first gear whilst the PTO is engaged.

5.8 All exposed electrical wiring looms of the chassis cab and superstructure shall be full encased in a flexible protective metallic conduit and securely clamped with fasteners to the chassis or the structure.

5.9 The PTO is expected to handle operation for up to 10 hours therefore additional cooling must be provided if required for the PTO.

5.10 A cardan shaft brake system is preferred to disengage the PTO from the drive shaft when switched off.

6. Lighting

6.1 A LED light should be installed in a suitable position illuminating the working area at the rear of the truck.

6.4 Suitable lighting should be installed within the body providing light for each locker, the pump and the couplings for the tank area.

6.5 Two LED hazard lights should be mounted as follows;

- a) A waterproof slim line bar light approx. 1200mm in length and 200mm in width to be installed on bracket on the front of the cab without drilling into the roof. Generation 3 or 4 type LED consisting of 3 watt, 6x4 modules to the front with end cap modules consisting of 1x2 head modules with red coloured polycarbonate lenses to be fitted to the bracket on the cab roof with on/off switch with random flash pattern positioned in the cab.
- b) Sixteen generation 3 or 4, minimum 3-watt, red LED eight head modules shall be installed on the vehicle. Four on each side, front and the rear of the vehicle. These modules shall have a random flashing pattern with the control switch clearly marked in the driver’s cabin.
- c) There shall be LED scene lights to illuminate the vehicle and its surroundings. A minimum of two pairs per side is required and shall be integrated into the superstructure. The controls shall be clearly marked in the driver’s cabin.
- d) LED marker lights shall be on the sides and rear of the body. A minimum of four is required per side.

7. Metal Preparation and Painting Procedure

The following procedure must be adhered to:

- 7.1 Descale all metal surfaces.
- 7.2 Grind down & smooth all rough edges.
- 7.3 Thoroughly clean all surfaces.
- 7.4 Surfaces should be surface blasted to the correct surface finish for the application of the primer and paint.
- 7.5 Prime all built parts and the superstructure using a two component self-curing inorganic zinc ethyl silicate or two component zinc rich polyamide cured epoxy primer.
- 7.6 Two primer coats and one-color coat shall be minimum.
- 7.7 Paint film thickness must not be less than 80 microns each.

8. Colors

Underside of Body (superstructure and chassis)	: Black
Cab and Body	: Chrome Yellow RAL 1023
Wheels (rims)	: Gloss white
Bumpers	: Grey
Bull Bar	: Stainless Steel

9. Electrical and towing requirements

All additional electrical circuits are to be suitably fused and must not interfere with or adversely affect the existing electrical system.

- 9.1 Existing taillight units to be replaced with premium quality equal light unit incorporating 30 LEDs or more approx. 100 mm in diameter that are screwed into position with a stainless-steel flange.
- 9.2 Dual indicator stop and taillight units to be fitted on top of the body.
- 9.3 Reversing camera, buzzer and warning flashing light to be installed when reverse gear is engaged in an optimum position. Monitor to be part of the vehicles multimedia system with Bluetooth hands free cellphone connectivity.
- 9.4 Uninterrupted power supply points shall be made available for the two-way radio, vehicle tracking and fuel master monitoring system.
- 9.5 Rear and front tow hitch shall be installed for towing of the vehicle.
- 9.6 Siren and amplifier incorporating public address system that is a 12/24-volt operating system. Capable of handling dual parallel speaker connection. Minimum speaker specification of 8 ohms impedance and 120 to 130-watt RMS. Built-in Thermo fan to allow for optimal cooling of amplifier. Amplifier should have a slim mounting footprint. Minimum 4 as per applicable legislation for vehicles including HRT functionality. Functions to include air horn, independent PA and amplifier to accommodate input and output auxiliary ports. PA volume control to be made easily accessible, either through the microphone or an adjustable volume port on the switch box. A high-quality microphone shall be included in the supply and installation.

10. Signage and Markings

10.1 Data plates shall be fitted for:

- a) The winch, crane and hydraulic pump indicating tank capacity, system pressures, fluid type/grade, and other relevant data.
- b) The hydraulic system indicating tank capacity, system pressure, fluid type/grade, hydraulic cylinder specifications and test criteria.
- c) Safety, operation, technical data, dates of manufacture, manufacturer's details etc.

10.2 Rear underrun which shall be designed as a step with non-slip material.

10.3 50% of the rear body shall be a Chevron board with rear lights and rear mudguards (constructed of 3CR12) conforming with the appropriate SABS/SANS standard.

10.4 Durable, ultraviolet resistant and weather resistant warning signs shall be provided at all locations of the vehicle that impose a danger to persons.

10.5 Durable, ultraviolet resistant and weather resistant information signs (pump, lockers, tank valves, inlets and outlets, equipment lockers and critical info for the chassis like fuel, oil, washer fluid, hydraulic oil, transmission oil etc.) shall be provided in specific locations to assist the driver/maintenance staff with the operation/maintenance of the vehicle.

10.6 Retro-reflective tape shall be fitted to both sides and the rear of the superstructure as well as the rear bumper.

10.7 Two pairs of red prismatic retroreflectors shall be fitted to the rear of the vehicle and two pairs of amber prismatic retroreflectors shall be fitted to either side of the vehicle.

10.8 The term FIRE AND RESCUE shall be supplied and fitted at the rear and reverse writing of same in the front. Each side of the vehicle shall have sign writing in two languages including call sign, emergency phone number and eThekweni Fire and Safety decals.

11. Miscellaneous items

11.1 The batteries to have a weather proof cover to prevent debris and moisture ingress and shall be mounted in the rear locker in a well-ventilated suitable storage enclosure. Batteries shall be a high capacity maintenance free pair that shall not require auxiliary batteries.

11.2 Battery isolator switch shall be installed close to 11.1.

11.3 Fuel tank, batteries, pneumatic cylinders and hydraulic tank to have structures built around them for safety where the superstructure does not enclose it.

11.4 Bolt on covers for safety where parts are rotating, swinging or of high temperature.

11.5 Bolt on head and tail light guards.

11.6 Front and rear mud flaps.

11.7 One spare wheel to be included per vehicle.

11.8 One spare set of wheels for front and rear axles to be included per vehicle.

11.9 All tyres supplied shall keep their integrity for a minimum of five years.

11.10 Four pairs of heavy duty wheel chocks.

Maintenance

There must be sufficient information to allow the capture of maintenance schedules in terms of inspections, servicing and replacement of parts. Three hardcopies and three electronic copies of the operating, maintenance, training and spare parts manuals shall be provided, as well as a training manual for each trainee (operator, maintenance staff and driver). Training shall be provided for 8 firemen, 4 training officers and 4 mechanics.

Important Notes

Prospective tenderers must ensure that they read the specific Contractual Conditions applicable to this contract which appear on the chapter immediately preceding the Technical Specification.

Applicable standards and specifications

The following, not necessarily comprehensive, list of standard specifications are relevant (latest revisions to be adhered to):

ANSI/AWS D1.1 Structural Welding Code

Steel BS-EN 287 Part 1 Approval testing of welders/fusion welding

BS-EN 288 Part 3 Specification and approval of welding procedures for metallic materials

BS 5135 Metal arc welding of carbon and carbon manganese steels

BS 3923 Methods for ultrasonic examination of welds

BS 2600 Radiographic examination of fusion welded butt joints in steel

BS 5493 Code of practice for protective coating of iron and steel structures against corrosion

DIN 1026 Metric channels

ISO R657 Angles

SANS 135 ISO metric bolts, screws and nuts (hexagon and square) (coarse thread, free fit series)

SANS 136 ISO metric precision hexagon-head bolts and screws, and hexagon nuts (coarse thread medium fit series)

SANS 064 Preparation of steel surfaces for coating

SANS 763 Hot-dip (galvanized) zinc coatings

SANS 1091 National colour standards for paint

SANS 1431 Weldable structural steels

SABS 1046, SABS 1376 Lights and retro-reflective devices

SABS 1051, 1447, SANS 20013, SANS 6292 Brakes and braking equipment

SABS 1329 Rear warning sign (chevron)

SANS 1055 Rear underrun protection device

SANS 1496 Wheel flaps

SABS 1447 Pneumatic braking connections

SANS 3779 Vehicle identification number

Vehicle dimensions NRTA Act no.93 of 1996

Data plates Compulsory Vehicle Standards

ITEM 5: Technical specification for a Breathing apparatus/Hazchem vehicle

1. Scope

The intent of this specification is to supply a commercial vehicle with a generator and compressor which shall be used for emergency applications by the eThekweni Fire and Emergency Service department.

The bidder shall provide bids on a 6x4 and 6x6 chassis cab where possible.

Pre-delivery inspection of the completed vehicle and superstructure will be only deemed complete after acceptance test and used once in field operations and conditions.

The vehicles with the customisation shall be supplied complete and fully assembled in all respects, including standard equipment supplied by the manufacturer and shall comply with the South African Occupational Health and Safety Act, Act 85 of 1993/as amended and the applicable current Road Traffic Legislation. All work on the vehicle including the customisation is to be constructed by an

SABS/SANS approved body/coach/vehicle manufacturer/ builder. The total operating mass of the vehicle and its customisation should not exceed the trucks legal V rating less 1000 kg. The layout should also ensure that the laden individual axle loads do not exceed the legal limits.

The vehicle and its customisation shall be to I.S.O. Metric Standards, and instrumentation gauges, dials, etc. shall be in Systeme International (S.I.) units.

Prospective tenderers must ensure that they read the specific Contractual Conditions applicable to this contract which appear in the section immediately preceding Section 7.

Each vehicle must be supplied with detailed maintenance, operating, training and spares manuals (in English), including technical data for each spare, as well as general arrangement drawings and a bill of materials.

There must be sufficient information to allow the capture of maintenance schedules in terms of inspections, servicing and replacement of parts. Three hardcopies and three electronic copies of the operating, maintenance, training and spare parts manuals shall be provided, as well as a training manual for each trainee.

PTO calibration shall be performed after tracking device is installed on the vehicle by eThekweni City Fleet.

Vehicle shall be accepted after field tested including all subsystems of the primary vehicle and superstructure equipment.

All exposed electrical wiring looms of the chassis cab shall be full encased in a flexible protective metallic conduit and securely clamped with fasteners to the chassis or the structure.

All primary vehicles (chassis cabs) shall be suitable for the specific application, this must be reinforced evidence as requested in Section 4.

In each listed item for supply, chapter 2 specifies accessories and additional equipment for the vehicle that is expected to be provided by the OEM ex-factory. If these are standard items available on the bidders make and model specify as such. Should these items be additional options/extras offered by the OEM itemize these accordingly in the submission. Should the OEM not offer these options and only offer aftermarket retro fitment solutions these items must accompany the bidder's response as an annexure stating so. Bidders are asked to be diligent in this process with attention to items like the sunroof, tyre pressure monitoring system, Bluetooth audio/hands free multimedia system with reverse camera, engine and fuel safety equipment and auto lubrication systems where applicable.

The CANBUS interface shall be able to read the following;

Factory remote Alarm

Factory's remote

Factory's remote - 3x Arm

Parking

Reverse

Parking lights

Dipped headlights

Full beam headlights

Rear fog lights

Front fog lights

AC turned on

Cruise
Automatic retarder
Manual retarder
Driver's seat belt
CHECK ENGINE (MIL)
ABS ESP ESP OFF
Oil pressure / level
Coolant temperature / level
Battery charging
Handbrake system
Warning Low fuel
Glow plug indicator
Rear PTO turned on
Engine lifetime from dashboard
Engine lifetime - Counted Vehicle mileage
Vehicle mileage - Counted
Total fuel consumption
Total fuel consumption - Counted
Fuel level (Dashboard)
Fuel level (Dashboard) - Liters
Engine speed (RPM)
Engine temperature
Vehicle speed
Axle 1 load
Axle 2 load
Axle 3 load
Axle 4 load
Axle 5 load
AdBlue level (Dashboard)
Acceleration pedal position
Engine torque
Retarder torque
Distance to service
Outside temperature
Weight load
SIMPLE TACHO

CANBUS speed shall within a range of 33,33 to 500 kb/s or better.

Bidder shall provide a list of what can be read from their CANBUS interface and what system is required to interface it.

At the end Section 7 other specifications/standards are covered that will be adhered to.

2.Vehicle (chassis cab variants)

Item 1.1: 6x4 chassis cab for a water carrier vehicle

- 2.1 The chassis/body shall be a 6x4 single cab chassis cab truck, with a minimum Gross Vehicle Mass (GVM) of 24 000 kg.
- 2.2 Transmission shall be automatic manual transmission (AMT) and fully automatic. Bidder shall provide a bid on either/both options.
- 2.3 Minimum diesel engine requirements shall be a Euro 3 to 5, 230 kW of power and 1200 Nm of torque.
- 2.4 A fully laden minimum grade ability of 25 % shall be expected. Maximum speed of not less than 80 km/hr.
- 2.5 ABS brakes is mandatory with a retarder (operated via floor brake pedal).
- 2.6 Rear axle shall have full hub reduction.
- 2.7 Forward hydraulic operated tilt cab with safety holding mechanism. Underside of cab shall have heat shields to deflect heat from the floor and interior of the driver's cab.

Item 1.2: 6x6 chassis cab for a water carrier vehicle

- 2.1 The chassis/body shall be a 6x6 single cab chassis cab truck, with a minimum Gross Vehicle Mass (GVM) of 25 000 kg.
- 2.2 Transmission shall be manual, automatic manual transmission (AMT) and fully automatic. Bidder shall provide an option on one or all if offered with an integrated retarder operated via the foot brake pedal.
- 2.3 Minimum diesel engine requirements shall be a Euro 3 to 5, 230 kW of power and 1 200 Nm of torque.
- 2.4 A fully laden minimum grade ability of 25 % shall be expected. Maximum speed of not less than 80 km/hr.
- 2.5 ABS brakes is mandatory.
- 2.6 Forward hydraulic operated tilt cab with safety holding mechanism. Underside of cab shall have heat shields to deflect heat from the floor and interior of the driver's cab.

Chassis cab accessories and relevant standards that all chassis cabs must comply to;

- 2.1 Full rubber mat set with holders to prevent movement.
- 2.2 All seats to be fitted with heavy duty seat covers of a premium material for maximum protection of the primary seat cover/lining.
- 2.3 Smash and grab tinted windows. Film shall be 80% shade level and 150-micron thickness to be applied to all windows.
- 2.4 To safely and comfortably accommodate a driver and five passengers.
- 2.5 Heater, windscreen demister and air-conditioning system should be adequate for the cab and its occupants.
- 2.6 Spotlight to be fitted in the driver's cab facing the front of the cab. Shall be in a position to be operated by the front passenger.
- 2.7 Bluetooth Radio and speakers/mic (with handsfree cellphone capability), 12v cigarette lighter/charger sockets.
- 2.8 Wireless/Bluetooth tyre pressure monitoring system.

- 2.9 Front bull bar for the width of the vehicle shall be installed. It shall follow the profile contour of the front of the vehicle. Shall be bolt on and constructed out of automotive grade stainless steel. The fitment of the front bulbar shall not inhibit the front tow hitch which must be in an easily accessible position.
- 2.10 Pair of LED fog lamps (minimum 30W) to be installed on the bulbar. Switch to be OEM type with relay and fuse.
- 2.11 Front and rear tow hitch points to be available.
- 2.12 Fuel tank shall be fitted with a lockable fuel cap. Minimum capacity of 200 liters is required.
- 2.13 No sunroof.
- 2.14 All items including structural members must be thoroughly sealed with an approved sealer to prevent rusting between mating surfaces and drain holes must be provided in areas where water can accumulate. Any floor that persons will use on the vehicle should be coated with a hard wearing, slip resistant material (Vastrap).
- 2.15 Provision shall be made for Homologation, compliance and full licensing (with exemption) of the vehicle once completely built and approved with the superstructure.
- 2.16 The vehicle and the customisation shall be designed according to these critical specifications (summary of evidence shall be provided):
 - a) SANS 1518 Transport of dangerous goods — Design, construction, testing, approval and maintenance of road vehicles and portable tanks.
 - b) SANS 20013 Surface vehicles. This specification covers the braking system of motor vehicles and trailers. Maximum design speed exceeding 35km/h intended for use on public roads.
 - c) National Roads Traffic Act with attention to Regulation 240: The carrying capacity of the road.
 - d) Pump to comply to NFPA standards as stipulated in section 7, chapter 4.3.

3. Material specification

The superstructure will be made from an automotive grade stainless steel, 3CR12 or a similar lightweight corrosion resistant material. The roll up locker doors shall be made of aluminium or a suitable alloy that is low mass and corrosion resistant for the application.

