



Midvaal Local Municipality
PO Box 9, Meyerton, 1960
Tel: 016 360 7400
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www.midvaal.gov.za

BID DOCUMENT

BID 8/2/2/446 (5EP/6EPPE OR HIGHER) FOR THE APPOINTMENT OF A SERVICE PROVIDER FOR THE REFURBISHMENT AND INSTALLATION OF HIGHMAST LIGHTS AND STREET LIGHTS FOR MIDVAAL LOCAL MUNICIPALITY ON AN AS AND WHEN REQUIRED BASIS FROM DATE OF AWARD FOR A PERIOD OF 36 MONTHS

FULL NAME OF BIDDER			
/CONTRACTOR/TENDERING ENTITY:			
CONTACT PERSON:			
TEL NO:		CELL NO:	
FAX NO:		EMAIL:	
CENTRAL SUPPLIER DATABASE (CSD) NO:			
MIDVAAL VENDOR NO. (NOT COMPULSORY):			
COMPULSORY BRIEFING SESSION:			
DATE:	24 JUNE 2025	TIME:	10H00
VENUE:	Midvaal Engineering Services (Opposite Randvaal Clinic), 56 Rooibok Street, Highbury, Randvaal. USE GPS Coordinates: -26.515083, 28.044598		
BID CLOSING:			
DATE:	14 JULY 2025	TIME:	10H00
TOTAL BID PRICE/VALUE (INCLUDING VAT) (R):		N/A	<div style="display: flex; align-items: center;"> <div style="text-align: center; width: 100px;"> Mark "X" if Rates Based </div> <div style="width: 20px; text-align: center;">X</div> </div>
PREFERENCE POINTS CLAIMED:		B-BBEE RATING	

Contents			
Number	Heading		Colour
The Tender			
Part T1: Tendering procedures			
T1.1	Tender Notice and Invitation to Tender		White
T1.2	Conditions of Tender		Pink
T1.3	Tender Data		Pink
Part T2: Returnable documents			
T2.1	List of Returnable Documents		Yellow
T2.2	Returnable Schedules		Yellow
The Contract			
Part C1: Agreement and Contract Data			
C1.1	Form of Offer and Acceptance		White
C1.2	Contract Data		Blue
C1.3	Form of Guarantee		White
C1.4	Safety Agreement		White
Part C2: Pricing data			
C2.1	Pricing Instructions		Yellow
C2.2	Activity Schedule		Yellow
C2.3	Bill of Quantities		Yellow
Part C3: Scope of Work			
C3	Scope of Work		Blue
C3.4	Project Specifications		Blue
C3.5	Particular Specifications		Blue
Part C4: Site Information			White

MIDVAAL LOCAL MUNICIPALITY



BID NO.:

(8/2/2/446) (5EP/4EPPE OR HIGHER)

**REFURBISHMENT AND INSTALLATION OF HIGHMAST LIGHTS AND STREET LIGHTS FOR
MIDVAAL LOCAL MUNICIPALITY ON AN AS AND WHEN REQUIRED BASIS FROM DATE OF
AWARD FOR A PERIOD OF 36 MONTHS**

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MIDVAAL LOCAL MUNICIPALITY



BID NO.: (8/2/2/446) (5EP/4EPPE OR HIGHER)

**REFURBISHMENT AND INSTALLATION OF HIGHMAST LIGHTS AND STREET LIGHTS FOR
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AWARD FOR A PERIOD OF 36 MONTHS**

PART T1: TENDERING PROCEDURES

PART T2: RETURNABLE DOCUMENTS

T.1.1 TENDER NOTICE AND INVITATION TO TENDER

Tender Notice and Invitation to Tender

BID (8/2/2/446) (5EP/4EPPE OR HIGHER) FOR THE REFURBISHMENT AND INSTALLATION OF HIGHMAST LIGHTS AND STREET LIGHTS FOR MIDVAAL LOCAL MUNICIPALITY ON AN AS AND WHEN REQUIRED BASIS FROM DATE OF AWARD FOR A PERIOD OF 36 MONTHS

Employer Tender Number: BID (8/2/2/446) (5EP/4EPPE OR HIGHER)

CIDB Reference Number: 1000105340

Midvaal Local Municipality invites tenders for the refurbishment and installation of high mast lights and streetlights on an as and when required basis from date of award until 30 June 2028 in Midvaal Local Municipality.

It is estimated that tenderers should have a CIDB contractor grading of **5EP/4EPPE or higher**. Preferences are offered to tenderers who have suitable experience and suitably qualified employees and resources to render the services. The council reserves the right to accept any bid or part thereof and does not bind itself to accept the lowest or any bid and not to consider any bid not suitably endorsed or comprehensively completed.

Bids completed in pencil or re-typed will be regarded as invalid bids. Bids must also be submitted in full, i.e. with all pages attached, failure thereof will result in your bid being disqualified. The stipulated minimum threshold(s) for local production and content (refer to ANNEXURE A of SATS 1286:2011) for this bid are enclosed in the tender document, MBD 6.2 Declaration of Local Content.

IMPORTANT INFORMATION:

Midvaal Local Municipality hereby requests all bidders to take note of the following process relating to bid documents requests and clarification notes:

- Bidding documents will be available for purchase during working hours after (12H00) or via electronic request at tenders@midvaal.gov.za free of charge from the (13 JUNE 2025)
- A non-refundable tender deposit of (R630.70) payable by proof of deposit or cash is required on collection of the Tender documents, payments for the documents can be made at the municipality's rates and taxes hall during office hours Monday – Friday, 07:30 – 15:00 or alternatively direct deposits (no cheques accepted) to:

Midvaal Local Municipality,

Bank: Nedbank, Account Number:1224797469,

Branch: Central Gauteng

NB: Please use the bid/tender number as reference and remember to bring proof of payment for collection of bid documents.

Responsive bids will then be evaluated on 80/20 preference point system as prescribed by the preferential procurement regulations, 2022.

Bids will be evaluated and adjudicated according to the following criteria:

- relevant specifications and technical proposals,
- value for money,
- capability to execute the contract,
- Midvaal SCM policy, PPPFA, PPPFA regulations and any other relevant legislations,
- As well as any supporting documents where required and local content (if applicable)

PLEASE NOTE:

1. No faxed or e-mailed tenders will be accepted.
2. All tenders must be submitted on the official forms (not to be re-typed). Only original signed tender documents will be accepted.
3. Bids must be completed in black ink. No correction fluid will be allowed. All alterations must be crossed out and initialed.
4. Where a compulsory briefing session is required, it is the onus of the bidder to attend and arrive on time. Late arrivals will not be allowed to sign the attendance register and will be deemed to be absent.
5. No bids will be considered from bidders Who did not attend the briefing session.
6. Midvaal local municipality will not accept any bid with missing pages and not fully completed with the required attachments.

Only tenderers who have read and signed the provisions of the rules and specifications, which are included in the bid documents, are eligible to submit tenders.

The Physical Address for collection of Tender documents is:

25 Mitchell Street
Meyerton
1960

Documents may be collected during work hours after 12h00 on (13TH JUNE 2025). A non-refundable tender deposit of (R630.70) payable by proof of deposit or cash is required on collection of the Tender documents.

NB: Please use the bid/tender number as reference and remember to bring proof of payment for collection of bid documents.

Alternatively, bidding documents may be requested via tenders@midvaal.gov.za. The bidding document will be sent to the requesting bidder free of charge. The bid document will also be made available for download on the National Treasury e-Tenders portal. Bidders using this option are hereby advised to monitor the portal regularly for updates and uploaded addendum documents during the time the bid is advertised. It is the responsibility of the bidder to ensure that they are up to date with all issued documents.

Queries relating to the issues of these documents may be addressed to:

SCM Office
Tel No. 016 360 7609
E-mail. tenders@midvaal.gov.za

OR

PMU OFFICE
Tel No. 016 360 3125
E-mail. tenders@midvaal.gov.za

A compulsory clarification meeting with representatives of the Employer will take place at MIDVAAL ENGINEERING OFFICES. NO 56 ROOIBOK STREET, MEYERTON, 1960 on (24 JUNE 2025) starting at (10H00).

The closing time for receipt of Tenders is 10H00 on 14 JULY 2025

Telephonic, Telegraphic, Telex, Facsimile, Emailed and Late Tenders will not be accepted. Tenders may only be submitted on the tender documentation that is issued.

Requirements for sealing, addressing, delivering, opening and assessment of Tenders are stated in the Tender Data.

T1.2 CONDITIONS OF TENDER

T1.2 CONDITIONS OF TENDER

F.1 General

F.1.1 Actions

F.1.1.1 The employer and each tenderer submitting a tender offer shall comply with these conditions of tender. In their dealings with each other, they shall discharge their duties and obligations as set out in F.2 and F.3, timeously and with integrity, and behave equitably, honestly and transparently, comply with all legal obligations and not engage in anticompetitive practices.

F.1.1.2 The employer and the tenderer and all their agents and employees involved in the tender process shall avoid conflicts of interest and where a conflict of interest is perceived or known, declare any such conflict of interest, indicating the nature of such conflict. Tenderers shall declare any potential conflict of interest in their tender submissions. Employees, agents and advisors of the employer shall declare any conflict of interest to whoever is responsible for overseeing the procurement process at the start of any deliberations relating to the procurement process or as soon as they become aware of such conflict and abstain from any decisions where such conflict exists or recuse themselves from the procurement process, as appropriate.

- Note:
- 1) A conflict of interest may arise due to a conflict of roles which might provide an incentive for improper acts in some circumstances. A conflict of interest can create an appearance of impropriety that can undermine confidence in the ability of that person to act properly in his or her position even if no improper acts result.
 - 2) Conflicts of interest in respect of those engaged in the procurement process include direct, indirect or family interests in the tender or outcome of the procurement process and any personal bias, inclination, obligation, allegiance or loyalty, which would in any way affect any decisions taken.

F.1.1.3 The employer shall not seek and a tenderer shall not submit a tender without having a firm intention and the capacity to proceed with the contract.

F.1.2 Tender Documents

The documents issued by the employer for the purpose of a tender offer are listed in the tender data.

F.1.3 Interpretation

F.1.3.1 The tender data and additional requirements contained in the tender schedules that are included in the returnable documents are deemed to be part of these conditions of tender.

F.1.3.2 These conditions of tender, the tender data and tender schedules which are only required for tender evaluation purposes, shall not form part of any contract arising from the invitation to tender.

F.1.3.3 For the purposes of these conditions of tender, the following definitions apply:

- a) **conflict of interest** means any situation in which:
 - i) Someone in a position of trust has competing professional or personal interests which make it difficult to fulfil his or her duties impartially;
 - ii) an individual or organisation is in a position to exploit a professional or official capacity in some way for their personal or corporate benefit; or
 - iii) in compatibility or contradictory interests exist between an employee and the organisation which employs that employee.
- b) **comparative offer** means the tenderer's financial offer after all tendered parameters that will affect the value of the financial offer have been taken into consideration in order to enable comparisons to be made between offers on a comparative basis
- c) **corrupt practice** means the offering, giving, receiving or soliciting of anything of value to influence the action of the employer or his staff or agents, *or any official in the public service or in the employ of an Organ of State*, in the tender process; and
- d) **fraudulent practice** means the misrepresentation of the facts in order to influence the tender process or the award of a contract arising from a tender offer to the detriment of the employer, including collusive practices intended to establish prices at artificial levels

- e) **organization** means a company, firm, enterprise, association or other legal entity, whether incorporated or not, or a public body
- f) **quality (functionality)** means the totality of features and characteristics of a product or service that bear on its ability to satisfy stated or implied needs
- g) **tenderer** means any organisation who is represented by a duly authorised employee, partner, shareholder or director that responds to the Tender Notice by drawing tender documents
- h) **these conditions of tender** mean the Standard Conditions of Tender (as published and amended from time to time by the Construction Industry Development Board) and the employer's Special Conditions of Tender, the latter are demonstrated by appearing in italics.

F.1.4 Communication and employer's agent

Each communication between the employer and a tenderer shall be to or from the employer's agent only, and in a form that can be readily read, copied and recorded. Communications shall be in the English language. The employer shall not take any responsibility for non-receipt of communications from or by a tenderer. The name and contact details of the employer's agent are stated in the tender data.

F.1.5 The employer's right to accept or reject any tender offer

F.1.5.1 The employer *does not bind itself to accept the lowest or any other tender, and may, in addition, accept or reject any variation, deviation, tender offer, or alternative tender offer, and may cancel the tender process and reject all tender offers at any time before the formation of a contract.* The employer shall not accept or incur any liability to a tenderer for such cancellation and rejection, but will give written reasons for such action upon written request to do so.

F.1.5.2 The employer may not subsequent to the cancellation or abandonment of a tender process or the rejection of all responsive tender offers re-issue a tender covering substantially the same scope of work within a period of six months (*measured between the relevant closing dates of the abandoned tender and the re-issued tender*) unless only one tender was received and such tender was returned unopened to the tenderer, *or if there is agreement by the participating tenderers.*

F.2 Tenderer's obligations

F.2.1 Eligibility

F.2.1.1 Submit a tender offer only if the tenderer satisfies the criteria stated in the tender data and the tenderer, or any of his principals, is not under any restriction to do business with the employer.

F.2.1.2 Notify the employer of any proposed material change in the capabilities or formation of the tendering entity (or both) or any other criteria which formed part of the qualifying requirements used by the employer as the basis in a prior process to invite the tenderer to submit a tender offer and obtain the employer's written approval to do so prior to the closing time for tenders.

F.2.2 Cost of tendering

Accept that, unless otherwise stated in the tender data, the employer will not compensate the tenderer for any costs incurred in the preparation and submission of a tender offer, including the costs of *attending any clarification meeting*) and any testing necessary to demonstrate that aspects of the offer complies with the requirements.

F.2.3 Check documents

Check the tender documents on receipt for completeness and notify the employer of any discrepancy or omission.

F.2.4 Confidentiality and copyright of documents

Treat as confidential, *regardless of whether or not a tender offer is submitted*, all matters arising in connection with the tender. Use and copy the documents issued by the employer only for the purpose of preparing and submitting a tender offer in response to the invitation.

F.2.5 Reference documents

Obtain, as necessary for submitting a tender offer, copies of the latest versions of standards, specifications, conditions of contract and other publications, which are not attached but which are incorporated into the tender documents by reference.

F.2.6 Acknowledge addenda

Acknowledge receipt of addenda to the tender documents, which the employer may issue, and if necessary apply for an extension to the closing time stated in the tender data, in order to take the addenda into account.

F.2.7 Clarification meeting

Attend, where required, *in person or designate a suitably qualified person in the direct employ of the tenderer*, a clarification meeting at which tenderers may familiarize themselves with aspects of the proposed work, services or supply and raise questions. Details of the meeting(s) are stated in the tender data.

F.2.8 Seek clarification

Request clarification of the tender documents, if necessary, by notifying the employer at least five working days before the closing time stated in the tender data. *Any variation or deviation based on a point for which clarity should have been requested may render a tenderer's offer non-responsive in terms of F.3.8.*

F.2.9 Insurance

Be aware that the extent of insurance to be provided by the employer (if any) might not be for the full cover required in terms of the conditions of contract identified in the contract data. The tenderer is advised to seek qualified advice regarding insurance.

F.2.10 Pricing the tender offer

F.2.10.1 Include in the rates, prices, and the tendered total of the prices (if any) all *costs prescribed as being applicable to the specified pay items as well as all* duties, taxes except Value Added Tax (VAT), and other levies payable by the successful tenderer, such duties, taxes and levies being those applicable 14 days before the closing time stated in the tender data.

F.2.10.2 Show VAT payable by the employer separately as an addition to the tendered total of the prices.

F.2.10.3 Provide rates and prices that are fixed for the duration of the contract and not subject to adjustment except as provided for in the conditions of contract identified in the contract data.

F.2.10.4 State the rates and prices in Rand unless instructed otherwise in the tender data. The conditions of contract identified in the contract data may provide for part payment in other currencies.

F.2.11 Alterations to documents

Not make any alterations or additions to the tender documents, except to comply with instructions issued by the employer, or necessary to correct errors made by the tenderer. All signatories to the tender offer shall initial all such alterations. Erasures and the use of masking fluid are prohibited.

F.2.12 Alternative tender offers

F.2.12.1 Unless otherwise stated in the tender data, submit alternative tender offers only if a main tender offer, strictly in accordance with all the requirements of the tender documents, is also submitted as well as a schedule that compares the requirements of the tender documents with the alternative requirements that are proposed.

Alternative tender offers shall not alter any contingency pay items provided in the tender documents, or offer fixed prices (except where such are provided in the postulated pricing schedule) or a fixed price contract.

F.2.12.2 Accept that an alternative tender offer may be based only on the criteria stated in the tender data or criteria otherwise acceptable to the employer.

F.2.12.3 *Qualify a tender offer (except that no qualifications shall be in conflict with F.2.8) but undertake to do so by submitting such qualification in terms of F.2.12.1 and F.2.12.2.*

F.2.13 Submitting a tender offer

F.2.13.1 Submit one tender offer only, either as a single tendering entity or as a member in a joint venture to provide the whole of the works, services or supply identified in the contract data and described in the scope of works, unless stated otherwise in the tender data.

