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 eThekwini Municipality's website.

Tender No: 1J- 25953

Title: Supply, Delivery and Maintenance of Landfill Plant, specialised vehicles and equipment for a period of thirty-six (36) months

CLARIFICATION MEETING AND QUERIES

Clarification Meeting: A Non-Compulsory Clarification Meeting will be held [Ms Teams] on 23rd of January 2024] at [10:00 -11:00am].

Queries can be addressed to: Email queries to be submitted by 01 February 2024 and consolidated question and answers to be uploaded 08 February 2024.

General / Contractual: Nondumiso Khumalo; Tel: 031 322 5093; eMail: nondumiso.khumalo@durban.gov.za

Technical: Yuvraj Dwarika; Tel: 031 322 5033; 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, 16 February 2024

Time: 11:00am

FACSIMILE, eMAIL or POSTED TENDERS WILL NOT BE ACCEPTED

Issued by:

ETHEKWINI MUNICIPALITY

Deputy Head: SUPPORT SERVICES

Issued: December 2023

Document Version: 24/02/2023

NAME OF TENDERER: .....

Tender Price: R .....

VAT Registered: YES / NO
(circle applicable)

PROCUREMENT DOCUMENT (Goods / Services)

INDEX

SECTION 1: GENERAL INFORMATION

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

TENDER No.: 1J- 25953

DESCRIPTION: **Supply, Delivery and Maintenance of Landfill Plant, specialised vehicles and equipment for a period of thirty-six (36) months**

CLOSING DATE / TIME: Friday, 16 February 2024 at 11:00am

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

- the National Treasury's eTenders website (https://www.etenders.gov.za/), or
- the eThekwini 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 **eThekwini 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)

INDEX

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 eThekwini 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 ***eThekwini 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 eThekwini 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 eThekwini 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 Biding 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:
(a) Submit documentary proof of the rate of exchange; and
(b) 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 eThekwini 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:

$$N_{FO} = W\left(1 + \frac{Pt - Pmax}{Pmax}\right)$$

GOODS and SERVICES

The financial offer will be scored using the formula:

$$N_{FO} = W\left(1 - \frac{Pt - Pmin}{Pmin}\right)$$

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) **Pmax** is the comparative offer of the most favourable comparative offer (highest acceptable tender).

(c) **Pmin** is the comparative offer of the most favourable comparative offer (lowest acceptable tender).

(d) **Pt** 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 125 pages.

SCT 3(2) TENDER INFORMATION: Obtaining Tender Documentation

Documents are issued by the eThekwini Municipality electronic format.

Electronically downloaded documentation is obtainable from:

- the National Treasury's eTenders website
  - (https://www.etenders.gov.za/), or
- the eThekwini 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 5033; eMail: yuvraj.dwarika@durban.gov.za

SCT 3(4) TENDER INFORMATION: Briefing Session

A Non-Compulsory Clarification Meeting will be held [Ms Teams] on 23rd of January 2024] at [10:00 -11:00am].

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, 16 February 2024** at **11:00am**.

Bidders are to include, with their "hard copy" submission, a memory-stick containing an electronically scanned (300 dpi resolution) Public Document Format (PDF) copy of their complete bid submission. This PDF file should be named using the contract number and the bidder's name, eg. "**XX-xxxx – Tenderers Name.PDF**". The memory-stick must be securely fixed to the paper submission.

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**

There are no additional returnable schedules, forms, certificates

SCT 14 **EVALUATION PROCESS**

14.1 Step one – Mandatory Requirement

Offers will be considered from Original Equipment Manufacturer (OEM), accredited agent or any third-party supplier with a letter of undertaking from the OEM confirming to honour the warranty period.

In a case of a bidder being an accredited agent or a third-party supplier, a letter confirming the accreditation or a letter of undertaking from the OEM must be submitted as part of the tender submission

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 **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.

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**	**90/10**
Race: Black (100%)	0%	0
	>0% and <51%	4
	≥51% and <100%	7.5
	100%	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.		

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 eThekwini 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	**90/10**
Not in South Africa	0
South Africa	2.5
KZN	5
ETM	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. **1J- 25953** and any contract resulting from it on our behalf.

NAME	ADDRESS	SIGNATURE	DATE

Notes

Tenderers are to include, at the back of their tender submission document, a printout of the following documents:

If a Company : a “Resolution of the Board” in this regard.
If a Joint Venture : a “Power of Attorney” signed by the legally authorised signatories of all the partners to the Joint venture.

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 eThekwini 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.

	Circle Applicable	
3.8 Are you presently in the service of the state?	YES	NO

If yes, furnish particulars:
……

……

3.9 Have you been in the service of the state for the past twelve months?	YES	NO

If yes, furnish particulars:
……

……

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	
1.0	Are you by law required to prepare annual financial statements for auditing?	YES	NO
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 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 **90/10 preference point system**.

1.3 Preference Points for this tender shall be awarded for:

- **Price** and **Specific Goals**:80 (price) and 20 (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:

80 / 20 Points System

$$Ps = 80\left(1 - \frac{Pt - Pmin}{Pmin}\right)$$

OR

90 / 10 Points System

$$Ps = 90\left(1 - \frac{Pt - Pmin}{Pmin}\right)$$

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 points claimed are indicated per the table below.

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

The Specific Goals to be allocated points in terms of this tender		**Number of points ALLOCATED (90/10 system)**	**Number of points CLAIMED (90/10 system)**
Ownership Goal: Race (Black)		3	
RDP Goal: The promotion of South African owned enterprises.		7	
Total point claimed			
Should the municipality apply a combination of Specific Goals, the **points for the individual goals** will be weighted according to the **Goal Weightings** specified in the Tender Data to arrive at the final points for **Preferential Points for Specific Goals**.			

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:

a) abused the municipal entity's supply chain management system or committed any improper conduct in relation to such system.
b) been convicted for fraud or corruption during the past five years.
c) wilfully neglected, reneged on or failed to comply with any government, municipal or other public sector contract during the past five years.
d) 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.

		Circle Applicable	
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.	YES	NO

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.	YES	NO

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?	YES	NO

4.3.1 If YES, provide particulars.

……

……

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 consortium[3] 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

TABLE OF CLAUSES

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 consignees 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 contracts 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:

(a) 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;

(b) if the supplier fails to perform any other obligation(s) under the contract; or

(c) 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:

(i) the name and address of the supplier and / or person restricted by the purchaser;

(ii) the date of commencement of the restriction

(iii) the period of restriction; and

(iv) 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 0f 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**

This contract will be for a 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 eThekwini 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 eThekwini Municipality's officials responsible.

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

a) Detailed maintenance manual
a) Operating manual
b) Training manual
c) Spares manual
d) Certificate showing unit 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 product catalogue showing the units specifications and abilities for the application.

SCC 11.1 **INSURANCE**

The successful tenderer is to take adequate insurance to cover the unit when it leaves the premises of the bidder until it is fully delivered and commissioned at eThekwini 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 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 shall have a minimum of a 7-year warranty for its application.

The paintwork shall be covered by a 10-year corrosion free warranty.

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 6-month period(s) 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**

The time schedule for the delivery of goods and performance of services is 26 weeks from the date of confirmation of an 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 R 5000 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 QUANITITIES**

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 duration.

ACC8 **SERVICE PROVIDER OFFICE REQUIREMENTS**

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

ACC9. **CONTRACT PARTICIPATION GOALS (CPG)**

It is not feasible to call for CPG since these machines comes fully commissioned.

ACC10 **FITMENT OF AUXILIARY EQUIPMENT**

It must be noted that once the vehicle(s) have been receipted by eThekwini 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

The vehicles/equipment/unit 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 equipment/unit including the customisation is to be constructed by the OEM or a SABS/SANS approved body/coach/vehicle manufacturer/ builder. The layout should also ensure that the laden individual axle loads do not exceed the legal limits where applicable.

The vehicle/equipment/unit 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. There shall be a prescreening design phase of the concept of the vehicle provided by the bidder before getting approval from eThekwini City Fleet to go ahead with the prototype. Prototype will be used in field conditions before being accepted or revised. Thereafter consent will be provided for production (if multiple units required).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/equipment/unit 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. Training shall be provided for every item supplied to at least two eThekwini staff members of driver, operator and maintenance departments. The training shall be fully OEM accredited.

PTO calibration shall be performed by the bidder after tracking device is installed on the vehicle/equipment/unit by eThekwini City Fleet. All exposed electrical wiring looms of the vehicle/equipment/unit shall be full encased in a flexible protective metallic conduit and securely clamped with fasteners to the chassis or the structure. Each vehicle/equipment/unit must be supplied with three sets of keys.

Note: Bidders are encouraged to also offer hybrid electric plant equipment/units if offered from their respective product range. The unit should meet the minimum Euro 3 engine specification and have a similar operating mass and payload handling capability. Bidder must provide a separate product catalogue for this respective Item and a price option in Section 8.

List of items for supply:

Item 1: Landfill Bulldozer
Item 2: Front End Loader
Item 3: Motor Grader
Items 4: Vibratory Roller
Item 5: 6x6 heavy duty rear tipping Truck
Item 6: Articulated Dump Truck
Items 7: Articulated Hook-lift Truck
Item 8: Articulated Water tanker Truck
Item 9: Landfill Compactor
Item 10: 6x6 heavy duty water tanker
Item 11: 6x6 heavy duty vacuum tanker

Item 1: Technical specification for a Landfill Bulldozer

1.Scope

The intent of this specification is to provide for a fully operational vehicle, which has the capability to operate on a landfill site for transferring, loading and offloading garden refuse and non-compactable commercial waste. This vehicle will be used primarily on landfill sites. Bidder has the option of offering a hybrid electric unit as well for this item.

2. Unit

2.1 The bulldozer shall be a track driven unit, with a minimum operating Gross Vehicle Mass (GVM) of 35 000 kg.

2.2 Transmission shall be power shift, fully automatic, automatic manual or infinitely adjustable drive with at least three forward and three reverse gears/modes. Manual/high power gear setting selection must be available when dozing.

2.3 Minimum diesel engine requirements shall be of Euro 3 emission level with 200 kW of power.

2.4 Minimum ground clearance of all components to be 600 mm.

2.5 Grouser shoes on the tracks shall have trapezoidal holes which will reduce accumulation of debris on the tracks.

2.6 The radiator must allow for easy access to ensure daily maintenance. The air-cooling fan shall have reversible operation if waste does become entangled in it. The design of the radiator housing should ideally prevent this.

2.7 All final drive/s to be fitted with dual cone seal protection or similar/better.

2.8 Fitment of a steel under belly plate (minimum of 6 mm) to protect the radiator and engine. Rest of the vehicle shall have removable under chassis guards for keeping away landfill waste.

2.9 Park and emergency braking systems.

2.10 360^{o} degree vision is required from within the cab to allow for operator clear visibility. Cab protector for front windscreen shall be installed.

2.11 To safely and comfortably accommodate driver using an equal levelling suspended type seat. To be fully adjustable for optimal visibility while operating the vehicle.

2.12 Fully adjustable mirrors including driver assist mirrors for sides of vehicle.

2.13 Heater, windscreen demister and air-conditioning system should be adequate for the cab and its occupants.
2.14 Windscreen wipers and washer system.
2.15 12v charger sockets.
2.16 Aerial mounted camera with monitor to assist with viewing of the rear whilst in operation.
2.17 Fuel tank with minimum capacity of 550 liters shall be fitted with an anti-siphon device and a lockable fuel cap.
2.18 An efficient fuel filter shall be fitted, and the tank shall have a viewable filter screen at the filler cap with an easily accessible drain plug.
2.19 Automated truck fuel filtration management system to remove water and dirt before delivery to the engine. This system shall be in a lockable enclosure (lock to be provided).
2.20 Heat sensing engine protection device, mechanical monitoring system to safely shut down engine if engine cylinder head increases to an unsafe temperature, no water in the cooling system and upon low oil level and low oil pressure.
2.21 Turbo safety system to prevent damage if vehicle is switched off prematurely or turbo has not reached safe operation. Heat shield to be wrapped around the turbo and manifolds.
2.22 Water separator to keep pneumatic system functioning efficiently.
2.23 Auto lubrication system to be installed where maintenance free bushings/bearings cannot be used.
2.24 Oil sampling/pressure valve to be fitted on all critical components and subsystems of the unit were OEM recommends for monitoring purposes.
2.25 The unit and the customisation shall be designed according to these critical specifications (summary of evidence shall be provided):

a) SANS 20474-11: – Earthmoving Machinery Safety Part:11 Requirements for Earth and Landfill Compactors
b) Driver's cab shall be ROPS/FOPS compliant (ISO 3471 and ISO 3449).
c) Comply to sound levels as laid out in ISO6395 and ISO63956.
d) SANS 12944-4, 5:1998 Corrosion protections.
e) SANS 1506:1994 (2000-07-25) Brake systems.
f) ISO 10265:2008 Earth-moving machinery- Crawler Machines-Performance requirements and test procedures for braking systems

3. Material specification

The load baring items shall be made from structural steel to withstand the loads from the operational environment's terrain and application. Corten steel and Domex for the structural rolled sections and flat plate is recommended. Whilst Hardox for the wearing items (blades, scoops and forks), the Hardox shall be applied over the primary structure such that it can be replaced as a wearing item.

4. Construction requirements

4.1 Front Blade

4.1.1 The front blade must be suited for moving landfill waste. It must be fitted with trash racks.
4.1.2 The surface in direct contact with the waste shall have a Hardox wear plate mounted over the structural steel. The Hardox wear plate shall be a minimum of 12 mm in thickness.
4.1.3 Mounting of the blade shall be done in user friendly manner to exchange once minimum thickness is reached, preferably with maintenance free fastening methods.

4.2 Rippers

Adjustable multi-shank rippers that can penetrate typical landfill materials and can be used with shanks adjusted to vertical positions. To be mounted on rear of vehicle.

4.3 Access stairways

To be fitted with suitable guard rails and user-friendly access.

All items 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 waterproof amber coloured polycarbonate lenses LED warning light to be fitted on the cab roof with on/off switch with random flash pattern positioned in the cab.

5.2 Rubber encased waterproof LED spotlights (minimum of four) shall be installed to the top of the cab facing the surrounding areas of the bulldozer. Switches shall be in the cab.

All lights to be bracket mounted for easy removal and lenses protected from damage.

6. Hydraulic system

6.1 In respect of the hydraulic tank the following shall be required:

I. To be constructed of steel.
II. To be fitted to an accessible part of the chassis, such that it does not impede the maintenance staff or driver of filling oil to tank.
III. To be fitted with a bump guard from externalities.
IV. 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.
V. Must have a lockable filler cap strainer & filter into filler base and filler cap assembly.
VI. Oil capacity shall be enough, and a cooler added if necessary.

6.2 Must have an inline filter with a blockage indicator fitted onto the pressure side of hydraulic pump, before the 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 Safety hold valve for cylinder in case of hydraulic failure.

6.8 Hydraulic controls for the operation of the equipment shall be fitted in a user-friendly manner in the driver's cab for ease of operation.

6.9 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 hydraulics. A plug in, modular type, control panel is preferred for ease of maintenance.

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

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

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

7.6 Paint film thickness (color coat) must not be less than 80 microns each.

8. Colors

Underside of Body	Black
Unit	White/Yellow
Striping	Cleansing Solid Waste (CSW) branding with white, blue (RAL 5002/Pantone 280C) and green (RAL 6000/Pantone 3278c) stripes across the front of the driver's cab

9. Electrical

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

9.1 The rear aerial mounted camera shall remain ON and a buzzer and warning light to be installed when reverse gear is engaged.

9.2 Battery isolator switch.

9.3 Audible hooter.

9.4 Jump start receptacle.

9.5 Batteries shall be maintenance free variant that will last the warranty period.

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

9.7 All exposed electrical wiring looms of the unit shall be fully encased in a flexible protective metallic conduit and securely clamped with fasteners.

10. Signage and Markings

10.1 Data plates shall be fitted labelling the storage areas and capacity. Safe working loads should be labelled where necessary:

a) The hydraulic 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 structure on both sides.

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

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

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

10.4 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.

10.5 Retro-reflective tape shall be fitted to both sides and the rear of the vehicle as well as the rear.

10.6 Registration number to be clearly marked on roof (left to right, 80-90% size of the roof).

10.7 Striping: Green, Blue, Green & White – on L/H/S roof and across the front panel, Grille and bottom valance. Green (58 mm), Blue (72 mm), Green (118 mm), White spacing, 1st White (35 mm), 2nd White (45 mm).

Striping shall run continuously from the left of the cab roof, across the front of the cab and bonnet to end at the right headlight/bumper of the unit.

10.8 Driver's and passenger doors shall have the following 200 x 600 mm decal:

11. Miscellaneous items

11.1 The batteries to have a weather proof cover to prevent debris and moisture ingression.
11.2 Fuel tank, batteries, pneumatic cylinders and hydraulic tank to have structures built around them for safety.
11.3 Bolt on covers for safety where parts are rotating, swinging or of high temperature including and not limited to engine manifolds, turbocharger and exhaust.
11.4 A pair of 6 kg fire extinguishers should be supplied and fitted in an accessible position close to the driver when exiting the cab.
11.5 Automatic fire suppression system for the unit in case of emergency.

Item 2: Technical specification for a Front-end loader

1. Scope

The intent of this specification is to provide for a fully operational vehicle, which has the capability to load and offload primarily landfill, commercial and household non compactable waste.

The lifting bucket shall have a volumetric capacity of 6-8 m^3 and a lifting capacity of 13-16 000 kg. Bidder has the option of offering a hybrid electric unit as well for this item.