4. Construction requirements

4.1 Breathing Air Compressor

- 4.1.1 The compressor shall be mounted in the superstructure of the chassis/body on a suitable subframe for the application. The subframe should allow access for a forklift to remove the compressor if required.
- 4.1.2 The compressor shall be an application specific all in one unit that can fill 4 breathing tanks.
- 4.1.3 Minimum power of 10 kw
- 4.1.4 Minimum charging rate of 500 l/min
- 4.1.5 Minimum of 3/4 stages
- 4.1.6 Minimum P5 purification system
- 4.1.7 Durable steel/alloy construction
- 4.1.8 Thermal, overload and power save protection
- 4.1.9 Emergency shut off
- 4.1.10 Relevant couplings, connectors and hoses to be included in supply for use of the compressor to fill an external breathing cylinder if required.
- 4.1.11 Monitoring system with an audible alarm

4.2 Generator

- 4.2.1 A minimum 9kVA generator. Voltage shall be AC 220-240V. Electronic start.
- 4.2.2 The generator's mounting shall be designed to eliminate any vibrations. Preferably rubber block

- type on a suitable frame. It shall be mounted in of the lockers on a pull out subframe.
- 4.2.3 Generator shall have a fully enclosed sound and waterproof enclosure with adequate ventilation for the self powered engine with cooling fans if required.
 - 4.2.4 Preferably low noise set.
 - 4.2.5 Fuel tank for the generator shall be of adequate capacity for a 4-6 hour shift of continuous use.
 - 4.2.6 All functions must be clearly marked.
 - 4.2.7 The system shall be a self powered. Lockable battery unit to be fitted on the unit. A solar panel should provide charge to the battery.
 - 4.2.8 Battery shall be maintenance free high capacity unit.
 - 4.2.9 The engine shall be a “famous” brand with adequate suppliers of service and spare parts available.
 - 4.2.10 Emergency shut down.
 - 4.2.11 Overload cut off.
 - 4.2.12 Engine protection device for overheating and low oil pressure.
 - 4.2.13 Automatic turn on/off when loss/gain of power detected.
 - 4.2.14 All consumables and cabling for installation to be supplied.
 - 4.2.15 One ac outlet in a weatherproof box shall be mounted on each side on the rear of the vehicle.
 - 4.2.16 It shall be mounted in of the lockers on a pull out subframe.

4.3 Equipment lockers

- 4.3.1 The superstructure shall be configured in the standard Euro format, with eight locker compartments of which one will house the generator.
- 4.3.2 Locker compartments shall be segmented as per the requirement of the Department and locker space shall be adequate to accommodate the equipment. Provision shall be made for the equipment to be mounted with adjustable brackets and holders attached to the vehicle.
- 4.3.3 Two lockers on each side must be fitted with a vertical pull out panel for equipment stowage.
- 4.3.4 One locker on each side of the vehicle must have a shelf fitted with a minimum load of 150 kg constructed from aluminum.
- 4.3.5 All interior service panels shall be of an impact resistant, durable material, resistant to oils, greases and mild acids and alkalis.
- 4.3.6 Accesses to all levels of the equipment and pump compartment are to be made easy by the provision of heavy duty and durable fold-down steps. These steps shall have gas struts to assist the motion and are expected to handle a mass of 450 kg.
- 4.3.7 Locker floors and shelves shall be sufficiently braced and strengthened to accommodate the loads to be placed on them.
- 4.3.8 Proper drainage facilities shall be provided to allow for the cleaning of the locker compartment.
- 4.3.9 Locker doors shall be roll up type.
- 4.3.10 Locker doors shall be constructed of light aluminum alloy.
- 4.3.11 All doors shall be equipped with adequate dust seals.
- 4.3.12 All doors shall be positive lock and lockable.
- 4.3.13 These doors must be dust and waterproof, light alloy roller shutters, doors must be fitted to all lockers and pump compartment.
- 4.3.14 All lockers shall be fitted with interior illumination (LED) and opening of the locker door must activate the light for that locker. The positioning of the light shall ensure maximum light distribution to all shelf levels and be so placed as to avoid accidental damage.

All items in chapter 4 must be thoroughly sealed with an approved sealer to prevent rusting between mating surfaces and drain holes must be provided in areas where water can accumulate. Any floor that persons will use on the body should be coated with a hard wearing, slip resistant material (Vastrap).

5. Lighting

5.1 A LED light should be installed in a suitable position illuminating the working area at the rear of the truck.

5.2 Suitable lighting should be installed within the body providing light for each locker, the pump and the couplings for the tank area.

5.3 Two LED hazard lights should be mounted as follows;

- a) A waterproof slim line bar light approx. 1200mm in length and 200mm in width to be installed on bracket on the front of the cab without drilling into the roof. Generation 3 or 4 type LED consisting of 3 watt, 6x4 modules to the front with end cap modules consisting of 1x2 head modules with red coloured polycarbonate lenses to be fitted to the bracket on the cab roof with on/off switch with random flash pattern positioned in the cab.
- b) Sixteen generation 3 or 4, minimum 3-watt, red LED eight head modules shall be installed on the vehicle. Four on each side, front and the rear of the vehicle. These modules shall have a random flashing pattern with the control switch clearly marked in the driver's cabin.
- c) There shall be LED scene lights to illuminate the vehicle and its surroundings. A minimum of two pairs per side is required and shall be integrated into the superstructure. The controls shall be clearly marked in the driver's cabin.
- d) LED marker lights shall be on the sides and rear of the body. A minimum of four is required per side.

6. Metal Preparation and Painting Procedure

The following procedure must be adhered to:

6.1 Descale all metal surfaces.

6.2 Grind down & smooth all rough edges.

6.3 Thoroughly clean all surfaces.

6.4 Surfaces should be surface blasted to the correct surface finish for the application of the primer and paint.

6.5 Prime all built parts and the superstructure using a two component self-curing inorganic zinc ethyl silicate or two component zinc rich polyamide cured epoxy primer.

6.6 Two primer coats and one-color coat shall be minimum.

6.7 Paint film thickness must not be less than 80 microns each.

7. Colors

Underside of Body (superstructure and chassis)	: Black
Cab and Body	: Chrome Yellow RAL 1023
Wheels (rims)	: Gloss white
Bumpers	: Grey
Bull Bar	: Stainless Steel

8. Electrical and towing requirements

All additional electrical circuits are to be suitably fused and must not interfere with or adversely affect the existing electrical system.

8.1 Existing taillight units to be replaced with premium quality equal light unit incorporating 30 LEDs or more approx. 100 mm in diameter that are screwed into position with a stainless-steel flange.

8.2 Dual indicator stop and taillight units to be fitted on top of the body.

8.3 Reversing camera, buzzer and warning flashing light to be installed when reverse gear is engaged in an optimum position. Monitor to be part of the vehicles multimedia system with Bluetooth hands free cellphone connectivity.

- 8.4 Uninterrupted power supply points shall be made available for the two-way radio, vehicle tracking and fuel master monitoring system.
- 8.5 Rear and front tow hitch shall be installed for towing of the vehicle.
- 8.6 Siren and amplifier incorporating public address system that is a 12/24-volt operating system. Capable of handling dual parallel speaker connection. Minimum speaker specification of 8 ohms impedance and 120 to 130-watt RMS. Built-in Thermo fan to allow for optimal cooling of amplifier. Amplifier should have a slim mounting footprint. Minimum 4 as per applicable legislation for vehicles including HRT functionality. Functions to include air horn, independent PA and amplifier to accommodate input and output auxiliary ports. PA volume control to be made easily accessible, either through the microphone or an adjustable volume port on the switch box. A high-quality microphone shall be included in the supply and installation.

9. Signage and Markings

9.1 Data plates shall be fitted for:

- a) The compressor indicating capacity, system pressures, fluid type/grade, and other relevant data.
- b) The generator indicating tank capacity, system pressure, fluid type/grade, hydraulic cylinder specifications and test criteria.
- c) Safety, operation, technical data, dates of manufacture, manufacturer's details etc.

9.2 Rear underrun which shall be designed as a step with non-slip material.

9.3 50% of the rear body shall be a Chevron board with rear lights and rear mudguards (constructed of 3CR12) conforming with the appropriate SABS/SANS standard.

9.4 Durable, ultraviolet resistant and weather resistant warning signs shall be provided at all locations of the vehicle that impose a danger to persons.

9.5 Durable, ultraviolet resistant and weather resistant information signs (pump, lockers, tank valves, inlets and outlets, equipment lockers and critical info for the chassis like fuel, oil, washer fluid, hydraulic oil, transmission oil etc.) shall be provided in specific locations to assist the driver/maintenance staff with the operation/maintenance of the vehicle.

9.6 Retro-reflective tape shall be fitted to both sides and the rear of the superstructure as well as the rear bumper.

9.7 Two pairs of red prismatic retroreflectors shall be fitted to the rear of the vehicle and two pairs of amber prismatic retroreflectors shall be fitted to either side of the vehicle.

9.8 The term FIRE AND RESCUE shall be supplied and fitted at the rear and reverse writing of same in the front. Each side of the vehicle shall have sign writing in two languages including call sign, emergency phone number and eThekweni Fire and Safety decals.

10. Miscellaneous items

10.1 The batteries to have a weather proof cover to prevent debris and moisture ingress and shall be mounted in the rear locker in a well-ventilated suitable storage enclosure. Batteries shall be a high capacity maintenance free pair that shall not require auxiliary batteries.

10.2 Battery isolator switch shall be installed close to 10.1.

10.3 Fuel tank, batteries, pneumatic cylinders and hydraulic tank to have structures built around them for safety where the superstructure does not enclose it.

10.4 Bolt on covers for safety where parts are rotating, swinging or of high temperature.

10.5 Bolt on head and tail light guards.

10.6 Front and rear mud flaps.

10.7 One spare wheel to be included per vehicle.

10.8 One spare set of wheels for front and rear axles to be included per vehicle.

10.9 All tyres supplied shall keep their integrity for a minimum of five years.

10.10 Four pairs of heavy duty wheel chocks.

Maintenance

There must be sufficient information to allow the capture of maintenance schedules in terms of inspections, servicing and replacement of parts. Three hardcopies and three electronic copies of the operating, maintenance, training and spare parts manuals shall be provided, as well as a training manual for each trainee (operator, maintenance staff and driver). Training shall be provided for 8 firemen, 4 training officers and 4 mechanics.

Important Notes

Prospective tenderers must ensure that they read the specific Contractual Conditions applicable to this contract which appear on the chapter immediately preceding the Technical Specification.

Applicable standards and specifications

The following, not necessarily comprehensive, list of standard specifications are relevant (latest revisions to be adhered to):

ANSI/AWS D1.1 Structural Welding Code

Steel BS-EN 287 Part 1 Approval testing of welders/fusion welding

BS-EN 288 Part 3 Specification and approval of welding procedures for metallic materials

BS 5135 Metal arc welding of carbon and carbon manganese steels

BS 3923 Methods for ultrasonic examination of welds

BS 2600 Radiographic examination of fusion welded butt joints in steel

BS 5493 Code of practice for protective coating of iron and steel structures against corrosion

DIN 1026 Metric channels

ISO R657 Angles

SANS 135 ISO metric bolts, screws and nuts (hexagon and square) (coarse thread, free fit series)

SANS 136 ISO metric precision hexagon-head bolts and screws, and hexagon nuts (coarse thread medium fit series)

SANS 064 Preparation of steel surfaces for coating

SANS 763 Hot-dip (galvanized) zinc coatings

SANS 1091 National colour standards for paint

SANS 1431 Weldable structural steels

SABS 1046, SABS 1376 Lights and retro-reflective devices

SABS 1051, 1447, SANS 20013, SANS 6292 Brakes and braking equipment

SABS 1329 Rear warning sign (chevron)

SANS 1055 Rear underrun protection device

SANS 1496 Wheel flaps

SABS 1447 Pneumatic braking connections

SANS 3779 Vehicle identification number

Vehicle dimensions NRTA Act no.93 of 1996

Data plates Compulsory Vehicle Standards

Item 6: Technical specification for a Water tanker fire and rescue trailer

1.Scope

The intent of this specification is to provide for a fully operational trailer with a water tank, auxiliary engine and fire pump. The trailer will be used primarily for fire and rescue. Tandem trailers are expected to carry a minimum volumetric capacity of 16-20 000 liters and a tridem to carry 30-35 000 liters, however bidder may submit their configuration of trailer with respective volumetric capacities that are similar/better.

2. Trailer

Trailer shall be ergonomically designed with low tare mass, low center of mass and high aerodynamic properties.

The trailer and the customization shall be designed according to these critical specifications (summary of evidence shall be provided):

- 2.1 SANS 1518 Transport of dangerous goods — Design, construction, testing, approval and maintenance of road vehicles and portable tanks.
- 2.2 SANS 20013 Surface vehicles. This specification covers the braking system of motor vehicles and trailers. Maximum design speed exceeding 35km/h intended for use on public roads.
- 2.3 ABS brakes are mandatory.
- 2.4 NRTA TRH11-dimensional, mass limitations and other requirements for abnormal load vehicles.
- 2.5 NRTA Regulation 225
- 2.6 At the end Section 7 other specifications/standards are covered that will be adhered to.

3.Material specification

The load bearing items including of the trailer shall be made from structural steel to withstand the payload. Structural steels such as Domex for the structural rolled sections and flat plate is recommended for the trailer chassis. The tanks primary material shall be constructed of 3CR12 steel which is a corrosion resistant variant.

4.Construction requirements

4.1 Water Tank

- 4.1.1 The tank must have a low centre of mass design.
- 4.1.2 Baffled water tank designed to withstand the additional rigours of road transport.
- 4.1.3 The tank's mounting shall be so designed to eliminate any vehicle chassis flex being transmitted to the tank. Rubber block type to allow for movement when negotiating rough road.
- 4.1.4 The water tank must have an anti swirl plate mounted at the discharge side. The tank must have a suitable dump valve to discharge the excess water quickly and in a suitable location. Ball valve type shall be fitted.
- 4.1.5 Overflow and discharge shall be positioned behind the rear axle onto the surface the trailer is parked on. Mounting brackets must be included for the overflow/discharge pipe.
- 4.1.6 A manhole/high level sealable hatch should be incorporated in an easily accessible location for each tank for filling, cleaning and maintenance purposes. It shall incorporate a pressure relief valve and rupture disc protection.
- 4.1.7 Diameter of outflow to the pump shall be equal to the inlet.

- 4.1.8 Two tank filler inlets shall be fitted, one on the right and one on the left, with 65mm male couplings, female blank-caps and be provided with butterfly type valves complete with strainers and non-return valves.
- 4.1.9 All tanks shall be expected to be non-destructive tested, 10x x-ray, waterfill and pressure tested.

4.2 Trailer chassis

- 4.2.1 Shall be designed with high strength and low tare mass for the application.
- 4.2.2 Steel suspension.
- 4.2.3 Kingpins shall be bolt on for easy maintenance and comply to DIN 74080, ISO 337 and ISO 4086
- 4.2.4 Kingpin gauge and two locks shall be included.
- 4.2.5 Landing legs to be adjustable and bolt on type to withstand the full payload.
- 4.2.6 All electrical wiring to be neatly trunked and fastened through the chassis.
- 4.2.7 Chassis shall have strengthening gussets (in between flanges) at each of the suspension pedestals.

4.3 Equipment lockers

- 4.3.1 The superstructure shall be configured in the standard Euro format, with single locker compartments, excluding the pump bay locker.
- 4.3.2 The lockers must be mounted below the tank in between the kingpin and the rear wheels and will house the high-pressure hose reels and space for equipment.
- 4.3.3 Locker compartments shall be segmented as per the requirement of the Department and locker space shall be adequate to accommodate the equipment. Provision shall be made for the equipment to be mounted with adjustable brackets and holders attached to the vehicle. The total mass of equipment that shall be stored in these lockers will be approx. 1 000 kg;
Storage of (4) suction hoses is accommodated between driver cab and water tank.
- Locators for 2 x suction spanners
 - Fixture to hold 3 way collecting breeching
 - Fixed Hose Reel with branch
 - Fixed Hose Reel with branch
- 4.3.4 Provision must be allowed for the securing of four 110mm x 2-meter hard suction hoses on enclosed built housings against the tank.
- 4.3.5 The hoses shall have BS screw type thread, with a corrosion resistant strainer, which must all be matched to the fire pump specification.
- 4.3.6 The hoses shall have roller guides on the locker doors such that they do not foul or bend on the superstructure in all directions.
- 4.3.7 All interior service panels shall be of an impact resistant, durable material, resistant to oils, greases and mild acids and alkalis.
- 4.3.8 Locker floors and shelves shall be sufficiently braced and strengthened to accommodate the loads to be placed on them.
- 4.3.9 Proper drainage facilities shall be provided to allow for the cleaning of the locker compartment.
- 4.3.10 Locker doors shall be roll up type.
- 4.3.11 Locker doors shall be constructed of light aluminum alloy.
- 4.3.12 All doors shall be equipped with adequate dust seals.
- 4.3.13 All doors shall be positive lock and lockable.
- 4.3.14 These doors must be dust and waterproof, light alloy roller shutters, doors must be fitted to all lockers and pump compartment.
- 4.3.15 All lockers shall be fitted with interior illumination (LED) and opening of the locker door must activate the light for that locker. The positioning of the light shall ensure maximum light distribution to all shelf levels and be so placed as to avoid accidental damage.

4.4 Pump

- 4.4.1 The pump must be combined centrifugal pump suitable for normal and high-pressure operations and be self priming.
- 4.4.2 The pump housing and impellers must be manufactured from non-corrosive material and it should have robust internals to be able to handle grey and salt water if necessary. All waterways and hoses must also be suitable to handle grey and salt water.
- 4.4.3 The pump be able to deliver high pressure and normal pressure operations simultaneously.
- 4.4.4 Normal pressure output of up to 3500 l/min at 10 bar
- 4.4.5 High pressure output of up to 400 l/min at 40 bar
- 4.4.6 Certified (normal pressure) according to EN1028 FPN 10-2000
- 4.4.7 Certified (high pressure) according to EN1028 FPN 40-250
- 4.4.8 UL classified in accordance with NFPA1901 150-500
- 4.4.9 The suction inlet must be fitted with a strainer. The diameter of the pump inlet must be suitable to the output of the pump and not less than 150mm in diameter.
- 4.4.10 A tank to pump valve suction line having a diameter to supply the pump under all conditions suitable to ratio capacity of the pump.
- 4.4.11 Two high pressure hose reels capable to withstand a minimum pressure of 40 bar.
- 4.4.12 Two valves for the high-pressure hose reel must be fitted at the pump operator's position.
- 4.4.13 Two pre-connected deliveries from the high-pressure side of the pump. The valves for these pre-connected deliveries must be fitted at the pump operator's position.
- 4.4.14 Four (4) normal pressure outlets which must have control valves, 65mm female B/S instantaneous adaptors with blank caps, all of which must be manufactured from corrosion resistant material.