F.2.13.2 Return all returnable documents to the employer after completing them in their entirety, either electronically (if they were issued in electronic format) or by writing legibly in non-erasable ink.

F.2.13.3 Submit the parts of the tender offer communicated on paper as an original plus the number of copies stated in the tender data, with an English translation of any documentation in a language other than English, and the parts communicated electronically in the same format as they were issued by the employer.

F.2.13.4 Sign the original and all copies of the tender offer where required in terms of the tender data. The employer will hold all authorized signatories liable on behalf of the tenderer. Signatories for tenderers proposing to contract as joint ventures shall state which of the signatories is the lead partner whom the employer shall hold liable for the purpose of the tender offer.

F.2.13.5 Seal the original and each copy of the tender offer as separate packages marking the packages as "ORIGINAL" and "COPY". Each package shall state on the outside the employer's address and identification details stated in the tender data, as well as the tenderer's name and contact address.

F.2.13.6 Where a two-envelope system is required in terms of the tender data, place and seal the returnable documents listed in the tender data in an envelope marked "financial proposal" and place the remaining returnable documents in an envelope marked "technical proposal". Each envelope shall state on the outside the employer's address and identification details stated in the tender data, as well as the tenderer's name and contact address.

F.2.13.7 Seal the original tender offer and copy packages together in an outer package that states on the outside only the employer's address and identification details as stated in the tender data.

F.2.13.8 Accept that the employer will not assume any responsibility for the misplacement or premature opening of the tender offer if the outer package is not sealed and marked as stated.

F.2.13.9 Accept that tender offers submitted by facsimile or e-mail will be rejected by the employer, unless stated otherwise in the tender data.

F.2.14 Information and data to be completed in all respects

Accept that tender offers, which do not provide all the data or information requested completely and in the form required, may be regarded by the employer as non-responsive.

F.2.15 Closing time

F.2.15.1 Ensure that the employer receives the tender offer at the address specified in the tender data not later than the closing time stated in the tender data. Accept that proof of posting shall not be accepted as proof of delivery.

F.2.15.2 Accept that, if the employer extends the closing time stated in the tender data for any reason, the requirements of these conditions of tender apply equally to the extended deadline.

F.2.16 Tender offer validity

F.2.16.1 Hold the tender offer(s) valid for acceptance by the employer at any time during the validity period stated in the tender data after the closing time stated in the tender data.

F.2.16.2 If requested by the employer, consider extending the validity period stated in the tender data for an agreed additional period with or without any conditions attached to such extension.

F.2.16.3 Accept that a tender submission that has been submitted to the employer may only be *modified, corrected*, withdrawn or substituted by giving the employer written notice before the closing time for tenders that a tender is to be *modified, corrected*, withdrawn or substituted.

F.2.16.4 Where a tender submission is to be substituted, submit a substitute tender in accordance with the requirements of F.2.13 with the packages clearly marked as “SUBSTITUTE”.

F.2.17 Clarification or withdrawal of tender offer after submission

F.2.17.1 Provide clarification of a tender offer in response to a request to do so from the employer during the evaluation of tender offers. This may include providing a breakdown of rates or prices and correction of arithmetical errors *or adjusting of imbalanced rates*, by the adjustment of certain rates or item prices (or both). No change in the competitive position of tenderers or substance of the tender offer is sought, offered, or permitted.

F.2.17.2 *Accept that the employer may, at its sole discretion, accept a less favourable tender from those already received or invite fresh tenders if a tenderer, at any time after the opening of his tender offer but prior to the signing of a contract based on his tender offer:*

- a) *withdraws his tender; or*
- b) *gives notice of his inability to execute the contract in terms of his tender; or*
- c) *fails to sign a contract or furnish the performance security within the period fixed in the letter of award or any extended period fixed by the employer; or*
- d) *fails to comply with a request made in terms of F.2.17.1 or F.2.18.1,*

in which case such tenderer shall be automatically barred from tendering on any of the employer's future tenders for a period to be determined by the employer, but not less than twelve (12) months, from the date of tender closure. The employer may fully or partly exempt a tenderer from the provisions of this condition if he is of the opinion that the circumstances justify the exemption.

Note: Sub-clause F.2.17 does not preclude the negotiation of the final terms of the contract with a preferred tenderer following a competitive selection process, should the Employer elect to do so.

F.2.18 Provide other material

F.2.18.1 Provide, on request by the employer, any other material that has a bearing on the tender offer, the tenderer's commercial position (including notarized joint venture agreements), preferencing arrangements, or samples of materials, considered necessary by the employer for the purpose of a full and fair risk assessment. Should the tenderer not provide the material, or a satisfactory reason as to why it cannot be provided, by the time for submission stated in the employer's request, the employer may regard the tender offer as non-responsive *and may invoke the same remedy as provided for under F.2.17.2.*

F.2.18.2 Dispose of samples of materials provided for evaluation by the employer, where required.

F.2.18.3 *Accept the employer's right, at its sole discretion, to appoint suitably qualified persons to report on the financial resources, standing with the South African Revenue Service regarding all taxes, management structure and ownership details of any tenderer and/or to verify the correctness of any information furnished to the employer in terms of F.2.17.1. Comply with the employer's request within the time stated in the request. Failure on the part of the tenderer to cooperate with such an inquiry shall entitle the employer to declare such tender offer as non-responsive and may invoke the same remedy as provided for under F.2.17.2.*

F.2.19 Inspections, tests and analysis

Provide access during working hours to premises for inspections, tests and analysis as provided for in the tender data.

F.2.20 Submit securities, bonds, policies, etc.

If requested, submit for the employer's acceptance before formation of the contract, all securities, bonds, guarantees, policies and certificates of insurance required in terms of the conditions of contract identified in the contract data.

F.2.21 Check final draft

Check the final draft of the contract provided by the employer within the time available for the employer to issue the contract.

F.2.22 Return of other tender documents

If so instructed by the employer, return all retained tender documents within 28 days after the expiry of the validity period stated in the tender data.

F.2.23 Certificates

Include in the tender submission or provide the employer with any certificates as stated in the tender data.

F.3 The employer's undertakings

F.3.1 Respond to requests from the tenderer

F.3.1.1 Unless otherwise stated in the tender data respond to a request for clarification received up to five working days before the tender closing time stated in the tender data and notify all tenderers who drew *tender* documents.

F.3.1.2 Consider any request to make a material change in the capabilities or formation of the tendering entity (or both) or any other criteria which formed part of the qualifying requirements used to prequalify a tenderer to submit a tender offer in terms of a previous procurement process and deny any such request if as a consequence: -

- a) an individual firm, or a joint venture as a whole, or any individual member of the joint venture fails to meet any of the collective or individual qualifying requirements;
- b) the new partners to a joint venture were not prequalified in the first instance, either as individual firms or as another joint venture; or
- c) in the opinion of the Employer, acceptance of the material change would compromise the outcome of the prequalification process.

F.3.2 Issue Addenda

If necessary, issue addenda that may amend or amplify the tender documents to each tenderer during the period from the date that tender documents are available until three working days before the tender closing time stated in the tender data. If, as a result a tenderer applies for an extension to the closing time stated in the tender data, the Employer may grant such extension and, shall then notify all tenderers who drew *tender* documents.

F.3.3 Return late tender offers

Return tender offers *withdrawn in terms of F.2.16.3* or received after the closing time stated in the tender data, unopened, (unless it is necessary to open a tender submission to obtain a forwarding address), to the tenderer concerned.

F.3.4 Opening of tender submissions

F.3.4.1 Unless the two-envelope system is to be followed, open valid tender submissions in the presence of tenderers' agents who choose to attend at the time and place stated in the tender data. Tender submissions for which acceptable reasons for withdrawal have been submitted will not be opened.

F.3.4.2 Announce at the meeting held immediately after the opening of tender submissions, at a venue indicated in the tender data, the name of each tenderer whose tender offer is opened and, where applicable, the total of his prices, preferences claimed and time for completion for the main tender offer only.

F.3.4.3 Make available the record outlined in F.3.4.2 to all interested persons upon request.

F.3.5 Two-envelope system

F.3.5.1 Where stated in the tender data that a two-envelope system is to be followed, open only the technical proposal of valid tenders in the presence of tenderers' agents who choose to attend at the time and place stated in the tender data and announce the name of each tenderer whose technical proposal is opened.

F.3.5.2 Evaluate the quality of the technical proposals offered by tenderers, then advise tenderers who remain in contention for the award of the contract of the time and place when the financial proposals will be opened. Open only the financial proposals of tenderers, who score in the quality evaluation *equal to or* more than the minimum number of points for quality stated in the tender data, and announce the total price. Return unopened financial proposals to tenderers whose technical proposals failed to achieve the minimum number of points for quality.

F.3.6 Non-disclosure

Not disclose to tenderers, or to any other person not officially concerned with such processes, information relating to the evaluation and comparison of tender offers, the final evaluation price and recommendations for the award of a contract, until after the award of the contract to the successful tenderer.

F.3.7 Grounds for rejection and disqualification

F.3.7.1 Determine whether there has been any effort by a tenderer to influence the processing of tender offers and instantly disqualify a tenderer (and his tender offer) if it is established that he engaged in corrupt or fraudulent practices. *In addition, any such disqualification shall entitle the employer, at its sole discretion, to impose a specified period during which tender offers will not be accepted from the offending tenderer.*

F.3.7.2 *Communicate to other state tender boards, provincial tender boards or parastatal tender boards any tenderer disqualified in terms of special condition F.3.7.1.*

F.3.7.3 *Consider rejecting any tender offers received from tenderers who are involved in any form of litigation or legal proceedings by or against the Employer.*

F.3.7.4 *Reject any offer from a tenderer who has not purchased the tender documents in his own name or in the name of a fellow member of a joint venture.*

F.3.7.5 *Reject any offer from a tenderer that contains information or data that is not in compliance with the minimum requirements.*

F.3.8 Test for responsiveness

F.3.8.1 Determine, after opening and before detailed evaluation, whether each tender offer properly received:

- a) complies with the requirements of these Conditions of Tender,

- b) has been properly and fully completed and signed, and
- c) is responsive to the other requirements of the tender documents.

F.3.8.2 A responsive tender is one that conforms to all the terms, conditions, and specifications of the tender documents without material deviation or qualification. A material deviation or qualification is one which, in the Employer's opinion, would:

- a) detrimentally affect the scope, quality, or performance of the works, services or supply identified in the Scope of Work,
- b) significantly change the Employer'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.

Reject a non-responsive tender offer and not allow it to be subsequently made responsive by correction or withdrawal of the non-conforming deviation or reservation *unless it can be subsequently rendered responsive by correction of non-material deviations.*

F.3.9 Arithmetic errors, omissions, discrepancies and imbalanced unit rates

F.3.9.1 Check responsive tenders for discrepancies between amounts in words and amounts in figures. Where there is a discrepancy between the amounts in figures and the amount in words, the amount in words shall govern.

F.3.9.2 Check *responsive* tender offers for:

- a) the gross misplacement of the decimal point in any unit rate;
- b) omissions made in completing the pricing schedule or bills of quantities; or
- c) arithmetic errors in:
 - i) line-item totals resulting from the product of a unit rate and a quantity in bills of quantities or schedules of prices; or
 - ii) the summation of the prices.
- d) *imbalanced unit rates.*

F.3.9.3 Notify the tenderer of all errors or omissions that are identified in the tender offer and either confirm the tender offer as tendered or accept the corrected total of prices.

F.3.9.4 Where the tenderer elects to confirm the tender offer as tendered, correct the errors as follows:

- a) If bills of quantities or pricing schedules apply and there is an error in the line item total resulting from the product of the unit rate and the quantity, the line total shall govern and the rate shall be corrected. Where there is an obviously gross misplacement of the decimal point in the unit rate, the unit rate shall be corrected.
- b) Where there is an error in the total of the prices either as a result of other corrections required by this checking process or in the tenderer's addition of prices, the total of the prices shall be *corrected*.
- c) *Where the unit rates are imbalanced request tenderers to amend and adjust any rates declared imbalanced by the employer while retaining the total of the prices derived after any adjustment made.*

F.3.9.5 *Consider the rejection of a tender offer if the tenderer does not correct or accept the correction of his arithmetical errors or amend/adjust an imbalanced unit rate in the manner described above.*

F.3.10 Clarification of a tender offer

Obtain clarification from a tenderer on any matter that could give rise to ambiguity in a contract arising from the tender offer.

F.3.11 Evaluation of tender offers

F.3.11.1 General

Appoint an evaluation panel of not less than three persons. Reduce each responsive tender offer to a comparative offer and evaluate them using the tender evaluation methods and associated evaluation criteria and weightings that are specified in the tender data.

F.3.11.2 Method 1: Financial offer

In the case of a financial offer:

- a) Rank tender offers from the most favourable to the least favourable comparative offer.
- b) Recommend the highest ranked tenderer for the award of the contract, unless there are compelling and justifiable reasons not to do so.
- c) Re-rank all tenderers should there be compelling and justifiable reasons not to recommend the highest ranked tenderer and recommend the highest ranked tenderer, unless there are compelling and justifiable reasons not to do so and the process set out in this sub clause is repeated.

F.3.11.3 Method 2: Financial offer and preference

In the case of a financial offer and preferences:

- a) Score each tender in respect of the financial offer made and preferences claimed, if any, in accordance with the provisions of F.3.11.7 and F.3.11.8.
- b) Calculate the total number of tender evaluation points (T_{EV}) in accordance with the following formula:

$$T_{EV} = N_{FO} + N_P$$

where: N_{FO} is the number of tender evaluation points awarded for the financial offer made in accordance with F.3.11.7;

N_P is the number of tender evaluation points awarded for preferences claimed in accordance with F.3.11.8.

- c) Rank tender offers from the highest number of tender evaluation points to the lowest.
- d) Recommend the tenderer with the highest number of tender evaluation points for the award of the contract, unless there are compelling and justifiable reasons not to do so.
- e) Rescore and re-rank all tenderers should there be compelling and justifiable reasons not to recommend the tenderer with the highest number of tender evaluation points, and recommend the tenderer with the highest number of tender evaluation points, unless there are compelling and justifiable reasons not to do so and the process set out in this sub clause is repeated

F.3.11.4 Method 3: Financial offer and quality

In the case of a financial offer and quality:

- a) Score each tender in respect of the financial offer made and the quality offered in accordance with the provisions of F.3.11.7 and F.3.11.9, rejecting all tender offers that fail to score the minimum number of points for quality stated in the tender data, if any.
- b) Calculate the total number of tender evaluation points (T_{EV}) in accordance with the following formula:

$$T_{EV} = N_{FO} + N_Q$$

where: N_{FO} is the number of tender evaluation points awarded for the financial offer made in accordance with F.3.11.7;

N_Q is the number of tender evaluation points awarded for quality offered in accordance with F.3.11.9.

- c) Rank tender offers from the highest number of tender evaluation points to the lowest.
- d) Recommend tenderer with the highest number of tender evaluation points for the award of the contract, unless there are compelling and justifiable reasons not to do so.
- e) Rescore and re-rank all tenderers should there be compelling and justifiable reasons not to recommend the tenderer with the highest number of tender evaluation points and recommend the tenderer with the highest number of tender evaluation points, unless there are compelling and justifiable reasons not to do so and the process set out in this sub clause is repeated.

F.3.11.5 Method 4: Financial offer, quality and preferences

In the case of a financial offer, quality and preferences:

- a) Score each tender in respect of the financial offer made, preference claimed, if any, and the quality offered in accordance with the provisions of F.3.11.7 to F.3.11.9, rejecting all tender offers that fail to score the minimum number of points for quality stated in the tender data, if any.
- b) Calculate the total number of tender evaluation points (T_{EV}) in accordance with the following formula, unless otherwise stated in the tender data:

$$T_{EV} = N_{FO} + N_P + N_Q$$

where: N_{FO} is the number of tender evaluation points awarded for the financial offer made in accordance with F.3.11.7;

N_P is the number of tender evaluation points awarded for preferences claimed in accordance with F.3.11.8;

N_Q is the number of tender evaluation points awarded for quality offered in accordance with F.3.11.9.

- c) Rank tender offers from the highest number of tender evaluation points to the lowest.
- d) Recommend the tenderer with the highest number of tender evaluation points for the award of the contract, unless there are compelling and justifiable reasons not to do so.
- e) Rescore and re-rank all tenderers should there be compelling and justifiable reasons not to recommend the tenderer with the highest number of tender evaluation points and recommend the tenderer with the highest number of tender evaluation points, unless there are compelling and justifiable reasons not to do so and the process set out in this sub clause is repeated.

F.3.11.6 Decimal places

Score financial offers, preferences and quality, as relevant, to two decimal places.

F.3.11.7 Scoring Financial Offers

Score the financial offers of remaining responsive tender offers using the following formula:

$$N_{FO} = W_1 \times A$$

where: N_{FO} is the number of tender evaluation points awarded for the financial offer.