2. Vehicle

2.1 The chassis/body shall have a minimum Gross Vehicle Mass (GVM) of 22 000 kg
2.2 Transmission shall be fully automatic incorporating a torque converter, with at least four forward and three reverse gears.
2.3 Minimum diesel engine requirements shall be: Euro 3 emission level, 200 kW of power and 1 500 Nm of torque.
2.4 Vehicle should have a limited top speed of not more than 60 km/hr.
2.5 Minimum wheelbase of 3 500 mm.
2.6 Steel suspension.
2.7 Fitment of a steel under belly plate (minimum 6 mm) to protect the radiator & engine.
2.8 Driver's cab shall be ROPS/FOPS compliant. Windscreen guard shall be installed for waste application.
2.9 Clear visibility through all sides of the cab.
2.10 Park and emergency braking to be independent systems.
2.11 A fully laden minimum grade ability of 30 % shall be expected.
2.12 Rear axle with hub reduction gearing and differential lock to provide all wheel drive.
2.13 Servicing platform.
2.14 To safely and comfortably accommodate driver using an equal levelling suspended type seat. To be fully adjustable.
2.15 Wide angle adjustable mirrors.
2.16 Driver assist mirrors for front and sides of vehicle.
2.17 Heater, windscreen demister and air-conditioning system should be adequate for the cab and its occupant.
2.18 12v charger socket.
2.19 Rear and front windscreen wipers with washer spray.
2.20 Aerial mounted camera to assist with viewing of the rear.
2.21 Fuel tank shall be at least 300 liters with a lockable fuel cap and anti-siphon device.
2.22 Automated truck fuel filtration management system to remove water and dirt before delivery to the engine. This system shall be in a lockable enclosure (lock to be provided).
2.23 Heat sensing engine protection device, mechanical monitoring system to safely shut down engine if engine cylinder head increases to an unsafe temperature.
2.24 Auto lubrication system were maintenance free bushings/bearings cannot be used.
2.25 Turbo safety system to prevent damage if vehicle is switched off prematurely or turbo has not reached safe operation. Heat shield to be wrapped around the turbo and manifolds.
2.26 Oil sampling/pressure valve to be fitted on all critical components and subsystems of the unit were OEM recommends for monitoring purposes.
2.27 The vehicle and the customisation shall be designed according to these critical specifications (summary of evidence shall be provided):
   a. SANS 1506:1994 (2000-07-25) Brake systems.
   b. SANS 20474-11: – Earthmoving Machinery Safety Part:11 Requirements for Earth and Landfill Compactors
   c. The end of section 7 other specifications/standards that shall be adhered to.

3. Material specification

The load baring items shall be made out of structural steel to withstand the payload. Corten steel and Domex for the structural rolled sections and flat plate is recommended. Whilst Hardox for the wear pads in the lifting bucket.

4. Construction requirements

4.1 Body and Bucket

4.1.1 Areas of the floor that shall be used as access walkways shall have a hard wearing, slip resistant material (Vastrap).

4.1.2 Access ladder and railings/grabs shall be installed in a suitable position behind the cab and rear/side.

4.1.3 The hydraulic cylinder/s shall be suitable for the application and lift the laden bucket at the applicable angle to load and offload. Maintenance free bushings/bearings shall be used.

4.1.4 The main hoist shall incorporate a hook mount system. The hook shall be bolt on type to be easily replaced.

4.1.5 Articulation angle of 40° or better shall be required.

4.1.6 The high capacity waste bucket shall have wear plates installed in the interior over the primary structure. It shall be installed such that it can be removed for replacement when minimum thickness is reached. It must have properties to withstand the various commodities the vehicle is expected to handle.

4.1.7 The bucket shall have a replaceable reversible cutting edge or forks installed for the lateral width of the entire bucket. The preferred option for the unit shall be communicated at the time of order.

4.1.8 Load cell or sensing hydraulics for the bucket payload capacity. System should allow logging and display of the payload capacity over a period.

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 waterproof amber coloured polycarbonate lenses LED warning lights to be fitted on the cab roof with on/off switch with random flash pattern positioned in the cab.

5.2 Rubber encased spotlights shall be installed to the top of the cab facing the surrounding areas of the unit. Switches shall be in the cab.

All lights to be bracket mounted for easy removal and lenses protected from damage.

5.3 Interior controls and cabin to illuminated for use in poor light conditions.

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 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 sufficient, and a cooler added if necessary.

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 Safety hold valve for cylinder in case of hydraulic failure.
6.8 Hydraulic controls for the operation of the loading/offloading shall be fitted in a user friendly manner in the driver's cab and behind the cab allowing for ease of operation. The outside controls shall be protected by means of an enclosure.

6.9 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 hydraulics. A plug in, modular type, control panel is preferred for ease of maintenance.

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 12/24 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 eThekwini 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 the unit and other components using a two component self-curing inorganic zinc ethyl silicate or two component zinc rich polyamide cured epoxy primer.
8.5 Thereafter paint using two coats of premium quality twin pack automotive paint.
8.6 The bucket should have a polyurethane protective final coat.
8.7 Paint film thickness (color coat) must not be less than 80 microns each.

9. Colors

Underside of Body	Black
Cab	White/Yellow
Striping	Cleansing Solid Waste (CSW) branding with white, blue (RAL 5002/Pantone 280C) and green (RAL

	6000/Pantone 3278c) stripes across the front of the operators cab
Bucket	Black

10. Electrical

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

10.1 LED taillight and headlights.
10.2 Bolt on guards to be installed for 10.1.
10.3 Reversing camera, buzzer and warning light to be installed when reverse gear is engaged.
10.4 Aerial mounted camera for viewing the rear should use same monitor as in 10.3 with dual viewing feature.
10.5 Battery isolator switch.
10.6 Audible hooter.
10.7 Uninterrupted power supply points shall be made available for the vehicle tracking and fuel master monitoring system.
10.8 Jump start receptacle.
10.9 All exposed electrical wiring looms of the vehicle and superstructure shall be fully encased in a flexible protective metallic conduit and securely clamped with fasteners.

11. Signage and Markings

11.1 Data plates shall be fitted labelling the storage areas and capacity. Safe working loads should be labelled where necessary:

a) The hydraulic 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 structure on both sides.

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

11.2 Chevron board to be fitted at the rear conforming with the appropriate SABS/SANS standard.

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

11.5 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.

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

11.7 Registration number to be clearly marked on roof (left to right, 80-90% size of the roof).

11.8 Striping: Green, Blue, Green & White – on L/H/S roof and across the front panel, Grille and bottom valance. Green (58 mm), Blue (72 mm), Green (118 mm), White spacing, 1st White (35 mm), 2nd White (45 mm).

Striping shall run continuously from the left of the cab roof, across the front of the cab and bonnet to end at the right headlight/bumper of the unit.

11.9 All doors of the operator's cabin shall have the following 200 x 600 mm decal:

12. Miscellaneous items

12.1 The batteries to have a weather proof cover to prevent debris and moisture ingression or built within the vehicle chassis.
12.2 Fuel tank, batteries, pneumatic cylinders and hydraulic tank to have structures built around them for safety or built within the vehicle.
12.3 Bolt on covers for safety where parts are rotating, swinging or of high temperature.
12.4 A pair of 6 kg fire extinguisher should be supplied and fitted in an accessible position close to the driver when exiting the cab.
12.5 Tyres shall be E4 type tubeless radial articulated hauler type with specified load ratings for the application.
12.6 One complete spare wheel as in 12.5 and one set of emergency changing tools shall be supplied per vehicle.
12.8 Bolt on head and tail light guards.
12.9 Automatic fire suppression system to be installed covering the engine and cab in case of an emergency.

Item 3: Technical specification for a Motor Grader

1.Scope

The intent of this specification is to provide for a fully operational vehicle, which has the capability to operate on a landfill site for levelling of terrain and road rehabilitation processes. Bidder has the option of offering a hybrid electric unit as well for this item.

2. Vehicle

2.1 The grader shall be a 4x4 articulated vehicle, with a minimum Gross Vehicle Mass (GVM) of 16 000 kg.
2.2 Transmission shall be power shift, infinitely adjustable or fully automatic or automatic manual with at least three forward and three reverse gears. Manual/Low speed high torque setting selection must be available when grading.
2.3 Minimum diesel engine requirements shall be of Euro 3 emission level, 120 kW of power and 800 Nm of torque.
2.4 Steel suspension.
2.5 Final drive to be fitted with dual cone seal protection.
2.6 Fitment of a steel under belly plate (minimum of 6 mm) to protect the radiator and engine. Rest of the vehicle shall have removable under chassis guards for keeping away debris.
2.7 Pneumatic ABS braking. Park and emergency braking systems.
2.8 360^{o} degree vision is required from within the cab to allow for operator clear visibility.
2.9 To safely and comfortably accommodate driver using an equal levelling suspended type seat. To be fully adjustable for optimal visibility while operating the vehicle.
2.10 Adjustable mirrors including driver assist mirrors for sides of vehicle.
2.11 Heater, windscreen demister and air-conditioning system should be adequate for the cab and its occupants.
2.12 Windscreen wipers and washer system.
2.13 12v charger sockets.
2.14 Aerial mounted camera to assist with viewing of the rear whilst in operation.
2.15 Two stage dry type air cleaner with auto cleaner function and air restrictor indicator.
2.16 Fuel tank with minimum capacity of 250 liters shall be fitted with an anti-siphon device and a lockable fuel cap.
2.17 An efficient fuel filter shall be fitted, and the tank shall have a viewable filter screen at the filler cap with an easily accessible drain plug.

2.18 Vehicle fuel management system to remove access water and dirt before delivery to the engine. This system shall be in a lockable enclosure (lock to be provided).
2.19 Heat sensing engine protection device, mechanical monitoring system to safely shut down engine if engine cylinder head increases to an unsafe temperature, no water in the cooling system and upon low oil level and low oil pressure.
2.20 Turbo safety system to prevent damage if vehicle is switched off prematurely or turbo has not reached safe operation.
2.21 Water separator to keep pneumatic system functioning efficiently.
2.22 Oil sampling/pressure valve to be fitted on all critical components and subsystems of the unit were OEM recommends for monitoring purposes.
2.23 The vehicle and the customisation shall be designed according to these critical specifications (summary of evidence shall be provided):

a) SANS 20474-11: – Earthmoving Machinery Safety Part:11 Requirements for Earth and Landfill Compactors
b) Driver's cab shall be ROPS/FOPS compliant (ISO 3471 and ISO 3449).
c) Comply to sound levels as laid out in ISO6395 and ISO63956.
d) SANS 12944-4, 5:1998 Corrosion protections.
e) SANS 1506:1994 (2000-07-25) Brake systems.

3. Material specification

The load baring items shall be made out of structural steel to withstand the loads from the operational environments' terrain and application. Corten steel and Domex for the structural rolled sections and flat plate is recommended. Whilst Hardox for the wearing items (blade), the Hardox shall be applied over the primary structure such that it can be replaced as a wearing item.

4. Construction requirements

4.1 Grader Blade

4.1.1 The front blade must be suited for levelling terrain on a landfill waste site. The minimum lateral width should be 3 500 mm and the height should be 500 mm.
4.1.2 The blade must have a lift and dig of approx. 400 mm and 700 mm respectively.
4.1.3 Minimum blade range of 40-degrees or better is required.
4.1.4 The surface in direct contact with the commodity shall have a Hardox wear plate mounted over the structural steel. The Hardox wear plate shall be a minimum of 12 mm in thickness.
4.1.5 Mounting of the blade shall be done in user friendly manner preferably with maintenance free fastening methods.

4.2 Rippers and Scarifier

4.2.1 Adjustable multi-shank rippers that can penetrate typical landfill/road materials and can be used with shanks adjusted to vertical positions. To be mounted on rear of vehicle.
4.2.2 Adjustable scarifier that can loosen typical landfill/road terrain and can be adjusted to various vertical positions. To be mounted on front of vehicle.

4.3 Access stairways

To be fitted with suitable guard rails and user-friendly access.

All items 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 waterproof amber coloured polycarbonate lenses LED warning light to be fitted on the cab roof with on/off switch with random flash pattern positioned in the cab.

5.2 Rubber encased spotlights shall be installed to the top of the cab facing the surrounding areas of the grader. Switches shall be located in the cab.

All lights to be bracket mounted for easy removal and lenses protected from damage.

6.Hydraulic system

6.1 In respect of the hydraulic tank the following shall be required:

a) To be constructed of steel.

b) To be fitted to an accessible part of the chassis, such that it does not impede the maintenance staff or driver of filling oil to tank.

c) To be fitted with a bump guard from externalities.

d) 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.

e) Must have a lockable filler cap strainer & filter into filler base and filler cap assembly.

f) Oil capacity shall be sufficient and a cooler added if necessary.

6.2 Must have an inline filter with a blockage indicator fitted onto the pressure side of hydraulic pump, before the 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 Safety hold valve for cylinder in case of hydraulic failure.

6.8 Hydraulic controls for the operation of the equipment shall be fitted in a user friendly manner in the driver's cab for ease of operation.

6.9 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 hydraulics. A plug in, modular type, control panel is preferred for ease of maintenance.

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

7.5 Thereafter paint using two coats of premium quality twin pack automotive paint

7.6 Paint film thickness (color coat) must not be less than 80 microns each.

8. Colors

Underside of Body	Black
Cab	White and Cleansing Solid Waste (CSW) branding with white, blue and green stripes across the front of the cab or Safety Yellow
Deck and structures	CSW Blue or Safety Yellow

Striping	Green, Blue, Green & White – on L/H/S roof and across the front panel, Grille and bottom valance. Green (58 mm), Blue (72 mm), Green (118 mm), White spacing, 1st White (35 mm), 2nd White (45 mm).

9. Electrical

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

9.1 The rear aerial mounted camera shall remain ON and a buzzer and warning light to be installed when reverse gear is engaged.
9.2 Battery isolator switch.
9.3 Audible hooter.
9.4 Batteries shall be maintenance free variant that will last the warranty period.
9.5 Solar panel to be installed to aid the charge of the batteries when not in use.
9.6 Uninterrupted power supply points shall be made available for the vehicle tracking and fuel master monitoring system.
9.7 Jump start receptacle

10. Signage and Markings

10.1 Data plates shall be fitted labelling the storage areas and capacity. Safe working loads should be labelled where necessary:

a) The hydraulic 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 structure on both sides.

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

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

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

10.4 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.

10.5 Retro-reflective tape shall be fitted to both sides and the rear of the vehicle as well as the rear.

10.6 Registration number to be clearly marked on roof (left to right, 80-90% size of the roof).

10.7 Striping: Green, Blue, Green & White – on L/H/S roof and across the front panel, Grille and bottom valance. Green (58 mm), Blue (72 mm), Green (118 mm), White spacing, 1st White (35 mm), 2nd White (45 mm).

10.8 Striping shall run continuously from the left of the cab roof, across the front of the cab and bonnet to end at the right headlight/bumper of the unit.

10.9 All doors of the operator's cabin shall have the following 200 x 600 mm decal:

11. Miscellaneous items

11.1 The batteries to have a weather proof cover to prevent debris and moisture ingression.
11.2 Fuel tank, batteries, pneumatic cylinders and hydraulic tank to have structures built around them for safety.
11.3 Bolt on covers for safety where parts are rotating, swinging or of high temperature including and not limited to engine manifolds, turbocharger and exhaust.
11.4 A pair of 6 kg fire extinguisher should be supplied and fitted in an accessible position close to the driver when exiting the cab.
11.5 Automatic fire suppression system to be installed covering the engine and cab in case of an emergency.

Item 4: Technical specification for a vibratory roller

1. Scope

The intent of this specification is to provide for a fully operational vehicle, which has the capability to operate on a landfill site for levelling of terrain and roads. Bidder has the option of offering a hybrid electric unit as well for this item.

2. Unit

2.1 The unit shall be an articulated front roller vehicle, with a minimum Gross Vehicle Mass (GVM) of 12 000 kg.
2.2 Transmission shall be infinitely adjustable, power shift, fully automatic or automatic manual with at least three forward and three reverse gears.
2.3 Minimum diesel engine requirements shall be of Euro 3-5 emission level with a minimum of 100 kW of power.
2.4 Steel suspension.
2.5 Final drives to be fitted with dual cone seal protection.
2.6 Fitment of a steel under belly plate (minimum of 6 mm) to protect the radiator and engine. Rest of the vehicle shall have removable under chassis guards for keeping away landfill debris.
2.7 Park and emergency braking systems.
2.8 360^{o} degree vision is required from within the cab to allow for operator clear visibility.
2.9 To safely and comfortably accommodate driver using an equal levelling suspended type seat. To be fully adjustable for optimal visibility while operating the vehicle.
2.10 Fully adjustable mirrors including driver assist mirrors for sides of vehicle.
2.11 Heater, windscreen demister and air-conditioning system should be adequate for the cab and its occupants.
2.12 Windscreen wipers and washer system.
2.13 12v charger sockets.
2.14 Aerial mounted camera to assist with viewing of the rear whilst in operation.
2.15 Two stage dry type air cleaner with auto cleaner function and air restrictor indicator.
2.16 Fuel tank with minimum capacity of 200 liters shall be fitted with an anti siphon device and a lockable fuel cap.
2.17 An efficient fuel filter shall be fitted and the tank shall have a viewable filter screen at the filler cap with an easily accessible drain plug.
2.18 Vehicle fuel management system to remove access water and dirt before delivery to the engine. This system shall be in a lockable enclosure (lock to be provided).

2.19 Heat sensing engine protection device, mechanical monitoring system to safely shut down engine if engine cylinder head increases to an unsafe temperature, no water in the cooling system and upon low oil level and low oil pressure.

2.20 Turbo safety system to prevent damage if vehicle is switched off prematurely or turbo has not reached safe operation.