4.5 Hosing and Nozzles

The two high pressure hose reels shall:

- a) Be 30 meters of rubber drag hose with an internal diameter of 25mm
- b) Have electric rewind with manual override
- c) The end of the hose shall be fitted with a high-pressure fog gun with a nominal output of 200L/min at 40 bars. It must be adjustable from straight stream to water fog. The output must be adjustable from 0 to 200 L/min.
- d) In order to facilitate unwinding of the hose and to protect the vehicle superstructure against abrasion and damage, metal guide rollers shall be provided.
- e) The pump must be fitted at the rear of the chassis.

4.6 Water Monitor/Canon

There shall be a water canon mounted on the rear platform;

- a) Have a range of at least 60 meters with full 360-degree rotation.
- b) The device must be connected such that it can utilize the water supply from the tank via the pump.
- c) A valve system shall be employed to use either the hose reels and/or the water monitor via a suitable system splitter.

4.7. Auxiliary Engine for driving the pump

4.7.1 The pump should be driven by a diesel engine with a minimum power and torque output 25% better than the pump's rated requirements. The engine shall be an industry proven "popular" model with easily available service and spare parts support in the country and region by the bidder and other agents.

4.7.2 The engines exhaust should be directed down or up and out to the side of the trailer.

4.7.3 Engine is to be fitted with efficient air, fuel and lubricating oil filters. A dry type air cleaner, with replaceable paper elements of South African manufacture, is required.

4.7.4 The engine should be direct coupled to the pump by a suitable coupling.

4.7.5 All rotating drive systems and locations on the engine that dissipate excessive heat should be guarded in accordance with the Occupational Health and Safety Act Regulations (Act 85 of 1993).

4.7.6 The engine must produce the required speed and power to drive the pump and produce the required flow and pressure.

4.7.7 A suitable in-line disc filtration system should be incorporated to protect the pump from contaminated water.

4.7.8 The engine shall achieve its fuelling requirements from a standalone fuel tank supply mounted on the trailer. The capacity shall be enough to withstand a 10 hour shift.

4.7.9 A locking fuel cap for the fuel tank and an anti-siphon device.

4.7.10 A roofed enclosure shall be built for the engine such that it is protected. There shall be lockable removable ventilated doors to access the engine and tank for maintenance. The design shall allow maximum ventilation with additional cooling fans for long duration shifts (10 hours).

4.8 Control Panel

All controls for the operation of the machine shall be fitted to an illuminated, lockable, water resistant control panel.

The controls shall where possible be electronic and activate the necessary servos (either pneumatic or hydraulic) that will activate the operation. All actions will be fully adjustable at variable speeds for the operation of the machine. A plug in, modular type, control panel is preferred for ease of maintenance.

All servos and valves to be mounted in a safe and easily accessible place for ease of maintenance.

All electrical devices must be splash resistant.

The unit must have the following controls as a minimum:

- a. Manometer
- b. High pressure manometer
- a. Normal pressure manometer
- b. Water tank level indicator (electronic system)
- c. Illumination of control panel
- d. Engine temperature indication
- e. Electronic control of engine speed
- f. Control for water tank suction valve
- g. Control for tank suction valve
- h. Digital counter for operation hours
- i. Pilot light for engine oil pressure
- j. Controls for High pressure hose reels
- k. EMERGENCY cut off switch (Push Button type)
- l. Engine temperature
- m. Diesel tank level gauge
- n. Rear work light
- o. Engine start/stop, fuel level, oil level and pressure, coolant temperature and variable electronic speed control with read out.
- p. Low level water alarm that sounds when the water reaches the 500 litres level with a relay to switch off the alarm after 30 seconds and automatically resets itself when tank is filled.
- q. A low level cut out device that disengages the high pressure pump when the water in the tank reaches 200 litres and automatically resets itself when the tank is filled.

All functions must be clearly marked. Control panel shall have a lock-out feature to protect against unwarranted use.

All items in chapter 4 must be thoroughly sealed with an approved sealer to prevent rusting between mating surfaces and drain holes must be provided in areas where water can accumulate. Any floor that persons will use on the body should be coated with a hard wearing, slip resistant material (Vastrap).

5. Lighting

- 5.1 A pair of LED lights should be installed in a suitable position illuminating the working area at the rear of the trailer.
- 1.2 Suitable lighting should be installed within the body providing light for each locker, the pump and the couplings for the tank area.
- 1.3 Two LED hazard lights should be mounted as follows;
- Sixteen generation 3 or 4, minimum 3-watt, red LED eight head modules shall be installed on the trailer. Four on each side, eight on the rear of the trailer. These modules shall have a random flashing pattern with the control switch clearly marked on the control panel.
 - There shall be LED scene lights to illuminate the trailer and its surroundings. A minimum of three pairs per side is required and shall be integrated into the superstructure. The controls shall be clearly marked on the control panel.
 - LED marker lights shall be on the sides and rear of the trailer. A minimum of four is required per side.

6. Metal Preparation and Painting Procedure

The following procedure must be adhered to:

- Descale all metal surfaces
- Grind down & smooth all rough edges
- Thoroughly clean all surfaces (clean and shot blast)
- Prime the tank exterior and trailer using a two component self-curing inorganic zinc ethyl silicate or two component zinc rich polyamide cured epoxy primer.
- Thereafter paint using premium quality twin pack automotive paint
- Film thickness must not be less than 80 microns each. Two coats of primer and one coat of paint.

7. Colors

Trailer	: Black/Grey
Tank interior	: Solvent free, amine cured epoxy coating in black
Tank exterior	: Chrome Yellow RAL 1023

8. Electrical

All electrical circuits are to be suitably fused and must not interfere with or adversely affect the prime mover electrical system.

- Taillight units shall be premium quality equal light units incorporating 30 LEDs or more approx. 100 mm in diameter that are screwed into position with a stainless steel flange.
- Dual indicator, stop and taillight units to be fitted. Additional set of lights on top of each tank.
- Reversing buzzer and warning light to be installed when reverse gear is engaged for each trailer.
- Solar panel and regulator to charge the high capacity batteries for the power source of the auxiliary engine. The auxiliary engine battery shall also be charged when the electrical plug is coupled to the prime mover.

9. Signage and Markings

- 9.1 Data plates shall be fitted for:

a) The tanks indicating capacity, system pressures, fluid type/grade, and other relevant data.

b) Safety, operation, technical data, dates of manufacture, manufacturer's details etc.

9.2 Chevron board with rear lights to be fitted on a steel channel (3CR12) section above rear underrun bumper and plastic mudguards to the rear wheels both conforming with the appropriate SABS/SANS standard.

9.3 Durable, ultraviolet resistant and weather resistant warning signs shall be provided at all locations of the vehicle that impose a danger to persons.

9.4 Durable, ultraviolet resistant and weather resistant information signs shall be provided in specific locations to assist the driver/maintenance staff with the operation/maintenance of the vehicle.

9.5 Retro-reflective tape shall be fitted to both sides and the rear of the trailer as well as the rear bumper.

10. Miscellaneous items

10.1 Full size spare wheel to be mounted in a suitable place on the trailer.

10.2 A pair of 4.5 kg fire extinguisher should be supplied and fitted in an accessible position on each trailer.

10.3 Spare set of pneumatic hoses with couplers for each trailer.

10.4 Two pairs of heavy duty wheel chocks.

Item 7: Technical specification for a 6x4 Prime mover (Horse) with an option of a crane

1. Scope

This specification is for a prime mover (truck/horse). It will primarily be used to freight various trailers including lowbed, interlink side tipper and multipurpose. Furthermore, an option of a crane (with supporting hydraulic outriggers) shall be fitted behind the driver's cab for specialized applications.

The vehicle with the customisation shall be supplied complete and fully assembled in all respects, including standard equipment supplied by the manufacturer and shall comply with the South African Occupational Health and Safety Act, Act 85 of 1993/as amended and the applicable current Road Traffic Legislation. All work on the vehicle including the customisation is to be constructed by an SABS/SANS approved body/coach/vehicle manufacturer/ builder. The total operating mass of the vehicle and the its customisation should not exceed the trucks legal V rating less 1000 kg. The layout should also ensure that the laden individual axle loads do not exceed the legal limits.

The bodywork should be designed to enhance the aesthetics of the vehicle. The vehicle and its customisation must be operationally friendly, easy to operate and maintain. All replaceable items including (but not limited to) critical components shall be designed for easy access, removal and replacement.

The vehicle and its customisation shall be to I.S.O. Metric Standards, and instrumentation gauges, dials, etc. shall be in Systeme International (S.I.) units.

2. Vehicle

- 2.1 The chassis/body shall be a 6x4 cab truck, with a minimum Gross Vehicle Mass (GVM) of 30 000 kg and Gross Combination Mass (GCM) of 59 000 kg. Transmission shall be automatic manual transmission (AMT) and fully automatic. Bidder shall provide a bid on either/both options.
- 2.2 Minimum diesel engine requirements shall be Euro 3 to 5, 260 kW of power and 1 800 Nm of torque.
- 2.3 Minimum wheelbase (center of front wheel to center of rear bogie) of 4 500 mm.
- 2.4 Steel suspension.
- 2.5 Fitment of a steel under belly plate to protect the radiator and engine.
- 2.6 Exterior windscreen sun visor.
- 2.7 Sunroof shall be tinted if OEM.
- 2.8 Full length cylindrical bull bar with two pairs of fog lamps to be fitted the full length of the cab. Bolt on type and cylindrical construction. It shall accommodate a winch as noted in chapter 4.5.
- 2.9 ABS brakes is mandatory. Auxiliary braking to be provided through an integrated retarder (operated via the foot brake pedal).
- 2.10 A fully laden minimum grade ability of 30 % shall be expected. Maximum speed of not less than 80 km/hr.
- 2.11 Rear axle shall have full hub reduction.
- 2.12 Forward tilt hydraulic actuated cab with safety holding mechanism.
- 2.13 To safely and comfortably accommodate driver using an equal levelling suspended type seat. To be fully adjustable.
- 2.14 Passenger seat.
- 2.15 All seats to be fitted with heavy duty seat covers of a premium material for maximum protection of the primary seat cover/lining.
- 2.16 Electric adjustable mirrors.
- 2.17 Driver assist mirrors for front and passenger side of vehicle.
- 2.18 Heater, windscreen demister and air-conditioning system should be adequate for the cab and its occupants.
- 2.19 Bluetooth Radio and speakers (with handsfree cellphone capability), 12v charger sockets.
- 2.20 Wireless/Bluetooth tyre pressure monitoring system.
- 2.21 Aerial mounted camera to assist with viewing of the rear whilst loading/reversing.
- 2.22 Fuel tank shall be 400 liters with a lockable fuel cap and anti-siphon device.
- 2.23 Truck fuel management system to remove access water and dirt before delivery to the engine.
- 2.24 Heat sensing engine protection device, mechanical monitoring system to safely shut down engine if engine cylinder head increases to an unsafe temperature.
- 2.25 Front and rear tow hitches.
- 2.26 The customisation shall be designed according to these critical specifications (summary of evidence shall be provided):
 - a) SANS 20013 Surface vehicles. This specification covers the braking system of motor vehicles and trailers. Maximum design speed exceeding 35km/h intended for use on public roads.
 - b) Crane and crane mounting including sub chassis must take into account using SANS 1518 Transport of dangerous goods — Design, construction, testing, approval and maintenance of road vehicles and portable tanks.
 - c) The end of Section 7 details other specifications that are relevant.

3. Material specification

The chassis shall be made of a lightweight structural rigid metallic material.

4. Construction requirements

4.1 Chassis mounting of crane

All mounting to be in accordance with directives specified by the Original Equipment Manufacturer. A separator insert shall be fitted to the rear most axles in case of uneven mass distribution.

4.2 Crane

4.1.1 The crane shall be mounted between the cab and fifth wheel on a suitable subframe for the application.

4.1.2 There shall be a pair of hydraulic outriggers mounted at the crane and at the rear of the vehicle.

4.2.3 The crane and the front outriggers shall be a single unit including sub systems and components to power it.

4.1.1 The crane shall be expected to have minimum lifting capacity for a payload of 20 000 kg and an outreach of 20 meters.

4.1.2 Crane shall be ergonomically designed with an agile profile and low tare mass. In the closed position its height shall be as close as possible to the driver's cab.

4.1.3 The crane shall come equipped with the following accessories (Lifting equipment certified to SANS 10388):

4.1.3.1 Lifting frame and shackles supplied with a minimum load capability of 20 000 kg.

4.1.3.2 20 000 kg Rotator knuckle with a hook and safety catch. Lifting tackle to remove various equipment.

4.1.4 Shall comply to DIN 15018.

4.1.5 Shall comply to shall the South African Occupational Health and Safety Act, Act 85 of 1993, Driven Machinery Regulations 2015.

4.1.6 Shall comply to SANS 1599 with particular attention to Part 2: Power driven mobile cranes.

4.1.7 The crane should have a light illuminating its hydraulic controls and and adjustable light on the sides of the vehicle to illuminate the reached work area.

4.2 Crane Controls

4.2.1 Should have controls for complete articulation and movement in all degrees of freedom except movement that can inflict damage to itself and the chassis/driver's cab.

4.2.2 Load sensing devices to warn when maximum payload and dimensional limits are reached.

4.2.3 Crane must only be operable with hydraulic outriggers in their extended position.

4.2.4 The operation of the crane reach must be constrained such that the chassis cab in no way can be damaged.

4.2.5 A hold valve/ safety device shall be installed to hold the crane in the raised position in case of hydraulic failure. An alternative method (manual, pneumatic, electric) shall be used to return the crane to "home" position.

4.2.6 Manual and remote-control system to operate the crane.

4.3 Fifth wheel

4.3.1 To accommodate kingpins that comply to DIN 74080, ISO 337 and ISO 4086.

4.3.2 Have the option of 2 and 3.5 inch kingpins.

4.3.3 Locking system on the fifth wheel.

4.3.4 Shall be mounted to distribute maximum load from trailer to rear and front axles of prime mover.

4.3.5 A fifth wheel attachment that can serve as a wheel lift for heavy duty 6x4 and 8x4 trucks as well as buses shall be supplied.

4.4 Storage box

4.4.1 One lockable storage box approximately 500 mm longitudinally shall be fixed on the chassis in a user-friendly position.

4.4.2 Hinges for the doors must be fitted to the exterior of the front doors.

4.4.3 There should be seals to prevent ingress of water.

4.5 Winch

- 4.5.1 Minimum 9 ton pull capacity (SAE -J706), minimum 12 mm cable diameter, planetary gearing system and wired remote control.
- 4.5.2 Bidder to provide relevant hydroelectric system for the winch to operate including, hydraulic tank, motor/pump power pack, all necessary filters, piping, couplers, installation hardware and consumables including hydraulic oil. The winch should include; automatic load holding brake, corded remote control (minimum 4 metres) and a minimum 25 m line with a snap safety hook.
- 4.5.3 The winch shall be mounted at the rear of the vehicle where the tow hitch would normally be located.

5. Miscellaneous items

- 5.1 Steel constructed rear mud flaps shall be installed.
- 5.2 Rear underrun device shall be installed according to SANS 1055.
- 5.3 Safety access steps and hand rails to the rear.
- 5.4 Protective shell structures over the batteries, fuel tank and pneumatic cylinders.
- 5.5 Lockable protective cover for the batteries.
- 5.6 Wire mesh covers for the front and rear lights.
- 5.7 A pair of heavy-duty wheel chocks to be mounted and easily accessible.
- 5.8 A 4.5kg dry powder type extinguisher to be mounted in a suitable exterior position preferably close to the driver.
- 5.9 A dual line type air braking system which compiles in all respects with the SANS 1447 and 1051 shall be fitted.
- 5.10 Electrical connector complying to SANS 1327: Electrical connectors for towing and towed vehicles.
- 5.11 40 mm Rockinger type trailer coupling to comply with DIN 74054, ECE R55-01 for on road use.
- 5.12 Pneumatic connections complying to SANS 1477-3: Pneumatic braking system connections between drawing and drawn vehicles, Part 3: The arrangement of connections on vehicles, using contact type or palm type couplings.

All items in chapter 4 and 5 must be thoroughly sealed with an approved sealer to prevent rusting between mating surfaces and drain holes must be provided in areas where water can accumulate. Any floor that persons will use on the body should be coated with a hard wearing, slip resistant material (Vastrap).