W_1 is the maximum possible number of tender evaluation points awarded for the financial offer as stated in the tender data.

A is a number calculated using the formula and option described in Table F.1 as stated in the tender data.

Table F.1: Formulae for calculating the value of A

Formula	Comparison aimed at achieving	Option 1 ^a	Option 2 ^a
1	Highest price or discount	$A = (1 + \frac{(P - P_m)}{P_m})$	$A = P_m / P$
2	Lowest price or percentage commission / fee	$A = (1 - \frac{(P - P_m)}{P_m})$	$A = P_m / P$
<p>P_m is the comparative offer of the most favourable comparative offer (<i>excluding all Provisional and Prime Cost Sums and the associated VAT</i>).</p> <p>P is the comparative offer of the tender offer under consideration (<i>excluding all Provisional and Prime Cost Sums and the associated VAT</i>).</p>			

F.3.11.8 Scoring preferences

Confirm that tenderers are eligible for the preferences claimed in accordance with the provisions of the tender data and reject all claims for preferences where tenderers are not eligible for such preferences. Calculate the total number of tender evaluation points for preferences claimed in accordance with the provisions of the tender data.

F.3.11.9 Scoring quality

Score each of the criteria and sub-criteria for quality in accordance with the provisions of the tender data.

Calculate the total number of tender evaluation points for quality using the following formula:

$$N_Q = W_2 \times S_O / M_S$$

where: S_O is the score for quality allocated to the submission under consideration;
 M_S is the maximum possible score for quality in respect of a submission; and
 W_2 is the maximum possible number of tender evaluation points awarded for the quality as stated in the tender data.

F.3.12 Insurance provided by the employer

If requested by the proposed successful tenderer, submit for the tenderer's information the policies and / or certificates of insurance which the conditions of contract identified in the contract data, require the employer to provide.

F.3.13 Acceptance of tender offer

Accept the tender offer, if in the opinion of the employer, it does not present any unacceptable commercial risk and only if the tenderer:

- a) is not under restrictions, or has principals who are under restrictions, preventing participating in the employer's procurement,
- b) can, as necessary and in relation to the proposed contract, demonstrate that he or she possesses the professional and technical qualifications, professional and technical competence, financial resources, equipment and other physical facilities, managerial capability, reliability, experience and reputation, expertise and the personnel, to perform the contract,
- c) has the legal capacity to enter into the contract,
- d) is not insolvent, in receivership, bankrupt or being wound up, has his affairs administered by a court or a judicial officer, has suspended his business activities, or is subject to legal proceedings in respect of any of the foregoing,
- e) complies with the legal requirements, if any, stated in the tender data, and
- f) is able, in the opinion of the employer, to perform the contract free of conflicts of interest.

F.3.14 Prepare contract documents

F.3.14.1 If necessary, revise documents that shall form part of the contract and that were issued by the employer as part of the tender documents to take account of:

- a) addenda issued during the tender period,
- b) inclusion of some of the returnable documents, and
- c) other revisions agreed between the employer and the successful tenderer.

F.3.14.2 Complete the schedule of deviations attached to the form of offer and acceptance, if any.

F.3.15 Complete adjudicator's contract

Unless alternative arrangements have been agreed or otherwise provided for in the contract, arrange for both parties to complete formalities for appointing the selected adjudicator at the same time as the main contract is signed.

F.3.16 Notice to unsuccessful tenderers

F.3.16.1 Notify the successful tenderer of the employer's acceptance of his tender offer by completing and returning one copy of the form of acceptance before the expiry of the validity period stated in the tender data, or agreed additional period.

F.3.16.2 After the successful tenderer has been notified of the employer's acceptance of the tender, notify other tenderers that their tender offers have not been accepted.

F.3.17 Provide copies of the contracts

Provide to the successful tenderer the number of copies stated in the tender data of the signed copy of the contract as soon as possible after completion and signing of the form of offer and acceptance.

F.3.18 Provide written reasons for actions taken

Provide upon request written reasons to tenderers for any action that is taken in applying these conditions of tender, but withhold information which is not in the public interest to be divulged, which is considered to prejudice the legitimate commercial interests of tenderers or might prejudice fair competition between tenderers.

F.3.19 Delegation of authority

The Employer may delegate any power vested in him by virtue of these Conditions of Tender to an officer or employee of the Employer.

T1.3 TENDER DATA

The conditions of tender are the Standard Conditions of Tender as contained in Annex F of the CIDB Standard for Uniformity in Construction Procurement (May 2010) as published in Government Gazette No 33239, Board Notice 86 of 2010.

The Standard Conditions of Tender make several references to the tender data for details that apply specifically to this tender. The tender data shall have precedence in the interpretation of any ambiguity of inconsistency between it and the Standard Conditions of Tender.

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

Sub-clause	Data
F.1.1	The Employer is Midvaal Local Municipality.
F.1.2	<p>The Project Document issued by the Employer consists of the following:</p> <p>THE TENDER</p> <p>Part T1: Tendering procedures:</p> <p style="padding-left: 40px;">T1.1 Tender notice and invitation to tender</p> <p style="padding-left: 40px;">T1.2 Tender Data</p> <p>Part T2: Returnable documents</p> <p style="padding-left: 40px;">T2.1 Returnable Schedules required for Tender Evaluation</p> <p style="padding-left: 40px;">T2.2 Other Documents required for Tender Evaluation</p> <p style="padding-left: 40px;">T2.3 Returnable Schedules that will be incorporated into the Contract</p> <p>THE CONTRACT</p> <p>Part C1: Agreements and contract data</p> <p style="padding-left: 40px;">C1.1 Form of Offer and Acceptance</p> <p style="padding-left: 40px;">C1.2 Agreement in terms of Occupation Health and Safety Act</p> <p style="padding-left: 40px;">C1.3 Form of Guarantee</p> <p style="padding-left: 40px;">C.1.4 Contract Data</p> <p>Part C2: Pricing data</p> <p style="padding-left: 40px;">C2.1 Pricing instructions</p> <p style="padding-left: 40px;">C2.2 Bills of quantities</p> <p>Part C3: Scope of work</p> <p>Part C4: Site information</p> <p>Drawings</p>

Tender data contd.

Sub-clause	Data
F.1.3	The Tender Document is available upon payment of (R630.70) or can be downloaded free of charge from the e tender website.
F.1.4	Employers Agent shall be advised per project.
	<p>a) Only those tenderers who are registered with the CIDB, or are capable of being so prior to the evaluation of submissions, in a contractor grading designation equal to 5EP/4EPPE or higher than a contractor grading designation determined in accordance with the sum tendered, or a value determined in accordance with Regulation 25 (1B) or 25(7A) of the Construction Industry Development Regulations, for an 5EP/4EPPE class of construction work, are eligible to have their tenders evaluated.</p> <ol style="list-style-type: none"> 1. every member of the joint venture is registered with the CIDB; 2. the combined contractor grading designation calculated in accordance with the Construction Industry Development Regulations is equal to or higher than a contractor grading designation determined in accordance with the sum tendered for an 5EP/4EPPE class of construction work or a value determined in accordance with Regulation 25 (1B) or 25(7A) of the Construction Industry Development Regulations.

Tender data contd.

Sub- Clause	Data
F.1.4	<p>b) The following tenderers who are registered with the CIDB, or are capable of being so registered prior to the evaluation of submissions, are eligible to have their tenders evaluated:</p> <ol style="list-style-type: none"> 1. contractors who have a contractor grading designation equal to or higher than a contractor grading designation determined in accordance with the sum tendered, or a value determined in accordance with Regulation 25 (1B) of 25(7A) of the Construction Industry Development Regulations, for an 5EP/4EPPE class of construction work; and <ul style="list-style-type: none"> • the employer is satisfied that such a contractor has the potential to develop and qualify to be registered in that higher grade as determined in accordance with the provisions of the CIDB Specification for Social and Economic Deliverables in Construction Works Contracts; and • the employer agrees to provide the financial, management or other support that is considered appropriate to enable the contractor to successfully execute that contract.
F.2.1	<p>Eligibility</p> <p>Only those tenderers who satisfy the following eligibility criteria and who provide the required evidence in their tender submissions are eligible to submit tenders and have their tenders evaluated:</p> <ol style="list-style-type: none"> a) Only those tenderers who are registered with the CIDB, or are capable of being so prior to the evaluation of submissions, in a contractor grading designation equal to 5EP/4EPPE or higher than a contractor grading designation determined in accordance with the sum tendered, or a value determined in accordance with Regulation 25 (1B) or 25(7A) of the Construction Industry Development Regulations, for an 5EP/4EPPE class of construction work, are eligible to have their tenders evaluated. <p>Joint ventures are eligible to submit tenders provided that:</p> <ul style="list-style-type: none"> - every member of the joint venture is registered with the CIDB; - the combined contractor grading designation calculated in accordance with the Construction Industry Development Regulations is equal to or higher than a contractor grading designation determined in accordance with the sum tendered for an 5EP/4EPPE class of construction work or a value determined in accordance with Regulation 25 (1B) or 25(7A) of the Construction Industry Development Regulations.

Tender data contd.

Sub-clause	Data
F.2.1	<p>b) The following tenderers who are registered with the CIDB, or are capable of being so registered prior to the evaluation of submissions, are eligible to have their tenders evaluated:</p> <ol style="list-style-type: none"> I. contractors who have a contractor grading designation equal to or higher than a contractor grading designation determined in accordance with the sum tendered, or a value determined in accordance with Regulation 25 (1B) of 25(7A) of the Construction Industry Development Regulations, for an 5EP/4EPPE class of construction work; and <ul style="list-style-type: none"> • the employer is satisfied that such a contractor has the potential to develop and qualify to be registered in that higher grade as determined in accordance with the provisions of the CIDB Specification for Social and Economic Deliverables in Construction Works Contracts; and • the employer agrees to provide the financial, management or other support that is considered appropriate to enable the contractor to successfully execute that contract.
F.2.10	<p>a) The Valued Added Tax (VAT) rate shall be 15% or as otherwise provided for by legislation.</p> <p>b) The successful Tenderer shall be required to produce a VAT invoice that shall only be prepared once measurements and valuations for work done in terms of the contract offer have been agreed with the Employers agent and a certificate of payment issued. Payment of VAT to previously non-VAT vendors shall be processed from the month in which the Tenderers liability with the South African Revenue Services is effective.</p>
F.2.11	<p>A Tender offer shall not be considered if alterations have been made to the forms of tender data or contract data (unless such alterations have been duly authenticated by the Tenderer) or if any particulars required therein have not been completed in all respects.</p>
F.2.12	<p>No alternative tender offers will be considered</p>
F.2.13.1	<p>The Tenderer may not make an offer for only part of the services as defined in the Scope of Work.</p>

Tender data contd.

Sub-clause	Data
F.2.13.3	Parts of each tender offer communicated on paper shall be submitted as original, plus 0 copies. Under no circumstances whatsoever may the tender forms be retyped or redrafted.
F.2.13.5	The Employer's address for delivery of tender offers and identification details to be shown on each tender offer package is Midvaal Local Municipality, PO Box 9, Meyerton, 1690 Location of tender box: As mentioned on the tender advertisement
F.2.15	The closing time for submission of Tender Offers is (14 JULY 2025; 10H00). Telephonic, telegraphic, telex, electronic or emailed tenders will not be accepted.
F.2.16	The tender offer validity period is 90 days
F.2.23	<p>Returnables</p> <p>The following certificates/documents must be provided with the tender:</p> <p>Compulsory Returnable</p> <ul style="list-style-type: none"> • Joint Venture Agreement (if the tenderer is a joint venture) • Certificate of Authority of Joint Ventures/ Close corporations/ Partnership/ Company/ Sole proprietor (Certified Copies of the Identity Documents in the Case of sole proprietor) • Registration Certificates of Entities – Close corporations/ partnership/ Company/ Sole Proprietor. In the case of a Joint Venture, a duly signed joint venture agreement must be attached • CIDB Registration Certificate (5EP/4EPPE or higher) • Latest municipal rates and taxes account (not older than three months) which is not in arrears for more than three months for the company AND directors/trustees/members/shareholders. In the event of a tenant (renting) a copy of a valid signed lease agreement for the company AND directors/trustees/members/shareholders be attached.

Tender data contd.

Sub-clause	Data
F.2.23	<ul style="list-style-type: none"> • CSD Summary Report or CSD Number • Signed Form of Offer • Completed and signed MBD5 if tender amount exceeds R10 000 000,00 • Sworn Affidavit or a certified copy of SANAS Accredited B-BBEE certificate – • CK Documents
F.3.4	Opening of Tender Submissions
F.3.4.2	Tenders will be opened in public soon after closing time and recording of received documents but not later than 10:00 at the Tender office. Tenderers' names and total prices where practical will be read out
F.3.5	A two-envelope procedure will not be followed
F.3.8.2	The Employer shall reject a non-responsive tender offer and not allow it to be subsequently made responsive by correction or withdrawal of non-conforming deviation or reservation.
F.3.11	<p>Tenders will be evaluated for minimum requirements. Tenderers who qualify for minimum requirements will be evaluated further for Price and specific goals. Tenderers who do not meet the minimum requirements will not be evaluated further.</p> <p>The 80/20 evaluation criteria will be used where Price will be allocated 80 points and specific goals will be scored out of 20 points.</p>

Tender data contd.

Sub-clause	Data			
F.3.11.1	The procedure for evaluation of responsive Tender Offers will be Method 4: Financial Offer, Functionality and Preference. The responsive tender with the highest total points as defined below is the preferred tender			
F.3.11.2	<p>Calculate the total number of tender evaluation points (T_{EV}) in accordance with the following formula:</p> $T_{EV} = N_{FO} + N_P$ <p>where: N_{FO} is the number of tender evaluation points awarded for the financial offer made in accordance with F.3.11.7;</p> <p>N_P is the number of tender evaluation points awarded for preferences claimed in accordance with F.3.11.8.</p>			
F.3.11.3	<p>(a) Minimum requirements will include the following:</p> <p>The bidder should comply with the following minimum requirements, failure to do so will result in the bidder not being evaluated further for specific goals.</p> <table><tr><th>CRITERION</th></tr><tr><td>Company Experience</td></tr><tr><td>Experience of Key Staff</td></tr></table>	CRITERION	Company Experience	Experience of Key Staff
CRITERION				
Company Experience				
Experience of Key Staff				

Tender data contd.

Criteria	DESCRIPTION	ATTACHED (YES/NO)	ACCEPTED/NOT ACCEPTED (FOR OFFICIAL USE ONLY)
COMPANY EXPERIENCE	<p><u>COMPANY EXPERIENCE</u></p> <p>Bidders to submit a minimum of three (3) both appointment letters and corresponding completion/practical completion certificates for High Masts Installation or High masts Refurbishment (or repairs) project/s of a value not less than R 2 million per project. <i>(Phased completion certificates for one appointment letter will be considered as only one project).</i></p> <p>N.B Bidders who do not meet the minimum requirements for company experience will not be evaluated further.</p>		
	<p><u>SITE AGENT</u></p> <p>Bidders must submit a comprehensive CV of Site Agent with minimum of 3 years' experience in High masts and street lights Installation</p>		
KEY PERSONNEL	<p>AND</p> <p>Bidders must attach a minimum of National Diploma NQF Level 6 in Electrical Engineering. (Attach CV and copy of qualification)</p> <p>N.B Bidders who do not meet the minimum requirements for site agent will not be evaluated further.</p>		
	<p><u>FOREMAN</u></p> <p>Bidders must submit a comprehensive CV of Foreman(electrician) with minimum of 3 years' experience in High masts and street lights Installation</p>		
	<p>AND</p> <p>Bidders must attach a Red Seal Certificate or Trade Certificate in Electrical Engineering (Attach CV and copy of red seal/ trade certificate)</p> <p>N.B Bidders who do not meet the minimum requirements for foreman(electrician) will not be evaluated further.</p>		

	<u>OHS OFFICER</u> Bidders must submit a comprehensive CV of Occupational Health and Safety Officer (OHS) with a minimum of 3 years' experience in safety management.		
	Bidders must attach a minimum of National Diploma NQF Level 6 in Occupational Health and Safety. (Attach CV and copy of qualification) N.B Bidders who do not meet the minimum requirements for site agent will not be evaluated further.		
CONSTRUCTION PLANT AND EQUIPMENT	Bidders are required to fill in and fully sign the certificate of undertaking for the plant and equipment.		

NB: THE MUNICIPALITY RESERVES THE RIGHT TO VERIFY THE VARIETY OF SUBMITTED FUNCTIONALITY DOCUMENT.

Tender data contd.