2.21 Water separator to keep pneumatic system functioning efficiently.

2.22 Oil sampling/pressure valve to be fitted on all critical components and subsystems of the unit were OEM recommends for monitoring purposes.

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

a) Driver's cab shall be ROPS/FOPS compliant (ISO 3471 and ISO 3449).
b) Comply to sound levels as laid out in ISO6395 and ISO63956.
c) SANS 12944-4, 5:1998 Corrosion protections.
d) SANS 1506:1994 (2000-07-25) Brake systems.

3. Material specification

The load baring items shall be made out of structural steel to withstand the loads from the operational environments terrain and application. Corten steel and Domex for the structural rolled sections and flat plate is recommended. Whilst Hardox or a wear resistant steel for the wearing items (roller and roller pads), the wear liner shall be applied over the primary structure such that it can be replaced as a wearing item.

4. Construction requirements

4.1 Roller

4.1.1 The padfoot front roller must be either suited for levelling and agitation of terrain on a landfill waste site. The smooth roller should compact and densify newly laid asphalt on road surfaces. The minimum lateral width should be 2000 mm and the diameter should be 1500 mm.

4.1.2 The padfoot roller shall be fitted with an oval/elliptical face pads around the entire face. The design shall also be tapered and should have multiple direction compaction force with minimal waste accumulation on the pads/roller.

4.1.3 The smooth roller shall be able to withstand the chemical and heat composition of asphalt and preferably have a wear plate on the exterior diameter that is replaceable.

4.1.4 The roller shall have a low frequency (approx. 30Hz) vibration system with adjustable amplitude settings to assist the compaction process at the landfill site. Centrifugal force should be approx. 130-300 kN.

4.1.5 The surface in direct contact with the waste shall have the wear resistant face pads mentioned in 4.1.2.

4.1.6 An adjustable levelling blade to be fitted at the front of the roller. It should be the same or better lateral width of the roller/unit.

4.1.7 Mounting of the blade shall be done in user friendly manner preferably with maintenance free fastening methods.

4.1 Smooth cover for footpad roller

4.1.1 There shall be a smooth cover included that can enclose the padfoot drum to use the padfoot roller as a smooth drum roller when and as required.

4.2 Access stairways

To be fitted with suitable guard rails and user-friendly access.

All items 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 waterproof amber coloured polycarbonate lenses LED warning light to be fitted on the cab roof with on/off switch with random flash pattern positioned in the cab.

5.2 Rubber encased spotlights shall be installed to the top of the cab facing the surrounding areas of the unit. Two forward facing and at least one rear. Switch shall be located in the cab.

All lights to be bracket mounted for easy removal and lenses protected from damage.

6 Hydraulic system

6.1 In respect of the hydraulic tank the following shall be required:

I. To be constructed of steel.
II. To be fitted to an accessible part of the chassis, such that it does not impede the maintenance staff or driver of filling oil to tank.
III. To be fitted with a bump guard from externalities.
IV. 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.
V. Must have a lockable filler cap strainer & filter into filler base and filler cap assembly.
VI. Oil capacity shall be sufficient and a cooler added if necessary.

6.2 Must have an inline filter with a blockage indicator fitted onto the pressure side of hydraulic pump, before the 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 Safety hold valve for cylinder in case of hydraulic failure.

6.8 Hydraulic controls for the operation of the equipment shall be fitted in a user friendly manner in the driver's cab for ease of operation.

6.9 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 hydraulics. A plug in, modular type, control panel is preferred for ease of maintenance.

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

7.5 Thereafter paint using one coat of premium quality twin pack automotive paint

7.6 Paint film thickness must not be less than 80 microns each. Two coats of primer and one colour coat.

8. Colors

Underside of Body	Black
Padfoot roller unit	White with Cleansing Solid Waste (CSW) branding with white, blue and green stripes across the front of the cab or Safety Yellow

9. Electrical

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

9.1 The rear aerial mounted camera shall remain ON and a buzzer and warning light to be installed when reverse gear is engaged.
9.2 Battery isolator switch.
9.3 Audible hooter.
9.4 Batteries shall be maintenance free variant that will last the warranty period.
9.5 Uninterrupted power supply points shall be made available for the vehicle tracking and fuel master monitoring system.
9.6 Jump start receptacle.

10. Signage and Markings

10.1 Data plates shall be fitted labelling the storage areas and capacity. Safe working loads should be labelled where necessary:

a) The hydraulic 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 structure on both sides.

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

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

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

10.4 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.

10.5 Retro-reflective tape shall be fitted to both sides and the rear of the vehicle as well as the rear.

10.6 Registration number to be clearly marked on roof (left to right, 80-90% size of the roof).

10.7 Striping: Green, Blue, Green & White – on L/H/S roof and across the front panel, Grille and bottom valance. Green (58 mm), Blue (72 mm), Green (118 mm), White spacing, 1st White (35 mm), 2nd White (45 mm).

10.8 Striping shall run continuously from the left of the cab roof, across the front of the cab and bonnet to end at the right headlight/bumper of the unit.

10.9 All doors of the operator's cabin shall have the following 200 x 600 mm decal:

11. Miscellaneous items

11.1 The batteries to have a weather proof cover to prevent debris and moisture ingression.
11.2 Fuel tank, batteries, pneumatic cylinders and hydraulic tank to have structures built around them for safety.
11.3 Bolt on covers for safety where parts are rotating, swinging or of high temperature including and not limited to engine manifolds, turbocharger and exhaust.
11.4 A pair of 6 kg fire extinguisher should be supplied and fitted in an accessible position close to the driver when exiting the cab.

11.5 Automatic fire suppression system to be installed covering the engine and cab in case of an emergency for the padfoot roller unit only.

Item 5: Technical specification for a 6x6 Heavy Duty Rear Tipping vehicle

1. Scope

The specification is for a rear tipping body that has a top hinged tailgate. The tip-body shall be able to carry a volume of 10-16 m^3 and a payload of 14-24 tons (14 000-24 000 kg). It will primarily be used to transport bulk refuse, compactable and commercial waste on the landfill site. Further it shall be able to be used for special operations like emergencies, city and beach cleanup operations.

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 6x6 construction chassis cab truck, with a minimum Gross Vehicle Mass (GVM) of 25 000 kg.
2.2 Transmission shall be fully automatic with a power/low range drive mode.
2.3 Minimum diesel engine requirements shall be a Euro 3 to 5, 260 kW of power and 1 600 Nm of torque.
2.4 Minimum wheelbase (center of front wheel to center of rear bogie) of 3 500 mm.
2.5 Steel suspension.
2.6 Fitment of a steel under belly plate to protect the radiator, engine, transmission, prop shaft and drive hubs on all axles.
2.7 Exterior windscreen sun visor.
2.8 A tinted sunroof shall be fitted if offered by the OEM.
2.9 Nudge bar to be fitted the full length of the cab. Bolt on type and cylindrical construction.
2.10 ABS brakes is mandatory. Auxiliary breaking to be provided through an integrated retarder (operated via the foot brake pedal).
2.11 A fully laden minimum grade ability of 30 % shall be expected. Maximum speed of not less than 80 km/hr.
2.12 Drivetrain shall have hub reduction and differential lock.
2.13 Forward tilt hydraulic actuated cab with safety holding mechanism.
2.14 To safely and comfortably accommodate driver using an equal levelling suspended type seat. To be fully adjustable.
2.15 Passenger seat.
2.16 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 Fuel tank shall be 500 liters with a lockable fuel cap and anti-siphon device.
2.22 Truck fuel management system to remove access water and dirt before delivery to the engine. This system shall be in a lockable enclosure (lock to be provided).
2.23 Heat sensing engine protection device, mechanical monitoring system to safely shut down engine if engine cylinder head increases to an unsafe temperature.
2.24 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) The end of Section 7 details other specifications that are relevant.

3. Material specification

The rear tipping body and structures shall be constructed of Corten corrosion resistant steel or a high strength structural steel with suitable chromium content. Furthermore, the inner floor and the bottom side panels of the tipping body shall have wear plates made of Hardox steel seated on top of the primary steel structure.

4. Construction requirements

4.1 Chassis mounting

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

4.2 Sub Frame

The sub frame shall extend the full body length.

4.3 Tip Body

4.3.1 The tip body shall be mounted at the rear most of the chassis

4.3.2 The headboard shall be extended 100 mm to a height above the cab.

4.3.3 The tailgate shall be top hinged which will open automatically when the body is tipped. The height of the tailgate shall be higher than the sides.

4.3.4 The rear guide outside the tailgate for offloading shall be a box section and/or strengthened using stiffeners/gussets if flat plate.

4.3.5 The geometry and shape of the tip body shall afford maximum capacity in terms of volume and mass with no areas that will hold the commodity when offloading.

4.3.6 The main pair of structural channels must have stiffeners/gussets evenly installed over the length.

4.3.7 Lateral support shall be provided using structural members throughout the base of the tipping body floor. Supports and guides shall be installed underneath the tipping body and on the truck chassis to provide even load distribution and prevent unwanted (lateral, oscillations, vibrations) movement when the vehicle is in motion.

4.3.8 At the front of the tip body a centrally located support shall be mounted on the lateral member of the chassis to hold the tip body in place.

4.3.9 The sides of the loading box shall also be reinforced with structural members.

4.3.10 A tipping stabilizer shall be installed.

4.3.11 All box sections and structural channels shall have stiffeners/gussets installed for reinforcement.

4.3.12 The tailgate locking mechanism shall be self-adjusting and easily maintainable.

4.3.13 The inner wear plates shall be installed such that maintenance of these components can be carried out when minimum thickness is reached.

4.4 Tipping

4.4.1 Tipping operation shall be achieved by means of a multi stage hydraulic cylinder/s which is mounted upon a suitably reinforced full length sub frame. Tipping angle shall not be less than 45˚.

4.4.2 The sub frame must start as close as possible to the rear of the truck cab in order to spread the stresses imposed.

4.4.3 When operating conditions demand, the hydraulic cylinder shall be capable of continuously handling an overload of up to 25% of the specified payload (including body mass).

4.4.4 An electrical switch shall be mounted on the sub frame which automatically activates a buzzer and light fitted inside the cabs dashboard when the body is raised.

4.4.5 The tipping control must incorporate the following individual positions: Raise, Hold, Lower.

4.4.6 When released the lever must automatically enter the “Hold” position.

4.4.7 Indicators for the rest position and maximum height when tipping shall be installed.

4.4.8 The operation of the tipping must be constrained such that the chassis cab in no way can be damaged.

4.4.9 A mechanical safety device shall be installed to hold the body in the raised position.

4.5 Covering system

4.5.1 A covering system shall be installed for the entire longitudinal and lateral dimensions of the open top of the tip body.

4.5.2 The material shall be flexible and robust enough to handle the commodity being transported in terms of geometry (if heap loaded) and the chemical composition.

4.5.3 The material shall be stored in a self reeling housing unit on the tip body closest to the cab. Top/side mounted guides and runners shall be used to spread the material over the tip body.
4.5.4 Tie downs shall be available on the sides to hold the material if needed.
4.5.5 Design must not inhibit loading (from the sides) and off-loading.
4.5.6 Operation must be such that the rear tailgate does not damage the system when offloading.

4.6 Storage box

4.6.1 One lockable storage box approximately 1 000 mm longitudinally shall be fixed on the chassis under the bodywork.
4.6.2 Hinges for the doors must be fitted to the exterior of the front doors.
4.6.3 There should be seals to prevent ingress of water.

4.7 *Miscellaneous items*

4.7.1 Steel constructed rear mud flaps shall be installed.
4.7.2 Rear underrun device shall be installed according to SANS 1055.
4.7.3 Safety access ladders and handrails to the rear tipping body.
4.7.4 Protective shell structures over fuel tank and pneumatic cylinders.
4.7.5 Lockable protective cover for the batteries.
4.7.6 Wire mesh covers for the front and rear lights.
4.7.7 A pair of heavy duty wheel chocks to be mounted and easily accessible.
4.7.8 A 50l stainless steel water tank/caddy to be mounted in a position below the body with a tap.
4.7.9 Lockable fuel filler cap with an anti-siphon device installed.

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. Hydraulic system

5.1 In respect of the hydraulic tank the following shall be required:
5.1.1 To be constructed of steel.
5.1.2 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.
5.1.3 To be fitted with a bump guard from externalities.
5.1.4 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.
5.1.5 Must have a filler cap strainer & filter into filler base and filler cap assembly.
5.1.6 Oil capacity shall be double that of the oil capacity of the hydraulic cylinder.
5.2 Must have an inline filter with a blockage indicator fitted onto the pressure side of hydraulic pump, before the tipper / solenoid valve system.
5.3 The hydraulic valves shall be grouped together for ease of maintenance.
5.4 Test points for testing hydraulic pressures shall be fitted and grouped together.
5.5 Where possible steel tubing, which shall be treated with suitable corrosion protection, in lieu of rubber hosing shall be used for hydraulic lines.
5.6 All hydraulic fittings shall be wrapped with a petrolatum impregnated tape or sprayed with a petrolatum primer to prevent corrosion.
5.7 Safety hold valve for the cylinder/s in case of hydraulic system failure.
5.8 Load cell or sensing hydraulics for the tipping body payload capacity. System should allow logging and display of the payload capacity over a period.

6. Power Take Off (PTO)

6.1 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.

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

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

6.4 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.

6.5 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.

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

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

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, rear/side tip body/skip shall be shot blasted.
7.4 Prime the tip body and other components using a two component self-curing inorganic zinc ethyl silicate or two component zinc rich polyamide cured epoxy primer.
7.5 Thereafter paint using premium quality automotive finish paint.
7.6 Two coats of primer and one coat of colour.
7.7 Paint film thickness (color coat) must not be less than 100 microns each.

8. Colors

- Underside of Body: Black
- Inside of tip body: Black
- Chassis Cab: White with Cleansing Solid Waste (CSW) branding with white, blue (RAL 5002/Pantone 280C) and green (RAL 6000/Pantone 3278c) stripes across the front of the driver’s cab
- Tip body exterior: CSW Blue RAL 5002/Pantone 280C

9. Electrical

9.1 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.
9.2 Reversing buzzer and warning flashing light to be installed when reverse gear is engaged.
9.3 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 1 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.
9.4 Pair of rear facing work lights to be installed with switch installed in the cab.
9.5 A pair of marker LED amber lights on each side of the vehicle.
9.6 Uninterrupted power supply points shall be made available for the vehicle tracking and fuel master monitoring system.
9.7 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.

10. Signage and Markings

10.1 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 rear tip body detailing safe working load, material specification, tailgate operation and general maintenance.

c) Safe working load (SWL) decals shall be clearly visible on the sides of the tipping body.

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

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

10.3 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.

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

10.5 Two pairs of amber marker lights shall be fitted to each side of the vehicle.

10.6 Registration number to be clearly marked on roof (left to right, 80-90% size of the roof).

10.7 Striping: Green, Blue, Green & White – on L/H/S roof and across the front panel, Grille and bottom valance. Green (58 mm), Blue (72 mm), Green (118 mm), White spacing, 1st White (35 mm), 2nd White (45 mm).

Striping shall run continuously from the left of the cab roof, across the front of the cab and bonnet to end at the right headlight/bumper of the unit.

10.8 Driver's and passenger doors shall have the following 200 x 600 mm decal:

11. Fire Extinguisher

A 4.5kg dry powder type extinguisher to be mounted in a suitable exterior position preferably close to the driver's door.

Item 6: Articulated Dump Truck

1.Scope

The intent of this specification is to provide for a fully operational vehicle, which has the capability to load and offload a minimum of 26 000 kg of bulk refuse at landfill sites. The vehicle will be used exclusively at landfill sites and the vehicle should be designed accordingly for the conditions of the environment and terrain.

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 6x6 cab truck, with a minimum Gross Vehicle Mass (GVM) of 45 000 kg.
2.2 Transmission shall be fully automatic.
2.3 Minimum diesel engine requirements shall be Euro 3-5 emission level, 270 kW of power and 1800 Nm of torque.
2.4 Minimum wheelbase of 4 800 mm.
2.5 Minimum ground clearance of 550 mm.
2.6 Steel suspension with appropriate dampening.
2.7 Fitment of steel under belly panels to protect the radiator, engine, transmission, prop shaft, drive hubs on all axles and any other critical components.
2.8 Nudge bar to be fitted the full length of the cab. Bolt on type and cylindrical construction.
2.9 ABS brakes is mandatory.
2.10 Auxiliary breaking to be provided through an integrated automatic retarder which shall always be engaged when not accelerating or driving.
2.11 A fully laden minimum grade ability of 30 % shall be expected. Maximum speed of not less than 60 km/hr.
2.12 Limited slip differential lock to engage full 6x6 drive capability.
2.13 Forward tilt hydraulic actuated cab and/or hood bonnet with safety holding mechanism.
2.14 To safely and comfortably accommodate driver using an equal levelling suspended type seat. To be fully adjustable.
2.15 Passenger seat to be also fitted.
2.16 Safety harness seatbelts for driver and passenger shall be fitted.
2.17 Electric adjustable wide view mirrors.
2.18 Cab windows (rear and side) shall be tinted to reduce reflection, heat and radiation from the sun.
2.19 Heater, windscreen demister and air-conditioning system should be adequate for the cab and its occupants.
2.20 Radio and speakers, 12v charger sockets.
2.21 Aerial mounted camera to assist with viewing of the rear whilst loading.
2.22 Fuel tank to be minimum of 350 liters with a lockable fuel cap and anti-siphon device.
2.23 Automated truck fuel filtration management system to remove water and dirt before delivery to the engine. This system shall be in a lockable enclosure (lock to be provided).
2.24 Engine protection system/device to be installed monitoring engine temperature, low water level and low engine oil pressure. Monitoring device/system to safely shut down engine when any of these (if not all) are detected.
2.25 Air dryer to remove excess moisture/water from the pneumatic system.