6 Hydraulic system

- 6.1 In respect of the hydraulic tank the following shall be required:
 - 6.1.1 To be constructed of steel.
 - 6.1.2 To be fitted to an accessible side on the truck chassis, low enough that the body height does not impede the maintenance staff or driver of filling oil to tank.
 - 6.1.3 To be fitted with a bump guard from externalities.
 - 6.1.4 To be fitted with a front mounted sight glass for visual oil level inspection. Glass should be marked minimum and maximum accordingly with levels of fluid in the tank.
 - 6.1.5 Must have a filler cap strainer & filter into filler base and filler cap assembly.
 - 6.1.6 Oil capacity shall be enough for the crane and to supply trailers (interlink side tipper, lowbed etc.).
- 6.2 Must have an inline filter with a blockage indicator fitted onto the pressure side of hydraulic pump, before the tipper / solenoid valve system.
- 6.3 The hydraulic valves shall be grouped together for ease of maintenance.
- 6.4 Test points for testing hydraulic pressures shall be fitted and grouped together.
- 6.5 Where possible steel tubing, which shall be treated with suitable corrosion protection, in lieu of rubber hosing shall be used for hydraulic lines.
- 6.6 All hydraulic fittings shall be wrapped with a petrolatum impregnated tape or sprayed with a petrolatum primer to prevent corrosion.
- 6.7 Leak-free quick couplers shall be used for all connections and hoses (to supply trailer).

7. Power Take Off (PTO)

7.1 The close coupled PTO drive assembly shall be approved by the OEM mechanically and electrically for use on the engine and the wiring systems of the vehicle for the engagement of the PTO drive. Any modifications to the vehicle to accommodate the P.T.O. must be approved by the truck manufacturer and not affect the trucks warranty in any way.

7.2 The engine and transmission must not be harmed by use of the PTO.

7.3 The fitment of the P.T.O. should not negatively impact on the vehicles ground clearance.

7.4 Electronic control module and wiring harness which incorporates the "Rev Up Limiter" must be integrated into the existing OEM vehicle using the OEM 24 Volt system.

7.5 The PTO must only run when the PTO switch is engaged. The system will not allow the PTO to be engaged if the vehicle is in gear or if the handbrake is not engaged.

7.6 The accelerator pedal cannot be used, while the PTO is engaged.

7.7 PTO calibration shall be performed after tracking device is installed on the vehicle by eThekweni City Fleet.

8. Metal Preparation and Painting Procedure

The following procedure must be adhered to:

8.1 Descale all metal surfaces

8.2 Grind down & smooth all rough edges

8.3 Thoroughly clean all surfaces

8.4 Prime other components and the wheel lift using a two component self-curing inorganic zinc ethyl silicate or two component zinc rich polyamide cured epoxy primer.

8.5 Thereafter paint using premium quality automotive finish paint.

8.6 Two coats of primer and one coat of colour.

8.7 Paint film thickness (color coat) must not be less than 100 microns each.

9. Colors

- Underside of Body: Black/Grey
- Deck: Black/Grey
- Cab: Chrome Yellow RAL 1023

10. Electrical

10.1 Existing taillight units to be replaced with premium quality equal light unit incorporating 30 LEDs or more approx. 100mm in diameter that are screwed into position with a stainless steel flange.

10.2 Reversing camera with monitor installed in cab, buzzer and warning flashing light to be installed when reverse gear is engaged.

10.3 A waterproof slim line bar light approx. 1200mm in length and 200mm in width to be installed on an aluminum bracket closest to cab. Generation 3 type LED consisting of 3 watt, 6x4 modules to the front with end cap modules consisting of 1x2 head modules with amber colored polycarbonate lenses to be fitted to the top of the headboard behind the cab with on/off switch with random flash pattern positioned in the cab.

10.4 Rear work lights to be installed with switch installed behind the cab.

10.5 Two pairs of marker LED amber lights on each side of the vehicle.

10.6 Premium electrical connections for connection to the semi-trailers.

10.7 Uninterrupted power supply shall be made available for the vehicle tracking and fuel master monitoring system.

10.8 All exposed electrical wiring looms of the chassis cab and superstructure shall be full encased in a flexible protective metallic conduit and securely clamped with fasteners to the chassis or the structure.

11. Signage and Markings

11.1 Data plates shall be fitted for:

- a) The hydraulic system indicating tank capacity, system pressure, fluid type/grade, hydraulic cylinder specifications and test criteria.
- b) The crane detailing safe working load, specifications, operation and general maintenance.
- c) Safe working load (SWL) decals shall be clearly visible on the crane boom, tow hitch and the fifth wheel.
- d) Safety, operation, technical data, dates of manufacture, manufacturer's details etc.

11.2 Durable, ultraviolet resistant and weather resistant warning signs shall be provided at all locations of the vehicle that impose a danger to persons.

11.3 Chevron board and durable, ultraviolet resistant and weather resistant information signs shall be provided in specific locations to assist the driver/maintenance staff with the operation/maintenance of the vehicle.

11.4 Retro-reflective tape shall be fitted to both sides and the rear as well as the rear bumper and the items in chapter 4 that make up the perimeter of the vehicle.

11.5 Two pairs of red prismatic retroreflectors shall be fitted to the rear of the vehicle and two pairs of amber prismatic retroreflectors shall be fitted to each side of the vehicle.

12. Maintenance

The vehicle must be supplied with detailed maintenance, operating, training and spares manuals (in English), including technical data for each spare, as well as general arrangement drawings and a bill of materials.

There must be sufficient information to allow the capture of maintenance schedules in terms of inspections, servicing and replacement of parts. Three hardcopies and three electronic copies of the operating, maintenance, training and spare parts manuals shall be provided, as well as a training manual for each trainee(driver, operator and maintenance staff).

13. Important Notes

Prospective tenderers must ensure that they read the specific Contractual Conditions applicable to this contract which appear in Section 6 preceding the Technical Specification.

Maintenance of chassis cab and superstructure

The following requested information shall be provided for eThekweni Municipality to consider the option of a maintenance plan.

The completed vehicle shall include scheduled preventive maintenance servicing requirements as recommended by the OEM/Body builder at the respective odometer (kilometer interval) milestone or time period lapse (hours/months). eThekweni Municipality requires the items listed below in Table 1 to be included as compulsory in the service schedule requirement for the chassis cab. This will form part of the compulsory assessment items.

Maintenance Component	Sub component	Individual component parts
Transmission	Transmission fluid/oil and health status check	
Engine	Injectors	
	Injector Pumps	
	Compressor	

	Front and Rear Main Seals	
	Engine Mountings	
	Belts	
	Turbo	
	Oil Pump	
	Intercooler	
Electrical / Computer	Batteries	
	Alternator	
	Starter	
	Diagnostics of sensors	
	Electronic control unit- Engine	
	Electronic control unit - Transmission	
	Retarder operation	
Air system	Compressor air charge system	
	Air Dryer unloading pressure	
	Carbon build up, blockages and oil in system	
	Air leaks	
Differential	Side Shafts	
	Centre Portions	
	Hub Reduction Servicing	
	Hub Seals	
Cooling Systems	Radiator	
	Radiator Fan	
	Water Pump	
	Header Tank	
	Thermostat	
	Top and Lower Hoses	
Suspension (Torqueing and greasing of all critical bolts if necessary)	Shocks	Bushings and bolts
	Parabolic System	
		Centre Bolts
		Leaf Blades
		Suspension Link Arms
		Torsion Bars
		Stabilizer Bars
	Steering	Steering Box
		Steering Pump
		Drag Links
		Ball Joints
Braking System	All components (pedal to disc/drum) including a conditional assessment report of brake life (actual compared to theoretical new).	
Air Conditioner	Compressor	
	Condenser	
	Evaporator	
	Pollen Filter	

Wheels and tyres (conditional assessment report of all tyres-actual compared to theoretical new).	Tyre rotation, balance, wheel nuts torqued and wheel alignment.	
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Table 1: Compulsory assessment items for Chassis Cab

The superstructure requested for services shall undergo an initial inspection and evaluation to establish the full extent of the scope of work required with pricing prior to beginning the maintenance process.

The Pre-inspection process for all units shall include at no cost;

Visual inspection and testing of the pump, hydraulic and electrical systems

Detailed inspection (including NDT in accident and failure circumstances) of the main structural load bearing items including;

All structural framework (under structure, cross members, hooks, sub chassis, body mounts etc.)

Steel surfaces (turntables, booms, floors, sides, tailgates, ejector plate, packer blades, sweep blades and roof, etc.) and welds

Mechanical and functional wearing items; kingpins, landing legs, towing couplers, slides, shoes, bearings, bushes, seals, twist locks, steel cables, hinges etc.

All hydraulics (power take off, pumps, cylinders, mountings, valves/valve banks and fasteners) and controls.

All electrical/electronics (lights, motor drives/PTO, controllers, wiring harnesses, controls, etc.) with diagnostics for superstructures where applicable (Fire pumps etc.)

2.1 Service procedure for units;

2.1.1 Minor steel repairs needed predominantly to the steel surfaces with a few structural frameworks. Water test to check if body is leaking (weld and seal where required) for tanker superstructures.

2.1.2 Hydraulic power system; Inspection of operating system and load test, change hydraulic oil & filters, replacement of pipes and couplers where damaged or leaking including minor component replacements and repairs.

2.1.3 Hydraulic inspection of pumps/cylinders for leaks and functionality, to check operating dimensionally correct, shim and sleeve fittings where required.

2.1.4 Mechanical and functional wearing items; clean and grease wear items and replace as necessary if damaged.

2.1.5 Diagnostics and electrical inspection including continuity check. Replace/repair wiring where damaged and not functioning. Diagnostic report to accompany the superstructure.

2.1.6 Clean all controls, recalibrate and set to users' preference.

2.1.7 Prime and paint repaired areas, replace worn signage and worn stickers for controls, safety and warnings as per chapter 7.

2.1.8 Load testing for lifting devices (equipment and lifting tackle) according to SANS 10388.

2.1.9 Final inspection and testing by bidder with compiling of documents before customer inspection.

2.2 General maintenance procedure for units;

2.2.1 Major steel repairs needed to the steel surfaces, structural framework and chassis/sub chassis including mountings. Water test to check if body is leaking (weld and seal where required) for tanker superstructures. Non-destructive testing to be done at critical points including; chassis, mounting

points of sub chassis to superstructure, hinges, hydraulic cylinder mounting points, superstructure mounting points including sub-chassis, kingpin and landing legs etc.

2.2.2 Hydraulic power system; Inspection of operating system and load test, change hydraulic oil & filters, replacement of pipes and couplers where damaged or leaking including component replacements and repairs. All seals and gaskets to be replaced.

2.2.3 Hydraulic pump/cylinders; inspection of pumps/cylinders for leaks and functionality, to check operating dimensionally correct, replace hydraulic seals and gaskets, worn pins, mounting sleeves/bearing/bushings and fasteners to be replaced with new components.

2.2.4 Mechanical and functional wearing items; clean and grease wear items and replace as necessary if damaged.

2.2.5 Diagnostics and electrical inspection including continuity check. Replace/repair wiring where damaged and not functioning. Damaged components and lights including light guards to be replaced.

2.2.6 Clean all controls, recalibrate and set to users' preference.

2.2.7 Surface blast the entire superstructure, prime and paint as per specification, renew signage, branding and replace stickers for controls, safety and warnings as per chapter 7.

2.2.8 Load testing for lifting devices (equipment and lifting tackle) according to SANS 10388.

2.2.10 Final inspection and testing by bidder with compiling of documents before customer inspection.

3. Material specification

The load bearing items including shall be made from structural steel to withstand the payload and application. Corten steel or a structural steel with similar/better chromium anti-corrosive properties for the structural rolled sections and flat plate is recommended.

All hydraulic fittings shall be wrapped with a petrolatum impregnated tape or sprayed with a petrolatum primer to prevent corrosion.

All exposed electrical wiring looms of the chassis cab/trailer and superstructure shall be full encased in a flexible protective metallic conduit and securely clamped with fasteners.

4. Metal Preparation and Painting Procedure

The following procedure must be adhered to:

4.1 Descale all metal surfaces

4.2 Grind down & smooth all rough edges

4.3 Thoroughly clean all surfaces

4.4 Prime the superstructure body and other components using a two component self-curing inorganic zinc ethyl silicate or two component zinc rich polyamide cured epoxy primer.

4.5 Thereafter paint using two coats of premium quality twin pack automotive paint

4.6 Paint film thickness (color coat) must not be less than 80 microns each.

5. Colors

Sub chassis and underside of superstructure	Black
Cab	Match existing colors as per the vehicle or as per department's request

Superstructure

Match existing colors as per the vehicle or as per department's request

6. Electrical

All additional electrical circuits (including lighting) are to be suitably fused and must not interfere with or adversely affect the existing electrical system.

- 6.1 Taillight units shall be premium quality equal light unit incorporating 30 LEDs or more of not less than 100 mm in diameter that are screwed into position with a stainless-steel flange. Two sets are fitted; one set on/near rear underrun and one set at an elevated height on the hopper. Trailers and other superstructures may also call for two sets of lights.
- 6.2 Scene lights, work lights, spotlights, search lights and emergency modules including bar lights as required.

7. Signage and Markings

7.1 Data plates shall be fitted labelling the storage areas and capacity. Safe working loads should be labelled where necessary:

- a) The hydraulic pump/system indicating tank capacity, system pressure, fluid type/grade, hydraulic cylinder specifications and test criteria.
- b) Safe working loads to be clearly labeled on the tank/structure on both sides where applicable.

7.2 Safety, operation, technical data, dates of service/repair/refurbishment and details etc.

7.3 Chevron board to be fitted section above rear underrun bumper and plastic mudguards to the rear wheels both conforming with the appropriate SABS/SANS standard.

7.4 Durable, ultraviolet resistant and weather resistant warning signs shall be provided at all locations of the vehicle that impose a danger to persons.

7.5 Durable, ultraviolet resistant and weather resistant information signs shall be provided in specific locations to assist the driver/maintenance staff with the operation/maintenance of the vehicle.

7.6 Retro-reflective tape shall be fitted to both sides and the rear of the superstructure as well as the rear bumper.

7.7 Fire, Emergency and Services Unit corporate branding to be fitted as per departments requirements. Branding design will be supplied at the time of the order.

7.8 Supply and fitment of number plates to the front and rear of vehicle were damaged or unreadable.

8. Miscellaneous items

8.1 Front mud flaps and full rear mudguards constructed from rubber or a durable polymer.

8.2 The batteries to have a well-insulated weather proof cover to prevent debris and moisture ingress.

8.3 Fuel tank, batteries, pneumatic cylinders and hydraulic tank to have shell structures built around them for safety.

8.4 Bolt on covers for safety where parts are rotating, swinging or of high temperature.

8.5 A 4.5 kg fire extinguisher should be supplied and fitted in an accessible position close to the driver when exiting the cab.

8.7 Bolt on head and tail light guards.

8.8 Electrical connector complying to SANS 1327: Electrical connectors for towing and towed vehicles.

- 8.9 Rockinger type trailer coupling to comply with DIN 74054, ECE R55-01 for on road use, and for trailers equivalent tow eyes. Either a 40/50 mm tow coupler and/or tow eye shall be available for fitment to the vehicle and/or trailer. Tow eyes shall be the bolt on type and the trailer shall be modified for a bolt on type if a welded type is existing. For tow couplers and tow eyes that require upgrade from 40 mm to 50 mm the bidder shall be able to provide the relevant modification to the existing vehicle/trailer.
- 8.10 Pneumatic connections complying to SANS 1477-3: Pneumatic braking system connections between drawing and drawn vehicles, Part 3: The arrangement of connections on vehicles, using contact type or palm type couplings.

9. Maintenance

The superstructure/vehicle must be supplied with technical data for each spare, as well as general arrangement drawings and a bill of materials for any modification performed.

There must be sufficient information to allow the capture of maintenance schedules in terms of inspections, servicing and replacement of parts.

Applicable standards and specifications

The following, not necessarily comprehensive, list of standard specifications are relevant (latest revisions to be adhered to):

ANSI/AWS D1.1 Structural Welding Code

Steel BS-EN 287 Part 1 Approval testing of welders/fusion welding

BS-EN 288 Part 3 Specification and approval of welding procedures for metallic materials

BS 5135 Metal arc welding of carbon and carbon manganese steels

BS 3923 Methods for ultrasonic examination of welds

BS 2600 Radiographic examination of fusion welded butt joints in steel

BS 5493 Code of practice for protective coating of iron and steel structures against corrosion

DIN 1026 Metric channels

ISO R657 Angles

SANS 135 ISO metric bolts, screws and nuts (hexagon and square) (coarse thread, free fit series)

SANS 136 ISO metric precision hexagon-head bolts and screws, and hexagon nuts (coarse thread medium fit series)

SANS 064 Preparation of steel surfaces for coating

SANS 763 Hot-dip (galvanized) zinc coatings

SANS 1091 National colour standards for paint

SANS 1431 Weldable structural steels

SABS 1046, SABS 1376 Lights and retro-reflective devices

SABS 1051, 1447, SANS 20013, SANS 6292 Brakes and braking equipment

SABS 1329 Rear warning sign (chevron)

SANS 1055 Rear underrun protection device

SANS 1496 Wheel flaps

SABS 1447 Pneumatic braking connections

SANS 3779 Vehicle identification number

Vehicle dimensions NRTA Act no.93 of 1996

Data plates Compulsory Vehicle Standards

COMPULSORY QUESTIONNAIRE

Questionnaire forms part of the tender documents and must be completed in its entirety. Where proof is provided the bidder shall clearly mark these as appendices and highlight in the submission the sections that are valid.