Sub-clause	Data
F.3.13	Acceptance of Tender Offer
F.3.13.1	Tender offers will only be accepted if: <ul style="list-style-type: none"> a) the tenderer is registered on the Central Supplier Database (CSD) for the South African government (see https://secure.csd.gov.za/) b) the tenderer is in good standing with SARS according to the Central Supplier Database; c) the tenderer submits a letter of intent from an approved insurer undertaking to provide the Performance Bond to the format included in Part C1.3 of this procurement document d) the tenderer is registered with the Construction Industry Development Board in an appropriate contractor grading designation; e) the tenderer or any of its directors/shareholders is not listed on the Register of Tender Defaulters in terms of the Prevention and Combating of Corrupt Activities Act of 2004 as a person prohibited from doing business with the public sector; f) the tenderer has not: <ul style="list-style-type: none"> i. abused the Employer's Supply Chain Management System; or ii. failed to perform on any previous contract and has been given a written notice to this effect; g) the tenderer has completed the Compulsory Declaration and there are no conflicts of interest which may impact on the tenderer's ability to perform the contract in the best interests of the employer or potentially compromise the tender process; h) the tenderer is registered and in good standing with the compensation fund or with a licensed compensation insurer; i) the employer is reasonably satisfied that the tenderer has in terms of the Construction Regulations, 2014, issued in terms of the Occupational Health and

	Safety Act, 1993, the necessary competencies and resources to carry out the work safely.
F.3.17	The number of paper copies of signed contract to be provided by the Engineer is one (1).



MIDVAAL LOCAL MUNICIPALITY

BID NO.: (8/2/2/446) (5EP/4EPPE OR HIGHER)

**REFURBISHMENT AND INSTALLATION OF HIGHMAST LIGHTS AND STREET LIGHTS FOR
MIDVAAL LOCAL MUNICIPALITY ON AN AS AND WHEN REQUIRED BASIS FROM DATE OF
AWARD FOR A PERIOD OF 36 MONTHS**

PART T2 : RETURNABLE DOCUMENTS

T2.1 LIST OF RETURNABLE DOCUMENTS

The Tender Document must be submitted as a whole. All forms must be properly completed as required, and the document shall not be altered in any way whatsoever.

All the certificates and forms to be provided with the tender are listed in the Tender Data under F2.23: Certificates, and under the returnable schedules and forms in T2.2 hereafter.

The list of returnable documents comprises the following:

1. All the certificates listed in the Tender Data under F2.23: Certificates.
2. All the returnable schedules and forms listed in T2.2.1: Returnable Schedules Required for Tender Evaluation Purposes;
3. All the returnable documents listed in T2.2.2: Preferential Procurement Schedules and Affidavits that will be incorporated into the Contract;
4. All the agreements and forms listed in T2.2.3: Forms to be completed by Successful Tenderer;
5. All the forms and agreements in the Contract Data in C1.2, where some of the forms (agreements) need to be completed only by successful Tenderer;
6. Pricing Data in C2.2: Bill of Quantities.

EVALUATION OF BIDS

The Bids will be evaluated in four (4) stages, namely:

- Stage 1: Responsiveness/Returnable schedule
- Stage 2: Functionality
- Stage 3: Financial Offer and Preference

T2.2 STAGE 1 (RETURNABLE SCHEDULES)

- (i) Proof of attendance of bid briefing;
- (ii) Certificate of authority for signatory;
- (iii) Copies of company registration certificates;
- (iv) Joint venture agreement and power of attorney, if applicable;
- (v) Valid tax compliance status PIN
- (vi) Proof of CIDB Grading compliant (Grade 5EP/4EPPE or higher);
- (vii) Proof of CSD registration
- (viii) Copy of proof of payment for Municipal account and Lease agreement;
- (ix) Document completed in full, rates in BOQ are filled in ink and corrections are counter signed;
- (x) Form of offer and acceptance fully completed and signed.
- (xi) BBBEE Certificate

NOTE: The Tenderer is required to complete every schedule and form listed above to the best of his ability, as the evaluation of tenders and the eventual contract will be based on the information provided by the Tenderer. Failure of a Tenderer to complete the schedules and forms to the satisfaction of the Employer will inevitably prejudice the tender and may lead to rejection on the grounds that the tender is not responsive

SCHEDULE B: RECORD OF ADDENDA TO TENDER DOCUMENTS

I / We confirm that the following communication/s, amending the tender documents, received from the Employer or his representative before the closing date for submission of this tender offer, have been taken into account in this tender offer.

ADD. No	DATE	TITLE OR DETAILS
1		
2		
3		
4		
5		
6		
7		
8		

SIGNATURE:

SCHEDULE C: CERTIFICATE OF AUTHORITY

Indicate the status of the Tenderer by ticking the appropriate box hereunder. The Tenderer must complete the certificate set out below for the relevant category.

(I) COMPANY	(II) CLOSE CORPORATION	(III) PARTNERSHIP	(IV) JOINT VENTURE	(V) SOLE PROPRIETOR

(i) CERTIFICATE FOR COMPANY

I,, Managing Director of the Board of Directors of, hereby confirm that by resolution of the Board (copy attached) taken on 20....., Mr/Ms, acting in the capacity of, was authorized to sign all documents in connection with this tender and any contract resulting from it, on behalf of the company.

Managing Director:

(ii) CERTIFICATE FOR CLOSE CORPORATION

We, the undersigned, being the key members in the business trading as

.....

hereby authorise Mr/Ms, acting in the capacity of, to sign all documents in connection with this tender and any contract resulting from it, on our behalf.

NAME	ADDRESS	SIGNATURE	DATE

Note: *This certificate is to be completed and signed by all of the key members upon whom rests the direction of the affairs of the Close Corporation as a whole.*

(iii) CERTIFICATE FOR PARTNERSHIP

We, the undersigned, being the key partners in the business trading as,

.....

hereby authorize Mr/Ms acting in the capacity of
....., to sign all documents in connection with this tender and
any contract resulting from it, on our behalf.

NAME	ADDRESS	SIGNATURE	DATE
		
		
		
		

Note: *This certificate is to be completed and signed by all of the key partners upon whom rests the direction of the affairs of the Partnership as a whole.*

(iv) CERTIFICATE FOR JOINT VENTURE

We, the undersigned, are submitting this tender offer in Joint Venture and hereby authorize Mr/Ms, authorized signatory of the company,, acting in the capacity of lead partner, to sign all documents in connection with this tender offer and any contract resulting from it, on our behalf. This authorization is evidenced by the attached power of attorney signed by legally authorized signatories of all the partners to the Joint Venture.

NAME OF FIRM	ADDRESS	AUTHORIZING SIGNATURE, NAME AND CAPACITY
(Lead partner)		

Note: *This certificate is to be completed and signed by all of the key partners upon whom rests the direction of the affairs of the Partnership as a whole.*

(v) CERTIFICATE FOR SOLE PROPRIETOR

I,, hereby confirm that I am the sole owner of the
business trading as

Signature of Sole owner:

REGISTRATION CERTIFICATE / AGREEMENT / ID DOCUMENT

Important note to Tenderer:

Registration Certificates for Companies, Close Corporations and Partnerships, or Agreements and Powers of Attorney for Joint Ventures, or ID documents for Sole Proprietors, all as referred to in the foregoing forms and in T2.1, must form part of this submission either separately as separate bunch of supporting documents or at the end of the this bid document and must be properly referenced.

SCHEDULE D: COMPULSORY ENTERPRISE QUESTIONNAIRE

The following particulars must be furnished. **In the case of a Joint Venture, separate enterprise questionnaires in respect of each partner must be completed and submitted. The questionnaires for the other partners must be inserted after this questionnaire.**

Section 1: Name of enterprise:

Section 2: VAT registration number:

Section 3: CIDB registration number:.....

Section 4: Particulars of sole proprietors and partners in partnerships

Name*	Identity number*	Personal income tax number*

* Complete only if sole proprietor or partnership and attach separate page if more than 3 partners

Section 5: Particulars of companies and close corporations

Company registration number

Close corporation number

Tax reference number

Section 6: Record of service of the state

Indicate by marking the relevant boxes with a cross, if any sole proprietor, partner in a partnership or director, manager, principal shareholder or stakeholder in a company or close corporation is currently or has been within the last 12 months, in the service of any of the following:

- | | |
|--|---|
| <input type="checkbox"/> a member of any municipal council | <input type="checkbox"/> an employee of any provincial department, national or provincial public entity or constitutional institution within the meaning of the Public Finance Management Act, 1999 (Act 1 of 1999) |
| <input type="checkbox"/> a member of any provincial legislature | |
| <input type="checkbox"/> a member of the National Assembly or the National Council of Province | |
| <input type="checkbox"/> a member of the board of directors of any municipal entity | <input type="checkbox"/> a member of an accounting authority of any national or provincial public entity |
| <input type="checkbox"/> an official of any municipality or municipal entity | <input type="checkbox"/> an employee of Parliament or a provincial legislature |

If any of the above boxes are marked, disclose the following:

Name of sole proprietor, partner, director, manager, principal shareholder or stakeholder	Name of institution, public office, board or organ of state and position held	Status of service (tick appropriate column)	
		current	Within last 12 months

Insert separate page if necessary

Section 7: Record of spouses, children and parents in the service of the state

Indicate by marking the relevant boxes with a cross, if any spouse, child or parent of a sole proprietor, partner in a partnership or director, manager, principal shareholder or stakeholder in a company or close corporation is currently or has been within the last 12 months, been in the service of any of the following:

- | | |
|--|---|
| <input type="checkbox"/> a member of any municipal council | <input type="checkbox"/> an employee of any provincial department, national or provincial public entity or constitutional institution within the meaning of the Public Finance Management Act, 1999 (Act 1 of 1999) |
| <input type="checkbox"/> a member of any provincial legislature | |
| <input type="checkbox"/> a member of the National Assembly or the National Council of Province | |
| <input type="checkbox"/> a member of the board of directors of any municipal entity | <input type="checkbox"/> a member of an accounting authority of any national or provincial public entity |
| <input type="checkbox"/> an official of any municipality or municipal entity | <input type="checkbox"/> an employee of Parliament or a provincial legislature |

If any of the above boxes are marked, disclose the following:

Name of spouse, child or parent	Name of institution, public office, board or organ of state and position held	Status of service (tick appropriate column)	
		current	Within last 12 months

Insert separate page if necessary

The undersigned, who warrants that he/she is duly authorized to do so on behalf of the enterprise:

- i) confirms that neither the name of the enterprise or the name of any partner, manager, director or other person, who wholly or partly exercises, or may exercise, control over the enterprise appears on the Register of Tender Defaulters established in terms of the Prevention and Combating of Corrupt Activities Act of 2004;
- ii) confirms that no partner, member, director or other person, who wholly or partly exercises, or may exercise, control over the enterprise appears, has within the last five years been convicted of fraud or corruption;
- iii) confirms that I / we are not associated, linked or involved with any other tendering entities submitting tender offers and have no other relationship with any of the Tenderers or those responsible for compiling the scope of work that could cause or be interpreted as a conflict of interest;
- iv) confirms that the contents of this questionnaire are within my personal knowledge and are to the best of my belief both true and correct.

Signed _____ Date _____

Name _____ Position _____

Enterprise
Name _____

SCHEDULE E: PLANT AND EQUIPMENT

The following are a list of major items of relevant equipment that I / we presently own and will have available for this contract if my / our tender is accepted.

- (a) Details of major equipment that is owned by me / us and immediately available for this contract (Tenderer to provide proof of ownership of plant. Failure to do so will render the tender non-responsive and will be rejected).

DESCRIPTION (type, size, capacity etc)	QUANTITY	YEAR OF MANUFACTURE

Attach additional pages if more space is required

- (b) Details of major equipment that will be hired, or acquired for this contract if my / our tender is accepted (Tenderer to provide proof of such arrangement. Failure to provide proof will render the tender non-responsive and will be rejected)

DESCRIPTION (type, size, capacity etc)	QUANTITY	HOW ACQUIRED	
		HIRE/ BUY	SOURCE

Attach additional pages if more space is required

The Tenderer undertakes to bring onto site without additional cost to the Employer any additional plant not listed but which may be necessary to complete the contract within the specified contract period.

SIGNATURE:

ATTACH THE PLANT AND EQUIPMENT LIST/S HERE.

SCHEDULE F: EXPERIENCE OF TENDERER

The following is a statement of work of similar nature recently successfully executed by myself / ourselves:

EMPLOYER: CONTACT PERSON AND TELEPHONE NUMBER	CONSULTING ENGINEER: CONTACT PERSON AND TELEPHONE NUMBER	NATURE OF WORK	VALUE OF WORK (inclusive of VAT)	DATE COMPLETED OR EXPECTED TO BE COMPLETED
EMPLOYER	CONSULTANT			
CONTACT	CONTACT			
TEL	TEL			
CELL	CELL			
FAX	FAX			
EMPLOYER	CONSULTANT			
CONTACT	CONTACT			
TEL	TEL			
CELL	CELL			
FAX	FAX			
EMPLOYER	CONSULTANT			
CONTACT	CONTACT			
TEL	TEL			
CELL	CELL			
FAX	FAX			
EMPLOYER	CONSULTANT			
CONTACT	CONTACT			
TEL	TEL			
CELL	CELL			
FAX	FAX			
EMPLOYER	CONSULTANT			
CONTACT	CONTACT			
TEL	TEL			
CELL	CELL			
FAX	FAX			

Signed _____ Date _____

Name _____ Position _____

Tenderer

ATTACH A SEPARATE LIST IF THE SPACE PROVIDED IS NOT SUFFICIENT. THE LIST MAY BE ATTACHED AT THE END OF THE TENDER DOCUMENT OR IN A SEPARATE BUNCH AND PROPERLY REFERNCED.

(Ensure all telephone and fax numbers are included as in previous list)

SCHEDULE G: PROPOSED SUBCONTRACTORS

NAMES OF PROPOSED SUBCONTRACTORS	NATURE AND EXTENT OF WORK TO BE SUBCONTRACTED	AMOUNT

SIGNATURE:

SCHEDULE H: TENDERERS' KEY PERSONNEL

NAME	POSITION	NQF QUALIFICATION	EXPERIENCE IN YEARS

SIGNATURE:

SCHEDULE I: PRELIMINARY PROGRAMME

The Tenderer shall detail below or attach a preliminary programme reflecting the proposed sequence and tempo of execution of the various activities comprising the work for this Contract. The programme shall be in accordance with the information supplied in the Contract, requirements of the Project Specifications and with all other aspects of his Tender.

PROGRAMME

ACTIVITY	MONTHS													
	1	2	3	4	5	6	7	8	9	10	11	12	13	14

[Note: The programme must be based on the completion time as specified in the Contract Data. No other completion time that may be indicated on this programme will be regarded as an alternative offer, unless it is listed in Table (b) of Form I hereafter and supported by a detailed statement to that effect, all as specified in the Tender Data]

SIGNATURE:

SCHEDULE J: AMENDMENTS, QUALIFICATIONS AND ALTERNATIVES

The Tenderer should record any amendments and alternatives he may wish to make to the tender documents in this schedule. Alternatively, a Tenderer may state such amendments and alternatives in a covering letter to his tender and reference such letter in this schedule.

The Tenderer's attention is drawn to clause F3.3 if the Standard Conditions of Tender referenced in the Tender Data regarding the Employer's handling of material deviations and qualifications.

These amendments and qualifications, if accepted by the Employer, will be incorporated in the Form of Offer and Acceptance, Schedule of Deviations.

(a) AMENDMENTS AND QUALIFICATIONS

PAGE	CLAUSE OR ITEM NO	PROPOSED AMENDMENT AND QUALIFICATIONS

[Notes: (1) *Amendments to the General and Special Conditions of Contract are not acceptable;*
(2) *The Tenderer must give full details of all the financial implications of the amendments and qualifications in a covering letter attached to his tender.*

(b) ALTERNATIVES

PROPOSED ALTERNATIVE	DESCRIPTION OF ALTERNATIVE

[Notes: (1) *Individual alternative items that do not justify an alternative tender, and an alternative offer for time for completion should be listed here.*
(2) *In the case of a major alternative to any part of the work, a separate Bill of Quantities, programme, etc, and a detailed statement setting out the salient features of the proposed alternatives must accompany the tender.*
(3) *Alternative tenders involving technical modifications to the design of the works and methods of construction shall be treated separately from the main tender offer.]*

SIGNATURE:

ATTACH ALTERNATIVES HERE

SCHEDULE K: CONTRACTOR'S HEALTH AND SAFETY PLAN AND DECLARATION

In terms of Clause 4(4) of the OHSA 1993 Construction Regulations 2003 (referred to as "the Regulations" hereafter), a Contractor may only be appointed to perform construction work if the Employer is satisfied that the Contractor has the necessary competencies and resources to carry out the work safely in accordance with the Occupational Health and Safety Act No 85 of 1993 and the OHSA 1993 Construction Regulations 2003.

To that effect a person duly authorized by the Tenderer must complete and sign the declaration hereafter in detail.