2.26 Fire suppression system to be installed covering the engine and cab in case of an emergency.
2.27 Easily accessible automated centralised grease system for grease cartridge changes.
2.28 The vehicle and the customisation shall be designed according to these critical specifications (summary of evidence shall be provided):
2.29 SANS 1518 Transport of dangerous goods — Design, construction, testing, approval and maintenance of road vehicles and portable tanks. A similar and/or better specification can be used for the application of this vehicle.
2.30 Roll over protection systems (ROPS) and fall over protection systems (FOPS) for the cab.
2.31 Chapter 15 covers other specifications/standards that will be adhered to.

3. Material specification

The load baring components of the vehicle and its customisation shall be made out of corrosion resistant structural steel with a suitable chromium content to withstand the payload and operating conditions of the vehicle. A high tensile corrosion resistant steel for the structural rolled sections and flat sections is recommended. Whilst Hardox or similar/better for the wear plates in the rear loading/tipping body.

4. Construction requirements

4.1 Rear tipping loading box

4.1.1 A minimum capacity of 15 m^3 and a minimum heaped capacity of 20 m^3 is required. A minimum payload capacity of 26 000kg is required.
4.1.2 The loading box shall have a replaceable hard-wearing impact liner plate on the floor and sides.
4.1.3 Areas of the rear that shall be used as an access walkway shall have a hard wearing, slip resistant material (Vastrap).
4.1.4 Access ladder and railings/grabs shall be installed in a suitable position for maintenance purposes.
4.1.5 The twin mounted hydraulic cylinders shall be suitable for the application and provide an adequate lifting force for the laden loading box. Maintenance free bushings/bearings shall be used where possible.
4.1.6 An adjustable tipping angle up to 70° shall be required depending on the geometric design of the loading box to offload the contents.

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 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 type LED consisting of 1 watt, 6x4 modules to the front with end cap modules consisting of 1x2 head modules with amber 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.

5.2 One pair rubber encased LED spotlights shall be installed to the rear top of the cab facing the loading area. Switch shall be located in the cab.

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 double that of the oil capacity of the hydraulic cylinder.
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 Load cell or sensing hydraulics for the tipping body payload capacity. System should allow logging and display of the payload capacity over a period.

7. Power Take Off (PTO)

7.1 The closed couple 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 eThekwini 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 (tip body shall be shot blasted).
8.4 Prime the tip body and other components 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 twin pack automotive paint.
8.6 Paint film thickness (color coat) must not be less than 80 microns each.
8.7 The paintwork shall be covered by a ten-year corrosion guarantee.

9. Colors

Underside of Body	Black
Cab and Body	White with Cleansing Solid Waste (CSW) branding with white, blue (RAL 5002/Pantone 280C) and green (RAL 6000/Pantone 3278c) stripes across the front of the driver’s cab
Loading box interior	CSW Blue RAL 5002/Pantone 280C

10.Electrical

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

10.1 Reversing camera, buzzer and warning flashing light to be installed when reverse gear is engaged.
10.2 Aerial mounted camera for viewing the rear should use same monitor as in 10.1.
10.3 Easily accessible battery isolator switch shall be installed.
10.4 Easily accessible jump start receptacle.
10.5 Hooter of at least 93dB.
10.6 Uninterrupted power supply points shall be made available for the vehicle tracking and fuel master monitoring system.
10.7 All exposed electrical wiring looms of the chassis cab and superstructure shall be fully encased in a flexible protective metallic conduit and securely clamped with fasteners.

11. Signage and Markings

11.1 Data plates shall be fitted labelling the storage areas and capacity. Safe working loads should be labelled where necessary:

a) The hydraulic 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 structure on both sides.

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

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

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

11.4 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.

11.5 Retro-reflective tape shall be fitted to both sides and the rear of the vehicle as well as the rear.

11.6 Registration number to be clearly marked on roof (left to right, 80-90% size of the roof).

11.7 Striping: Green, Blue, Green & White – on L/H/S roof and across the front panel, Grille and bottom valance. Green (58 mm), Blue (72 mm), Green (118 mm), White spacing, 1st White (35 mm), 2nd White (45 mm).

Striping shall run continuously from the left of the cab roof, across the front of the cab and bonnet to end at the right headlight/bumper of the unit.

11.8 Driver's and passenger doors shall have the following 200 x 600 mm decal:

12. Miscellaneous items

12.1 A locking fuel cap for the fuel tank
12.2 The batteries to have a weather proof cover to prevent debris and moisture ingression.
12.3 Fuel tank, batteries, pneumatic cylinders and hydraulic tank to have shell cover structures built around them for safety.
12.4 Bolt on covers for safety where parts are rotating, swinging or of high temperature.
12.5 Radiator, main intercooler and oil cooler to be mounted for ease of maintenance, cleaning and repair.
12.6 A 4.5 kg fire extinguisher should be supplied and fitted in an accessible position in the cab.
12.7 Tyres shall be tubeless radial articulated hauler with specified load ratings for the application.
12.8 One spare wheel and one set of changing tools shall be supplied per vehicle. .
12.9 A pair of suitable wheel chocks.

Item 7: Technical specification for an Articulated Hook Lift Vehicle

1.Scope

The intent of this specification is to provide for a fully operational vehicle, which has the capability to load and offload containers by means of a hook lift mechanism. The containers are used for the collection of garden refuse and non-compactable commercial waste. This vehicle will be used to transport 28m^3 containers from holding areas to adjacent landfill sites.

The chassis cab shall have a hook lift mechanism with a minimum lifting capacity of 30 000 kg.

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 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 6x6 cab truck, with a minimum Gross Vehicle Mass (GVM) of 45 000 kg.
2.2 Transmission shall be fully automatic.
2.3 Minimum diesel engine requirements shall be Euro 3-5 emission level, 270 kW of power and 1800 Nm of torque.
2.4 Minimum wheelbase of 4 800 mm.
2.5 Minimum ground clearance of 550 mm.
2.6 Steel suspension with appropriate dampening.
2.7 Fitment of steel under belly panels to protect the radiator, engine, transmission, prop shaft, drive hubs on all axles and any other critical components.
2.8 Nudge bar to be fitted the full length of the cab. Bolt on type and cylindrical construction.
2.9 ABS brakes is mandatory.
2.10 Auxiliary breaking to be provided through an integrated automatic retarder which shall always be engaged when not accelerating or driving.
2.11 A fully laden minimum grade ability of 30 % shall be expected. Maximum speed of not less than 60 km/hr.
2.12 Limited slip differential lock to engage full 6x6 drive capability.
2.13 Forward tilt hydraulic actuated cab and/or hood bonnet with safety holding mechanism.
2.14 To safely and comfortably accommodate driver using an equal levelling suspended type seat. To be fully adjustable.
2.15 Passenger seat to be also fitted.
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 hands free cellphone radio and speakers.
2.20 2 x 12v charger sockets.

2.21 Rear window of cab shall have a structural frame with 3 mm 3CR12 mesh across the surface area for protection.
2.22 Aerial mounted camera to assist with viewing of the rear whilst loading.
2.23 Fuel tank shall be 500 liters with a lockable fuel cap and anti-siphon device.
2.24 Truck fuel management system to remove access water and dirt before delivery to the engine. This system shall be in a lockable enclosure (lock to be provided).
2.25 Heat sensing engine protection device, mechanical monitoring system to safely shut down engine if engine cylinder head increases to an unsafe temperature.
2.26 Auto lubrication system.
2.27 Auto sensor lights.
2.28 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) Roll over protection systems (ROPS) and fall over protection systems (FOPS) for the cab.
c) Chapter 15 covers other specifications/standards that shall be adhered to.

3. Material specification

The load baring items including the main boom, ladder frame and goose neck shall be made out of structural steel to withstand the payload. Corten steel and Domex for the structural rolled sections and flat plate is recommended. Whilst Hardox for the wear pads and the floor.

4. Construction requirements

4.1 Rear body loading area

4.1.1 A minimum of 6 mm thickness is recommended for the structural members.
4.1.2 Maximum container length to be accommodated shall be 6500 mm.
4.1.3 Container shall have minimal overhang over the chassis.
4.1.4 Areas of the floor that shall be used as access walkways shall have a hard wearing, slip resistant material (Vastrap).
4.1.5 Access ladder and railings/grabs shall be installed in a suitable position behind the cab and rear/side.
4.1.6 The hydraulic cylinder/s shall be suitable for the application and lift the laden container at the applicable angle to the rear load bed. Maintenance free bushings/bearings shall be used.
4.1.7 The main hoist shall incorporate a hook mount system. The hook shall be bolt on type to be easily replaced.
4.1.8 The jib shall have a safety locking system.
4.1.9 The load bearing frame/floor shall have a locking system for the container in all directions.
4.1.10 Hook-lift mechanism, geometry and safety systems designed and container/skip compliant with DIN 30722.
4.1.11 Main hoist and jib shall have independent hydraulic controls for adjustments to different containers if not standardised.
4.1.12 Floor of the hook lift system shall be a tilting frame type for maximum angle articulation when lifting from the ground.
4.1.13 A minimum tipping angle of 50° shall be required.
4.1.14 Lateral, longitudinal and vertical guides shall be incrementally installed for loading and safety.
4.1.15 A waterproof toolbox constructed with a minimum dimensions of 1000 x 450 x 450 mm shall be positioned on near side of chassis. Anti-loose fasteners to be used to close lid.

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 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 1 watt, 6x4 modules to the front with end cap modules consisting of 1x2 head modules with amber 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.

5.2 One pair of rubber encased LED spotlights, shall be installed to the rear top of the cab facing the container loading area. Switch shall be located on the hydraulics control panel.

6.Hydraulic system

6.1 In respect of the hydraulic tank the following shall be required:

VII. To be constructed of steel.
VIII. 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.
IX. To be fitted with a bump guard from externalities.
X. 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.
XI. Must have a filler cap strainer & filter into filler base and filler cap assembly.
XII. Oil capacity shall be sufficient and a cooler added if necessary.

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 Safety hold valve for cylinder in case of hydraulic failure.

6.8 Hydraulic controls for the operation of the loading/offloading shall be fitted in a user friendly manner in the driver's cab and behind the cab allowing for ease of operation. The outside controls shall be protected by means of an enclosure.

6.9 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 hydraulics. A plug in, modular type, control panel is preferred for ease of maintenance.

6.10 Load cell or sensing hydraulics for the container payload capacity. System should allow logging and display of the payload capacity over a period.

7. Power Take Off (PTO)

7.1 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.

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.

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 using PA 10 red oxide
8.5 Thereafter paint using two coats of premium quality twin pack automotive paint
8.6 Paint film thickness (color coat) must not be less than 80 microns each.

9. Colors

Underside of Body	Black
Cab	White and Cleansing Solid Waste (CSW) branding with white, blue and green stripes across the front of the cab
Deck and structures	CSW Blue

10. Electrical

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

10.1 Tailight units to be premium quality equal light unit incorporating 30 LEDs or more of minimum 100 mm in diameter that are screwed into position with a stainless-steel flange.
10.2 Bolt on taillight guards to be installed.
10.3 Reversing camera, buzzer and warning light to be installed when reverse gear is engaged.
10.4 Aerial mounted camera for viewing the rear should use same monitor as in 10.3 with dual viewing feature.
10.5 Battery isolator switch.
10.6 Uninterrupted power supply points shall be made available for the vehicle tracking and fuel master monitoring system.

11. Signage and Markings

11.1 Data plates shall be fitted labelling the storage areas and capacity. Safe working loads should be labelled where necessary:

a) The hydraulic 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 structure on both sides.

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

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

11.3 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.

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

11.5 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.

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

11.7 Registration number to be clearly marked on roof.

11.8 Striping: Green, Blue, Green & White – on L/H/S roof and across the front panel, Grille and bottom valance. Green (58 mm), Blue (72 mm), Green (118 mm), White spacing, 1st White (35 mm), 2nd White (45 mm).

12. Miscellaneous items

12.1 The batteries to have a weather proof cover to prevent debris and moisture ingression.
12.2 Fuel tank, batteries, pneumatic cylinders and hydraulic tank to have structures built around them for safety.
12.3 Bolt on covers for safety where parts are rotating, swinging or of high temperature.
12.4 A 4.5 kg fire extinguisher should be supplied and fitted in an accessible position close to the driver when exiting the cab.
12.5 Tyres shall be E4 type tubeless radial articulated hauler type with specified load ratings for the application.
12.6 One complete spare wheel as in 12.5 and one set of emergency changing tools shall be supplied per vehicle.
12.7 Bolt on head and tail light guards.
12.8 Bump rubbers (minimum of 4) to be fit on the front bumper.
12.9 Front and rear mud guards constructed from a suitable material for the application.

Item 8: Technical specification for an Articulated Water Tanker

1.Scope

The intent of this specification is to provide for a fully operational vehicle, which has a 25-30 000-liter water tank. The vehicle will be used exclusively at landfill sites and the vehicle should be designed accordingly for the conditions of the environment and terrain.

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 a 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.

All tanks shall be expected to be non-destructive tested, 10 x-ray, waterfill and pressure tested.

2. Vehicle

2.1 The chassis/body shall be a 6x6 cab truck, with a minimum Gross Vehicle Mass (GVM) of 45 000 kg.
2.2 Transmission shall be fully automatic.

2.3 Minimum diesel engine requirements shall be of Euro 3-5 emission level, 270 kW of power and 1800 Nm of torque.
2.4 Minimum wheelbase of 4 500 mm.
2.5 Ground clearance of not less than 450 mm is expected.
2.6 Steel suspension with appropriate dampening.
2.7 Fitment of steel under belly panels to protect the radiator, engine, transmission, prop shaft, all drive hubs and any other critical components.
2.8 ABS brakes are mandatory.
2.9 Auxiliary breaking to be provided through an integrated retarder operated via the foot brake pedal or through an electronic management system for the application (this will have to be demonstrated before approval).
2.10 A fully laden minimum grade ability of 30 % shall be expected.
2.11 Maximum speed of 60 km/hr.
2.12 Limited slip differential lock to engage full 6x6 drive capability.
2.13 Forward tilt hydraulic actuated cab and/or hood bonnet with safety holding mechanism.
2.14 To safely and comfortably accommodate driver using an equal levelling suspended type seat. To be fully adjustable.
2.15 Passenger seat to be also fitted.
2.16 Safety harness seatbelts for driver and passenger shall be fitted.
2.17 Fully adjustable wide view mirrors.
2.18 Automatic lights on.
2.19 Cab windows (rear and side) shall be tinted to reduce reflection, heat and radiation from the sun.
2.20 Heater, windscreen demister and air-conditioning system should be adequate for the cab and its occupants.
2.21 Bluetooth radio and speakers/mic, 12v charger sockets.
2.22 Fuel tank to be minimum of 350 liters with a lockable fuel cap and anti-siphon device.
2.23 Automated truck fuel filtration management system to remove water and dirt before delivery to the engine. This system shall be in a lockable enclosure (lock to be provided).
2.24 Heat sensing and low oil pressure engine protection device, mechanical monitoring system to safely shut down engine if engine cylinder head increases to an unsafe temperature or oil pressure is too low.
2.25 Air dryer to remove excess moisture/water from the pneumatic system.
2.26 Automatic fire suppression system to be installed covering the engine and cab in case of an emergency.
2.27 Maintenance free bushings and bearings preferred if not easily accessible automated centralised grease system for grease cartridge changes.
2.28 The vehicle and the customisation shall be designed according to these critical specifications (summary of evidence shall be provided):
2.29 SANS 1518 Transport of dangerous goods — Design, construction, testing, approval and maintenance of road vehicles and portable tanks. A similar and/or better specification can be used for the application of this vehicle.
2.30 Roll over protection systems (ROPS) and fall over protection systems (FOPS) for the cab.
2.31 Chapter 15 covers other specifications/standards that will be adhered to.

3. Material specification

The load baring components of the vehicle and its customisation shall be made from corrosion resistant structural steel to withstand the payload and operating conditions of the vehicle. A high tensile corrosion resistant steel for the structural rolled sections and flat sections is recommended. The tank shall be made of 3CR12 or a similar automotive grade corrosion resistant steel/ stainless steel.

4. Construction requirements

4.1 Rear tank

4.1.1 A minimum capacity of 25-30 000 litres is required. Tank shall have enough baffles in all directions to operate on the landfill site. Tank shape should be such that design has a low centre of gravity for increased stability for the application.

4.1.2 A rear mounted manhole (500-600 mm in diameter) to be installed on the roof of the tank. The manhole shall be user friendly with external and internal grab handles and front to back opening orientated.

4.1.3 The roof of the tank shall have a walkway for the entire length.

4.1.4 Areas of the roof that shall be used as an access walkway shall have a hard wearing, slip resistant material (Vastrap) and railings for safety harnesses.

4.1.5 Access ladder and railings/grabs shall be installed in a suitable position for access to the roof for maintenance purposes.

4.2 Roof mounted cannon for water (Landfill fire fighting application)

4.2.1 The water cannon shall be automated and shock proof. It shall be operated from the operator's cab control desk electronically/hydraulically/pneumatically.

4.2.2 It shall be mounted at a height such that it can clearly have a throw range of approx. 40 meters. It shall be mounted and protected on the top of the water tank.

4.2.3 Flow rate of 800 l/min at 10 bar is expected.

4.2.4 Shall have a rotation minimum of 180 degrees (0-180 degrees). A 360 degrees rotation is preferred.

4.2.5 There shall be a control valve to adjust the different selections of water/foam and additive dispersion. Operation shall be selectable at the operator's console.

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 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 type LED consisting of 1 watt, 6x4 modules to the front with end cap modules consisting of 1x2 head modules with amber 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.