Item 1: Can your company adhere to the following specifications when supplying a rescue pumper vehicle?	Yes / No	If Yes, please provide proof. Appendix no. with submission.
<u>Compulsory items:</u> • Are you an OEM/Certified agent/SABS/SANS certified supplier of vehicles? • Are you an OEM/Certified agent/SABS/SANS certified manufacturer of truck bodies (MIB certificate provided in submission)? • Can the relevant documents be provided for Section 6, SCC 10.1 and ACC1 with the vehicles? ○ Detailed maintenance manual ○ Operating manual ○ Training manual ○ Spares manual ○ Electrical wiring circuit/diagram ○ Design report showing that the criteria for SANS 1518 has been met. ○ A CAD model in. STEP format for the customisation either on CD or USB (where applicable). ○ Quality management plan and documents • Has Section 6, SCC 10.1.2 been submitted for the tender? ○ An assembly drawing indicating the general arrangement of the body and the subassemblies making up the customization. ○ A vehicle product catalogue with specifications. ○ A mass distribution diagram of the loading forces in relation to the vehicle chassis and axles. ○ Design calculations (where applicable) showing supplied systems are operating safely. • Can the warranty obligations be met in Section 6, 15.2 (Terms and conditions shall be submitted); ○ 2 years for systems (electrical, pneumatic, hydraulic etc.)?		

○ 5 years for chassis cab and steel structures? ○ 10 years for the water tank? ○ 10-year anti corrosion? • Have the returnable documents from Sections 3 and 4 being provided? • Have you provided references of your previous work experience? • If you have bid with Euro 5 compliant engines do, they operate on 50 ppm diesel? • Do the Euro 5 complaint engines require AdBlue? • Is AdBlue supply included in the maintenance of the chassis cab?		
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Item 1.1: 4x2 chassis cab for a rescue pumper vehicle

- What is the vehicle make and model? (technical catalogue to be supplied)
- and can criteria in Section 7, chapter 2 be met without any exclusions?
- Integrated crew cab?
- Engine Euro rating? (3-5 recommended)
- Power and torque? (200 kW and 800 Nm recommended respectively)
- AMT and/or AT transmission?
- Has the GVM being met (15 000 kg)? (specify amount)
- ABS braking?
- Retarder operated via foot brake pedal?
- CANBUS access?

Item 1.2: 4x4 chassis cab for a rescue pumper vehicle

- What is the vehicle make and model? (technical catalogue to be supplied)
- and can criteria in Section 7, chapter 2 be met without any exclusions?
- Integrated crew cab?
- Engine Euro rating? (3-5 recommended)
- Power and torque? (150 kW and 650 Nm recommended respectively)
- Manual, AMT or AT transmission?
- Has the GVM being met (13 500 kg)? (specify amount)
- ABS braking?
- Retarder operated via foot brake pedal?
- CANBUS access?

Item 1.3: 6x4 chassis cab for a rescue pumper vehicle

- What is the vehicle make and model? (technical catalogue to be supplied)
- and can criteria in Section 7, chapter 2 be met without any exclusions?
- Integrated crew cab?
- Engine Euro rating? (3-5 recommended)
- Power and torque? (220 kW and 950 Nm recommended respectively)
- AMT and/or AT transmission?

• Has the GVM being met (24 000 kg)? (specify amount) • ABS braking? • Retarder operated via foot brake pedal? • CANBUS access? <u>Item 1.4: 6x6 chassis cab for a rescue pumper vehicle</u> • What is the vehicle make and model? (technical catalogue to be supplied) • and can criteria in Section 7, chapter 2 be met without any exclusions? • Integrated crew cab? • Engine Euro rating? (3-5 recommended) • Power and torque? (230 kW and 1200 Nm recommended respectively) • Manual, AMT or AT transmission? • Has the GVM being met (25 000 kg)? (specify amount) • ABS braking? • Retarder operated via foot brake pedal? • CANBUS access?		
<u>Superstructure:</u> • Can the superstructure be designed to safety factors of SANS 1518 or better? • What material is being used for the fabrication? ○ Superstructure ○ Water tank ○ Roller doors ○ Water ways and fittings/couplings • What is the capacity of the water tank for the 4x2 ? (minimum 3 000 liters) • What is the capacity of the water tank for the 4x4 ? (minimum 3 000 liters) • What is the capacity of the water tank for the 6x4? (minimum 8 000 liters) • What is the capacity of the water tank for the 6x6 ? (minimum 8 000 liters) • Is the tank capacity and placement optimal for the GVM? (please explain in load diagram). • Water tank, pump, waterways and hoses suitable for grey and salt water? • What pump is being supplied? (technical catalogue to be supplied) • What ladder is being supplied? (technical catalogue to be supplied) • Can the PTO sustain long durations of use? (10-hour shift) • Can Section 7, chapter 4 requirements be met without exclusions? • Can Section, chapters 5 to 12 requirements be met without exclusion?		
<u>Specifications and standards</u> Are supplied products and system/s in accordance and recognized by the relevant SABS/SANS specification/standard?		

Item 2: Can your company adhere to the following specifications when supplying a water carrier vehicle?	Yes / No	If Yes, please provide proof. Appendix no. with submission.
<u>Compulsory items:</u> • Are you an OEM/Certified agent/SABS/SANS certified supplier of vehicles? • Are you an OEM/Certified agent/SABS/SANS certified manufacturer of truck bodies (MIB certificate provided in submission)? • Can the relevant documents be provided for Section 6, SCC 10.1 and ACC1 with the vehicles? ○ Detailed maintenance manual ○ Operating manual ○ Training manual ○ Spares manual ○ Electrical wiring circuit/diagram ○ Design report showing that the criteria for SANS 1518 has been met. ○ A CAD model in. STEP format for the customisation either on CD or USB (where applicable). ○ Quality management plan and documents • Has Section 6, SCC 10.1.2 been submitted for the tender? ○ An assembly drawing indicating the general arrangement of the body and the subassemblies making up the customization. ○ A vehicle product catalogue with specifications. ○ A mass distribution diagram of the loading forces in relation to the vehicle chassis and axles. ○ Design calculations (where applicable) showing supplied systems are operating safely. • Can the warranty obligations be met in Section 6, 15.2 (Terms and conditions shall be submitted); ○ 2 years for systems (electrical, pneumatic, hydraulic etc.)? ○ 5 years for chassis cab and steel structures? ○ 10 years for the water tank? ○ 10-year anti corrosion? • Have the returnable documents from Sections 3 and 4 being provided? • Have you provided references of your previous work experience?		
<u>Item 2.1: 4x2 chassis cab for a water carrier vehicle</u> • What is the vehicle make and model? (technical catalogue to be supplied)		

• and can criteria in Section 7, chapter 2 be met without any exclusions? • Engine Euro rating? (3-5 recommended) • Power and torque? (180 kW and 800 Nm recommended respectively) • AMT and/or AT transmission? • Has the GVM being met (16 000 kg)? (specify amount) • ABS braking? • Retarder operated via foot brake pedal? • CANBUS access?		
<u>Item 2.2: 4x4 chassis cab for a water carrier vehicle</u> • What is the vehicle make and model? (technical catalogue to be supplied) • and can criteria in Section 7, chapter 2 be met without any exclusions? • Engine Euro rating? (3-5 recommended) • Power and torque? (150 kW and 650 Nm recommended respectively) • Manual, AMT or AT transmission? • Has the GVM being met (13 500 kg)? (specify amount) • ABS braking? • Retarder operated via foot brake pedal? • CANBUS access?		
<u>Item 2.3: 6x4 chassis cab for a water carrier vehicle</u> • What is the vehicle make and model? (technical catalogue to be supplied) • and can criteria in Section 7, chapter 2 be met without any exclusions? • Engine Euro rating? (3-5 recommended) • Power and torque? (220 kW and 1200 Nm recommended respectively) • AMT and/or AT transmission? • Has the GVM being met (24 000 kg)? (specify amount) • ABS braking? • Retarder operated via foot brake pedal? • CANBUS access?		
<u>Item 2.4: 6x6 chassis cab for a water carrier vehicle</u> • What is the vehicle make and model? (technical catalogue to be supplied) • and can criteria in Section 7, chapter 2 be met without any exclusions? • Engine Euro rating? (3-5 recommended) • Power and torque? (230 kW and 1200 Nm recommended respectively) • Manual, AMT or AT transmission? • Has the GVM being met (25 000 kg)? (specify amount) • ABS braking? • Retarder operated via foot brake pedal? • CANBUS access?		

<u>Superstructure:</u> • Can the superstructure be designed to safety factors of SANS 1518 or better? • What material is being used for the fabrication? ○ Superstructure ○ Water tank ○ Roller doors ○ Water ways and fittings/couplings • What is the capacity of the water tank for the 4x2? (minimum 7 000 liters) • What is the capacity of the water tank for the 4x4? (minimum 6 000 liters) • What is the capacity of the water tank for the 6x4? (minimum 12 000 liters) • What is the capacity of the water tank for the 6x6? (minimum 12 000 liters) • Is the tank capacity and placement optimal for the GVM? (please explain in load diagram). • Water tank, pump, waterways and hoses suitable for grey and salt water? • What pump is being supplied? (technical catalogue to be supplied) • Can the PTO sustain long durations of use? (10-hour shift) • Is the PTO closed coupled or shaft driven or can both options be quoted on? • How does the PTO achieve “pump and roll” operation? (please describe in detail) • Have you provided a catalogue of the water monitor/canon? • Can Section 7, chapter 4 requirements be met without exclusions? • Can Section, chapters 5 to 12 requirements be met without exclusion?		
<u>Specifications and standards</u> Are supplied products and system/s in accordance and recognized by the relevant SABS/SANS/NFPA specification/standard?		

<u>Item 3: Rapid intervention vehicle</u>		
<u>Vehicle items</u>		
- Have you listed the make and models of the various manual/automatic transmission single/double cabs that can be offered? 4x4 manual single cab - Option 1 - Option 2 - Option 3 4x4 automatic single cab - Option 1 - Option 2 - Option 3 4x4 manual double cab - Option 1 - Option 2 - Option 3 4x4 automatic double cab - Option 1 - Option 2 - Option 3 - Has a technical catalogue for each LDV been submitted? - Can the various vehicle accessories be installed if not standard?		
<u>Foam and superstructure construction:</u>		
- Foam system designed to PD 5500 Cat 2 or better? - What grade stainless is the tank and capacity? - Single cab tank capacity - Double cab tank capacity - What material is being used for the superstructure/lockers? - What mounting method is used to mount the tank? - Water cannon specification (specify details and specification in catalogue)?		
<u>Equipment requirements:</u>		
Can all the equipment requirements be met?		
<u>Sub systems and miscellaneous items</u>		
Can items in section 7, chapter 7-9 in the technical specification be met without any exclusions?		

Item 4: Can your company adhere to the following specifications when supplying a heavy rescue vehicle?	Yes / No	If Yes, please provide proof. Appendix no. with submission.
<u>Compulsory items:</u> • Are you an OEM/Certified agent/SABS/SANS certified supplier of vehicles? • Are you an OEM/Certified agent/SABS/SANS certified manufacturer of truck bodies (MIB certificate provided in submission)? • Can the relevant documents be provided for Section 6, SCC 10.1 and ACC1 with the vehicles? ○ Detailed maintenance manual ○ Operating manual ○ Training manual ○ Spares manual ○ Electrical wiring circuit/diagram ○ Design report showing that the criteria for SANS 1518 has been met. ○ A CAD model in. STEP format for the customisation either on CD or USB (where applicable). ○ Quality management plan and documents • Has Section 6, SCC 10.1.2 been submitted for the tender? ○ An assembly drawing indicating the general arrangement of the body and the subassemblies making up the customization. ○ A vehicle product catalogue with specifications. ○ A mass distribution diagram of the loading forces in relation to the vehicle chassis and axles. ○ Design calculations (where applicable) showing supplied systems are operating safely. • Can the warranty obligations be met in Section 6, 15.2 (Terms and conditions shall be submitted); ○ 2 years for systems (electrical, pneumatic, hydraulic etc.)? ○ 5 years for chassis cab and steel structures? ○ 10 years for the water tank? ○ 10-year anti corrosion? • Have the returnable documents from Sections 3 and 4 being provided? • Have you provided references of your previous work experience?		
<u>Item 4.1: 6x4 chassis cab for a heavy rescue vehicle</u> • What is the vehicle make and model? (technical catalogue to be supplied) • and can criteria in Section 7, chapter 2 be met without any exclusions? • Integrated crew cab?		

• Engine Euro rating? (3-5 recommended) • Power and torque? (230 kW and 1200 Nm recommended respectively) • AMT and/or AT transmission? • Has the GVM being met (24 000 kg)? (specify amount) • ABS braking? • Retarder operated via foot brake pedal? • Full hub reduction on rear drive axle? • CANBUS access?		
<u>Item 4.2: 6x6 chassis cab for a heavy rescue vehicle</u> • What is the vehicle make and model? (technical catalogue to be supplied) • and can criteria in Section 7, chapter 2 be met without any exclusions? • Integrated crew cab? • Engine Euro rating? (3-5 recommended) • Power and torque? (230 kW and 1200 Nm recommended respectively) • Manual, AMT or AT transmission? • Has the GVM being met (25 000 kg)? (specify amount) • ABS braking? • Retarder operated via foot brake pedal? • CANBUS access?		
<u>Superstructure:</u> • Can the superstructure be designed to safety factors of SANS 1518 or better? • What material is being used for the fabrication? ○ Superstructure ○ Roller doors • What crane is being supplied? (technical catalogue to be supplied) • What generator is being supplied? (technical catalogue to be supplied) • Can the PTO sustain long durations of use? • Can Section 7, chapter 4 requirements be met without exclusions? • Can Section, chapters 5 to 12 requirements be met without exclusion?		
<u>Specifications and standards</u> Are supplied products and system/s in accordance and recognized by the relevant SABS/SANS specification/standard?		

Item 5: Can your company adhere to the following specifications when supplying a breathing apparatus/Hazchem vehicle?	Yes / No	If Yes, please provide proof. Appendix no. with submission.
<u>Compulsory items:</u> • Are you an OEM/Certified agent/SABS/SANS certified supplier of vehicles? • Are you an OEM/Certified agent/SABS/SANS certified manufacturer of truck bodies (MIB certificate provided in submission)? • Can the relevant documents be provided for Section 6, SCC 10.1 and ACC1 with the vehicles? ○ Detailed maintenance manual ○ Operating manual ○ Training manual ○ Spares manual ○ Electrical wiring circuit/diagram ○ Design report showing that the criteria for SANS 1518 has been met. ○ A CAD model in. STEP format for the customisation either on CD or USB (where applicable). ○ Quality management plan and documents • Has Section 6, SCC 10.1.2 been submitted for the tender? ○ An assembly drawing indicating the general arrangement of the body and the subassemblies making up the customization. ○ A vehicle product catalogue with specifications. ○ A mass distribution diagram of the loading forces in relation to the vehicle chassis and axles. ○ Design calculations (where applicable) showing supplied systems are operating safely. • Can the warranty obligations be met in Section 6, 15.2 (Terms and conditions shall be submitted); ○ 2 years for systems (electrical, pneumatic, hydraulic etc.)? ○ 5 years for chassis cab and steel structures? ○ 10 years for the water tank? ○ 10-year anti corrosion? • Have the returnable documents from Sections 3 and 4 being provided? • Have you provided references of your previous work experience?		
<u>Item 5.1: 6x4 chassis cab for a breathing apparatus/Hazchem vehicle</u> • What is the vehicle make and model? (technical catalogue to be supplied) • and can criteria in Section 7, chapter 2 be met without any exclusions? • Integrated crew cab?		

• Engine Euro rating? (3-5 recommended) • Power and torque? (230 kW and 1200 Nm recommended respectively) • AMT and/or AT transmission? • Has the GVM being met (24 000 kg)? (specify amount) • ABS braking? • Retarder operated via foot brake pedal? • Full hub reduction on rear drive axle? • CANBUS access?		
<u>Item 5.2: 6x6 chassis cab for a breathing apparatus/Hazchem vehicle</u> • What is the vehicle make and model? (technical catalogue to be supplied) • and can criteria in Section 7, chapter 2 be met without any exclusions? • Integrated crew cab? • Engine Euro rating? (3-5 recommended) • Power and torque? (230 kW and 1200 Nm recommended respectively) • Manual, AMT or AT transmission? • Has the GVM being met (25 000 kg)? (specify amount) • ABS braking? • Retarder operated via foot brake pedal? • CANBUS access?		
<u>Superstructure:</u> • Can the superstructure be designed to safety factors of SANS 1518 or better? • What material is being used for the fabrication? ○ Superstructure ○ Roller doors • What compressor is being supplied? (technical catalogue to be supplied) • What generator is being supplied? (technical catalogue to be supplied) • Can the PTO sustain long durations of use? • Can Section 7, chapter 4 requirements be met without exclusions? • Can Section, chapters 5 to 12 requirements be met without exclusion?		
<u>Specifications and standards</u> Are supplied products and system/s in accordance and recognized by the relevant SABS/SANS specification/standard?		