Declaration by Tenderer

1. I the undersigned hereby declare and confirm that I am fully conversant with 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 the OHSA 1993 Construction Regulations 2003.
2. I hereby declare that my company has the competence and the necessary resources to safely carry out the construction work under this contract in compliance with the Construction Regulations and the Employer's Health and Safety Specifications.
3. I hereby undertake, if my tender is accepted, to provide, before commencement of the works under the contract, a suitable and sufficiently documented Health and Safety Plan in accordance with Regulation 5(1) of the Construction Regulations, which plan shall be subject to approval by the Employer.
4. I confirm that copies of my company's approved Health and Safety Plan, the Employer's Safety Specifications as well as the OHSA 1993 Construction Regulations 2003 will be provided on site and will at all times be available for inspection by the Contractor's personnel, the Employer's personnel, the Engineer, visitors, and officials and inspectors of the Department of Labour.
5. I hereby confirm that adequate provision has been made in my tendered rates and prices in the Bill of Quantities to cover the cost of all resources, actions, training and all health and safety measures envisaged in the OHSA 1993 Construction Regulations 2003, including the cost for specific items that may be scheduled in the Bill of Quantities.
6. I hereby confirm that I will be liable for any penalties that may be applied by the Employer in terms of the said Regulations for failure on my part to comply with the provisions of the Act and the Regulations as set out in Regulation 30 of the Regulations.
7. I agree that my failure to complete and execute this declaration to the satisfaction of the Employer will mean that I am unable to comply with the requirements of the OHSA 1993 Construction Regulations 2003, and accept that my tender will be prejudiced and may be rejected at the discretion of the Employer.
8. I am aware of the fact that, should I be awarded the contract, I must submit the notification required in terms of Regulation 3 of the OHSA 1993 Construction Regulations 2003 before I will be allowed to proceed with any work under the contract.

SIGNATURE:

CONTRACTOR'S SAFETY PLAN

The Tenderer shall attach to this page (or submit it separately) the Contractor's Health and Safety Plan as required in terms of Regulation 5 of the Occupational Health and Safety Act 1993 Construction Regulations 2003, and referred to in Form K.

The Contractor's Health and Safety Plan shall cover at least the following aspects as applicable:

1. Safety of subcontractors (Refer Construction Regulations 2003 Clause 5: Principal Contractors and Contractors)
 - Methods to ensure the approval, implementation and maintenance of all health and safety aspects regarding his subcontractors.
2. Monitoring the health and safety on the construction site on a regular basis (Refer Clause 6: Supervision of Construction Work)
 - Details of the Construction Supervisor and his appointed assistants (if any);
 - Details of the Construction Safety Officer, full-time or part-time;
 - Details of the suitability and competency of the Construction Supervisor and Construction Safety Officer regarding health and safety aspects of the construction works.
3. Assessment of risks on the construction site (Refer Clause 7: Risk Assessment)
 - Details of a proper risk assessment on which his health and safety plan is based;
 - Ways, in which all construction employees are informed, instructed and trained regarding the work procedures and the related hazards.
4. Risk items (Refer Clauses 8 to 28: Risk items to be addressed)
 - Details of the design, management, responsibilities, worker training, work methods, procedures, maintenance and any other requirements necessary for him and his subcontractor, if applicable, to work safely and in a healthy environment as stipulated in these clauses.

Contractor's OHS Management System checklist

1. OHS Policy and Management

		Yes	No
1.1	Is there a written company health and safety policy?		
1.2	Does the company have an OHS Management System?		
1.3	Is there a company OHS Management Manual or Plan?		
1.4	Are health and safety responsibilities clearly identified for all levels of staff?		

2. Safe Work Practices and Procedures

		Yes	No
2.1	Has the company prepared safe operating procedures or specific safety instructions relevant to its operations?		
2.2	Does the company have any permit to work systems?		
2.3	Is there a documented incident investigation procedure?		
2.4	Are there procedures for maintaining, inspecting and assessing the hazards of plant operated/owned by the company?		
2.5	Are there procedures for storing and handling hazardous substances?		
2.6	Are there procedures for identifying, assessing and controlling risks associated with manual handling?		

3. OHS Training

		Yes	No
3.1	Is health and safety training conducted in the company?		
3.2	Is a record maintained of all training and induction programs undertaken for employees in the company?		

4. Health and Safety Workplace Inspection

		Yes	No
4.1	Are regular health and safety inspections at worksites undertaken?		
4.2	Are standard workplace inspection checklists used to conduct health and safety inspections?		
4.3	Is there a procedure by which employees can report hazards at workplaces?		

5. Health and Safety Consultation

		Yes	No
5.1	Is there a workplace health and safety committee?		
5.2	Are employees involved in decision making over OHS matters?		
5.3	Are there employee elected health and safety representatives?		

6. OHS Performance Monitoring

		Yes	No
6.1	Is there a system for recording and analysing health and safety performance statistics?		
6.2	Are employees regularly provided with information on company health and safety performance?		
6.3	Has the company ever been convicted of an occupational health and safety offence?		

7. Does your company's health and safety plan contain the following elements?

		Yes	No
7.1	Description of the contract		
7.2	OHS Structure of work undertaken under this contract		
7.3	Induction and safety training		
7.4	Safe work practices and procedures for specific work undertaken		
7.5	Risk assessments for specific works undertaken		
7.6	Workplace inspection schedule for duration of contract		
7.7	OHS consultative processes to be followed		
7.8	Emergency procedure for this specific contract		
7.9	Incident recording and investigation on procedures		
7.10	Health and safety performance monitoring arrangements to be implemented during contract		

SCHEDULE L: CONTRACTOR'S CERTIFICATE OF REGISTRATION WITH CIDB

[The Tenderer shall attach hereto the Contractor's Certificate of Registration with CIDB. Failure to submit the certificate with the tender document will lead to the conclusion that the Tenderer is not registered with the CIDB and therefore not eligible to tender].

SCHEDULE N: BANK RATING FROM BANKER

Tenderers are to obtain a letter from their bankers indicating their rating. This rating will be used to evaluate the financial capability of the Contractor to undertake the Project.

MBD 4 - DECLARATION OF INTEREST

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 relation to the evaluating/adjudicating authority.
3. A Person who is an advisor or consultant contracted with the municipality.
4. In order to give effect to the above, the following questionnaire must be completed and submitted with the bid.

4.1 Full Name of bidder or his or her representative:

4.2 Identity
Number:

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

4.3 Position occupied in the Company (director, trustee, shareholder²):

4.4 Company Registration Number:

4.5 Tax Reference Number:

4.6 VAT Registration Number:

4.7 The names of all directors / trustees / shareholders members, their individual identity numbers and state employee numbers must be indicated in paragraph 4 below.

4.8 Are you presently in the service of the state? **YES / NO**
If so, furnish particulars.

1 MSCM Regulations: "in the service of the state" means to be –

- (a) A member of –
- any municipal council;
 - any provincial legislature; or
 - the national Assembly or the national Council of provinces;
- (b) a member of the board of directors of any municipal entity;
- (c) an official of any municipality or municipal entity;
- (d) an employee of any national or provincial department, national or provincial public entity 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 entity; or
- (f) an employee of Parliament or a provincial legislature.

² 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.

4.9 Have you been in the service of the state for the past twelve months? **YES / NO**
If so, furnish particulars.

4.10 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 so, furnish particulars.

4.11 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 so, furnish particulars.

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

YES / NO

If so, furnish particulars.

4.13 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 so, furnish particulars.

4.14 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 so, furnish particulars.

5. Full details of directors / trustees / members / shareholders.

FULL NAME	IDENTITY NUMBER	STATE EMPLOYEE NUMBER

Please note that The Federal Executive of the DA resolved as follows:

“That no office-bearer or member of the professional staff of the Party, or any company, partnership, close corporation or similar juristic entity in which such office-bearer or member of the professional staff has an interest, may tender for or contract to provide any goods or services to any DA controlled government.

For the purposes of this resolution:

“office-bearer” means any public representative or member of the Federal Executive, a provincial executive, a provincial management committee, a regional executive or a constituency executive;

“an interest” means that the office bearer or member of the professional staff has a 5% of more stake; and

“member of the professional staff” means any person who has an employment contract with the Party, and includes any person who is employed by the Party but who is paid by an organ of state, but does not include any person paid a gratuity or honorarium for services rendered to the Party.”

6.1 Are you or your company an office-bearer by means of any public representative or member of the Federal Executive, a provincial executive, a provincial management committee, a regional executive or a constituency executive?

YES / NO

If so, furnish particulars.

6.2 Do you or your company have an interest by means that the office bearer or member of the professional staff has a 5% of more stakes?

YES / NO

If so, furnish particulars.

6.3 Are you or your company a member of the professional staff by means any person who has an employment contract with the Party, and includes any person who is employed by the Party but who is paid by an organ of state, but does not include any person paid a gratuity or honorarium for services rendered to the Party?

YES / NO

If so, furnish particulars.

CERTIFICATION

I, THE UNDERSIGNED (NAME) _____

CERTIFY THAT THE INFORMATION FURNISHED ON THIS DECLARATION FORM IS CORRECT.

I ACCEPT THAT THE STATE MAY ACT AGAINST ME SHOULD THIS DECLARATION PROVE TO BE FALSE.

SIGNATURE

DATE

POSITION

NAME OF BIDDER

MBD 5 - DECLARATION FOR PROCUREMENT ABOVE R10 MILLION (VAT INCLUDED)

For all procurement expected to exceed R10 million (VAT included), bidders must complete the following questionnaire:

1. Are you by law required to prepare annual financial statements for auditing?

**YES /
NO**

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. Do you have any outstanding undisputed commitments for municipal services towards a municipality or any other service provider in respect of which payment is overdue for more than 30 days?

**YES /
NO**

If no, this serves to certify that the bidder has no undisputed commitments for municipal services towards a municipality or other service provider in respect of which payment is overdue for more than 30 days.

If yes, furnish particulars.

3. 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

If yes, furnish particulars.

4. 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

If yes, furnish particulars.

CERTIFICATION

I, THE UNDERSIGNED
(NAME).....

CERTIFY THAT THE INFORMATION FURNISHED ON THIS DECLARATION
FORM IS CORRECT.

I ACCEPT THAT THE STATE MAY ACT AGAINST ME SHOULD THIS
DECLARATION PROVE TO BE FALSE.

.....
SIGNATURE

.....
POSITION

.....
DATE

.....
NAME OF BIDDER

PREFERENCE POINTS CLAIM FORM 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. GENERAL CONDITIONS

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

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

1.2 To be completed by the organ of state

(delete whichever is not applicable for this tender).

- a) The applicable preference point system for this tender is the 90/10 preference point system.
- b) The applicable preference point system for this tender is the 80/20 preference point system.
- c) Either the 90/10 or 80/20 preference point system will be applicable in this tender. The lowest/ highest acceptable tender will be used to determine the accurate system once tenders are received.

1.3 Points for this tender (even in the case of a tender for income-generating contracts) shall be awarded for:

- (a) Price; and
- (b) Specific Goals.

1.4 To be completed by the organ of state:

The maximum points for this tender are allocated as follows:

	POINTS
PRICE	80
SPECIFIC GOALS	20
Total points for Price and SPECIFIC GOALS	100

- 1.5 Failure on the part of a tenderer to submit proof or documentation required in terms of this tender to claim points for specific goals with the tender, will be interpreted to mean that preference points for specific goals are not claimed.
- 1.6 The organ of state 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 to preferences, in any manner required by the organ of state.

2. DEFINITIONS

- (a) **“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;
- (b) **“price”** means an amount of money tendered for goods or services, and includes all applicable taxes less all unconditional discounts;
- (c) **“rand value”** means the total estimated value of a contract in Rand, calculated at the time of bid invitation, and includes all applicable taxes;
- (d) **“tender for income-generating contracts”** means a written offer in the form determined by an organ of state 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 organ of state and a third party that produces revenue for the organ of state, 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; and
- (e) **“the Act”** means the Preferential Procurement Policy Framework Act, 2000 (Act No. 5 of 2000).

3. FORMULAE FOR PROCUREMENT OF GOODS AND SERVICES

3.1. POINTS AWARDED FOR PRICE

3.1.1 THE 80/20 OR 90/10 PREFERENCE POINT SYSTEMS

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

80/20	or	90/10	
$Ps = 80 \left(1 - \frac{Pt - P_{min}}{P_{min}} \right)$		$Ps = 90 \left(1 - \frac{Pt - P_{min}}{P_{min}} \right)$	

Where

- Ps = Points scored for price of tender under consideration
- Pt = Price of tender under consideration
- Pmin = Price of lowest acceptable tender

3.2. FORMULAE FOR DISPOSAL OR LEASING OF STATE ASSETS AND INCOME

GENERATING PROCUREMENT

3.2.1. POINTS AWARDED FOR PRICE

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

$$\begin{array}{ccc} \mathbf{80/20} & \mathbf{or} & \mathbf{90/10} \\ \\ \mathbf{Ps = 80 \left(1 + \frac{Pt - P_{max}}{P_{max}} \right)} & \mathbf{or} & \mathbf{Ps = 90 \left(1 + \frac{Pt - P_{max}}{P_{max}} \right)} \end{array}$$

Where

- Ps = Points scored for price of tender under consideration
Pt = Price of tender under consideration
Pmax = Price of highest acceptable tender

4. 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 goals stated in table 1 below as may be supported by proof/ documentation stated in the conditions of this tender:
- 4.2. In cases where organs of state intend 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, an organ of state 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 organ of state 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.

(Note to organs of state: Where either the 90/10 or 80/20 preference point system is applicable, corresponding points must also be indicated as such.

Note to tenderers: The tenderer must indicate how they claim points for each preference point system.)

The specific goals allocated points in terms of this tender	Number of points allocated (90/10 system) (To be completed by the organ of state)	Number of points allocated (80/20 system) (To be completed by the organ of state)	Number of points claimed (90/10 system) (To be completed by the tenderer)	Number of points claimed (80/20 system) (To be completed by the tenderer)
LOCAL		10		
BBBEE		10		

DECLARATION WITH REGARD TO COMPANY/FIRM

4.3. Name of company/firm.....

4.4. Company registration number:

4.5. TYPE OF COMPANY/ FIRM

- ☐ Partnership/Joint Venture / Consortium
- ☐ One-person business/sole propriety
- ☐ Close corporation
- ☐ Public Company
- ☐ Personal Liability Company
- ☐ (Pty) Limited
- ☐ Non-Profit Company
- ☐ State Owned Company

[TICK APPLICABLE BOX]

- 4.6. I, the undersigned, who is duly authorised to do so on behalf of the company/firm, certify that the points claimed, based on the specific goals as advised in the tender, qualifies the company/ firm for the preference(s) shown and I acknowledge that:
- i) The information furnished is true and correct;
 - ii) The preference points claimed are in accordance with the General Conditions as indicated in paragraph 1 of this form;
 - iii) 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;
 - iv) 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.

<p>.....</p> <p>SIGNATURE(S) OF TENDERER(S)</p>	
SURNAME AND NAME:
DATE:
ADDRESS:
.....	

NB: MIDVAAL LOCAL MUNICIPALITY CONSIDERS THE FOLLOWING:

- i. Only one of the three attached Sworn Affidavits (EME/ QSE/ GEN) will be accepted. Affidavits from accounting firms (in the accounting firms' letter head) WILL NOT be accepted.**
- ii. SANAS accredited B-BBEE certificates.**
- iii. B-BBEE certificates issued by the DTI via CIPC.**

FAILURE TO PROVIDE ANY ONE OF THE ABOVE-MENTIONED DOCUMENTS WILL RESULT IN NO POINTS BEING AWARDED.

THE REFERRED TO ABOVE DOCUMENT CAN BE PLACED BEHIND THIS PAGE

**MUNICIPAL SERVICES, RATES AND TAXES CLEARANCE CERTIFICATE FOR SUPPLY
CHAIN MANAGEMENT PURPOSE**

The purpose of this form is to obtain prove that municipal services, rates and taxes of the service provider are **not more than three months in arrears** with the relevant municipality / landlord in the municipal area where the service provider conduct his / her business.

Where bidders are not owners of a property and cannot submit a copy of the municipal account, the following must be completed together with a duly signed lease agreement:

(TO BE COMPLETED BY THE LANDLORD)		
Name of the Landlord:		
Property Physical Address:		
Please tick below	Yes	No
Rental: in arrears for more than 3 months		
Municipal services: in arrears for more than 3 months		
Landlord Signature:		
Date: _____		

Landlord's business stamp here (where applicable)

**MUNICIPAL SERVICES, RATES AND TAXES CLEARANCE CERTIFICATE, OR LEASE
AGREEMENT MUST BE ATTACHED BEHIND THIS PAGE.**

MBD 8 - DECLARATION OF BIDDER'S PAST SUPPLY CHAIN MANAGEMENT PRACTICES

1. This Municipal Bidding Document must form part of all bids invited.
2. 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. The bid of any bidder may be rejected if that bidder, or any of its directors have:
 - a. abused the municipality's / 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. willfully neglected, reneged on or failed to comply with any government, municipal or other public sector contract during the past five years; or
 - 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. **In order to give effect to the above, the following questionnaire must be completed and submitted with the bid.**

4.1	<p>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?</p> <p>(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 <i>audi alteram partem</i> rule was applied).</p> <p>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.</p>	Yes <input type="checkbox"/>	No <input type="checkbox"/>

4.1.1	If so, furnish 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 <input type="checkbox"/>	No <input type="checkbox"/>
4.2.1	If so, furnish 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 <input type="checkbox"/>	No <input type="checkbox"/>
4.3.1	If so, furnish 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 <input type="checkbox"/>	No <input type="checkbox"/>
4.4.1	If so, furnish 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 <input type="checkbox"/>	No <input type="checkbox"/>
4.7.1	If so, furnish particulars:		

CERTIFICATION

I, THE UNDERSIGNED (NAME) _____

CERTIFY THAT THE INFORMATION FURNISHED ON THIS DECLARATION FORM IS CORRECT.