5.2 One pair of rubber encased spotlight shall be installed to the rear top of the cab facing the loading area. Switch shall be located in the cab.

6. Hydraulic and pump 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 double that of the oil capacity of the hydraulic cylinder.

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 High quality materials such as stainless steel on the inlet and outlet valves, ceramic coated internals of the pump, hardened materials for the internals and pump head, double bearing and seal system is recommended for the pump.

6.8 Three fixed spray nozzles with 180° spread. Nozzles should be maintainable and replaceable.

6.9 Spray nozzles are automatically activated when pump is turned on in driver's cab.

6.10 External water pump capable of minimum 800 l/min.

6.11 Full pump speed shall be achieved at engine idle.

6.12 Pump shall have dual function for suction and spraying. Selection shall be made using one control at the rear of the tank.

6.13 Spray width of approx. 9 meters.

6.14 Priming tap provided for easy priming of external suction line.

6.15 Water level gauge (visible in drivers cab) to be provided.

6.16 All main valves are stainless steel butterfly valves.

6.17 At the rear a 6-meter flexible external suction hose with foot valve and trainer shall be supplied.

6.18 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) Water pressure gauge (Mounted externally)
b) Hydraulic pressure gauge (Mounted externally)
c) Emergency stop
d) Engage/disengage water pump
e) Water to reel/sprayers on/off
f) Rotary warning switch
g) Rear work lights
h) Joystick for roof mounted water canon with top button for shooting.
i) Monitors to be mounted clearly elevated in front of operator for the cameras. Minimum 10" in size with a resolution of 1000 x 600. One monitor shall be for the roof mounted water canon camera and the other for the rear camera.
j) Low level water alarm that sounds when the water reaches the 1000 litres level with a relay to switch off the alarm after 30 seconds and automatically resets itself when tank is filled.
k) 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.

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 eThekwini 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 the superstructure and other components using a two component self-curing inorganic zinc ethyl silicate or two component zinc rich polyamide cured epoxy primer.
8.5 Thereafter paint using two coats of premium quality twin pack automotive paint
8.6 Paint film thickness (color coat) must not be less than 80 microns each.
8.7 The paintwork shall be covered by a ten-year corrosion guarantee.

9. Colors

Underside of Body	Black
Cab	White and Cleansing Solid Waste (CSW) branding with white, blue (RAL 5002/Pantone 280C) and green (RAL 6000/Pantone 3278c) stripes across the front of the cab
Tank Exterior	CSW Blue RAL 5002/Pantone 280C
Tank Interior	Black epoxy tar protective coating

10. Electrical

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

10.1 Reversing camera, buzzer and warning flashing light to be installed when reverse gear is engaged.
10.2 Easily accessible battery isolator switch shall be installed.
10.3 Easily accessible jump start receptacle.
10.4 Hooter of at least 93dB.
10.5 Uninterrupted power supply points shall be made available for the vehicle tracking and fuel master monitoring system.
10.6 Accommodation and fitment of a two-way communication device (details shall be supplied from eThekwini Municipality).
10.7 All exposed electrical wiring looms of the chassis cab and superstructure shall be fully encased in a flexible protective metallic conduit and securely clamped with fasteners.

11. Signage and Markings

11.1 Data plates shall be fitted labelling the storage areas and capacity. Safe working loads should be labelled where necessary:

a) The pump system indicating tank capacity, system pressure, fluid type/grade, hydraulic specifications and test criteria.

b) Safe working loads to be clearly labeled on the structure on both sides.

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

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

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

11.4 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.

11.5 Retro-reflective tape shall be fitted to both sides and the rear of the vehicle as well as the rear.

11.6 Striping: Green, Blue, Green & White – on L/H/S roof and across the front panel, Grille and bottom valance. Green (58 mm), Blue (72 mm), Green (118 mm), White spacing, 1st White (35 mm), 2nd White (45 mm).

Striping shall run continuously from the left of the cab roof, across the front of the cab and bonnet to end at the right headlight of the cab.

11.7 Both driver and passenger door shall have the following 200 x 600 mm decal:

11.8 Registration number to be clearly labelled on the roof from left to right, 80-90% actual roof size.

12. Miscellaneous items

12.1 The batteries to have a weather proof cover to prevent debris and moisture ingression.
12.2 Fuel tank, batteries, pneumatic cylinders and hydraulic tank to have shell structures built around them for safety.
12.3 Bolt on covers for safety where parts are rotating, swinging or of high temperature.
12.4 Radiator, main intercooler and oil cooler to be mounted for ease of maintenance, cleaning and repair.
12.5 A pair of 6 kg fire extinguisher should be supplied and fitted in an accessible position in the cab.
12.6 Tyres shall be tubeless radial articulated hauler with specified load ratings for the application.
12.7 One full spare wheel and one set of changing tools shall be supplied per vehicle.
12.8 A pair of suitable wheel chocks.
12.9 A pair of safety flag poles to be mounted on the front.

Item 9: Technical specification for a Landfill Compactor

1.Scope

The intent of this specification is to provide for a fully operational vehicle, which has the capability to operate on a landfill site for compacting of garden refuse and non-compactable commercial waste. This vehicle will be used primarily on landfill sites. Bidder has the option of offering a hybrid electric unit as well for this item.

2. Unit

2.1 The bulldozer shall be a track driven unit, with a minimum operating Gross Vehicle Mass (GVM) of 35 000 kg.

2.2 Transmission shall be power shift, fully automatic, automatic manual or infinitely adjustable drive with at least two forward and one reverse gears/modes. Manual/high power gear setting selection must be available when compacting.

2.3 Minimum diesel engine requirements shall be of Euro 3 emission level with 300 kW of power.

2.4 Minimum ground clearance of components to be 600 mm.

2.5 Four individual wheels on the unit. All compaction wheels to have high strength crushing blades on the wheels that are maintainable. Scrapers should also be integrated into the design for cleaning of the wheels whilst compacting. The wear teeth must carry a minimum 8000 hour warranty.

2.6 The radiator must allow for easy access to ensure daily maintenance. The air-cooling fan shall have reversible operation if waste does become entangled in it. The design of the radiator housing should ideally prevent this.

2.7 All final drive/s to be fitted with dual cone seal protection or similar/better.

2.8 Fitment of a steel under belly plate (minimum of 6 mm) to protect the radiator and engine. Rest of the vehicle shall have removable under chassis guards for keeping away landfill waste.

2.9 Park and emergency braking systems.

2.10 360^{o} degree vision is required from within the cab to allow for operator clear visibility. Cab protector for front windscreen shall be installed.

2.11 To safely and comfortably accommodate driver using an equal levelling suspended type seat. To be fully adjustable for optimal visibility while operating the vehicle.

2.12 Fully adjustable mirrors including driver assist mirrors for sides of vehicle.

2.13 Heater, windscreen demister and air-conditioning system should be adequate for the cab and its occupants.

2.14 Windscreen wipers and washer system.

2.15 12v charger sockets.

2.16 Aerial mounted camera with monitor to assist with viewing of the rear whilst in operation.

2.17 Fuel tank with minimum capacity of 550 liters shall be fitted with an anti-siphon device and a lockable fuel cap.

2.18 An efficient fuel filter shall be fitted, and the tank shall have a viewable filter screen at the filler cap with an easily accessible drain plug.

2.19 Automated truck fuel filtration management system to remove water and dirt before delivery to the engine. This system shall be in a lockable enclosure (lock to be provided).

2.20 Heat sensing engine protection device, mechanical monitoring system to safely shut down engine if engine cylinder head increases to an unsafe temperature, no water in the cooling system and upon low oil level and low oil pressure.

2.21 Turbo safety system to prevent damage if vehicle is switched off prematurely or turbo has not reached safe operation. Heat shield to be wrapped around the turbo and manifolds.

2.22 Water separator to keep pneumatic system functioning efficiently.

2.23 Auto lubrication system to be installed where maintenance free bushings/bearings cannot be used.

2.24 Oil sampling/pressure valve to be fitted on all critical components and subsystems of the unit were OEM recommends for monitoring purposes.

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

a) SANS 20474-11: – Earthmoving Machinery Safety Part:11 Requirements for Earth and Landfill Compactors
b) Driver's cab shall be ROPS/FOPS compliant (ISO 3471 and ISO 3449).
c) Comply to sound levels as laid out in ISO6395 and ISO63956.
d) SANS 12944-4, 5:1998 Corrosion protections.
e) SANS 1506:1994 (2000-07-25) Brake systems.
f) ISO 10265:2008 Earth-moving machinery- Crawler Machines-Performance requirements and test procedures for braking systems

3. Material specification

The load baring items shall be made from structural steel to withstand the loads from the operational environment's terrain and application. Corten steel and Domex for the structural rolled sections and flat plate is recommended. Whilst Hardox for the wearing items (blades, scoops and forks), the Hardox shall be applied over the primary structure such that it can be replaced as a wearing item.

4. Construction requirements

4.1 Front Blade

4.1.1 The front blade must be suited for moving landfill waste. It must be an oversized design to protect the front of the vehicle. Bidder should submit the options of front blades offered.

4.1.2 The surface in direct contact with the waste shall have a Hardox wear plate mounted over the structural steel. The Hardox wear plate shall be a minimum of 12 mm in thickness.

4.1.3 Mounting of the blade shall be done in user friendly manner to exchange once minimum thickness is reached, preferably with maintenance free fastening methods.

4.2 Access stairways

To be fitted with suitable guard rails and user-friendly access.

All items 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 waterproof amber coloured polycarbonate lenses LED warning light to be fitted on the cab roof with on/off switch with random flash pattern positioned in the cab.

5.2 Rubber encased waterproof LED spotlights (minimum of four) shall be installed to the top of the cab facing the surrounding areas of the bulldozer. Switches shall be in the cab.

All lights to be bracket mounted for easy removal and lenses protected from damage.

6.Hydraulic system

6.1 In respect of the hydraulic tank the following shall be required:

XIII. To be constructed of steel.
XIV. To be fitted to an accessible part of the chassis, such that it does not impede the maintenance staff or driver of filling oil to tank.
XV. To be fitted with a bump guard from externalities.
XVI. 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.

XVII. Must have a lockable filler cap strainer & filter into filler base and filler cap assembly.
XVIII. Oil capacity shall be enough, and a cooler added if necessary.

6.2 Must have an inline filter with a blockage indicator fitted onto the pressure side of hydraulic pump, before the 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 Safety hold valve for cylinder in case of hydraulic failure.
6.8 Hydraulic controls for the operation of the equipment shall be fitted in a user-friendly manner in the driver's cab for ease of operation.

6.9 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 hydraulics. A plug in, modular type, control panel is preferred for ease of maintenance.
6.10 PTO calibration shall be performed after tracking device is installed on the vehicle by eThekwini City Fleet.

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 Prime the body and other components using a two component self-curing inorganic zinc ethyl silicate or two component zinc rich polyamide cured epoxy primer.
7.5 Two primer coats and one-color coat shall be minimum.
7.6 Paint film thickness (color coat) must not be less than 80 microns each.

8. Colors

Underside of Body	Black
Unit	White/Yellow
Striping	Cleansing Solid Waste (CSW) branding with white, blue (RAL 5002/Pantone 280C) and green (RAL 6000/Pantone 3278c) stripes across the front of the driver's cab

9. Electrical

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

9.1 The rear aerial mounted camera shall remain ON and a buzzer and warning light to be installed when reverse gear is engaged.
9.2 Battery isolator switch.
9.3 Audible hooter.
9.4 Jump start receptacle.
9.5 Batteries shall be maintenance free variant that will last the warranty period.

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

9.7 All exposed electrical wiring looms of the unit shall be fully encased in a flexible protective metallic conduit and securely clamped with fasteners.

10. Signage and Markings

10.1 Data plates shall be fitted labelling the storage areas and capacity. Safe working loads should be labelled where necessary:

a) The hydraulic 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 structure on both sides.

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

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

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

10.4 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.

10.5 Retro-reflective tape shall be fitted to both sides and the rear of the vehicle as well as the rear.

10.6 Registration number to be clearly marked on roof (left to right, 80-90% size of the roof).

10.7 Striping: Green, Blue, Green & White – on L/H/S roof and across the front panel, Grille and bottom valance. Green (58 mm), Blue (72 mm), Green (118 mm), White spacing, 1st White (35 mm), 2nd White (45 mm).

Striping shall run continuously from the left of the cab roof, across the front of the cab and bonnet to end at the right headlight/bumper of the unit.

10.8 Driver's and passenger doors shall have the following 200 x 600 mm decal:

11. Miscellaneous items

11.1 The batteries to have a weather proof cover to prevent debris and moisture ingression.
11.2 Fuel tank, batteries, pneumatic cylinders and hydraulic tank to have structures built around them for safety.
11.3 Bolt on covers for safety where parts are rotating, swinging or of high temperature including and not limited to engine manifolds, turbocharger and exhaust.
11.4 A pair of 6 kg fire extinguishers should be supplied and fitted in an accessible position close to the driver when exiting the cab.
11.5 Automatic fire suppression system for the unit in case of emergency.

Item 10.1 and 10.2: Technical specification for a 6x6 Heavy Duty Water tanker

1. Scope

The specification is for a water tanker that can transport a specified amount of water on highway conditions as speeds as well on uneven terrain and roads. The water tanker shall be able to carry a volume of 13 500-16 000 liters of water. The bidder shall provide two options; Item 10.1 being a water tanker built for dispensing clean drinking water to communities and Item 10.2 being a construction application water tanker that can handle recycled and grey water.

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 6x6 construction chassis cab truck, with a minimum Gross Vehicle Mass (GVM) of 25 000 kg.
2.2 Transmission shall be fully automatic with a power/low range drive mode.
2.3 Minimum diesel engine requirements shall be a Euro 3 to 5, 260 kW of power and 1 600 Nm of torque. Minimum wheelbase (center of front wheel to center of rear bogie) of 3 500 mm.
2.4 Steel suspension.
2.5 Fitment of a steel under belly plate to protect the radiator, engine, transmission, prop shaft and drive hubs on all axles.
2.6 Exterior windscreen sun visor.
2.7 A tinted sunroof shall be fitted if offered by the OEM.
2.8 Nudge bar to be fitted the full length of the cab. Bolt on type and cylindrical construction.
2.9 ABS brakes is mandatory. Auxiliary breaking 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 Drivetrain shall have hub reduction and differential lock.
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 Adjustable mirrors.
2.16 Driver assist mirrors for front and passenger side of vehicle.
2.17 Heater, windscreen demister and air-conditioning system should be adequate for the cab and its occupants.
2.18 Bluetooth Radio and speakers (with handsfree cellphone capability), 12v charger sockets.
2.19 Wireless/Bluetooth tyre pressure monitoring system.

2.20 Fuel tank shall be 500 liters with a lockable fuel cap and anti-siphon device.

2.21 Truck fuel management system to remove access water and dirt before delivery to the engine. This system shall be in a lockable enclosure (lock to be provided).

2.22 Heat sensing engine protection device, mechanical monitoring system to safely shut down engine if engine cylinder head increases to an unsafe temperature.

2.23 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) The end of Section 7 details other specifications that are relevant.

3. Material specification

The tank, tank ends and water ways will be made out 3CR12 steel.

4. Construction requirements

4.1 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.

4.1.4 The tank's mounting shall be so designed to eliminate any vehicle chassis flex being transmitted to the tank. Preferably rubber block type to allow for movement when negotiating rough road.

4.1.5 Chassis mounting method to conform to original equipment manufacturer (OEM) body mounting directive.

4.1.6 The following shall be incorporated;

a) A large manhole with hinged cover approximately 450 mm diameter.

b) A full length spill box.

c) Access ladder with steps covered from non-slip tread plate (Vastrap) to be positioned to access the manhole. Accommodation for safety harnesses to be made along and on top of the tank.

d) Suitable ventilation to ensure that there is an uninterrupted supply to the pump.

e) Rear mounted platform with bolt on safety rails. Platform shall be mounted independent of the water tank primary structure.

f) Tank over flow, draining to the left hand side of the vehicle.

g) Rear mounted sight glass to view tank contents and level in increments.

h) Provision to fill the tank on the left hand side from a hydrant. A two stage water level alarm system shall be installed to protect the pump. The first stage should initiate an audible alarm and the second stage should deactivate the pump.

i) The option of having two sensors in the water tank (one at the front and one at the rear) such that it can provide a signal to log the amount of water in the tank and the amount dispensed.

4.2 Tank plumbing, valves and hoses (for 10.1)

4.2.1 The piping for the pump will be of a permanent nature and will be so arranged that by means of quick operating valves, the pump can be used for filling the tank as well as discharge.

4.2.2 Single 2-inch outlet tap for general use shall be installed.

4.2.3 Distribution outlets for the tank shall be from the floor of the tank to utilise all of the tank contents and it must have no issues distributing water if parked on a gradient. It shall consist of 6 outlets with detachable 400 mm long hoses and 1-inch ball valves shall be supplied for each side of the tank.

4.2.4 Ø 50 mm Perspex sight tube indicator with protective cover.

4.2.5 Ø 50 mm dump valve at tank rear end for quick discharge of tank.

4.2.6 Pair off flexible non corrosive metal hoses (6m each) with agricultural couplings and strainer foot valves to be supplied.

4.2.7 Water level sensors that can monitor the amount of water in the tank and when pumped/dispensed. The sensors should have a signal output that can be connected to the tracking device of the vehicle for monitoring purposes.

4.2 Tank plumbing, valves and hoses (for 10.2)

4.2.1 The piping for the pump will be of a permanent nature and will be so arranged that by means of quick operating valves, the pump can be used for filling the tank as well as discharge.
4.2.2 Full width spray bar mounted for optimised spray coverage area. Spray bar shall be protected from a person stepping on it.
4.2.3 Ø 50 mm Perspex sight tube indicator with protective cover.
4.2.4 Ø 50 mm dump valve at tank rear end for quick discharge of tank.
4.2.5 Pair off flexible non corrosive metal hoses (6m each) with agricultural couplings and strainer foot valves to be supplied.