<u>Item 6: Water tanker fire and rescue trailer</u>		
<u>Trailer items</u> - Designed to SANS 1518? - Meeting requirements in SANS 20013 or better? - ABS Braking? - Meets all of NRTA requirements for homologation? - What material is used for the trailer chassis?		
<u>Tank and pump system:</u> - What material is used for the tanks? - Are you offering a; - Tandem (16-20 000L) - tridem (30-35 000L) or - both in your submission? - Tank volumetric holding capacity? - tandem, - tridem - What fire pump is being supplied? (please specify details with a catalogue) - What auxiliary engine is being supplied? (please specify details with a catalogue) - What water canon/monitor is being supplied? (please specify details with a catalogue) - Can criteria in Section 7 Item 6, chapter 4 be met without any exclusions?		
<u>Sub systems and miscellaneous items</u> Can items in section 7 Item 6, chapter 5 to 10 in the technical specification be met without any exclusions?		

<u>Item 7: Prime mover with option of a crane</u>		
<u>Vehicle items</u> - Vehicle make and model (provide vehicle details) and can criteria in Section 7 Item 7.1, chapter 2 be met without any exclusions? - Minimum GVM of 30 000 kg and GCM of 59 000 kg (Specify amount)? - Engine power ratings of 260kW and 1800Nm or better? - AMT and/or AT transmission?		
<u>Customisation:</u> - Can the material specifications or better be met? - SANS 1518 for chassis mounting crane and hydraulic outriggers? - SANS 20013 can be met?		

• Can all construction requirements in section 7, chapter 4 and 5 be met? • Can the hydraulic system (chapters 6 and 7) meet the required applications needs as laid out in section 7?		
<u>Operating capacity:</u> • Fifth wheel vertical loading and D value (specify make and model amount)? • Winch (make and model)? • Crane (make and model)? • Lifting payload capacity of 20 ton with 20 m outreach or better (specify amount)? • Knuckle rotator (specify details and capacity)? • Lifting equipment (specify details and capacity)? • Recovery adaptor for fifth wheel mounting?		
<u>Sub systems and miscellaneous items</u> • Can items in section 7, chapter 10 and 11 in the technical specification be met without any exclusions?		
<u>Specifications and standards</u> Are supplied products and system/s in accordance and recognised by the relevant SABS/SANS specification/standard?		

SECTION 8: BILL OF QUANTITIES / SCHEDULE OF RATES / ACTIVITIES

Bidders shall itemise their total price as per below tables.

The various options shall be the complete vehicle including the chassis cab (with the different Euro engines as choices), accessories, structural work and all components and systems to complete the subsystems to provide a fully operational specialised homologated and licensed vehicle delivered to eThekweni Municipality. Bidder must pay attention to the final amount disclosed in the shaded rows as that is the formal offer that shall be evaluated for this tender. Bidder must provide evidence for Euro 5 engine bids that it is compatible with 50ppm diesel fuel. Where the bidder provides a bid on Euro 6 engines and it requires 10ppm only, then this vehicle shall only be considered for purchase when 10ppm diesel fuel is the compulsory supply of diesel at all fuelling stations in South Africa and the eThekweni Region.

The maintenance option for each vehicle is noted for each chassis cab and superstructure derivative offered separately. There shall be a labour rate for workmanship and a parts mark up. Maximum mark-up on parts not to exceed 10%.

All prices are exclusive of Value Added Tax unless stated.

Item 1.1.1: 4x2 Rescue pumper vehicle (AMT)	Price per item	Make and Model
Vehicle (chassis cab)		
Vehicle accessories for chassis cab		
Water tank		
PTO (with cooling system if required)		
Rescue pump		
Ladder, holder and remote-control unit		
Superstructure (lockers, roller doors, fold down steps etc.)		
Electrical systems (lights, additional lighting, control systems/panel, siren and PA system etc.)		
Spare set of wheels		
Finishing; paint and signage		
All relevant miscellaneous items, consumables and hydraulic oil.		
Certified training (8 firemen, 4 training officers and 4 mechanics)		
Delivery, homologation, licensing with exemption and commissioning.		

Item 1.1.1A: Complete vehicle (Euro 3) with superstructure and customisation		
Item 1.1.1B: Complete vehicle (Euro 4) with superstructure and customisation		
Item 1.1.1C: Complete vehicle (Euro 5) with superstructure and customisation		

Maintenance Schedule for Item 1.1.1	Parts mark up (%)	Price Rate for labour per hour excl. VAT	Price Rate for labour per hour incl. VAT
Item 1.1.1 Maintenance of Chassis Cab			
Item 1.1.1 Maintenance of Superstructure			

Item 1.1.2: 4x2 Rescue pumper vehicle (AT)	Price per item	Make and Model
Vehicle (chassis cab)		
Vehicle accessories for chassis cab		
Water tank		
PTO (with cooling system if required)		
Rescue pump		
Ladder, holder and remote-control unit		
Superstructure (lockers, roller doors, fold down steps etc.)		
Electrical systems (lights, additional lighting, control systems/panel, siren and PA system etc.)		
Spare set of wheels		
Finishing; paint and signage		
All relevant miscellaneous items, consumables and hydraulic oil.		
Certified training (8 firemen, 4 training officers and 4 mechanics)		
Delivery, homologation, licensing with exemption and commissioning.		
Item 1.1.2A: Complete vehicle (Euro 3) with superstructure and customisation		
Item 1.1.2B: Complete vehicle (Euro 4) with superstructure and customisation		

Item 1.1.2C: Complete vehicle (Euro 5) with superstructure and customisation		
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Maintenance Schedule for Item 1.1.2	Parts mark up (%)	Price Rate for labour per hour excl. VAT	Price Rate for labour per hour incl. VAT
Item 1.1.2 Maintenance of Chassis Cab			
Item 1.1.2 Maintenance of Superstructure			

Item 1.2.1: 4x4 Rescue pumper vehicle (MT)	Price per item	Make and Model
Vehicle (chassis cab)		
Vehicle accessories for chassis cab		
Water tank		
PTO (with cooling system if required)		
Rescue pump		
Ladder, holder and remote-control unit		
Superstructure (lockers, roller doors, fold down steps etc.)		
Electrical systems (lights, additional lighting, control systems/panel, siren and PA system etc.)		
Spare set of wheels		
Finishing; paint and signage		
All relevant miscellaneous items, consumables and hydraulic oil.		
Certified training (8 firemen, 4 training officers and 4 mechanics)		
Delivery, homologation, licensing with exemption and commissioning.		
Item 1.2.1A: Complete vehicle (Euro 3) with superstructure and customisation		
Item 1.2.1B: Complete vehicle (Euro 4) with superstructure and customisation		
Item 1.2.1C: Complete vehicle (Euro 5) with superstructure and customisation		

Maintenance Schedule for Item 1.2.1	Parts mark up (%)	Price Rate for labour per hour excl. VAT	Price Rate for labour per hour incl. VAT
Item 1.2.1 Maintenance of Chassis Cab			
Item 1.2.1 Maintenance of Superstructure			

Item 1.2.2: 4x4 Rescue pumper vehicle (AMT)	Price per item	Make and Model
Vehicle (chassis cab)		
Vehicle accessories for chassis cab		
Water tank		
PTO (with cooling system if required)		
Rescue pump		
Ladder, holder and remote-control unit		
Superstructure (lockers, roller doors, fold down steps etc.)		
Electrical systems (lights, additional lighting, control systems/panel, siren and PA system etc.)		
Spare set of wheels		
Finishing; paint and signage		
All relevant miscellaneous items, consumables and hydraulic oil.		
Certified training (8 firemen, 4 training officers and 4 mechanics)		
Delivery, homologation, licensing with exemption and commissioning.		
Item 1.2.2A: Complete vehicle (Euro 3) with superstructure and customisation		
Item 1.2.2B: Complete vehicle (Euro 4) with superstructure and customisation		
Item 1.2.2C: Complete vehicle (Euro 5) with superstructure and customisation		

Maintenance Schedule for Item 1.2.2	Parts mark up (%)	Price Rate for labour per hour excl. VAT	Price Rate for labour per hour incl. VAT
Item 1.2.2 Maintenance of Chassis Cab			
Item 1.2.2 Maintenance of Superstructure			

Item 1.2.3: 4x4 Rescue pumper vehicle (AT)	Price per item	Make and Model
Vehicle (chassis cab)		
Vehicle accessories for chassis cab		
Water tank		
PTO (with cooling system if required)		
Rescue pump		
Ladder, holder and remote-control unit		
Superstructure (lockers, roller doors, fold down steps etc.)		
Electrical systems (lights, additional lighting, control systems/panel, siren and PA system etc.)		
Spare set of wheels		
Finishing; paint and signage		
All relevant miscellaneous items, consumables and hydraulic oil.		
Certified training (8 firemen, 4 training officers and 4 mechanics)		
Delivery, homologation, licensing with exemption and commissioning.		
Item 1.2.3A: Complete vehicle (Euro 3) with superstructure and customisation		
Item 1.2.3B: Complete vehicle (Euro 4) with superstructure and customisation		
Item 1.2.3C: Complete vehicle (Euro 5) with superstructure and customisation		

Maintenance Schedule for Item 1.2.3	Parts mark up (%)	Price Rate for labour per hour excl. VAT	Price Rate for labour per hour incl. VAT
Item 1.2.3 Maintenance of Chassis Cab			
Item 1.2.3 Maintenance of Superstructure			

Item 1.3.1: 6x4 Rescue pumper vehicle (AMT)	Price per item	Make and Model
Vehicle (chassis cab)		
Vehicle accessories for chassis cab		
Water tank		
PTO (with cooling system if required)		
Rescue pump		
Ladder, holder and remote-control unit		
Superstructure (lockers, roller doors, fold down steps etc.)		
Electrical systems (lights, additional lighting, control systems/panel, siren and PA system etc.)		
Spare set of wheels		
Finishing; paint and signage		
All relevant miscellaneous items, consumables and hydraulic oil.		
Certified training (8 firemen, 4 training officers and 4 mechanics)		
Delivery, homologation, licensing with exemption and commissioning.		
Item 1.3.1A: Complete vehicle (Euro 3) with superstructure and customisation		
Item 1.3.1B: Complete vehicle (Euro 4) with superstructure and customisation		
Item 1.3.1C: Complete vehicle (Euro 5) with superstructure and customisation		

Maintenance Schedule for Item 1.3.1	Parts mark up (%)	Price Rate for labour per hour excl. VAT	Price Rate for labour per hour incl. VAT
Item 1.3.1 Maintenance of Chassis Cab			
Item 1.3.1 Maintenance of Superstructure			

Item 1.3.2: 6x4 Rescue pumper vehicle (AT)	Price per item	Make and Model
Vehicle (chassis cab)		
Vehicle accessories for chassis cab		
Water tank		
PTO (with cooling system if required)		
Rescue pump		
Ladder, holder and remote-control unit		
Superstructure (lockers, roller doors, fold down steps etc.)		
Electrical systems (lights, additional lighting, control systems/panel, siren and PA system etc.)		
Spare set of wheels		
Finishing; paint and signage		
All relevant miscellaneous items, consumables and hydraulic oil.		
Certified training (8 firemen, 4 training officers and 4 mechanics)		
Delivery, homologation, licensing with exemption and commissioning.		
Item 1.3.2A: Complete vehicle (Euro 3) with superstructure and customisation		
Item 1.3.2B: Complete vehicle (Euro 4) with superstructure and customisation		
Item 1.3.2C: Complete vehicle (Euro 5) with superstructure and customisation		

Maintenance Schedule for Item 1.3.2	Parts mark up (%)	Price Rate for labour per hour excl. VAT	Price Rate for labour per hour incl. VAT
Item 1.3.2 Maintenance of Chassis Cab			
Item 1.3.2 Maintenance of Superstructure			

Item 1.4.1: 6x6 Rescue pumper vehicle (MT)	Price per item	Make and Model
Vehicle (chassis cab)		
Vehicle accessories for chassis cab		
Water tank		
PTO (with cooling system if required)		
Rescue pump		
Ladder, holder and remote-control unit		
Superstructure (lockers, roller doors, fold down steps etc.)		
Electrical systems (lights, additional lighting, control systems/panel, siren and PA system etc.)		
Spare set of wheels		
Finishing; paint and signage		
All relevant miscellaneous items, consumables and hydraulic oil.		
Certified training (8 firemen, 4 training officers and 4 mechanics)		
Delivery, homologation, licensing with exemption and commissioning.		
Item 1.4.1A: Complete vehicle (Euro 3) with superstructure and customisation		
Item 1.4.1B: Complete vehicle (Euro 4) with superstructure and customisation		
Item 1.4.1C: Complete vehicle (Euro 5) with superstructure and customisation		

Maintenance Schedule for Item 1.41	Parts mark up (%)	Price Rate for labour per hour excl. VAT	Price Rate for labour per hour incl. VAT
Item 1.4.1 Maintenance of Chassis Cab			
Item 1.4.1 Maintenance of Superstructure			

Item 1.4.2: 6x6 Rescue pumper vehicle (AMT)	Price per item	Make and Model
Vehicle (chassis cab)		
Vehicle accessories for chassis cab		
Water tank		
PTO (with cooling system if required)		
Rescue pump		
Ladder, holder and remote-control unit		
Superstructure (lockers, roller doors, fold down steps etc.)		
Electrical systems (lights, additional lighting, control systems/panel, siren and PA system etc.)		
Spare set of wheels		
Finishing; paint and signage		
All relevant miscellaneous items, consumables and hydraulic oil.		
Certified training (8 firemen, 4 training officers and 4 mechanics)		
Delivery, homologation, licensing with exemption and commissioning.		
Item 1.4.2A: Complete vehicle (Euro 3) with superstructure and customisation		
Item 1.4.2B: Complete vehicle (Euro 4) with superstructure and customisation		
Item 1.4.2C: Complete vehicle (Euro 5) with superstructure and customisation		

Maintenance Schedule for Item 1.4.2	Parts mark up (%)	Price Rate for labour per hour excl. VAT	Price Rate for labour per hour incl. VAT
Item 1.4.2 Maintenance of Chassis Cab			
Item 1.4.2 Maintenance of Superstructure			

Item 1.4.3: 6x6 Rescue pumper vehicle (AT)	Price per item	Make and Model
Vehicle (chassis cab)		
Vehicle accessories for chassis cab		
Water tank		
PTO (with cooling system if required)		
Rescue pump		
Ladder, holder and remote-control unit		
Superstructure (lockers, roller doors, fold down steps etc.)		
Electrical systems (lights, additional lighting, control systems/panel, siren and PA system etc.)		
Spare set of wheels		
Finishing; paint and signage		
All relevant miscellaneous items, consumables and hydraulic oil.		
Certified training (8 firemen, 4 training officers and 4 mechanics)		
Delivery, homologation, licensing with exemption and commissioning.		
Item 1.4.3A: Complete vehicle (Euro 3) with superstructure and customisation		
Item 1.4.3B: Complete vehicle (Euro 4) with superstructure and customisation		
Item 1.4.3C: Complete vehicle (Euro 5) with superstructure and customisation		

Maintenance Schedule for Item 1.4.3	Parts mark up (%)	Price Rate for labour per hour excl. VAT	Price Rate for labour per hour incl. VAT
Item 1.4.3 Maintenance of Chassis Cab			
Item 1.4.3 Maintenance of Superstructure			

Item 2.1.1: 4x2 Water carrier vehicle (AMT)	Price per item	Make and Model
Vehicle (chassis cab)		
Vehicle accessories for chassis cab		
Water tank		
Rescue pump		
Water canon/monitor		
Superstructure (lockers, roller doors, fold down steps etc.)		
Electrical systems (lights, additional lighting, control systems/panel, siren and PA system etc.)		
Spare set of wheels		
Finishing; paint and signage		
All relevant miscellaneous items, consumables and hydraulic oil.		
Certified training (8 firemen, 4 training officers and 4 mechanics)		
Delivery, homologation, licensing with exemption and commissioning.		
Item 2.1.1A: Complete vehicle (Euro 3) with superstructure and customisation - Closed Coupled PTO		
Item 2.1.1B: Complete vehicle (Euro 4) with superstructure and customisation- Closed Coupled PTO		
Item 2.1.1C: Complete vehicle (Euro 5) with superstructure and customisation- Closed Coupled PTO		
Item 2.1.1D: Complete vehicle (Euro 3) with superstructure and customisation – Shaft driven PTO		
Item 2.1.1E: Complete vehicle (Euro 4) with superstructure and customisation– Shaft driven PTO		
Item 2.1.1F: Complete vehicle (Euro 5) with superstructure and customisation– Shaft driven PTO		

Maintenance Schedule for Item 2.1.1	Parts mark up (%)	Price Rate for labour per hour excl. VAT	Price Rate for labour per hour incl. VAT
Item 2.1.1 Maintenance of Chassis Cab			
Item 2.1.1 Maintenance of Superstructure			

Item 2.1.2: 4x2 Water carrier vehicle (AT)	Price per item	Make and Model
Vehicle (chassis cab)		
Vehicle accessories for chassis cab		
Water tank		
Rescue pump		
Water canon/monitor		
Superstructure (lockers, roller doors, fold down steps etc.)		
Electrical systems (lights, additional lighting, control systems/panel, siren and PA system etc.)		
Spare set of wheels		
Finishing; paint and signage		
All relevant miscellaneous items, consumables and hydraulic oil.		
Certified training (8 firemen, 4 training officers and 4 mechanics)		
Delivery, homologation, licensing with exemption and commissioning.		
Item 2.1.2A: Complete vehicle (Euro 3) with superstructure and customisation - Closed Coupled PTO		
Item 2.1.2B: Complete vehicle (Euro 4) with superstructure and customisation- Closed Coupled PTO		
Item 2.1.2C: Complete vehicle (Euro 5) with superstructure and customisation- Closed Coupled PTO		
Item 2.1.2D: Complete vehicle (Euro 3) with superstructure and customisation – Shaft driven PTO		
Item 2.1.2E: Complete vehicle (Euro 4) with superstructure and customisation– Shaft driven PTO		
Item 2.1.2F: Complete vehicle (Euro 5) with superstructure and customisation– Shaft driven PTO		