I ACCEPT THAT THE STATE MAY ACT AGAINST ME SHOULD THIS DECLARATION PROVE TO BE FALSE.

SIGNATURE

DATE

POSITION

NAME OF BIDDER

MBD 9 - CERTIFICATE OF INDEPENDENT BID DETERMINATION

1. This Municipal Bidding Document (MBD) must form part of all bids¹ invited.
2. 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. 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. 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. In order to give effect to the above, the attached Certificate of Bid Determination (MBD 9) must be completed and submitted with the bid:

MBD 9 - CERTIFICATE OF INDEPENDENT BID DETERMINATION

I, the undersigned, in submitting the accompanying bid:

BID 8/2/2/341 FOR THE REFURBISHMENT AND INSTALLATION OF HIGHMAST LIGHTS AND STREET LIGHTS ON AN AS AND WHEN REQUIRED BASIS FROM DATE OF AWARD UNTIL 30 JUNE 2025 IN MIDVAAL LOCAL MUNICIPALITY.

in response to the invitation for the bid made by:

MIDVAAL LOCAL MUNICIPALITY

(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; and
 - (c) provides the same goods and services as the bidder and/or is in the same line of business as the bidder

6. The bidder has arrived at the accompanying bid independently from, and without consultation, communication, agreement or arrangement with any competitor. However communication between partners in a joint venture or consortium³ will not be construed as collusive bidding.
7. In particular, without limiting the generality of paragraphs 6 above, there has been no consultation, communication, agreement or arrangement with any competitor regarding:
 - (a) prices;
 - (b) geographical area where product or service will be rendered (market allocation)
 - (c) methods, factors or formulas used to calculate prices;
 - (d) the intention or decision to submit or not to submit, a bid;
 - (e) the submission of a bid which does not meet the specifications and conditions of the bid; or
 - (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.

Signature

Date

Position

Name of Bidder

MIDVAAL LOCAL MUNICIPALITY INDEMNITY

1. The Contractor hereby agrees to indemnify, hold harmless and defend Midvaal Local Municipality and their officers, employees, agents and representatives, from and against the following liabilities arising as a result of the execution of the work:
 - 1.1 Any liability with regard to claims by governmental authorities or others for non-compliance by Contractor of any Act of Parliament, law, ordinance, regulation or by-law made by a lawful authority provided that such compliance therewith was required for the execution of the Contract or at Law.
 - 1.2 Any liability arising from actual or alleged public or private nuisance arising out of negligent acts or omissions to act of Contractor or its Subcontractors, or of their employees.
 - 1.3 Any liability arising from loss or damage to Contractor and/or Subcontractor's equipment and their other property on site.
 - 1.4 Any liability arising from claims with regard to the death of/or injury or sickness or disease to Contractor's employees or the death of/or injury or sickness or disease to third parties.
 - 1.5 Any liability arising from any loss of/or damage to property belonging to a third party.
 - 1.6 Any liability arising from actual or asserted infringement or improper appropriation or use of patents, copyrights, proprietary information or know-how in respect of the work designed by/or under the responsibility of the Contractor.
 - 1.7 Any liability arising from the death or injury or loss or damage to property of third parties or Midvaal Local Municipality's property as a result of the negligent acts or omissions of contractors or its subcontractor's employees.
 - 1.8 Contractor shall indemnify Midvaal Local Municipality against all claims, proceedings, damages and costs of whatsoever nature arising out of contravention of environmental legislation.

I, _____ the undersigned (duly authorised to sign)
hereby declare that I have read and understood the abovementioned and agree to all the above.

BIDDER'S AUTHORISED SIGNATORY:

Full Names and Surname:

Signature:

CERTIFICATE OF UNDERTAKING

I, the undersigned, in submitting the accompanying bid:

BID NO: 8/2/2/446 (SEP/4EPPE OR HIGHER) (2025-2028): FOR THE APPOINTMENT OF A SERVICE PROVIDER FOR THE REFURBISHMENT AND INSTALLATION OF HIGHMAST LIGHTS AND STREET LIGHTS FOR MIDVAAL LOCAL MUNICIPALITY ON AN AS AND WHEN REQUIRED BASIS FROM DATE OF AWARD FOR A PERIOD OF 36 MONTHS.

response to the invitation for the bid made by:

Midvaal Local Municipality, do hereby make the following statements that I certify to be true and complete in every respect:

I certify, on behalf of:

_____ that:

(Name of Bidder)

1. I will ensure that all plant and equipment indicated in the table below will be made available by myself (the bidder) upon award of contract for the entire duration of the contract on an as and when required for the purpose of executing the works. In the event of not owning the plant and / or equipment I will lease the required plant and equipment for use on an as and when required basis.

Description
1x 16m High Cherry Picker
2x LDV
1x TLB

1. It is my (the bidder) responsibility to ensure that all plant and equipment available will be in good working condition and will not be older than 15 years (2010).

2. All rates must include VAT.

.....
Signature

.....
Date

.....
Position

.....
Name of Bidder

T2.2 RETURNABLE SCHEDULES

T2.2.24. PERFORMANCE MANAGEMENT SYSTEM

The Municipal Finance Management Act (No. 56 of 2003) Section 116 (2) (d) determines that a Municipality must enter into a Performance Management System (PMS) with all service providers.

CONTRACT	THE APPOINTMENT OF A SERVICE PROVIDER FOR THE REFURBISHMENT AND INSTALLATION OF HIGHMAST LIGHTS AND STREET LIGHTS FOR MIDVAAL LOCAL MUNICIPALITY ON AN AS AND WHEN REQUIRED BASIS FROM DATE OF AWARD FOR A PERIOD OF 36 MONTHS	
BIDDER		
TERM OF CONTRACT	As and when required basis	TENDER NUMBER: 8/2/2/446 (5EP/6C4EPPE OR HIGHER)
PERIOD OF ASSESSMENT		RESPONSIBLE OFFICIALS: Director: PMU

KEY PERFORMANCE AREA	KEY PERFORMANCE INDICATOR	RESPONSIBLE PERSON & TARGET DATE	OUTCOME OF PERFORMANCE ASSESSMENT	RECTIFICATION MEASURES TO BE IMPLEMENTED IN THE CASE OF REPORTED DEVIATIONS	AGREED RECTIFICATION MEASURES TO COMPLY
KEY DELIVERABLES AS PER TENDER SPECIFICATIONS					
Project Initiation	Scheduled vs actual date	Contractor / Consultant	Complaint / Non-Compliant		
Quality Assurance	Inspection reports	Contractor / Consultant	Complaint / Non-Compliant		
Occupational Health and Safety	Scheduled Meetings	Contractor / Consultant	Complaint / Non-Compliant		
Compliance	SANS	Contractor / Consultant	Complaint / Non-Compliant		
Adherence to set Milestones	Gant Chart	Contractor / Consultant	Complaint / Non-Compliant		
Local Support and Training	Value	Contractor / Consultant	Complaint / Non-Compliant		

Accepted and agreed upon:

ON BEHALF OF CONTRACTOR

ON BEHALF OF CONSULTANT

ON BEHALF OF MIDVAAL

DATE

DATE

DATE



MIDVAAL LOCAL MUNICIPALITY

BID NO.: (8/2/2/446) (5EP/4EPPE OR HIGHER)

REFURBISHMENT AND INSTALLATION OF HIGHMAST LIGHTS AND STREET LIGHTS FOR MIDVAAL LOCAL MUNICIPALITY ON AN AS AND WHEN REQUIRED BASIS FROM DATE OF AWARD FOR 36 MONTHS.

THE CONTRACT

PART C1 : AGREEMENTS AND CONTRACT DATA
PART C2 : PRICING DATA
PART C3 : SCOPE OF WORK
PART C4 : SITE INFORMATION

PART C1: AGREEMENTS AND CONTRACT DATA

C1.1 FORM OF OFFER AND ACCEPTANCE

OFFER

The Employer, identified in the Acceptance signature block, has solicited offers to enter into a contract in respect of the following works:

BID NUMBER BID NO (8/2/2/446) (5EP/4EPPE OR HIGHER)
: REFURBISHMENT AND INSTALLATION OF HIGHMAST LIGHTS AND STREET LIGHTS FOR MIDVAAL LOCAL MUNICIPALITY ON AN AS AND WHEN REQUIRED BASIS FROM DATE OF AWARD FOR 36 MONTHS.

The Tenderer, identified in the Offer signature block below, has examined the documents listed in the Tender Data and addenda thereto as listed in the Returnable Schedules, and by submitting this Offer has accepted the Conditions of Tender.

By the representative of the Tenderer, deemed to be duly authorized, signing this part of this Form of Offer and Acceptance, the Tenderer offers to perform all of the obligations and liabilities of the Contractor under the Contract including compliance with all its terms and conditions according to their true intent and meaning for an amount to be determined in accordance with the Conditions of Contract identified in the Contract Data.

The offered total of the prices inclusive of Value Added Tax is:

R.....
 (In words
)

This Offer may be accepted by the Employer by signing the Acceptance part of this Form of Offer and Acceptance and returning one copy of this document to the Tenderer before the end of the period of validity stated in the Tender Data, whereupon the Tenderer becomes the party named as the Contractor in the Conditions of Contract identified in the Contract Data.

Signature: (of person authorized to sign the tender):

Name: (of signatory in capitals):

Capacity: (of Signatory):

Name of Tenderer:
 (organisation):

Address:

Telephone number: Fax number:

Cell phone number:

Witness:

Signature:

Name: (in capitals):

Date:

N.B THE FORM OF OFFER IS FOR TENDER PURPOSES ONLY.

ACCEPTANCE

By signing this part of the Form of Offer and Acceptance, the Employer identified below accepts the Tenderer's Offer. In consideration thereof, the Employer shall pay the Contractor the amount due in accordance with the Conditions of Contract as set out in the General and Special Conditions of Contract, and identified in the Contract Data. Acceptance of the Tenderer's Offer shall form an agreement between the Employer and the Tenderer upon the terms and conditions contained in this Agreement and in the Contract that is the subject of this Agreement.

The terms of the contract are contained in

Part 1 Agreement and Contract Data, (which includes this Agreement)

Part 2 Pricing Data, including the Bill of Quantities

Part 3 Scope of Work

Part 4 Site Information

and the schedules, forms, drawings and documents or parts thereof, which may be incorporated by reference into Parts C1 to C4 above.

Deviations from and amendments to the documents listed in the Tender Data and any addenda thereto listed in the Tender Schedules as well as any changes to the terms of the Offer agreed by the Tenderer and the Employer during this process of offer and acceptance, are contained in the Schedule of Deviations attached to and forming part of this Agreement. No amendments to or deviations from said documents are valid unless contained in this Schedule, which must be duly signed by the authorized representatives of both parties.

The Tenderer shall deliver the Guarantee in terms of Clause 7 of the General Conditions of Contract 2004 within the period stated in the Contract Data, and he shall, immediately after receiving a completed copy of this Agreement, including the Schedule of Deviations (if any), contact the Employer's agent (whose details are given in the Contract Data) to arrange the delivery of any other bonds, guarantees, proof of insurance and any other documentation to be provided in terms of the Conditions of Contract identified in the Contract Data, within 14 days of the date on which this Agreement comes into effect. Failure to fulfil any of these obligations in accordance with those terms shall constitute a repudiation of this Agreement.

Notwithstanding anything contained herein, this Agreement comes into effect on the date when the Tenderer receives the fully completed original of this document, including the Schedule of Deviations (if any). Unless the Tenderer (now Contractor) within five working days of the date of such receipt notifies the Employer in writing of any reason why he cannot accept the contents of this Agreement, this Agreement shall constitute a binding contract between the parties.

Signature:

Name:

Capacity: **Municipal Manager**

For: **Midvaal Local Municipality**
PO Box 9
Meyerton, 1690

Witness:**Name:**

Date:

N.B THE FORM OF OFFER IS FOR TENDER PURPOSES ONLY.

SCHEDULE OF DEVIATIONS

The extent of deviations from the tender documents issued by the Employer prior to the tender closing date is limited to those permitted in terms of the Tender Data and the Conditions of Tender.

A Tenderer's covering letter will not necessarily be included in the final contract document. Should any matter in such letter, which constitutes a deviation as aforesaid becomes the subject of agreements reached during the process of offer and acceptance, the outcome of such agreement shall be recorded here.

Any other matter arising from the process of offer and acceptance either as a confirmation, clarification or change to the tender documents and which it is agreed by the Parties becomes an obligation of the contract shall also be recorded here.

Any change or addition to the tender documents arising from the above agreements and recorded here, shall also be incorporated into the final draft of the Contract.

1. Subject:

Details:

2. Subject:

Details:

3. Subject:

Details:

4. Subject:

Details:

5. Subject:

Details:

6. Subject:

Details:

By the duly authorised representatives signing this Schedule of Deviations, the Employer and the Tenderer agree to and accept the foregoing Schedule of Deviations as the only deviations from and amendments to the documents listed in the Tender Data and addenda thereto as listed in the Tender Schedules, as well as any confirmation, clarification or change to the terms of the offer agreed by the Tenderer and the Employer during this process of offer and acceptance.

It is expressly agreed that no other matter whether in writing, oral communication or implied during the period between the issue of the tender documents and the receipt by the Tenderer of a completed signed copy of this Agreement shall have any meaning or effect in the contract between the parties arising from this Agreement.

FOR THE TENDERER:

Signature:

Name:

Capacity:

Witness: ..

Name:

Date:

FOR THE EMPLOYER:

Signature:

Name:

Capacity:

Witness: ..

Name:

Date:

C1.2 CONTRACT DATA

C1.2.1 CONDITIONS OF CONTRACT

GENERAL CONDITIONS OF CONTRACT

This Contract will be based on the “General Conditions of Contract for Construction Works –Third Edition 2015, issued by the South African Institution of Civil Engineering. (Short title: “General Conditions of Contract 2015”).

It is agreed that the only variations from the General Conditions of Contract 2015 are those set out hereafter under "Contract Specific Conditions".

CONTRACT SPECIFIC CONDITIONS

1. GENERAL

These Contract Specific Conditions (CSC) form an integral part of the Contract. The Contract Specific Conditions shall amplify, modify or supersede, as the case may be, the General Conditions of Contract 2015 to the extent specified below, and shall take precedence and shall govern.

The clauses of the Special Conditions hereafter are numbered "CSC" followed in each case by the number of the applicable clause or sub-clause in the General Conditions of Contract 2015, and the applicable heading, or (where a new special condition that has no relation to the existing clauses is introduced) by a number that follows after the last clause number in the General Conditions, and an appropriate heading.

2. AMENDMENTS TO THE GENERAL CONDITIONS OF CONTRACT

CSC 1.1.25 DEFINITIONS, INTERPRETATIONS AND GENERAL PROVISIONS

Add the following definitions:

“Labour-based Construction” means the effective employment of appropriate technologies and labour-intensive construction methods on projects specifically designed to maximize the workforce with limited use of machines.

“Community” shall mean all persons deemed to reside in the immediate vicinity of the project.

CSC1.10 *Add the following Sub-Clause 1.10:*

Training will be provided by the employer through various training providers. Training will be theoretical and practical and will be conducted in classrooms and on site. No separate payment of any nature will be made to the contractor for attendance of training sessions by the contractor or the contractor’s staff. The Construction Project Manager will program and manage all training to ensure limited disruption to the contractors and the overall project.

CSC 2.3 Specific Approval of the Employer required

The Engineer has to obtain specific approval or consent from the Employer for the decisions in the following clauses:

Clauses 6.2, 6.6, 3.3.1, 3.3.4, 4.7, 8.2.2.2, 6.3.2, 6.4.1.4, 5.8.1, 5.11.2, 5.11.6, 6.6.1, 2.2.3, 6.10, 6.11, 5.14.1, 5.16.1, 7.8.2.2, 5.7.3 and 7.8.2.

CSC 4.5 Compliance with applicable laws

CSC 4.5.2 Health and Safety

Add the following:

"The Occupational Health and Safety Act No. 85 and Amendment Act No 181 of 1993 and the Construction Regulations 2003 will in all respects be applicable to this contract."

CSC 6.6.2 Payment to subcontractor

Add the following:

"The above-mentioned procedure shall adhere to the **Preferential procurement regulations, 2011, pertaining to the Preferential Procurement Policy Framework Act, Act No. 5 of 2000, published by National Treasury on 1 December 2011** and to any prescribed regulations of the Gauteng Provincial Government pertaining to procurement.