4.3 Storage Boxes

4.3.1 An appropriate size lockable storage box with a removable lid shall be installed adjacent to the tank to hold the hoses and valves.

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. Water Pump

5.1 To supply and mount a hydraulic driven 3-inch self-priming centrifugal pump, suitable for clean water. For construction water application the pump shall be able to handle recycled and grey water. Therefore, pump should be made of premium materials and have ceramic coated interior and plumbing.
5.2 Should be robust, high volume and high pressure and piped to allow for pumping in and discharging out.
5.3 It must be fitted as per manufacturer's specifications in an easily accessible place with all relevant safety features i.e. regulator, secondary filtration etc.
5.4 The fitment of the high pressure pump should not negatively impact on the vehicles ground clearance.
5.5 The pump should include an adjustable by-pass valve and pressure release valve. A three way change over valve should redirect the flow from the hose reel to a manual by-pass or to an auxiliary take off point.
5.6 Pump shall be mounted on a suspended shock proof platform.

6. Power Take Off (PTO)

6.1 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. PTO shall preferably be closed coupled.
For 10.2 the vehicle should be able to travel at 20km/hr whilst spraying.
6.2 The engine and transmission must not be harmed by use of the PTO.
6.3 The fitment of the P.T.O. should not negatively impact on the vehicles ground clearance.
6.4 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.
6.5 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.
6.6 The accelerator pedal cannot be used, while the PTO is engaged.
6.7 PTO calibration shall be performed after tracking device is installed on the vehicle by eThekwini City Fleet.

7. Lighting

7.1 One rubber encased, adjustable spotlight, with operating switch, shall be installed at the top of the tank in proximity of the manhole and refilling point of the vehicle.

7.2 LED lights (minimum of three) alongside the tank shall be installed to provide ambient lighting on both sides, for visibility on site. Operating switches shall be installed and labelled inside the driver's cab.

7.3 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 type LED consisting of 1 watt, 6x4 modules to the front with end cap modules consisting of 1x2 head modules with amber 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) A pair of flashing hazard lights should be mounted at the rear of the truck. The hazard lights should be protected from damage.

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 the tank and other components using a two component self-curing inorganic zinc ethyl silicate or two component zinc rich polyamide cured epoxy primer.
8.5 Thereafter paint using two coats of premium quality twin pack automotive paint
8.6 Paint film thickness (color coat) must not be less than 80 microns each.

9. Colors

Underside of Body	Black
Chassis Cab and Superstructure	White
Striping	Cleansing Solid Waste (CSW) branding with white, blue (RAL 5002/Pantone 280C) and green (RAL 6000/Pantone 3278c) stripes across the front of the driver's cab

10. Electrical

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

10.1 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.
10.2 Dual indicator, stop and taillight units to be fitted.
10.3 Reversing camera (with an LED scene light to assist), buzzer warning and flashing light to be installed when reverse gear is engaged.
10.4 Suitable CCTV cameras to provide clear view around the sides and rear of the vehicle.
10.5 Monitor screen to be installed in driver cab with option of multiple on screen displays that can be used for all cameras.
10.6 Uninterrupted power supply points shall be made available for the vehicle tracking and fuel master monitoring system.
10.7 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 water pump system indicating capacity, system pressure, fluid type/grade, specifications, operation and test criteria.

b) The tank detailing safe working load, material specification, operation and general maintenance.

c) Safe working load (SWL) decals shall be clearly visible on the sides of the tank.

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 of the tip- body 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. Fire Extinguisher

A 4.5kg dry powder type extinguisher to be mounted in a suitable exterior position preferably close to the generator storage box.

Item 11: Technical specification for a 6x6 Heavy Duty Vacuum tanker

1. Scope

The intent of this specification is to provide for a fully operational high air flow vacuum vehicle for the disposal of leachate from landfill sites. The leachate liquid is corrosive in nature and has solid particles as part of its composition. The suction system (hydraulics, pump, hoses and valves) shall be able to handle leachat , slurry and sludge primarily.

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 6x6 construction chassis cab truck, with a minimum Gross Vehicle Mass (GVM) of 25 000 kg.
2.2 Transmission shall be fully automatic with a power/low range drive mode.
2.3 Minimum diesel engine requirements shall be a Euro 3 to 5, 260 kW of power and 1 600 Nm of torque. Minimum wheelbase (center of front wheel to center of rear bogie) of 3 500 mm.

2.4 Steel suspension.
2.5 Fitment of a steel under belly plate to protect the radiator, engine, transmission, prop shaft and drive hubs on all axles.
2.6 Exterior windscreen sun visor.
2.7 A tinted sunroof shall be fitted if offered by the OEM.
2.8 Nudge bar to be fitted the full length of the cab. Bolt on type and cylindrical construction.
2.9 ABS brakes is mandatory. Auxiliary breaking 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 Drivetrain shall have hub reduction and differential lock.
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 Adjustable mirrors.
2.16 Driver assist mirrors for front and passenger side of vehicle.
2.17 Heater, windscreen demister and air-conditioning system should be adequate for the cab and its occupants.
2.18 Bluetooth Radio and speakers (with handsfree cellphone capability), 12v charger sockets.
2.19 Wireless/Bluetooth tyre pressure monitoring system.
2.20 Fuel tank shall be 500 liters with a lockable fuel cap and anti-siphon device.
2.21 Truck fuel management system to remove access water and dirt before delivery to the engine. This system shall be in a lockable enclosure (lock to be provided).
2.22 Heat sensing engine protection device, mechanical monitoring system to safely shut down engine if engine cylinder head increases to an unsafe temperature.
2.23 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) The end of Section 7 details other specifications that are relevant.

3. Material specification

The tank and tank ends shall be made out 3CR12 steel with a minimum thickness of 4.5 mm.

4. Construction requirements

4.1 Tank

4.1.1 A 13-16 000 litre elliptical, baffled tank designed to withstand the additional rigours of road transport is required with a low centre of mass design.
4.1.2 The tank's mounting shall be so designed to eliminate any vehicle chassis flex being transmitted to the tank. Preferably rubber block type to allow for movement when negotiating rough road
4.1.3 The following should be incorporated;

a) A large manhole with a hinged cover approximately 450 mm diameter at the rear.
b) Access ladder with steps and railings constructed from non-slip tread plate to be positioned adjacent to manhole.
c) Suitable ventilation to ensure that there is an uninterrupted supply.
d) Mounted platform to suit equipment.

e) Tank over flow, draining to the left hand side of the vehicle.
f) Sight glass to view tank contents.
g) There shall be a protective sectioned guide at the discharge valve at the rear of the tank.

4.1.4 The waste tank must tip up hydraulically to a minimum of 40º to the rear to facilitate the dumping of the leachate and debris from the waste tank via the rear door. The design of the waste tank should enhance the total discharge of debris when the tank is tipped. The tank must incorporate a safety system that will hold the tank in its tipped position in case of hydraulic failure.

4.1.5 The rear door must be hinged at the top and the opening mechanism must be hydraulically operated to accommodate this configuration. The door shall be completely sealable and shall have a heavy duty replaceable EPDM seal that is corrosion resistant and resistant to high mechanical wear.

4.1.6 Tank rear shall have flared chutes to aid spillage when off-loading with no underflow.

4.1.7 A system must be incorporated that will prevent the rear door from slamming shut in the event of a hydraulic failure.

4.1.8 The tank must have a minimum of three locking devices for the sealing of the rear door which must completely seal the contents.

4.1.9 The vacuum tank must have a working vacuum up to 0.90 Bar or better.

4.1.10 The tank and cyclones or a similar separation system must have sight glasses fitted in strategic places that may be removed easily for cleaning.

4.1.11 There shall be a protective sectioned guide at the discharge valve at the rear of the tank.

4.1.12 All tanks shall be expected to be non destructive tested, 10x x-ray, waterfill and pressure tested.

4.2 Solids bin

A 70 liter refuse bin complete with lid shall be supplied, securely mounted in a tipping mechanism on the rear, right hand side platform. The drum must be replaceable and should be able to tip to the right hand side enabling the contents to be discharged. In the upright position the drum lid must be secured in the closed position.

4.3 Hoses

Eight 100mm x 3000mm and two 150mm x 3000mm suction hose each complete with a male and female Perrot type coupling should be supplied. The Perrot couplings should be adequately secured in the hose.

4.4 Tool Boxes

4.4.1 An externally mounted lockable toolbox with a volume of approximately 0.50 m^3 and length 2200 mm shall be provided.

4.4.2 A steel storage box incorporating two hinged lids and running the length of the tank to be positioned on both sides of the tank. The depth of the boxes to be approx. 300 mm. Hasp and staple fittings to be fitted for locking purposes.

4.4.3 In between the lockable boxes and the tank, shall be a slimline storage compartment to hold solid bar material which range in length from 6 000-7 500 mm.

4.4.4 There shall be a suitable lockable holder system to accommodate an extension ladder.

4.5 Road Cones and Portable Signs

Provision must be made to safely secure large road cones and typically used 900 mm road signage within the body.

4.6 Control Panel

All controls for the operation of the machine shall be fitted to an illuminated, lockable, water resistant control panel on the left side of the hose reel. The design shall be such that the operator will be able to operate the unit whilst standing in front of the 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) Pressure gauge (Mounted externally)
b) Hose reel control lever
c) Reel speed controller
d) Three-way change valve control
e) Light switches
f) Level gauge
g) Engine speed control
h) Low level water alarm that sounds when the water reaches the 1000 litres level with a relay to switch off the alarm after 30 seconds and automatically resets itself when tank is filled.
i) 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.

Access to the components should be through suitable doors with adequate weather proof ventilation (interlocking louver slats) and the layout should be designed to enhance maintenance of the unit. Steps should be installed to provide access to the tool box area from the left hand side of the vehicle. Provision should be made to remove the water tank using removable panels on the sides of the body.

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.Vacuum System

5.1 A suitable exhauster, hydraulically driven via the vehicles' P.T.O. shall be suitably mounted on the vehicle. The exhauster should be capable of raising a vacuum in the tank of- 60kPa in not more than 10 minutes and should have a capacity of not less than 3.5 cubic metres per minute. The exhauster control should be ergonomically positioned on the left hand side of the truck. A pre-set vacuum relief valve should be incorporated.

5.2 The blower must create and maintain a suitable vacuum with a free air flow of, not less than, 400 litres/second. This air flow shall have the necessary velocity to meet the design criteria and to ensure that the ancillary equipment (cyclones etc.) has the ability to remove the debris and water from the system before it reaches the blower.

5.3 The blower shall be fitted as per manufacturer's specifications and in an easily accessible location with all adequate relevant safety features i.e. vacuum breakers, primary and secondary filtration, exhaust/silencer etc. It must be driven from the PTO using the vehicle's transmission and will be capable of 100 % duty at 50 kPA. All exposed drives must be suitably guarded.
The system should incorporate a snifter valve with moisture separator and odour control, vacuum release and unloader ball valves. All non-return valves must be positioned for ease of maintenance. A 100mm diameter, glycerine fill vacuum gauge shall be mounted in a suitable position on the left hand side of the truck. A suitable vacuum breaker should be mounted on the left hand side in an accessible position.

5.4 The system must be protected as per the manufacturer's specification and for the specific application.

6. Power Take Off (PTO)

6.1 The vacuum pump must be driven from an inline P.T.O. capable of delivering at least 20 % more power than the maximum continuous power rating of the systems driven by it.

6.2 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.

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

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

6.5 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.

6.6 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.

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

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

7. Hydraulic system

7.1 In respect of the hydraulic tank the following shall be required:

- 7.1.1 To be constructed of steel.
- 7.1.2 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.
- 7.1.3 To be fitted with a bump guard from externalities.
- 7.1.4 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.
- 7.1.5 Must have a filler cap strainer & filter into filler base and filler cap assembly.
- 7.1.6 Oil capacity shall be sufficient such that the system does not overheat, a cooler shall be installed if required.
- 7.1.7 Spin off, pressure relief, safety holding and other necessary valves are required.

7.2 Must have an inline filter with a blockage indicator fitted onto the pressure side of hydraulic pump, before the tipper / solenoid valve system.

7.3 The system shall have a shut off valve at the outlet of the tank.

7.4 The hydraulic valves shall be grouped together for ease of maintenance.

7.5 Test points for testing hydraulic pressures shall be fitted and grouped together.

7.6 Where possible steel tubing, which shall be treated with suitable corrosion protection, in lieu of rubber hosing shall be used for hydraulic lines.

7.7 All hydraulic fittings shall be wrapped with a petrolatum impregnated tape or sprayed with a petrolatum primer to prevent corrosion.

7.8 Safety hold valve to be fitted to the cylinders in case of hydraulic failure.

8. Lighting

8.1 A LED flood light/work lamp should be installed in a suitable position illuminating the working area at the rear of the truck.

8.2 Suitable lighting should be installed within the body providing light for the toolbox area.

8.3 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 type LED consisting of 1 watt, 6x4 modules to the front with end cap modules consisting of 1x2 head modules with amber 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) A large flashing LED hazard light should be mounted above the hose reel and control box at the rear of the truck. The hazard light should be protected from damage.
c) There shall be rear and side scene lights to illuminate the vehicle and its surroundings. The controls shall be on the control panel in 4.8.

9. Metal Preparation and Painting Procedure

The following procedure must be adhered to:

9.1 Descale all metal surfaces
9.2 Grind down & smooth all rough edges
9.3 Thoroughly clean all surfaces
9.4 Prime the tank and other components using a two component self-curing inorganic zinc ethyl silicate or two component zinc rich polyamide cured epoxy primer.
9.5 Thereafter paint using two coats of premium quality twin pack automotive paint
9.6 Paint film thickness (color coat) must not be less than 80 microns each.

10. Colors

Underside of Body	Black
Chassis Cab and Superstructure	White
Striping	Cleansing Solid Waste (CSW) branding with white, blue (RAL 5002/Pantone 280C) and green (RAL 6000/Pantone 3278c) stripes across the front of the driver's cab

11. Electrical

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

11.1 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.
11.2 Dual indicator, stop and taillight units to be fitted.
11.3 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.
11.4 An additional set of rear light units to be installed on top of the tank.
11.5 Uninterrupted power supply points shall be made available for the vehicle tracking and fuel master monitoring system.
11.6 The manhole of the tank shall have an electronic warning sensor (audible and light) that will indicate the locking/unlocking status of the door in the driver's cab.
11.7 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.

12. Signage and Markings

12.1 Data plates shall be fitted for:
a) The tank and jetting systems indicating tank capacity, system pressures, fluid type/grade, and other relevant data.

b) The auxillary engine indicating engine make and model, capacity, serial number, oil type and grade etc.
c) Safety, operation, technical data, dates of manufacture, manufacturer's details etc.
12.2 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.
12.3 Durable, ultraviolet resistant and weather resistant warning signs shall be provided at all locations of the vehicle that impose a danger to persons.
12.4 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.
12.5 Retro-reflective tape shall be fitted to both sides and the rear of the tank as well as the rear bumper.
12.6 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.

13. Miscellaneous items

13.1 Full size spare wheel to be supplied.
13.2 A locking fuel cap for the fuel tank
13.3 The battery box is to be lockable (lock to be provided).
13.4 A 4.5 kg fire extinguisher should be supplied and fitted in an accessible position in the cab.

Maintenance of plant, chassis cab and superstructure

The following requested information shall be provided for eThekwini 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). eThekwini 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/tracks (conditional assessment report of all tyres-actual compared to theoretical new).	Tyre rotation, balance, wheel nuts torqued and wheel alignment.	

Table 1: Compulsory assessment items for Plant and Chassis Cab

The plant and 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 hydraulic and electrical systems

Detailed inspection (including NDT in accident and failure circumstances) of the main structural load barring 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 (Rotopress, street sweepers, 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 and tailgate is leaking (weld and seal where required) for compactor 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 cylinders; inspection of cylinders for leaks and functionality, to check cylinders are 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 and tailgate is leaking (weld and seal where required) for compactor superstructures. Non-destructive testing to be done at critical points including; chassis, mounting points of sub chassis to superstructure, hinges of tailgate and hopper, hydraulic cylinder mounting points, stop points for the ejector plate, bin lifters, pulley system, dolly A-Frame, kingpin and landing legs etc. Wear pads to be installed on the floors (where possible).

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 cylinders; inspection of cylinders for leaks and functionality, to check cylinders are operating dimensionally correct, replace hydraulic cylinder 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.

2.3 Major maintenance procedure for units;

2.3.1 Major steel repairs needed to the steel surfaces, structural framework and sub chassis including mountings. Water test to check if body and tailgate is leaking (weld and seal where required). Non-destructive testing to be done at critical points including; chassis, mounting points of sub chassis to superstructure, hinges of tailgate and hopper, hydraulic cylinder mounting points, stop points for the ejector plate, bin lifters, pulley system, dolly A-Frame, kingpin and landing legs etc. Wear pads to be installed on the floors (where possible).

2.3.2 Hydraulic power system; Refurbish hydraulic oil tank, renew hydraulic oil & filters, replacement of pipes and couplers with new valves and controls including fasteners.

2.3.3 Hydraulic cylinders; to replace hydraulic cylinders, mounting sleeves/bearing/bushings and fasteners with new components.

2.3.4 Mechanical and functional wearing items to be renewed.

2.3.5 Diagnostics and electrical inspection including continuity check. Replace/repair wiring where damaged and not functioning. Electrical components, lights and light guards to be renewed.