Maintenance Schedule for Item 2.1.2	Parts mark up (%)	Price Rate for labour per hour excl. VAT	Price Rate for labour per hour incl. VAT
Item 2.1.2 Maintenance of Chassis Cab			
Item 2.1.2 Maintenance of Superstructure			

Item 2.2.1: 4x4 Water carrier vehicle (MT)	Price per item	Make and Model
Vehicle (chassis cab)		
Vehicle accessories for chassis cab		
Water tank		
Rescue pump		
Water canon/monitor		
Superstructure (lockers, roller doors, fold down steps etc.)		
Electrical systems (lights, additional lighting, control systems/panel, siren and PA system etc.)		
Spare set of wheels		
Finishing; paint and signage		
All relevant miscellaneous items, consumables and hydraulic oil.		
Certified training (8 firemen, 4 training officers and 4 mechanics)		
Delivery, homologation, licensing with exemption and commissioning.		
Item 2.2.1A: Complete vehicle (Euro 3) with superstructure and customisation - Closed Coupled PTO		
Item 2.2.1B: Complete vehicle (Euro 4) with superstructure and customisation- Closed Coupled PTO		
Item 2.2.1C: Complete vehicle (Euro 5) with superstructure and customisation- Closed Coupled PTO		
Item 2.2.1D: Complete vehicle (Euro 3) with superstructure and customisation – Shaft driven PTO		
Item 2.2.1E: Complete vehicle (Euro 4) with superstructure and customisation– Shaft driven PTO		
Item 2.2.1F: Complete vehicle (Euro 5) with superstructure and customisation– Shaft driven PTO		

Maintenance Schedule for Item 2.2.1	Parts mark up (%)	Price Rate for labour per hour excl. VAT	Price Rate for labour per hour incl. VAT
Item 2.2.1 Maintenance of Chassis Cab			
Item 2.2.1 Maintenance of Superstructure			

Item 2.2.2: 4x4 Water carrier vehicle (AMT)	Price per item	Make and Model
Vehicle (chassis cab)		
Vehicle accessories for chassis cab		
Water tank		
Rescue pump		
Water canon/monitor		
Superstructure (lockers, roller doors, fold down steps etc.)		
Electrical systems (lights, additional lighting, control systems/panel, siren and PA system etc.)		
Spare set of wheels		
Finishing; paint and signage		
All relevant miscellaneous items, consumables and hydraulic oil.		
Certified training (8 firemen, 4 training officers and 4 mechanics)		
Delivery, homologation, licensing with exemption and commissioning.		
Item 2.2.2A: Complete vehicle (Euro 3) with superstructure and customisation - Closed Coupled PTO		
Item 2.2.2B: Complete vehicle (Euro 4) with superstructure and customisation- Closed Coupled PTO		
Item 2.2.2C: Complete vehicle (Euro 5) with superstructure and customisation- Closed Coupled PTO		
Item 2.2.2D: Complete vehicle (Euro 3) with superstructure and customisation – Shaft driven PTO		
Item 2.2.2E: Complete vehicle (Euro 4) with superstructure and customisation– Shaft driven PTO		
Item 2.2.2F: Complete vehicle (Euro 5) with superstructure and customisation– Shaft driven PTO		

Maintenance Schedule for Item 2.2.2	Parts mark up (%)	Price Rate for labour per hour excl. VAT	Price Rate for labour per hour incl. VAT
Item 2.2.2 Maintenance of Chassis Cab			
Item 2.2.2 Maintenance of Superstructure			

Item 2.2.3: 4x4 Water carrier vehicle (AT)	Price per item	Make and Model
Vehicle (chassis cab)		
Vehicle accessories for chassis cab		
Water tank		
Rescue pump		
Water canon/monitor		
Superstructure (lockers, roller doors, fold down steps etc.)		
Electrical systems (lights, additional lighting, control systems/panel, siren and PA system etc.)		
Spare set of wheels		
Finishing; paint and signage		
All relevant miscellaneous items, consumables and hydraulic oil.		
Certified training (8 firemen, 4 training officers and 4 mechanics)		
Delivery, homologation, licensing with exemption and commissioning.		
Item 2.2.3A: Complete vehicle (Euro 3) with superstructure and customisation - Closed Coupled PTO		
Item 2.2.3B: Complete vehicle (Euro 4) with superstructure and customisation- Closed Coupled PTO		
Item 2.2.3C: Complete vehicle (Euro 5) with superstructure and customisation- Closed Coupled PTO		
Item 2.2.3D: Complete vehicle (Euro 3) with superstructure and customisation – Shaft driven PTO		
Item 2.2.3E: Complete vehicle (Euro 4) with superstructure and customisation– Shaft driven PTO		
Item 2.2.3F: Complete vehicle (Euro 5) with superstructure and customisation– Shaft driven PTO		

Maintenance Schedule for Item 2.2.3	Parts mark up (%)	Price Rate for labour per hour excl. VAT	Price Rate for labour per hour incl. VAT
Item 2.2.3 Maintenance of Chassis Cab			
Item 2.2.3 Maintenance of Superstructure			

Item 2.3.1: 6x4 Water carrier vehicle (AMT)	Price per item	Make and Model
Vehicle (chassis cab)		
Vehicle accessories for chassis cab		
Water tank		
Rescue pump		
Water canon/monitor		
Superstructure (lockers, roller doors, fold down steps etc.)		
Electrical systems (lights, additional lighting, control systems/panel, siren and PA system etc.)		
Spare set of wheels		
Finishing; paint and signage		
All relevant miscellaneous items, consumables and hydraulic oil.		
Certified training (8 firemen, 4 training officers and 4 mechanics)		
Delivery, homologation, licensing with exemption and commissioning.		
Item 2.3.1A: Complete vehicle (Euro 3) with superstructure and customisation - Closed Coupled PTO		
Item 2.3.1B: Complete vehicle (Euro 4) with superstructure and customisation- Closed Coupled PTO		
Item 2.3.1C: Complete vehicle (Euro 5) with superstructure and customisation- Closed Coupled PTO		
Item 2.3.1D: Complete vehicle (Euro 3) with superstructure and customisation – Shaft driven PTO		
Item 2.3.1E: Complete vehicle (Euro 4) with superstructure and customisation– Shaft driven PTO		
Item 2.3F: Complete vehicle (Euro 5) with superstructure and customisation– Shaft driven PTO		

Maintenance Schedule for Item 2.3.1	Parts mark up (%)	Price Rate for labour per hour excl. VAT	Price Rate for labour per hour incl. VAT
Item 2.3.1 Maintenance of Chassis Cab			
Item 2.3.1 Maintenance of Superstructure			

Item 2.3.2: 6x4 Water carrier vehicle (AT)	Price per item	Make and Model
Vehicle (chassis cab)		
Vehicle accessories for chassis cab		
Water tank		
Rescue pump		
Water canon/monitor		
Superstructure (lockers, roller doors, fold down steps etc.)		
Electrical systems (lights, additional lighting, control systems/panel, siren and PA system etc.)		
Spare set of wheels		
Finishing; paint and signage		
All relevant miscellaneous items, consumables and hydraulic oil.		
Certified training (8 firemen, 4 training officers and 4 mechanics)		
Delivery, homologation, licensing with exemption and commissioning.		
Item 2.3.2A: Complete vehicle (Euro 3) with superstructure and customisation - Closed Coupled PTO		
Item 2.3.2B: Complete vehicle (Euro 4) with superstructure and customisation- Closed Coupled PTO		
Item 2.3.2C: Complete vehicle (Euro 5) with superstructure and customisation- Closed Coupled PTO		
Item 2.3.2D: Complete vehicle (Euro 3) with superstructure and customisation – Shaft driven PTO		
Item 2.3.2E: Complete vehicle (Euro 4) with superstructure and customisation– Shaft driven PTO		
Item 2.3.2F: Complete vehicle (Euro 5) with superstructure and customisation– Shaft driven PTO		

Maintenance Schedule for Item 2.3.2	Parts mark up (%)	Price Rate for labour per hour excl. VAT	Price Rate for labour per hour incl. VAT
Item 2.3.2 Maintenance of Chassis Cab			
Item 2.3.2 Maintenance of Superstructure			

Item 2.4.1: 6x6 Water carrier vehicle (MT)	Price per item	Make and Model
Vehicle (chassis cab)		
Vehicle accessories for chassis cab		
Water tank		
Rescue pump		
Water canon/monitor		
Superstructure (lockers, roller doors, fold down steps etc.)		
Electrical systems (lights, additional lighting, control systems/panel, siren and PA system etc.)		
Spare set of wheels		
Finishing; paint and signage		
All relevant miscellaneous items, consumables and hydraulic oil.		
Certified training (8 firemen, 4 training officers and 4 mechanics)		
Delivery, homologation, licensing with exemption and commissioning.		
Item 2.4.1A: Complete vehicle (Euro 3) with superstructure and customisation - Closed Coupled PTO		
Item 2.4.1B: Complete vehicle (Euro 4) with superstructure and customisation- Closed Coupled PTO		
Item 2.4.1C: Complete vehicle (Euro 5) with superstructure and customisation- Closed Coupled PTO		
Item 2.4.1D: Complete vehicle (Euro 3) with superstructure and customisation – Shaft driven PTO		
Item 2.4.1E: Complete vehicle (Euro 4) with superstructure and customisation– Shaft driven PTO		
Item 2.4.1F: Complete vehicle (Euro 5) with superstructure and customisation– Shaft driven PTO		

Maintenance Schedule for Item 2.4.1	Parts mark up (%)	Price Rate for labour per hour excl. VAT	Price Rate for labour per hour incl. VAT
Item 2.4.1 Maintenance of Chassis Cab			
Item 2.4.1 Maintenance of Superstructure			

Item 2.4.2: 6x6 Water carrier vehicle (AMT)	Price per item	Make and Model
Vehicle (chassis cab)		
Vehicle accessories for chassis cab		
Water tank		
Rescue pump		
Water canon/monitor		
Superstructure (lockers, roller doors, fold down steps etc.)		
Electrical systems (lights, additional lighting, control systems/panel, siren and PA system etc.)		
Spare set of wheels		
Finishing; paint and signage		
All relevant miscellaneous items, consumables and hydraulic oil.		
Certified training (8 firemen, 4 training officers and 4 mechanics)		
Delivery, homologation, licensing with exemption and commissioning.		
Item 2.4.2A: Complete vehicle (Euro 3) with superstructure and customisation - Closed Coupled PTO		
Item 2.4.2B: Complete vehicle (Euro 4) with superstructure and customisation- Closed Coupled PTO		
Item 2.4.2C: Complete vehicle (Euro 5) with superstructure and customisation- Closed Coupled PTO		
Item 2.4.2D: Complete vehicle (Euro 3) with superstructure and customisation – Shaft driven PTO		
Item 2.4.2E: Complete vehicle (Euro 4) with superstructure and customisation– Shaft driven PTO		
Item 2.4.2F: Complete vehicle (Euro 5) with superstructure and customisation– Shaft driven PTO		

Maintenance Schedule for Item 2.4.2	Parts mark up (%)	Price Rate for labour per hour excl. VAT	Price Rate for labour per hour incl. VAT
Item 2.4.2 Maintenance of Chassis Cab			
Item 2.4.2 Maintenance of Superstructure			

Item 2.4.3: 6x6 Water carrier vehicle (AT)	Price per item	Make and Model
Vehicle (chassis cab)		
Vehicle accessories for chassis cab		
Water tank		
Rescue pump		
Water canon/monitor		
Superstructure (lockers, roller doors, fold down steps etc.)		
Electrical systems (lights, additional lighting, control systems/panel, siren and PA system etc.)		
Spare set of wheels		
Finishing; paint and signage		
All relevant miscellaneous items, consumables and hydraulic oil.		
Certified training (8 firemen, 4 training officers and 4 mechanics)		
Delivery, homologation, licensing with exemption and commissioning.		
Item 2.4.3A: Complete vehicle (Euro 3) with superstructure and customisation - Closed Coupled PTO		
Item 2.4.3B: Complete vehicle (Euro 4) with superstructure and customisation- Closed Coupled PTO		
Item 2.4.3C: Complete vehicle (Euro 5) with superstructure and customisation- Closed Coupled PTO		
Item 2.4.3D: Complete vehicle (Euro 3) with superstructure and customisation – Shaft driven PTO		
Item 2.4.3E: Complete vehicle (Euro 4) with superstructure and customisation– Shaft driven PTO		
Item 2.4.3F: Complete vehicle (Euro 5) with superstructure and customisation– Shaft driven PTO		

Maintenance Schedule for Item 2.4.3	Parts mark up (%)	Price Rate for labour per hour excl. VAT	Price Rate for labour per hour incl. VAT
Item 2.4.3 Maintenance of Chassis Cab			
Item 2.4.3 Maintenance of Superstructure			

Item 3.1: Rapid intervention vehicle 4x4 manual single cab	Price per item	Make and Model
Single Cab	Please note the various options in the grey shaded rows below (make and model including the customisation)	
Vehicle accessories; Suspension upgrade Bulbar and fog lamps Winch Tow bar Multimedia system and reverse camera First attack foam system		
Lockers		
High capacity batteries		
Electrical systems (all lights, switches, controls)		
Equipment; Hydraulic equipment Category 3 equipment		
Miscellaneous items (please list)		
Finishing and relevant consumables.		
Installation, homologation, licensing, delivery and training		
Item 3.1.1: Rapid intervention vehicle 4x4 manual single cab		
Item 3.1.2: Rapid intervention vehicle 4x4 manual single cab		
Item 3.1.3: Rapid intervention vehicle 4x4 manual single cab		

Maintenance Schedule for Item 3.1	Parts mark up (%)	Price Rate for labour per hour excl. VAT	Price Rate for labour per hour incl. VAT
Maintenance of LDV Item 3.1.1			
Maintenance of LDV Item 3.1.2			
Maintenance of LDV Item 3.1.3			
Item 3.1 Maintenance of Superstructure			

Item 3.2: Rapid intervention vehicle 4x4 automatic single cab	Price per item	Make and Model
Single Cab	Please note the various options in the grey shaded rows below (make and model including the customisation)	
Vehicle accessories; Suspension upgrade Bulbar and fog lamps Winch Tow bar Multimedia system and reverse camera		
First attack foam system		
Lockers		
High capacity batteries		
Electrical systems (all lights, switches, controls)		
Equipment; Hydraulic equipment Category 3 equipment		
Miscellaneous items (please list)		
Finishing and relevant consumables.		
Installation, homologation, licensing, delivery and training		
Item 3.2.1: Rapid intervention vehicle 4x4 automatic single cab		
Item 3.2.2: Rapid intervention vehicle 4x4 automatic single cab		
Item 3.2.3: Rapid intervention vehicle 4x4 automatic single cab		

Maintenance Schedule for Item 3.2	Parts mark up (%)	Price Rate for labour per hour excl. VAT	Price Rate for labour per hour incl. VAT
Maintenance of LDV Item 3.2.1			
Maintenance of LDV Item 3.2.2			
Maintenance of LDV Item 3.2.3			
Item 3.2 Maintenance of Superstructure			

<u>Item 3.3: Rapid intervention vehicle 4x4 manual double cab</u>	Price per item	Make and Model
Double Cab	Please note the various options in the grey shaded rows below (make and model including the customisation)	
Vehicle accessories; Suspension upgrade Bulbar and fog lamps Winch Tow bar Multimedia system and reverse camera First attack foam system		
Lockers		
High capacity batteries		
Electrical systems (all lights, switches, controls)		
Equipment; Hydraulic equipment Category 3 equipment		
Miscellaneous items (please list)		
Finishing and relevant consumables.		
Installation, homologation, licensing, delivery and training		
Item 3.3.1: Rapid intervention vehicle 4x4 manual double cab		
Item 3.3.2: Rapid intervention vehicle 4x4 manual double cab		
Item 3.3.3: Rapid intervention vehicle 4x4 manual double cab		

Maintenance Schedule for Item 3.3	Parts mark up (%)	Price Rate for labour per hour excl. VAT	Price Rate for labour per hour incl. VAT
Maintenance of LDV Item 3.3.1			
Maintenance of LDV Item 3.3.2			
Maintenance of LDV Item 3.3.3			
Item 3.3 Maintenance of Superstructure			

<u>Item 3.4: Rapid intervention vehicle 4x4 automatic double cab</u>	Price per item	Make and Model
Double Cab	Please note the various options in the grey shaded rows below (make and model including the customisation)	
Vehicle accessories; Suspension upgrade Bulbar and fog lamps Winch Tow bar Multimedia system and reverse camera First attack foam system		
Lockers		
High capacity batteries		
Electrical systems (all lights, switches, controls)		
Equipment; Hydraulic equipment Category 3 equipment		
Miscellaneous items (please list)		
Finishing and relevant consumables.		
Installation, homologation, licensing, delivery and training		
Item 3.4.1: Rapid intervention vehicle 4x4 automatic double cab		
Item 3.4.2: Rapid intervention vehicle 4x4 automatic double cab		
Item 3.4.3: Rapid intervention vehicle 4x4 automatic double cab		