CSC 40 PROGRESS OF THE WORKS

Add the following to Sub-Clause 40.1 :

Delete the last sentence and add the following:

The contractor shall within 3 days of receipt of notification submit to the Engineer in writing the action(s) the contractor intends to take to expedite the rate of progress, and within 7 days of receipt of notification implement such steps. The contractor shall as part of his actions submit to the Engineer a detailed revised program accommodating the agreed steps to meet the Due Completion date.

CSC 49.6 GUARANTEE IN LIEU OF RETENTION

Add to all references to a "Bank" also "or an accredited Insurance Company"

Add the following sub-clause

CSC 46: CONTRACT PRICE ADJUSTMENT SCHEDULE**Paragraph 1**

Adjust the definitions of "L", "P", "M" and "F" in the 4th to the 7th subparagraphs with the following:

Definition of "L":

Insert "(Consumer Price Index)" after "P0141.1" in the third line

Insert "(Consumer Price Index and Percentage Change according to Urban Area)" after "Table 21" in the third line

Definition of "P":

Insert "(Production Price Index)" after "P0142.1" in the second line

Insert "(Production Price Index for Selected Materials, item 'Civil Engineering Plant')" after "Table 16" in the second line

Definition of "M":

Insert "(Production Price Index)" after "P0142.1" in the second line

Insert "(Production Price Index for Materials used in Certain Industries, item 'Civil Engineering Plant')" after "Table 15" in the second line

Definition of "F": *Insert "(Production Price Index)" after "P0142.1" in the second line*

Insert "(Production Price Index for Selected Materials, item Diesel Oil – Coast and Witwatersrand)" after "Table 16" in the second line

[Note: The indices are obtainable in www.statssa.gov.za. The latest indices for L (certain urban areas only), P, M and F, are more readily obtainable in www.safcec.org.za under "CPAF Indices"]

Paragraph 2 : Assessment of Amount subject to Adjustment: *Add the following to the paragraph defining "E":*

"Where the amount is based on current costs de-escalated to the base month, or where daywork is calculated at rates tendered in a daywork schedule, the costs shall not be included in the value of "E".

C1.2.2 CONTRACT SPECIFIC DATA

General

This section contains the Contract Specifications Data referred to under Clause 1(1) of the General Conditions of Contract. Electrical and Mechanical Engineering Work (1985)

Should any requirements of the Specific Data conflict with the requirements of the General Conditions of Contract, then the requirements of the Specific Data shall prevail.

Clause

1 Definitions and interpretation

The “**Employer**” as defined under Clause 1(1) of the General Conditions shall be the MIDVAAL LOCAL MUNICIPALITY

MUNICIPAL BUILDING
PO Box 9
MEYERTON,
1690

The “**Engineer**” as defined under Clause 1(1)(d) of the General Conditions shall be advised per order.

4.1 Language

English

4.2 Law

The governing law shall be that of the Republic of South Africa.

7.1 Time for Completion

..... * (weeks). To be completed by Tenderer*.

9.1 Performance Board or Surety

10 % of Contract amount.

12.1 Programme

The limit for submission of programme – one week.

14.3 Electricity, water and gas

Available on site.

16.4 Limitation of liability

Contractor's liability shall not exceed 100 % of the Contract Sum.

The contractor's liability shall expire on the date of issue of the Final Certificate.

17.1 Insurance of Works

Amount of insurance during Defects Liability Period: 100 % of the Contract Sum.

17.2 Minimum Amount of Third Party Insurance

R1 000 000 for any single claim, number of claims unlimited.

20.6 Import permits and licenses

The Contractor shall obtain and provide all necessary import permits and licenses required.

31.1 Amount of Reduction for delay

R2 000,00 per Calendar Day of delay.

Maximum Reduction

15 % of Contract Price, should the penalties reach the maximum cap of 15% then the bid will be terminated.

32.1 Bonus

No bonus will apply.

33.1 Defects liability period

12 Months with use of works assumed 24 hours per day.

33.4 Maximum permitted extension: 12 months

34.1 Variations

The total variation per project shall not be more than 20% of the Contract Sum for any single Contract.

37.3 Certificates and Payment

Payment certificates shall be paid within 30 days of submission of the approved invoice by the engineer to the PMU. 10 % Retention retained up to Completion Certificate.

Builders' lien is not applicable in this contract.

40. Payment Conditions

For Mechanical and Electrical Work ninety-five percent (95 %) of the quoted price will be payable on completion of delivery, installation and commissioning. A further 5 % will be payable at the end of the defect liability period. For Civil and Structural Work payment up to the Completion Certificate will be @ 90 % of tendered rates with 10 % retention held back, 5 % retention paid on issue of Completion Certificate and 5 % after the Defects Liability period.

41.4 Payment in foreign currencies

No payment will be made in foreign currencies.

52.1 Changes in Cost and Legislation (Labour, Materials and Transport)

Prices to be fixed if award is made within 90 days of closing of date of tender.

53.1 Customs and import duties

All customs and import duties shall be paid for by the Contractor.

.....
SIGNATURE

C1.2.3 DATA PROVIDED BY THE TENDERER

Clause 6.8.3 of the GCC 2015:

Special materials	Unit on which variation will be determined *	Rate or price for the base Month (Excl. VAT) **

Notes:

* Indicate whether the material will be delivered in bulk or in containers.

** The price for special materials is only the price for the material and does not include the cost of transport, labour or any other costs. When called upon to do so, the Tenderer shall substantiate the above prices with acceptable documentary evidence.

.....
SIGNATURE

C1.3 FORM OF GUARANTEE

BID NO.: (8/2/2/466) (5EP/4EPPE OR HIGHER)

WHEREAS MIDVAAL LOCAL MUNICIPALITY (hereinafter referred to as the Employer”) entered into, a Contract with:

.....
(hereinafter called “the Contractor”) on the day of20.....,
for **REFURBISHMENT AND INSTALLATION OF HIGHMAST LIGHTS AND STREET LIGHTS FOR MIDVAAL LOCAL MUNICIPALITY ON AN AS AND WHEN REQUIRED BASIS FROM DATE OF AWARD FOR 36 MONTHS.**

AND WHEREAS it is provided by such Contract that the Contractor shall provide the Employer with security by way of a guarantee for the due and faithful fulfilment of such Contract by the Contractor;

AND WHEREAS has / have at the request of the Contractor, agreed to give such guarantee;

NOW THEREFORE WE do hereby guarantee and bind ourselves jointly and severally as Guarantor and Co-Principal Debtors to the Employer under renunciation of the benefits of division and excussion for the due and faithful performance by the Contractor of all the terms and conditions of the said Contract, subject to the following conditions:

1. The Employer shall, without reference and / or notice to us, have complete liberty of action to act in any manner authorized and/or contemplated by the terms of the said Contract, and/or to agree to any modifications, variations, alterations, directions or extensions of the completion date of the works under the said Contract, and that its rights under this guarantee shall in no way be prejudiced nor our liability hereunder be affected by reason of any steps which the Employer may take under such Contract, or of any modification, variation, alterations of the completion date which the Employer may make, give, concede or agree to under the said Contract.
2. This guarantee shall be limited to the payment of a sum of money.
3. The Employer shall be entitled, without reference to us, to release any guarantee held by it, and to give time to or compound or make any other arrangement with the Contractor.
4. This guarantee shall remain in full force and effect until the issue of the Certificate of Completion in terms of the Contract, unless we are advised in writing by the Employer before the issue of the said Certificate of his intention to institute claims, and the particulars thereof, in which event this guarantee shall remain in full force and effect until all such claims have been paid or liquidated.
5. Our total liability hereunder shall not exceed the Guaranteed Sum of
..... Rand (in words); R
..... (in figures)
6. The Guarantor reserves the right to withdraw from this guarantee by depositing the Guaranteed Sum with the beneficiary, whereupon our liability hereunder shall cease.
7. We hereby choose our address for the serving of all notices for all purposes arising here from as

.....
.....
.....
.....

IN WITNESS WHEREOF this guarantee has been executed by us at
on this day of 20

Signature

Duly authorized to sign on behalf of

Address
.....
.....

As witnesses:

1

2

C1.4 ADJUDICATOR'S AGREEMENT

(Pro Forma only)

To be entered into when required

This agreement is made on the day of between:

..... (name of company / organisation)

of (address) and

..... (name of company / organization)

of (address)

(the Parties) and

..... (name)

of (address)

(the Adjudicator).

Disputes or differences may arise/have arisen* between the Parties under a Contract dated and known as.

and these disputes or differences shall be/have been* referred to adjudication in accordance with GCC 2004, Clause 58.3, and the Adjudicator may be / has been* requested to act.

* Delete as necessary

IT IS NOW AGREED as follows:

1. The adjudication shall be conducted in accordance with the rights and obligations of the Adjudicator and the Parties as set out in the Procedure as per Clause 58.3.1 of the GCC 04.
2. The Adjudicator hereby accepts the appointment and agrees to conduct the adjudication in accordance with the Procedure.
3. The Parties bind themselves jointly and severally to pay the Adjudicator's fees and expenses in accordance with the Procedure.
4. The Parties and the Adjudicator shall at all times maintain the confidentiality of the adjudication and shall endeavour to ensure that anyone acting on their behalf or through them will do likewise, save with the consent of the other Parties which consent shall not be unreasonably refused.
5. The Adjudicator shall inform the Parties if he intends to destroy the documents which have been sent to him in relation to the adjudication and he shall retain documents for a further period at the request of either Party.
6. The Adjudicator shall be paid at the hourly rate of R. in respect of all time spent upon, or in connection with, the adjudication including time spent travelling.
7. The Adjudicator shall be reimbursed in respect of all disbursements properly made including, but not restricted to:
 - (a) Printing, reproduction and purchase of documents, drawings, maps, records and photographs.
 - (b) Telegrams, telex, faxes, and telephone calls.
 - (c) Postage and similar delivery charges.

- (d) Travelling, hotel expenses and other similar disbursements.
- (e) Room charges.
- (f) Charges for legal or technical advice obtained in accordance with the Procedure.

8. The Adjudicator shall be paid an appointment fee of R This fee shall become payable in equal amounts by each Party within 14 days of the appointment of the Adjudicator, subject to an Invoice being provided. This fee will be deducted from the final statement of any sums which shall become payable under item 6 and/or item 7. If the final statement is less than the appointment fee the balance shall be refunded to the Parties.
9. The Adjudicator is/is not* currently registered for VAT.
10. Where the Adjudicator is registered for VAT it shall be charged additionally in accordance with the rates current at the date of invoice.
11. All payments, other than the appointment fee (item 8) shall become due 7 days after receipt of invoice, thereafter interest shall be payable at 5% per annum above the Reserve Bank base rate for every day the amount remains outstanding.

SIGNED

SIGNED

SIGNED

by: _____

by: _____

by: _____

Name:

Name:

Name:

who warrants that he / she is
duly authorized to sign for and
on behalf of the first Party in the
presence of

who warrants that he / she is
duly authorized to sign for and
behalf of the second Party in
the presence of

the Adjudicator in the presence
of

Witness

Witness:

Witness:

Name:

Name

Name:

Address:

Address:

Address:

Date:

Date:

Date:

*

Delete as necessary



MIDVAAL LOCAL MUNICIPALITY

BID NO.: (8/2/2/446) (5EP/4EPPE OR HIGHER)

**FOR THE APPOINTMENT OF A SERVICE PROVIDER FOR THE REFURBISHMENT AND
INSTALLATION OF HIGHMAST LIGHTS AND STREET LIGHTS FOR MIDVAAL LOCAL
MUNICIPALITY ON AN AS AND WHEN REQUIRED BASIS FROM DATE OF AWARD FOR
A PERIOD OF 36**

MONTHS

PART C2: PRICING DATA

C2.1 PRICING INSTRUCTIONS

1. Measurement and payment shall be in accordance to SANS 1200.
2. The units of measurement described in the Bill of Quantities are metric units. Abbreviations used in the Bill of Quantities are as follows:

%	=	percent
h	=	hour
ha	=	hectare
kg	=	kilogram
kl	=	kiloliter
km	=	kilometer
km-pass	=	kilometer-pass
kPa	=	kilopascal
kW	=	kilowatt
ℓ	=	liter
m	=	meter
mm	=	millimeter
m ²	=	square meter
m ² -pass	=	square meter-pass
m ³	=	cubic meter
m ³ .km	=	cubic meter-kilometer
MN	=	mega newton
MN.m	=	mega newton-meter
MPa	=	megapascal
No.	=	number
Prov sum	=	Provisional Sum
PC sum	=	Prime Cost Sum
R/only	=	rate only
Sum	=	lump sum
t	=	ton (1000 kg)
W/day	=	work day

3. For the purpose of the Bill of Quantities, the following words shall have the meanings hereby assigned to them:

Unit:	The unit of measurement for each item of work as defined in the SANS 1200
Quantity:	The number of units of work for each item.
Rate:	The agreed payment per unit of measurement.
Amount:	The product of the quantity and the agreed rate for an item.
Lump sum:	An agreed amount for an item, the extent of which is described in the Bill of Quantities but the quantity of work of which is not measured in any units.

4. Unless otherwise stated, items are measured net in accordance with the drawings, and no allowance is made for waste.
5. It will be assumed that prices included in the Bill of Quantities are based on Acts, Ordinances, Regulations, By-laws, International Standards and National Standards that were published 28 days before the closing date for tenders. (Refer to www.stanza.org.za or www.iso.org for information on standards).

6. The prices and rates in the Bill of Quantities are fully inclusive prices for the work described under the items. Such prices and rates cover all costs and expenses that may be required in and for the execution of the Works described in accordance with the provisions of the Scope of Work, and shall cover the cost of all general risks, liabilities, and obligations set forth or implied in the Contract Data, as well as overhead charges and profit. These prices will be used as a basis for assessment of payment for additional work that may have to be carried out.
7. Where the Scope of Work requires detailed drawings and designs or other information to be provided, all costs associated therewith are deemed to have been provided for and included in the unit rates and sum amounts tendered under such items.
8. An item against which no price is entered will be considered to be covered by the other prices or rates in the Bill of Quantities. A single lump sum will apply should a number of items be grouped together for pricing purposes.
9. The quantities set out in the Bill of Quantities are approximate and do not necessarily represent the actual amount of work to be done. The quantities of work accepted and certified for payment will be used for determining payments due and not the quantities given in the Bill of Quantities.
10. The short descriptions of the items of payment given in the Bill of Quantities are only for the purposes of identifying the items. More details regarding the extent of the work entailed under each item appear in the Scope of Work.
11. The item numbers appearing in the Bill of Quantities refer to the corresponding item numbers in the "SANS 1200 as prepared by South African National Roads Agency Limited" and additional Project Specifications as per the Scope of Work.
12. Those parts of the contract to be constructed using labour-intensive methods have been marked in the Bill of Quantities with the letters LI in a separate column filled in against every item so designated. The works, or parts of the Works so designated are to be constructed using labour-intensive methods only. The use of plant to provide such Works, other than plant specifically provided for in the Scope of Work, is a variation to the contract. The items marked with the letters LI are not necessarily an exhaustive list of all the activities which must be done by hand, and this clause does not over-ride any of the requirements in the generic labour intensive specification in the Scope of Works.
13. Payment for items, which are designated to be constructed labour-intensively (either in this schedule or in the Scope of Works), will not be made unless they are constructed using labour-intensive methods. Any unauthorized use of plant to carry out work which was to be done labour-intensively will not be condoned and any works so constructed will not be certified for payment.