2.3.6 Calibrate and set hydraulics.

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

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

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

3. Material specification for 2.1, 2.2 and 2.3

The load baring 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. Whilst Hardox for the wear pads and the floor. Where wear pads are not installed bidder shall recommend the option to be installed in 2.2 and 2.3.

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 for 2.1, 2.2 and 2.3

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 for 2.1, 2.2 and 2.3

Sub chassis and underside of superstructure	Black
Plant/Superstructure	CSW Blue RAL 5002/Pantone 280C

6. Electrical for 2.1, 2.2 and 2.3

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 LED amber beacon strobe lights shall be installed on top of the superstructure. Each shall be placed in a corner seated on top of a holding bracket for elevated height with an enclosed caged fastened light guard. Two to four units are required depending on the specific superstructure/vehicle.

7. Signage and Markings for 2.1, 2.2 and 2.3

7.1 Data plates shall be fitted labelling the storage areas and capacity. Safe working loads should be labelled where necessary:

a) The hydraulic 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 structure on both sides of the compaction body and hopper.

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 CSW/DSW corporate branding to be fitted on bolt on chromadek sheeting and mounted on both sides of the compaction body using brackets. It shall have multiple brackets and fastening points (minimum of four longitudinal and lateral brackets and four mounting points on each). It shall be 90-100% the size of the actual body. 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 for 2.2 and 2.3

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 ingression.
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 for 2.1, 2.2 and 2.3

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)

SABS 1447 Pneumatic braking connections

SANS 3779 Vehicle identification number

Vehicle dimensions NRTA Act no.93 of 1996

Data plates Compulsory Vehicle Standards

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.

COMPULSORY QUESTIONNAIRE FOR ITEM 1

Can your company adhere to the following specifications when supplying a Landfill Bulldozer?	**Yes / No**	**If Yes please provide proof. Appendix no. with submission.**
Compulsory items: • Are you an OEM/Certified agent of bulldozers? • Can the relevant documents be provided for Section 6, SCC 10.1 and ACC1 and has SCC 10.1.2 been submitted for the tender? • Can the warranty obligations be met in Section 6, 15.2? • Have the returnable documents from Sections 3 and 4 being provided? • Have references being provided?		
Vehicle items • What is the vehicle/unit make and model? • and can criteria in Section 7, chapter 2 be met without any exclusions? • Is the vehicle for landfill application? (provided evidence in submission) • Has the operating GVM being met? (specify amount) • Park and emergency braking? • Engine make and model, euro rating, power met? (specify amount) • Transmission make, model and requirements? • Ground clearance minimum of 600 mm? (specify amount and what is the lowest lying component under the chassis) • Final drive protection system? (specify details) • Are the tracks suitable for landfill operation? (Grouser shoes with trapezoidal holes recommended) • Have you offered a hybrid electric model? (please submit product catalogue)		
Application system: • Is Corten and Hardox steel or better used? • Front blade specifications submitted? • Ripper specifications submitted?		
Sub systems and miscellaneous items • Can items in section 7, chapter 4-11 in the technical specification be met without any exclusions?		

Specifications and standards Are supplied products and system/s in accordance and recognized by the relevant SABS/SANS specification/standard including specifications in Section 7, chapter 2, point 2.25 being met?		

COMPULSORY QUESTIONNAIRE FOR ITEM 2

Can your company adhere to the following specifications when supplying a Front-End loader?	**Yes / No**	**If Yes, please provide proof. Appendix no. with submission.**
Compulsory items: • Are you an OEM/Certified agent certified manufacturer of Front-End loaders? • Can the relevant documents be provided for Section 6, SCC 10.1 and ACC1 and has SCC 10.1.2 been submitted for the tender? • Can the warranty obligations be met in Section 6, 15.2? • Have the documents for Section 3 and 4 submitted?		
Vehicle items • What vehicle is being provided (technical catalogue shall be submitted)? • GVM minimum of 22 tons (specify amount)? • Engine Euro rating, minimum power and torque requirements of 200 kW and 1 500 Nm (specify amount)? • Gear capabilities of four forward and three revere or better? • Have you offered a hybrid electric model? (please submit product catalogue) • Can all other criteria in Section 7, chapter 2 be met without any exclusions?		
Operating capacity • Is Corten and Hardox steel or better used for the bucket? • What is the volumetric and payload capacity (recommended 6-8 m^3 and 13-16 tons)? • Tipping angle 40º (specify amount)? • Wear plates in bucket installed? (specify material and details) • Reversible cutting edge installed to the bucket? • Load monitoring system for bucket payload(specify details)? • Safety access ladders, walkways (lined with non-slip material) with safety railings? • Can Section 7, chapters 4 and 5 be met without any exclusions?		

Sub systems and miscellaneous items • Can items in section 7, chapter 6-12 in the technical specification be met without any exclusions?		
Specifications and standards Are supplied products and system/s in accordance and recognized by the relevant SABS/SANS specification/standard?		

COMPULSORY QUESTIONNAIRE FOR ITEM 3

Can your company adhere to the following specifications when supplying a Motor Grader?	**Yes / No**	**If Yes, please provide proof. Appendix no. with submission.**
Compulsory items: • Are you an OEM/Certified agent certified manufacturer of Motor Graders? • Can the relevant documents be provided for Section 6, SCC 10.1 and ACC1 and has SCC 10.1.2 been submitted for the tender? • Can the warranty obligations be met in Section 6, 15.2? • Have the documents for Section 3 and 4 submitted?		
Vehicle items • What is the vehicle make and model (technical brochure included)? • and can criteria in Section 7, chapter 2 be met without any exclusions? • Has the GVM being met? (specify amount) • Pneumatic braking with anti-lock system? • Park and emergency braking? • Minimum engine Euro rating, make and model, power and torque met (120kW and 800Nm respectively)? (specify amount) • Transmission make, model and requirements? • Have you offered a hybrid electric model? (please submit product catalogue)		
Landfill application system: • Is Corten and Hardox steel or better used? • Front blade specifications submitted? • Ripper and scarifier specifications submitted? • Extended width blade and levelling system specification submitted?		

Sub systems and miscellaneous items • Can items in section 7, chapter 4-11 in the technical specification be met without any exclusions?		
Specifications and standards Are supplied products and system/s in accordance and recgonised by the relevant SABS/SANS specification/standard? Have specifications in Section 7, Item 3, chapter 2, point 2.23 being met?		

COMPULSORY QUESTIONNAIRE FOR ITEM 4

Can your company adhere to the following specifications when supplying a Vibratory Roller?	**Yes / No**	**If Yes, please provide proof. Appendix no. with submission.**
Compulsory items: • Are you an OEM/Certified agent certified manufacturer of Vibratory Roller? • Can the relevant documents be provided for Section 6, SCC 10.1 and ACC1 and has SCC 10.1.2 been submitted for the tender? • Can the warranty obligations be met in Section 6, 15.2? • Have the documents for Section 3 and 4 submitted?		
Vehicle items • What is the vehicle make and model (technical brochure included)? • and can criteria in Section 7, chapter 2, Item 4 be met without any exclusions? • Has the GVM (12 Tons) being met or bettered? (specify amount) • Park and emergency braking? • Engine Euro rating, make, model, power (100kW)? (specify amount) • Transmission make, model and specifications? • Fully adjustable mirrors? • Have you offered a hybrid electric model? (please submit product catalogue)		
Application system: • Is Corten and Hardox steel or better used? • Footpad specifications submitted? • Smooth roller specifications submitted? • Blade specifications submitted? • Surface wear pads specifications submitted?		

Sub systems and miscellaneous items • Can items in section 7, Item 4, chapter 4-11 in the technical specification be met without any exclusions?		
Specifications and standards Are supplied products and system/s in accordance and recgonised by the relevant SABS/SANS specification/standard? Have specifications in Section 7, Item 4, chapter 2, point 2.23 being met?		

COMPULSORY QUESTIONNAIRE FOR ITEM 5

Can your company adhere to the following specifications when supplying a 6x6 heavy duty tipper truck?	**Yes / No**	**If Yes, please provide proof. Appendix no. with submission.**
Compulsory items: • Are you an OEM/Certified agent certified manufacturer of trucks? • Can the relevant documents be provided for Section 6, SCC 10.1 and ACC1 and has SCC 10.1.2 been submitted for the tender? • Can the warranty obligations be met in Section 6, 15.2? • Have the documents for Section 3 and 4 submitted?		
Vehicle items • Vehicle make and model (provide vehicle details) and can criteria in Section 7, chapter 2 be met without any exclusions? • Designed to SANS 1518 and 20013 or better?		
Vehicle items • Designed within safe working loads (chassis and axle)? • Minimum GVM of 25 000 kg (Specify amount)? • Engine power (min. of 260 kW) and torque (min. of 1600Nm) (specify amount)? • ABS braking and retarder (via foot brake pedal)?		
Customisation: • Can the material specifications or better be met? • SANS 1518 and 20013 can be met? • Can all construction requirements in section 7, chapter 4 be met? • Can the hydraulic system meet the required applications needs as laid out in section 7?		
Operating capacity • Payload mass of 14 000-24 000 kg (specify amount)?		

• Volume of tip body of 10-16m^3 (specify amount)? • Minimum tipping angle of 45° (specify amount)? • Load monitoring system for tipping body payload (specify details)? • Hydraulic system capacity for the payload (specify details)?		
Sub systems and miscellaneous items • Can items in section 7, chapter 6,9 and 12 in the technical specification be met without any exclusions? • Have specifications in Section 7, Item 5, chapter 2, point 2.24 being met?		
Specifications and standards Are supplied products and system/s in accordance and recgonised by the relevant SABS/SANS specification/standard?		

COMPULSORY QUESTIONNAIRE FOR ITEM 6

Can your company adhere to the following specifications when supplying an Articulated Dump truck?	**Yes / No**	**If Yes, please provide proof. Appendix no. with submission.**
Compulsory items: • Are you an OEM/Certified agent certified manufacturer of articulated vehicles? • Can the relevant documents be provided for Section 6, SCC 10.1 and ACC1 and has SCC 10.1.2 been submitted for the tender? • Can the warranty obligations be met in Section 6, 15.2? • Have the documents for Section 3 and 4 submitted?		
Vehicle items • Vehicle make and model (provide vehicle details) and can criteria in Section 7, chapter 2 be met without any exclusions? • Designed to SANS 1518 and 20013 or better?		
Vehicle items • Designed within safe working loads (chassis and axle)? • Minimum GVM of 45 000 kg (Specify amount)? • Engine power (min. of 270 kW) and torque (min. of 1800Nm) (specify amount)? • ABS braking and retarder (via foot brake pedal)?		
Customisation: • Can the material specifications or better be met? • SANS 1518 and 20013 can be met?		

• Roll over protection systems (ROPS) and fall over protection systems (FOPS) for the cab.
• Can all construction requirements in section 7, chapter 4 be met?
• Can the hydraulic system meet the required applications needs as laid out in section 7?
• Material specifications for:
  ○ Vehicle
  ○ Loading box		

Operating capacity • Payload minimum of 26 000 kg? • Nominal capacity of 10m^3? • Heaped capacity of 14m^3? • Adjustable tilt angle range to 70°? • Load monitoring system for tipping body payload (specify details)? • Hydraulic system capacity (specify details)?		
Sub systems and miscellaneous items • Can items in section 7, chapter 6,9 and 12 in the technical specification be met without any exclusions? • Have specifications in Section 7, Item 6, chapter 2, point 2.29 and 2.30 being met?		
Specifications and standards Are supplied products and system/s in accordance and recgonised by the relevant SABS/SANS specification/standard?		

COMPULSORY QUESTIONNAIRE FOR ITEM 7

Can your company adhere to the following specifications when supplying an Articulated Hook-lift truck?	**Yes / No**	**If Yes, please provide proof. Appendix no. with submission.**
Compulsory items: • Are you an OEM/Certified agent certified manufacturer of articulated vehicles? • Can the relevant documents be provided for Section 6, SCC 10.1 and ACC1 and has SCC 10.1.2 been submitted for the tender? • Can the warranty obligations be met in Section 6, 15.2? • Have the documents for Section 3 and 4 submitted?		

Vehicle items • Vehicle make and model (provide vehicle details) and can criteria in Section 7, chapter 2 be met without any exclusions? • Designed to SANS 1518 and 20013 or better?		
Vehicle items • Designed within safe working loads (chassis and axle)? • Minimum GVM of 45 000 kg (Specify amount)? • Engine power (min. of 270 kW) and torque (min. of 1800Nm) (specify amount)? • ABS braking and retarder (via foot brake pedal)?		
Customisation: • Can the material specifications or better be met? • SANS 1518 and 20013 can be met? • Roll over protection systems (ROPS) and fall over protection systems (FOPS) for the cab. • Can all construction requirements in section 7, chapter 4 be met? • Can the hydraulic system meet the required applications needs as laid out in section 7? • Material specifications for: o Vehicle o Hook-lift superstructure		
Operating capacity • Payload minimum of 30 000 kg? • Compliant to DIN 30722? • Safety locking systems for jib and floor? (specify details) • Lateral, longitudinal and vertical guides and holders for the containers stability when seated (specify details)? • Tilting frame hook lift with minimum 50 degrees vertical articulation? • Safety access ladders, walkways (lined with non-slip material) with safety railings? • Hydraulic controls clearly marked? Hydraulic system capacity (specify details)? • Load monitoring system for container payload (specify details)?		
Sub systems and miscellaneous items • Can items in section 7, chapter 6,9 and 12 in the technical specification be met without any exclusions?		

• Have specifications in Section 7, Item 7, chapter 2, point 2.28 being met?		
Specifications and standards Are supplied products and system/s in accordance and recognized by the relevant SABS/SANS specification/standard?		

COMPULSORY QUESTIONNAIRE FOR ITEM 8

Can your company adhere to the following specifications when supplying a Articulated Water tanker truck?	**Yes / No**	**If Yes, please provide proof. Appendix no. with submission.**
Compulsory items: • Are you an OEM/Certified agent certified manufacturer of articulated vehicles? • Can the relevant documents be provided for Section 6, SCC 10.1 and ACC1 and has SCC 10.1.2 been submitted for the tender? • Can the warranty obligations be met in Section 6, 15.2? • Have the documents for Section 3 and 4 submitted?		
Vehicle items • Vehicle make and model (provide vehicle details) and can criteria in Section 7, chapter 2 be met without any exclusions? • Designed to SANS 1518 and 20013 or better?		
Vehicle items • Designed within safe working loads (chassis and axle)? • Minimum GVM of 45 000 kg (Specify amount)? • Engine power (min. of 270 kW) and torque (min. of 1800Nm) (specify amount)? • ABS braking and retarder (via foot brake pedal)?		
Customisation: • Can the material specifications or better be met? • SANS 1518 and 20013 can be met? • Roll over protection systems (ROPS) and fall over protection systems (FOPS) for the cab. • Can all construction requirements in section 7, chapter 4 be met? • Can the hydraulic system meet the required applications needs as laid out in section 7? • Material specifications for:		

○ Vehicle ○ Water tank		
Operating capacity • Tank of 25-30 000 litres? • Pump system capacity (specify details)? • Spray bar? (specify details) • Water canon? (specify details) • Safety access ladders, walkways (lined with non-slip material) with safety railings? • Hydraulic controls clearly marked? Hydraulic system capacity (specify details)?		
Sub systems and miscellaneous items • Can items in section 7, chapter 6,9 and 12 in the technical specification be met without any exclusions? • Have specifications in Section 7, Item 8, chapter 2, point 2.29 and 2.30 being met?		
Specifications and standards Are supplied products and system/s in accordance and recgonised by the relevant SABS/SANS specification/standard?		

COMPULSORY QUESTIONNAIRE FOR ITEM 9

Can your company adhere to the following specifications when supplying a Landfill Compactor?	**Yes / No**	**If Yes please provide proof. Appendix no. with submission.**
Compulsory items: • Are you an OEM/Certified agent of Compactors? • Can the relevant documents be provided for Section 6, SCC 10.1 and ACC1 and has SCC 10.1.2 been submitted for the tender? • Can the warranty obligations be met in Section 6, 15.2? • Have the returnable documents from Sections 3 and 4 being provided? • Have references being provided?		

Vehicle items • What is the vehicle/unit make and model? • and can criteria in Section 7, chapter 2 be met without any exclusions? • Is the vehicle for landfill application? (provided evidence in submission) • Has the operating GVM being met? (specify amount) • Park and emergency braking? • Engine make and model, euro rating, power met? (specify amount) • Transmission type? • Ground clearance minimum of 600 mm? (specify amount and what is the lowest lying component under the chassis) • Final drive protection system? (specify details) • Have you offered a hybrid electric model? (please submit product catalogue) • Are the four independent wheels suitable for landfill operation? (Maintainable wear teeth for wheels with scrapers) • Workable hours of the wheels? (Minimum 8000 hrs.)		

Application system:
• Is Corten and Hardox steel or better used?
• Front blade specifications submitted?
  ○ Option 1- Straight Blade
  ○ Option 2- U Blade		

Sub systems and miscellaneous items • Can items in section 7, chapter 4-11 in the technical specification be met without any exclusions?		
Specifications and standards Are supplied products and system/s in accordance and recognized by the relevant SABS/SANS specification/standard including specifications in Section 7, chapter 2, point 2.25 being met?		