Maintenance Schedule for Item 3.4	Parts mark up (%)	Price Rate for labour per hour excl. VAT	Price Rate for labour per hour incl. VAT
Maintenance of LDV Item 3.4.1			
Maintenance of LDV Item 3.4.2			
Maintenance of LDV Item 3.4.3			
Item 3.4 Maintenance of Superstructure			

Item 4.1.1: 6x4 Heavy rescue vehicle (AMT)	Price per item	Make and Model
Vehicle (chassis cab)		
Vehicle accessories for chassis cab		
Crane		
Generator		
Superstructure (lockers, roller doors, fold down steps etc.)		
Electrical systems (lights, additional lighting, control systems/panel, siren and PA system etc.)		
Spare set of wheels		
Finishing; paint and signage		
All relevant miscellaneous items, consumables and hydraulic oil.		
Certified training (8 firemen, 4 training officers and 4 mechanics)		
Delivery, homologation, licensing with exemption and commissioning.		
Item 4.1.1A: Complete vehicle (Euro 3) with superstructure and customisation		
Item 4.1.1B: Complete vehicle (Euro 4) with superstructure and customisation		
Item 4.1.1C: Complete vehicle (Euro 5) with superstructure and customisation		

Maintenance Schedule for Item 4.1.1	Parts mark up (%)	Price Rate for labour per hour excl. VAT	Price Rate for labour per hour incl. VAT
Item 4.1.1 Maintenance of Chassis Cab			
Item 4.1.1 Maintenance of Superstructure			

Item 4.1.2: 6x4 Heavy rescue vehicle (AT)	Price per item	Make and Model
Vehicle (chassis cab)		
Vehicle accessories for chassis cab		
Crane		
Generator		
Superstructure (lockers, roller doors, fold down steps etc.)		
Electrical systems (lights, additional lighting, control systems/panel, siren and PA system etc.)		
Spare set of wheels		
Finishing; paint and signage		
All relevant miscellaneous items, consumables and hydraulic oil.		
Certified training (8 firemen, 4 training officers and 4 mechanics)		
Delivery, homologation, licensing with exemption and commissioning.		
Item 4.1.2A: Complete vehicle (Euro 3) with superstructure and customisation		
Item 4.1.2B: Complete vehicle (Euro 4) with superstructure and customisation		
Item 4.1.2C: Complete vehicle (Euro 5) with superstructure and customisation		

Maintenance Schedule for Item 4.1.2	Parts mark up (%)	Price Rate for labour per hour excl. VAT	Price Rate for labour per hour incl. VAT
Item 4.1.2 Maintenance of Chassis Cab			
Item 4.1.2 Maintenance of Superstructure			

Item 4.2.1: 6x6 Heavy rescue vehicle (MT)	Price per item	Make and Model
Vehicle (chassis cab)		
Vehicle accessories for chassis cab		
Crane		
Generator		
Superstructure (lockers, roller doors, fold down steps etc.)		
Electrical systems (lights, additional lighting, control systems/panel, siren and PA system etc.)		
Spare set of wheels		
Finishing; paint and signage		
All relevant miscellaneous items, consumables and hydraulic oil.		
Certified training (8 firemen, 4 training officers and 4 mechanics)		
Delivery, homologation, licensing with exemption and commissioning.		
Item 4.2.1A: Complete vehicle (Euro 3) with superstructure and customisation		
Item 4.2.1B: Complete vehicle (Euro 4) with superstructure and customisation		
Item 4.2.1C: Complete vehicle (Euro 5) with superstructure and customisation		

Maintenance Schedule for Item 4.2.1	Parts mark up (%)	Price Rate for labour per hour excl. VAT	Price Rate for labour per hour incl. VAT
Item 4.2.1 Maintenance of Chassis Cab			
Item 4.2.1 Maintenance of Superstructure			

Item 4.2.2: 6x6 Heavy rescue vehicle (AMT)	Price per item	Make and Model
Vehicle (chassis cab)		
Vehicle accessories for chassis cab		
Crane		

Generator		
Superstructure (lockers, roller doors, fold down steps etc.)		
Electrical systems (lights, additional lighting, control systems/panel, siren and PA system etc.)		
Spare set of wheels		
Finishing; paint and signage		
All relevant miscellaneous items, consumables and hydraulic oil.		
Certified training (8 firemen, 4 training officers and 4 mechanics)		
Delivery, homologation, licensing with exemption and commissioning.		
Item 4.2.2A: Complete vehicle (Euro 3) with superstructure and customisation		
Item 4.2.2B: Complete vehicle (Euro 4) with superstructure and customisation		
Item 4.2.2C: Complete vehicle (Euro 5) with superstructure and customisation		

Maintenance Schedule for Item 4.2.2	Parts mark up (%)	Price Rate for labour per hour excl. VAT	Price Rate for labour per hour incl. VAT
Item 4.2.2 Maintenance of Chassis Cab			
Item 4.2.2 Maintenance of Superstructure			

Item 4.2.3: 6x6 Heavy rescue vehicle (AT)	Price per item	Make and Model
Vehicle (chassis cab)		
Vehicle accessories for chassis cab		
Crane		
Generator		
Superstructure (lockers, roller doors, fold down steps etc.)		
Electrical systems (lights, additional lighting, control systems/panel, siren and PA system etc.)		
Spare set of wheels		

Finishing; paint and signage		
All relevant miscellaneous items, consumables and hydraulic oil.		
Certified training (8 firemen, 4 training officers and 4 mechanics)		
Delivery, homologation, licensing with exemption and commissioning.		
Item 4.2.3A: Complete vehicle (Euro 3) with superstructure and customisation		
Item 4.2.3B: Complete vehicle (Euro 4) with superstructure and customisation		
Item 4.2.3C: Complete vehicle (Euro 5) with superstructure and customisation		

Maintenance Schedule for Item 4.2.3	Parts mark up (%)	Price Rate for labour per hour excl. VAT	Price Rate for labour per hour incl. VAT
Item 4.2.3 Maintenance of Chassis Cab			
Item 4.2.3 Maintenance of Superstructure			

Item 5.1.1: 6x4 Breathing apparatus/Hazchem vehicle (AMT)	Price per item	Make and Model
Vehicle (chassis cab)		
Vehicle accessories for chassis cab		
Compressor		
Generator		
Superstructure (lockers, roller doors, fold down steps etc.)		
Electrical systems (lights, additional lighting, control systems/panel, siren and PA system etc.)		
Spare set of wheels		
Finishing; paint and signage		
All relevant miscellaneous items, consumables and hydraulic oil.		
Certified training (8 firemen, 4 training officers and 4 mechanics)		
Delivery, homologation, licensing with exemption and commissioning.		

Item 5.1.1A: Complete vehicle (Euro 3) with superstructure and customisation		
Item 5.1.1B: Complete vehicle (Euro 4) with superstructure and customisation		
Item 5.1.1C: Complete vehicle (Euro 5) with superstructure and customisation		

Maintenance Schedule for Item 5.1.1	Parts mark up (%)	Price Rate for labour per hour excl. VAT	Price Rate for labour per hour incl. VAT
Item 5.1.1 Maintenance of Chassis Cab			
Item 5.1.1 Maintenance of Superstructure			

Item 5.1.2: 6x4 Breathing apparatus/Hazchem vehicle (AT)	Price per item	Make and Model
Vehicle (chassis cab)		
Vehicle accessories for chassis cab		
Compressor		
Generator		
Superstructure (lockers, roller doors, fold down steps etc.)		
Electrical systems (lights, additional lighting, control systems/panel, siren and PA system etc.)		
Spare set of wheels		
Finishing; paint and signage		
All relevant miscellaneous items, consumables and hydraulic oil.		
Certified training (8 firemen, 4 training officers and 4 mechanics)		
Delivery, homologation, licensing with exemption and commissioning.		
Item 5.1.2A: Complete vehicle (Euro 3) with superstructure and customisation		
Item 5.1.2B: Complete vehicle (Euro 4) with superstructure and customisation		
Item 5.1.2C: Complete vehicle (Euro 5) with superstructure and customisation		

Maintenance Schedule for Item 5.1.2	Parts mark up (%)	Price Rate for labour per hour excl. VAT	Price Rate for labour per hour incl. VAT
Item 5.1.2 Maintenance of Chassis Cab			
Item 5.1.2 Maintenance of Superstructure			

Item 5.2.1: 6x6 Breathing apparatus/Hazchem vehicle (MT)	Price per item	Make and Model
Vehicle (chassis cab)		
Vehicle accessories for chassis cab		
Compressor		
Generator		
Superstructure (lockers, roller doors, fold down steps etc.)		
Electrical systems (lights, additional lighting, control systems/panel, siren and PA system etc.)		
Spare set of wheels		
Finishing; paint and signage		
All relevant miscellaneous items, consumables and hydraulic oil.		
Certified training (8 firemen, 4 training officers and 4 mechanics)		
Delivery, homologation, licensing with exemption and commissioning.		
Item 5.2.1A: Complete vehicle (Euro 3) with superstructure and customisation		
Item 5.2.1B: Complete vehicle (Euro 4) with superstructure and customisation		
Item 5.2.1C: Complete vehicle (Euro 5) with superstructure and customisation		

Maintenance Schedule for Item 5.2.1	Parts mark up (%)	Price Rate for labour per hour excl. VAT	Price Rate for labour per hour incl. VAT
Item 5.2.1 Maintenance of Chassis Cab			
Item 5.2.1 Maintenance of Superstructure			

Item 5.2.2: 6x6 Breathing apparatus/Hazchem vehicle (AMT)	Price per item	Make and Model
Vehicle (chassis cab)		
Vehicle accessories for chassis cab		
Compressor		
Generator		
Superstructure (lockers, roller doors, fold down steps etc.)		
Electrical systems (lights, additional lighting, control systems/panel, siren and PA system etc.)		
Spare set of wheels		
Finishing; paint and signage		
All relevant miscellaneous items, consumables and hydraulic oil.		
Certified training (8 firemen, 4 training officers and 4 mechanics)		
Delivery, homologation, licensing with exemption and commissioning.		
Item 5.2.2A: Complete vehicle (Euro 3) with superstructure and customisation		
Item 5.2.2B: Complete vehicle (Euro 4) with superstructure and customisation		
Item 5.2.2C: Complete vehicle (Euro 5) with superstructure and customisation		

Maintenance Schedule for Item 5.2.2	Parts mark up (%)	Price Rate for labour per hour excl. VAT	Price Rate for labour per hour incl. VAT
Item 5.2.2 Maintenance of Chassis Cab			
Item 5.2.2 Maintenance of Superstructure			

Item 5.2.3: 6x6 Breathing apparatus/Hazchem vehicle (AT)	Price per item	Make and Model
Vehicle (chassis cab)		
Vehicle accessories for chassis cab		
Compressor		

Generator		
Superstructure (lockers, roller doors, fold down steps etc.)		
Electrical systems (lights, additional lighting, control systems/panel, siren and PA system etc.)		
Spare set of wheels		
Finishing; paint and signage		
All relevant miscellaneous items, consumables and hydraulic oil.		
Certified training (8 firemen, 4 training officers and 4 mechanics)		
Delivery, homologation, licensing with exemption and commissioning.		
Item 5.2.3A: Complete vehicle (Euro 3) with superstructure and customisation		
Item 5.2.3B: Complete vehicle (Euro 4) with superstructure and customisation		
Item 5.2.3C: Complete vehicle (Euro 5) with superstructure and customisation		

Maintenance Schedule for Item 5.2.3	Parts mark up (%)	Price Rate for labour per hour excl. VAT	Price Rate for labour per hour incl. VAT
Item 5.2.3 Maintenance of Chassis Cab			
Item 5.2.3 Maintenance of Superstructure			

<u>Item 6.1: Water tanker fire and rescue trailer (Tandem)</u>	Price per item	Make and Model/ Item Description
Trailer (structural chassis, brakes, landing legs etc.)		
Tank		
Accessories		
Fire pump		
Auxiliary engine		
Water canon/monitor		
Electrical items		

All relevant miscellaneous items and consumables and spare tyre		
Certified training (8 firemen, 4 training officers and 4 mechanics)		
Delivery, licensing, homologation and commissioning.		
Item 6.1 Total (Excl. VAT) to tender form		

Maintenance Schedule for Item 6.1	Parts mark up (%)	Price Rate for labour per hour excl. VAT	Price Rate for labour per hour incl. VAT
Item 6.1 Maintenance of Trailer and Superstructure			

<u>Item 6.2: Water tanker fire and rescue trailer (Tridem)</u>	Price per item	Make and Model/ Item Description
Trailer (structural chassis, brakes, landing legs etc.)		
Tank		
Accessories		
Fire pump		
Auxiliary engine		
Water canon/monitor		
Electrical items		
All relevant miscellaneous items and consumables and spare tyre		
Certified training (8 firemen, 4 training officers and 4 mechanics)		
Delivery, licensing, homologation and commissioning.		
Item 6.2 Total (Excl. VAT) to tender form		

Maintenance Schedule for Item 6.2	Parts mark up (%)	Price Rate for labour per hour excl. VAT	Price Rate for labour per hour incl. VAT
Item 6.2 Maintenance of Trailer and Superstructure			

<u>Item 7.1: Prime mover (6x4) AMT with the option of a crane</u>	Price per item	Make and Model
Vehicle (Chassis)		
Winch		
Fifth wheel, tow hitch and recovery adaptor		
Hydraulic system (pump, tank, cylinders, valves, filters, piping, hosing and accessories)		
Hydraulic controls		
Power take off (PTO) unit		
All relevant miscellaneous items, consumables and hydraulic oil.		
Training		
Delivery, licensing, homologation and commissioning.		
Item 7.1A: Complete vehicle (Euro 3) with customisation		
Item 7.1B: Complete vehicle (Euro 4) with customisation		
Item 7.1C: Complete vehicle (Euro 5) with customisation		
Item 7.1D: Option of a crane with remote control and installation		

Maintenance Schedule for Item 7.1	Parts mark up (%)	Price Rate for labour per hour excl. VAT	Price Rate for labour per hour incl. VAT
Item 7.1 Maintenance of Chassis Cab			
Item 7.1 Maintenance of Crane and Hydraulic system			

<u>Item 7.2: Prime mover (6x4) AT with the option of a crane</u>	Price per item	Make and Model
Vehicle (Chassis)		
Winch		
Fifth wheel, tow hitch and recovery adaptor		
Hydraulic system (pump, tank, cylinders, valves, filters, piping, hosing and accessories)		

Hydraulic controls		
Power take off (PTO) unit		
All relevant miscellaneous items, consumables and hydraulic oil.		
Training		
Delivery, licensing, homologation and commissioning.		
Item 7.2A: Complete vehicle (Euro 3) with customisation		
Item 7.2B: Complete vehicle (Euro 4) with customisation		
Item 7.2C: Complete vehicle (Euro 5) with customisation		
Item 7.2D: Option of a crane with remote control and installation		

Maintenance Schedule for Item 7.2	Parts mark up (%)	Price Rate for labour per hour excl. VAT	Price Rate for labour per hour incl. VAT
Item 7.2 Maintenance of Chassis Cab			
Item 7.2 Maintenance of Crane and Hydraulic system			

SECTION 9: OFFICIAL TENDER FORM

Part A: OFFER BY TENDERER - In response to **Tender Number : 30007-1J** I / we hereby offer to supply the goods / services detailed hereunder in accordance with the Technical Specification, and subject to the Standard and Special Conditions of Tender (Goods/Services), and General and Special Conditions of Contract, which accompanied your Tender (with which I / we acknowledge myself / ourselves to be fully acquainted) at the price stated below, or in the case of individual rates are indicated in Section 8 : Bill Of Quantities / Schedule of Rates / Activities.

I / We hereby agree that this tender will hold good and remain open for acceptance as specified in the Conditions of Tender or during such other period as may be specified in the Special Conditions of Tender.

eThekwini Vendor Portal Registration Number:

PR

C.S.D Registration Number:

MAAA

S.A.R.S Pin Number:

Completion of the following is compulsory. Failure to declare the following will invalidate your offer.

Declaration of Interest

Are any of the entity's directors, managers, principle shareholder or stakeholders currently in the service of the state or have been in the service of the state in the past twelve (12) months?				☐ Yes	☐ No
Is any spouse, child or parent of the entity's directors, managers, principle shareholder or stakeholder currently in the service of the state or have been in the service of the state in the past twelve (12) months?				☐ Yes	☐ No
Name of entity's member	Position in Entity	Name of Relative (if applicable)	Name of State Institution	Nature of Relationship	
Do you or any other directors, managers, principle shareholder or stakeholder of your entity have any relationship (spouse, family, friend, associate) with persons in the service of the state and/or who may be involved with the evaluation of this quotation? If yes please furnish particulars below				☐ Yes	☐ No
Name of entity's member	Position in Entity	Name of Relative (if applicable)	Name of State Institution	Nature of Relationship	

Refer to the Consolidated MBD Documents in Section 4(d) for the definition of "in service of the State"

* Signature :

* Name (*capitals*):

Date:

Capacity:

* Name of Business:

Tel:

Address:

Fax:

* Denotes Mandatory Information

Failure to complete the Mandatory Information and sign this Tender Form will invalidate the tender

Part B: ACCEPTANCE BY PURCHASER - The Purchaser, as represented by the following Official, hereby accepts the Tenderer's offer in terms of the Conditions of Tender, Specifications, and Conditions of Contract.

Signature:

Name (*capitals*):

Date:

Capacity:

SECTION 10: ANNEXURES

Insert as required