COMPULSORY QUESTIONNAIRE FOR ITEM 10

Can your company adhere to the following specifications when supplying a 6x6 heavy duty water tanker?	**Yes / No**	**If Yes, please provide proof. Appendix no. with submission.**
Compulsory items: • Are you an OEM/Certified agent certified manufacturer of trucks? • Can the relevant documents be provided for Section 6, SCC 10.1 and ACC1 and has SCC 10.1.2 been submitted for the tender? • Can the warranty obligations be met in Section 6, 15.2? • Have the documents for Section 3 and 4 submitted?		
Vehicle items • Vehicle make and model (provide vehicle details) and can criteria in Section 7, chapter 2 be met without any exclusions? • Designed to SANS 1518 and 20013 or better?		
Vehicle items • Designed within safe working loads (chassis and axle)? • Minimum GVM of 25 000 kg (Specify amount)? • Engine power (min. of 260 kW) and torque (min. of 1600Nm) (specify amount)? • ABS braking and retarder (via foot brake pedal)?		

Tank construction:
• What grade stainless steel is used?
  ○ Item 10.1
  ○ Item 10.2
• Water tank capacity (specify amount)?
  ○ Item 10.1
  ○ Item 10.2
• Safety access ladders, walkways (lined with non-slip material) with safety railings?
• Two stage water level alarm? (specify details)
• For the drinking water application tanker can you place your distribution outlets clear of obstructions and obstacles and/or provide guards, heat and safety shields were required on the vehicle?
• What pump is being supplied for drinking water application? (specify details)
  ○ Item 10.1
• Construction application water tanker bid on for item? (specify details)		

○ Item 10.2 • What pump is being supplied for construction recycled water application? (specify details) ○ Item 10.2 • 'Pump and drive/go' operation for spraying whilst driving for the construction water tankers? (specify details) • Can you provide the option of dispensing sensors for the water tanker contents? • Can criteria in Section 7, chapter 4-7 be met without any exclusions?		
Sub systems and miscellaneous items • Can items in section 7, chapter 8-12 in the technical specification be met without any exclusions?		

COMPULSORY QUESTIONNAIRE FOR ITEM 11

Can your company adhere to the following specifications when supplying a 6x6 heavy duty vacuum tanker?	**Yes / No**	**If Yes, please provide proof. Appendix no. with submission.**
Compulsory items: • Are you an OEM/Certified agent certified manufacturer of trucks? • Can the relevant documents be provided for Section 6, SCC 10.1 and ACC1 and has SCC 10.1.2 been submitted for the tender? • Can the warranty obligations be met in Section 6, 15.2? • Have the documents for Section 3 and 4 submitted?		
Vehicle items • Vehicle make and model (provide vehicle details) and can criteria in Section 7, chapter 2 be met without any exclusions? • Designed to SANS 1518 and 20013 or better?		
Vehicle items • Designed within safe working loads (chassis and axle)? • Minimum GVM of 25 000 kg (Specify amount)? • Engine power (min. of 260 kW) and torque (min. of 1600Nm) (specify amount)? • ABS braking and retarder (via foot brake pedal)?		
Vacuum Tank: • What grade stainless steel is used? • Waste tank capacity (recommended 13-16 000 liters)? • Safety access ladders, walkways (lined with non-slip material) with safety railings?		

• High suction capacity of 400l/min (specify amount)? • Noise rating (specify dBA ratings of system)? • Pump type (make, model and specifications)? • Pump, pipes, hoses suitable for leachate (high corrosive and suspended solid particles)? (Briefly describe) • Can criteria in Section 7, chapter 4-7 be met without any exclusions?		
Sub systems and miscellaneous items • Can items in section 7, chapter 8-12 in the technical specification be met without any exclusions?		

Can your company adhere to the following specifications when supplying maintenance services to specialized plant, chassis cabs and superstructures?	**Yes / No**	**If Yes, please provide proof. Appendix no. with submission.**
Compulsory items: • Are you an OEM/Certified agent/SABS/SANS certified manufacturer/importer of equipment/superstructures/vehicles? • Can the relevant documents be provided for Section 6, SCC 10.1 and ACC1 with the plant/superstructures? o Pre-inspection and fault list of the chassis cab/superstructure. o Diagnostic report (where applicable). o Work being undertaken with pictures and parts supplied. o Post-inspection and faults addressed. o Test certificate including readings of torque settings, pressure settings and flows, paint thickness and dimensional alignment. Test certificate must compare actual to theoretical. o Electrical wiring circuit/diagram for modifications performed. o Spares/Parts and operating manual for new hydraulics fitted. o Quality management plan and documents for material, primer and paint specifications including thickness testing. • Can the warranty obligations be met in Section 6, 15.2? (Terms and conditions shall be submitted)		
Technical details and criteria: • Is your workshop equipped with the relevant tools and equipment? (provide details including pictures of diagnostic machines, welding equipment, jigs and fixtures, testing rigs, cranes, mobile workshop etc.) • Are your staff qualified in their respective trade? (mechanics, auto-electricians, technicians, welders, boilermaker, auto-electrical, fitter etc.) • What quality system does your company follow when undertaking work of this nature?		

• Have you acknowledged the difference and scope of work such that the correct work, parts and finish that can be provided? • Can you provide accredited load testing services for all plant/superstructures and their lifting equipment where applicable? (please submit proof)		
Sub systems and miscellaneous items • Can items in section 7, chapter 4-8 in the technical specification be met without any exclusions?		
Specifications and standards Are supplied products and system/s in accordance and recgonised by the relevant SABS/SANS specification/standard?		

SECTION 8: BILL OF QUANTITIES / SCHEDULE OF RATES / ACTIVITIES

Bidders shall provide pricing for option A to C which shall be the complete unit with customisation (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 vehicle. Option D shall be a hybrid electric model of the plant equipment/unit if offered. **Complete plant equipment/vehicles shall include delivery, homologation, licensing and commissioning.**

Item 1: Landfill Bulldozer	**Make and Model/Item description**	**Price Excl. VAT**	**Price Incl. VAT**
Landfill Bulldozer			
Bulldozer accessories (windscreen guard, in cab items etc.)			
Front Blade with wear plates			
Rippers			
Hydraulic system (pump, tank, cylinder/s, valves, filters, piping and accessories)			
Hydraulic controls			
Power take off (PTO) unit			
Electrical systems (lights, camera, monitor, etc.)			
Oil cooler (if necessary)			
Fire suppression system			
Finishing, relevant consumables and hydraulic oil.			
Delivery, training and commissioning.			
Item 1A: Complete vehicle (Euro 3) with customisation			
Item 1B: Complete vehicle (Euro 4) with customisation			
Item 1C: Complete vehicle (Euro 5) with customisation			
Item 1D: Complete hybrid electric vehicle with customisation			

Maintenance Schedule for Item 1	Parts mark up (%)	Price Rate for labour per hour excl. VAT	Price Rate for labour per hour incl. VAT
Item 1 Maintenance of Landfill Dozer			

Item 2: Front End Loader	Make and Model/Item description	Price Excl. VAT	Price Incl. VAT
Front End Loader			
Waste bucket with wear plates			
Reversible cutting edge/forks for bucket			
Electrical systems (lights, camera, monitor, etc.)			
Fuel management system and heat sensing device.			
Fire suppression system			
Finishing, relevant consumables and hydraulic oil.			
Delivery, training and commissioning.			
Item 2A: Complete vehicle (Euro 3) with customisation			
Item 2B: Complete vehicle (Euro 4) with customisation			
Item 2C: Complete vehicle (Euro 5) with customisation			
Item 2D: Complete hybrid electric vehicle with customisation			

Maintenance Schedule for Item 2	Parts mark up (%)	Price Rate for labour per hour excl. VAT	Price Rate for labour per hour incl. VAT
Item 2 Maintenance of Front End Loader			

Item 3: Motor Grader for Landfill application	Make and Model/Item description	Price Excl. VAT	Price Incl. VAT
Landfill Motor Grader			
Motor Grader accessories			
Front Blade			

Rippers			
Scarifier			
Hydraulic system (pump, tank, cylinder/s, valves, filters, piping and accessories)			
Hydraulic controls			
Power take off (PTO) unit			
Electrical systems (lights, camera, monitor, etc.)			
Oil cooler (if necessary)			
Fuel management system and heat sensing device.			
Automatic Fire suppression system			
Finishing, relevant consumables and hydraulic oil.			
Delivery, training, licensing, homologation and commissioning.			
Item 3A: Complete vehicle (Euro 3) and customisation			
Item 3B: Complete vehicle (Euro 4) and customisation			
Item 3C: Complete vehicle (Euro 5) and customisation			
Item 3D: Complete hybrid electric vehicle with customisation			
Extra width blade with levelling system option			

Maintenance Schedule for Item 3	**Parts mark up (%)**	**Price Rate for labour per hour excl. VAT**	**Price Rate for labour per hour incl. VAT**
Item 3 Maintenance of Motor Grader			

Item 4: Vibratory roller	**Make and Model/Item description**	**Price Excl. VAT**	**Price Incl. VAT**
Main Roller Unit			
Padfoot roller/drum with smooth metal cover for drum			
Levelling blade			

Electrical systems (lights, rear camera etc.)			
Automatic fire suppression system			
All relevant miscellaneous items and consumables.			
Delivery, training, licensing, homologation and commissioning.			
Item 4A: Complete vehicle (Euro 3) with roller and customisation			
Item 4B: Complete vehicle (Euro 4) with roller and customisation			
Item 4C: Complete vehicle (Euro 5) with roller and customisation			
Item 4D: Complete hybrid electric vehicle with customisation			

Maintenance Schedule for Item 4	**Parts mark up (%)**	**Price Rate for labour per hour excl. VAT**	**Price Rate for labour per hour incl. VAT**
Item 4 Maintenance of Vibratory Roller			

Item 5: 6x6 Heavy Duty Rear Tip Truck	**Make and Model/Item description**	**Price Excl. VAT**	**Price Incl. VAT**
Vehicle (Chassis)			
Body customization (structural work)			
Hydraulic system (pump,tank, cylinders, valves, filters, piping and accessories)			
Hydraulic controls			
Power take off (PTO) unit			
Electrical systems (lights, monitor etc.)			
Covering system			
All relevant finishing, consumables and hydraulic oil.			
Delivery, homologation, licensing and commissioning.			
Item 5A: Complete vehicle (Euro 3) with superstructure and customisation			
Item 5B: Complete vehicle (Euro 4) with superstructure and customisation			

Item 5C: Complete vehicle (Euro 5) with superstructure and customisation			
Item 5D: Superstructure and customisation with delivery, homologation, licensing and commissioning			

Maintenance Schedule for Item 5	Parts mark up (%)	Price Rate for labour per hour excl. VAT	Price Rate for labour per hour incl. VAT
Item 5 Maintenance of Chassis Cab			
Item 5 Maintenance of Superstructure			

Item 6: Articulated Dump Truck	**Make and Model/Item description**	**Price Excl. VAT**	**Price Incl. VAT**
Vehicle (Chassis)			
Body customization (structural work)			
Hydraulic system (pump, tank, cylinders, valves, filters, piping and accessories)			
Hydraulic controls			
Power take off (PTO) unit			
Electrical systems (lights, monitor etc.)			
Automatic fire suppression system			
All relevant finishing, consumables and hydraulic oil.			
Delivery, homologation, licensing and commissioning.			
Item 6A: Complete vehicle (Euro 3) with superstructure and customisation			
Item 6B: Complete vehicle (Euro 4) with superstructure and customisation			
Item 6C: Complete vehicle (Euro 5) with superstructure and customisation			
Item 6D: Superstructure and customisation with delivery, homologation, licensing and commissioning			

Maintenance Schedule for Item 6	Parts mark up (%)	Price Rate for labour per hour excl. VAT	Price Rate for labour per hour incl. VAT
Item 6 Maintenance of Chassis Cab			
Item 6 Maintenance of Superstructure			

Item 7: Articulated Hook-lift Truck	Make and Model/Item description	Price Excl. VAT	Price Incl. VAT
Vehicle (Chassis)			
Body customization (structural work)			
Hydraulic system (pump, tank, valves, filters, piping and accessories)			
Hydraulic controls			
Power take off (PTO) unit			
Electrical systems (lights, monitor etc.)			
Automatic fire suppression system			
All relevant finishing, consumables and hydraulic oil.			
Delivery, homologation, licensing and commissioning.			
Item 7A: Complete vehicle (Euro 3) with superstructure and customisation			
Item 7B: Complete vehicle (Euro 4) with superstructure and customisation			
Item 7C: Complete vehicle (Euro 5) with superstructure and customisation			
Item 7D: Superstructure and customisation with delivery, homologation, licensing and commissioning			

Maintenance Schedule for Item 7	Parts mark up (%)	Price Rate for labour per hour excl. VAT	Price Rate for labour per hour incl. VAT
Item 7 Maintenance of Chassis Cab			
Item 7 Maintenance of Superstructure			

Item 8: Articulated Water tanker Truck	**Make and Model/Item description**	**Price Excl. VAT**	**Price Incl. VAT**
Vehicle (Chassis)			
Body customization (structural work)			
Hydraulic system (pump, tank, valves, filters, piping and accessories)			
Hydraulic controls			
Water Canon System			
Power take off (PTO) unit			
Electrical systems (lights, monitor etc.)			
Automatic fire suppression system			
All relevant finishing, consumables and hydraulic oil.			
Delivery, homologation, licensing and commissioning.			
Item 8A: Complete vehicle (Euro 3) with superstructure and customisation			
Item 8B: Complete vehicle (Euro 4) with superstructure and customisation			
Item 8C: Complete vehicle (Euro 5) with superstructure and customisation			
Item 8D: Superstructure and customisation with delivery, homologation, licensing and commissioning			

Maintenance Schedule for Item 8	**Parts mark up (%)**	**Price Rate for labour per hour excl. VAT**	**Price Rate for labour per hour incl. VAT**
Item 8 Maintenance of Chassis Cab			
Item 8 Maintenance of Superstructure			

Item 9: Landfill Compactor	**Make and Model/Item description**	**Price Excl. VAT**	**Price Incl. VAT**
Landfill Compactor			
Compactor accessories (windscreen guard, in cab items etc.)			
Front Blade with wear plates (option 1- Straight blade)			

Hydraulic system (pump, tank, cylinder/s, valves, filters, piping and accessories)			
Hydraulic controls			
Power take off (PTO) unit			
Electrical systems (lights, camera, monitor, etc.)			
Oil cooler (if necessary)			
Fire suppression system			
Finishing, relevant consumables and hydraulic oil.			
Delivery, training and commissioning.			
Item 9A: Complete vehicle (Euro 3) with customisation			
Item 9B: Complete vehicle (Euro 4) with customisation			
Item 9C: Complete vehicle (Euro 5) with customisation			
Item 9D: Complete hybrid electric vehicle with customisation			
Front Blade with wear plates (option 2-U blade)			

Maintenance Schedule for Item 9	**Parts mark up (%)**	**Price Rate for labour per hour excl. VAT**	**Price Rate for labour per hour incl. VAT**
Item 9 Maintenance of Landfill Compactor			

Item 10.1: 6x6 Heavy Duty Water tanker (Drinking water application)	**Make and Model/Item description**	**Price Excl. VAT**	**Price Incl. VAT**
Vehicle (Chassis)			
Vehicle accessories (for chassis cab)			
Body customization (structural work)			
Pump			
Hosing and hose accessories			
Electrical systems (lights, camera system etc.)			

Prime and Paint; Chassis Cab Superstructure			
All relevant miscellaneous items, consumables and hydraulic oil.			
Training			
Item 10.1A: Complete vehicle (Euro 3) with superstructure and customisation			
Item 10.1B: Complete vehicle (Euro 4) with superstructure and customisation			
Item 10.1C: Complete vehicle (Euro 5) with superstructure and customisation			
Item 10.1D: Superstructure and customisation with delivery, homologation, licensing and commissioning			

Item 10.2: 6x6 Heavy Duty Water tanker (Construction application)	**Make and Model/Item description**	**Price Excl. VAT**	**Price Incl. VAT**
Vehicle (Chassis)			
Vehicle accessories (for chassis cab)			
Body customization (structural work)			
Pump			
Spray bar and hose accessories			
Electrical systems (lights, camera system etc.)			
Prime and Paint; Chassis Cab Superstructure			
All relevant miscellaneous items, consumables and hydraulic oil.			
Training			
Item 10.2A: Complete vehicle (Euro 3) with superstructure and customisation			
Item 10.2B: Complete vehicle (Euro 4) with superstructure and customisation			
Item 10.2C: Complete vehicle (Euro 5) with superstructure and customisation			
Item 10.2D: Superstructure and customisation with delivery, homologation, licensing and commissioning			

Maintenance Schedule for Item 10	Parts mark up (%)	Price Rate for labour per hour excl. VAT	Price Rate for labour per hour incl. VAT
Item 10 Maintenance of Chassis Cab			
Item 10 Maintenance of Superstructure			

Item 11: 6x6 Heavy duty Vacuum tanker truck	**Make and Model/Item description**	**Price Excl. VAT**	**Price Incl. VAT**
Vehicle (Chassis cab)			
Vehicle accessories (for chassis cab)			
Body customization (structural work)			
Power take off (PTO) unit			
Vacuum system			
Hosing and hose accessories			
Electrical systems (lights, control systems etc.)			
All relevant miscellaneous items, consumables and hydraulic oil.			
Training			
Delivery, homologation and commissioning.			
Item 11A: Complete vehicle (Euro 3) with superstructure and customisation			
Item 11B: Complete vehicle (Euro 4) with superstructure and customisation			
Item 11C: Complete vehicle (Euro 5) with superstructure and customisation			
Item 11D: Superstructure and customisation with delivery, homologation, licensing and commissioning			

Maintenance Schedule for Item 11	Parts mark up (%)	Price Rate for labour per hour excl. VAT	Price Rate for labour per hour incl. VAT
Item 11 Maintenance of Chassis Cab			
Item 11 Maintenance of Superstructure			

SECTION 9 : OFFICIAL TENDER FORM

Part A: OFFER BY TENDERER - In response to **Tender Number : 1J- 25953** 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 (if applicable)

Insert as required