MIDVAAL LOCAL MUNICIPALITY

BID NO.: (8/2/2/446) (5EP/4EPPE OR HIGHER)

FOR THE APPOINTMENT OF A SERVICE PROVIDER FOR THE REFURBISHMENT AND INSTALLATION OF HIGHMAST LIGHTS AND STREET LIGHTS FOR MIDVAAL LOCAL MUNICIPALITY ON AN AS AND WHEN REQUIRED BASIS FROM DATE OF AWARD FOR A PERIOD OF 36

PART C2.2:ACTIVITY SCHEDULE

C2.3

BILL OF QUANTITIES

1

CONTRACT NUMBER:		PUBLIC LIGHTING CONSTRUCTION AND MAINTENANCE				SECTION 2
8/2/2/341						
ITEM NO.	PAYMENT REFERS TO	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
2		HIGH MAST FOUNDATIONS				
2.1		Foundations for high masts				
2.1.1		Mast foundation designs as per the soil tests	each	1		
2.2		Excavation of foundation holes				
2.2.1		Foundation inclusive of soil tests	each	1		
2.2.2		Extra over for excavation and casting of foundations for 30m high mast in hard rock	m ³	1		
2.2.3		Extra over for excavation, removal and disposal of poor load bearing soil and replacement with G5 material	m ³	1		
2.3		Mast electrical earthing				
2.3.1		SABS approved lightning protection/earthing system complete including drawings and earth resistance readings	each	1		
2.4		Foundation for masts				
2.4.1		Designed to Specification for a 30m Galvanised Steel High Masts including drawings for approval, cable entry sleeves, concrete, reinforcing, bolts, and all necessary concrete work	each	1		
2- HIGH MAST FOUNDATIONS	TOTAL SECTION 2: HIGH MAST FOUNDATIONS CARRIED TO SUMMARY					

CONTRACT NUMBER:		PUBLIC LIGHTING CONSTRUCTION AND MAINTENANCE			SECTION 3	
ITEM NO.	PAYMENT REFERS TO	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
3		INSTALLATION OF NEW SOLAR AND CONVENTIONAL HIGH MASTS				
3.1	SANS 10225	Supply 22m high mast die cast aluminium column inclusive of LED PV powered luminaire ring capable of holding 8 solar LED floodlights , 3 rope hoisting system , baseplate, foundation bolts , template, vandal proof access door, design drawings signed off by manufacturer structural engineer. Designed to SANS 10225. mast is designed for category 2 terrain, wind speed 144km/h.				
3.1.1		Supply including delivery to site	each	1		
3.1.2		Assembly and Installation of masts	each	1		
3.2	SANS 10225	Supply 30m high mast galvanised steel column inclusive of HPS luminaire ring capable of holding a maximum of 9 LED floodlights , 3 rope hoisting system , baseplate, foundation bolts , template, vandal proof access door, design drawings signed off by manufacturer structural engineer. Designed to SANS 10225. mast is designed for category 2 terrain, wind speed 144km/h.				
3.2.1		Supply including delivery to site	each	1		
3.2.2		Assembly and Installation of Masts	each	1		
3.3	SANS 10142-1	Supply and install, connect, testing and comissioning of surface mounted glass fibre distribution boards (IP30) inside the mast/s poles, complete with photocell/timer/ripple relay control and all wire equipment, switch gear and wiring diagrams; including all wire trays, doors, labels, locks, architrave, busbars, conduit connections and wiring connections-supply cable connection include prewired splitter box and 5 core trailing cable. Ensuring that you take acceptable measures to vandalproof the installation				
3.1		Supply	each	1		
3.2		installation including all accessories needed	each	1		
3.4	SANS10142	Supply and install minimum 150W solar LED floodlight (IP66) complete with lamps control gear and aiming indication,solar panel, battery,MPPT and inverter and all necessary equipment for functioning of a solar floodlight. Wiring and fitting to luminaire ring. Including simulation results on a 22m high mast arranged in circular symetry, simulated for 3 masts arranged 150m apart in equilateral triangle position				
3.4.1		Simulation test results	sum	1		
3.4.2		Supply	each	1		
3.4.3		Installation including all accessories needed	per mast	1		
3.5	SANS10142	Supply and install 200W LED floodlight (IP66) complete with lamps control gear and aiming indication. Wiring and fitting to luminaire ring. Including simulation results on a 30m high mast arranged in circular symetry, simulated for 3 masts arranged 300m apart in equilateral triangle position				
3.5.1		Simulation test results	sum	1		
3.5.2		Supply	each	1		
3.5.3		Installation including all accessories needed	per mast	1		
3.5		Winch and power tool consisting of single or double drum winch, hydraulic power tool with remote and test lead (5 pin,16A, 8m long)				
3.5.1		Supply	each	1		
3.6		Power supply				
3.6.1	SANS 1507-3	Supply 16mm ² X 4 core PVC/SWA/PVC, Cu , 600V/1000V Cable	m	1		
3.6.2		Excavation depth 600mm by 450mm wide trench	m ³	1		
3.6.3		bedding laying and backfilling to specification	m	1		
3.6.4		Termination of cable including supply of termination kit; glands and all accessories needed	each	1		
3.7	SANS10142-1	Commisioning and testing of electrical works and issue certificates of compliance	sum	1		
3-HIGH MAST NEW	SECTION C: INSTALLATION OF NEW MASTS CARRIED TO SUMMARY					

CONTRACT NUMBER:		PUBLIC LIGHTING CONSTRUCTION AND MAINTENANCE					SECTION 4
ITEM NO.	PAYMENT REFERS TO	DESCRIPTION	UNIT	QTY	RATE	AMOUNT	
4		CONVERSION OF CONVENTIONAL MASTS TO SOLAR MASTS					
4.1	SANS10142	Supply and install minimum 150W LED PV Floodlight (IP66) complete with lamps control gear and aiming indication,solar panel, battery,MPPT and inverter and all necessary equipment for functioning of a solar floodlight. Wiring and fitting to luminaire ring. Including simulation results on a 22m high mast arranged in circular symetry, simulated for 3 masts arranged 150m apart in equilateral triangle position					
4.1.1		Simulation test results	sum	1			
4.1.2		Supply	each	1			
4.1.3		Installation including all accessories needed	per mast	1			
4.2	SANS10225	CONVERSION OF MAST FROM 30M to 22M					
4.2.1		Lowering of existing luminaire ring including light fittings by use of a winch	each	1			
4.2.2		Removal of existing light fittings, luminaire ring, trailing cable, stainless steel rope suspension system and all redundant cables	per mast	1			
4.2.3		Lowering of entire 30m high mast/ pole by use of a crane	each	1			
4.2.4		Cutting of 30m mast to 22m height	each	1			
4.2.5		Supply PV luminaire ring that can carry new configuration of PV floodlights	each	1			
4.2.6		Installation of PV luminaire ring	each	1			
4.2.7		Supply new mast head to cover the mast at 22m including lightning conductor	each	1			
4.2.8		Installation of PV luminaire ring	each				
4.2.9		Supply stainless steel rope suspension system for PV luminaire ring	each	1			
4.2.10		Installation of suspension rope system	each	1			
4.2.11		Supply and install pulleys housing for suspension system	sum	1			
4.2.12		Raising of entire 22m high mast by use of a crane and installation of mast	each	1			
4.2.13		Raising of luminaire ring with new PV floodlights by use of a winch	each	1			
4.2.14		Supply vandal proof inner door	each	1			
4.2.15		Installation of vandal proof inner door	each	1			
4.2.16		Delivery of steel metal cutoff, old luminaires, old cables to municipal premises	sum	1			

CONTRACT NUMBER:		PUBLIC LIGHTING CONSTRUCTION AND MAINTENANCE			SECTION 4	
ITEM NO.	PAYMENT REFERS TO	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
5		INSTALLATION OF NEW STREETLIGHTS				
5.1		Excavation of holes holes for streetlights				
5.1.1		Obtain wayleave information	sum	1		
5.1.2		Lifting and stacking of paving bricks	m ²	1		
5.1.3		Reinstate used paving bricks	m ²	1		
5.1.4		Excavation of holes for streetlights	m ³	1		
5.1.5		Supply acceptable filling soil	m ³	1		
5.1.6		Backfilling and compaction of soil	m ³	1		
5.1.7		Rock, rubble, spoil removal & disposal	m ³	1		
5.1.8		Hiring of a cherry picker	hr	1		
5.2		Supply, delivery to site and installation of streetlight poles				
5.2.1	SABS0225	Supply 9,5m streetlight pole	each	1		
5.2.3	SABS0225	Supply 7,2m streetlight pole	each	1		
5.2.4	SABS0225	Supply 11,5m streetlight pole	each	1		
5.2.5	SABS0225	Supply 11,5m with single 3m outreach arm	each	1		
5.2.6	SABS0225	Supply 11,5m double outreach arm	each	1		
5.2.7		Transport streetlight pole to site	each	1		
5.2.8		Plant/ Install streetlight pole	each	1		
5.2.9		Supply earth spike	each	1		
5.2.10		Install pole earths including all excavation	each	1		
5.3		Installation of solar streetlight floodlights				
5.3.1		Supply 100W LED PV floodlight for streetlights	each	1		
5.3.1		Supply 75W LED PV floodlight for streetlights	each	1		
5.3.2		Install streetlightlighting floodlight onto pole including all brackets,braces, bolts, mountings, etc, relevant for the installation	each	1		
5.4		Installation of mains powered LED streetlight floodlights				
5.4.1		Supply 100W LED floodlights for streetlights	each	1		
5.4.2		Supply 75W LED floodlights for streetlights	each	1		
5.4.3		Supply 60W LED floodlights for streetlights	each	1		
5.4.4		Supply 50W LED floodlights for streetlights	each	1		
5.4.5		Install streetlightlighting floodlight onto pole including termination of power supply cable, all brackets,braces, bolts, mountings, etc, relevant for the installation	each	1		
5.5		CONVERSION OF MAINS POWERED STREETLIGHTS TO SOLAR POWERED STREETLIGHTS				
5.5.1		Remove existing existing light fitting, and redundant cables on each streetlight	each	1		
5.5.2		Install streetlightlighting floodlight onto pole including all brackets,braces, bolts, mountings, spigots, etc, relevant for the installation	each	1		
		Delivery of removed cables, floodlights, steel offcuts to municipality premises	sum	1		
4-HIGH MAST CONVERSION	SECTION C: HIGH MAST CONVERSION CARRIED TO SUMMARY					

CONTRACT NUMBER:		PUBLIC LIGHTING CONSTRUCTION AND MAINTENANCE			SECTION 6
ITEM CODE	PAYMENT REFERS TO	DESCRIPTION	UNIT	QTY	RATE
5		STREET LIGHTS (CONSTRUCTION AND MAINTENANCE) AND HIGH MAST MAINTENANCE			
10		soil_dig, backfill ,compact hand pickable	1	m ³	
20		soil_machine excavation backfillfill, compact	1	m ³	
30		loose rocks/boulders_soil_dig, backfillfill ,compact	1	m ³	
40		loose rocks/bldrs_soil_machine, backfill ,compact	1	m ³	
50		rock_wedge & power drill	1	m ³	
60		pole hole_removal of rock	1	m ³	
70		rock requiring blasting	1	m ³	
80		tar paving 60mm thick_cut,& remove	1	m ²	
90		concrete 100mm thick_cut & remove	1	m ²	
100		interlock blocks lift & stack	1	m ²	
110		lifting & stck of paving bricks	1	m ²	
120		concrete slabs lifting & stacking	1	m ²	
130		lift & stack preservation of lawn grass	1	m ²	
140		reinstate_used inter lock blocks	1	m ²	
150		reinstate_new inter lock blocks	1	m ²	
160		reinstate_used concrete slabs	1	m ²	
170		reinstate_new concrete slabs	1	m ²	
180		reinstate_used paving bricks	1	m ²	
190		reinstate_new paving bricks	1	m ²	
200		backfill trench & compact only	1	m ²	
210		supply dry clean river sand	1	m ³	
220		supply acceptable filling soil	1	m ³	
230		reinstate lawn	1	m ²	
240		Supply and install new lawn	1	m ²	
250		reinstate and supply new tar	1	m ²	
260		handling and supply ready mix concrete	1	m ³	
270		reinstate concrete (excl trench Crete)	1	m ³	
280		supply & b.fill trench _ ready mix	1	m ³	
290		trench on concrete road	1	m ³	
300		disposal of rock from excavations	1	m ³	
310		rock, rubble, spoil_removal & disposal	1	m ³	
320		create walkway over trench	1	ea	
330		sign boards	1	ea	
340		Obtain way leave information	1	ea	
350		Install Danger barriers for trenches	1	ea	
360		Shoring of trench walls	1	m ³	
370		Pumping out flooded trench	1	ea	
380		Location of services by Cable locator	1	Hr	
390		Traffic deviation	1	ea	
400		Laying of LV 4core cable25 to 35 mm ²	1	m	
410		Laying of LV cable 16mm ²	1	m	
420		Laying plastic marker tape	1	m	
430		Installation of sleeves 110 mm	1	m	
440		Supply and install110mm steel pipe	1	m	
6-MAINTENANCE		SECTION 6: STREET LIGHTS (CONSTRUCTION AND MAINTENANCE) AND HIGH MAST MAINTENANCE CARRIED FORWARD			

CONTRACT NUMBER:		PUBLIC LIGHTING CONSTRUCTION AND MAINTENANCE			SECTION 6
ITEM CODE	PAYMENT REFERS TO	DESCRIPTION	UNIT	QTY	RATE
450		Drawn cable = >95 mm2 through pipe	1	m	
460		Drawn cable < 95 mm2 through pipe	1	m	
470		Drawn LV pilot cable<35 mm2 through pipe	1	m	
480		LV Joint for 25mm & 35mm x4c cable	1	ea	
490		LV Joint for 16 x4c cable	1	ea	
500		LV_make-off & term>= 25mm&35mm x 4 core	1	ea	
510		LV_make-off & term. >= 16mm x 4 core	1	ea	
520		LV_make-off & term.>= 185mm_single heads	1	ea	
530		supply & install earth spike	1	ea	
540		High Mast Foundations incl prep ground and soil tests	1	ea	
550		Install/ rewire distribution board	1	ea	
560		Emergency Call Out	1	ea	
570		Emergency Call Out - Cancelled	1	ea	
580		Establishment of site camp	1	ea	
590		Transporting of high mast poles	1	ea	
600		transport steel/wood/aluminium 5/7.2/9.2/11.5m st	1	ea	
610		transport steel double arm curved spig	1	ea	
620		transport steel 17m straight pole	1	ea	
630		transport concrete 7 metre, 4 kn pole	1	ea	
640		transport concrete 7 metre, 10 kn pole	1	ea	
650		transport concrete 7.5 metre, 20 kn pol	1	ea	
660		transport concrete 9 metre, 4 kn pole	1	ea	
670		transport concrete 9 metre, 7 kn pole	1	ea	
680		transport concrete 9.3 metre, 17.5 kn p	1	ea	
690		transport concrete 10 metre, 8 kn pole	1	ea	
700		transport concrete 11m and 7m "h" pole	1	ea	
710		Install 11.5 D-Curved pole, lmr & Lamp	1	ea	
720		Install 11.5m Curved pole, lmr & Lamp	1	ea	
730		Install 9.2m Curved pole, lmr & Lamp	1	ea	
740		Installation of 17m stl pole, lmr & Lamp	1	ea	
750		Install 11.5m stl pole, lmr & Lamp	1	ea	
760		Install 7.2/9.2m stl pole, lmr & Lamp	1	ea	
770		Install 8/10.5m grp pole, lmr & Lamp	1	ea	
780		plant concrete 7 metre, 4 kn pole	1	ea	
790		plant concrete 7,5 metre, 20 kn pole	1	ea	
800		plant concrete 9 metre, 4 kn pole	1	ea	
810		plant concrete 9 metre, 7 kn pole	1	ea	
820		plant concrete 9,3 metre, 17,5 kn pole	1	ea	
830		plant concrete 10 metre, 8 kn pole	1	ea	
840		plant concrete 11 & 7 m pole struct	1	ea	
850		plant 8/10.5 metre grp pole.	1	ea	
860		install 7.2/9 m stl pole incl. insul.	1	ea	
870		install 11.5m stl pole incl. insul.	1	ea	
880		Poles with more than one lintel	1	ea	
890		Poles with one lintel	1	ea	
6-MAINTENANCE	SECTION 6: STREET LIGHTS (CONSTRUCTION AND MAINTENANCE) AND HIGH MAST MAINTENANCE CARRIED FORWARD				

CONTRACT NUMBER:		PUBLIC LIGHTING CONSTRUCTION AND MAINTENANCE			SECTION 6
ITEM CODE	PAYMENT REFERS TO	DESCRIPTION	UNIT	QTY	RATE
900		Single strain fittings (120/95/50/25)	1	ea	
910		Double strain fitting for (120/95/50/25)	1	ea	
920		Single suspension fitting_ (120/95/50)	1	ea	
930		T-off strain fitting for (120/95/50/25)	1	ea	
940		install abc single strainfit. (120-50)	1	ea	
950		install abc single suspen fit. (120-50)	1	ea	
960		install abc double strain fit. (120-50)	1	ea	
970		install abc t-off strainfit. (120-50)	1	ea	
980		install IP clamp for tap-off one bolt	1	ea	
990		install IP clamp for tap-off two bolt	1	ea	
1000		joint abc 120 mm2 x 3 + n + e + s/l	1	ea	
1010		joint abc 95 mm2 x 3 + n/e + s/l	1	ea	
1020		joint abc 70 mm2 x 3 + n/e + s/l	1	ea	
1030		joint abc 50 mm2 x 3 + n/e + s/l	1	ea	
1040		joint abc 25 mm2 x 3 (s/l)	1	ea	
1050		joint abc10 mm2 split concentric LV cab	1	ea	
1060		terminate abc 120 mm2 x 3 + n + e + s/l	1	ea	
1070		terminate abc 95 mm2 x 3 + n/e + s/l	1	ea	
1080		terminate abc 70 mm2 x 3 + n/e + s/l	1	ea	
1090		terminate abc 50 mm2 x 3 + n/e + s/l	1	ea	
1100		terminate abc 25 mm2 x 3 (s/l)	1	ea	
1110		Inspection of LV overhead lines (per circuit)	1	ea	
1120		Inspection of MV overhead lines (per circuit)	1	ea	
1130		Retentioning of LV conductor (per circuit)	1	ea	
1140		Retentioning of MV conductor (per circuit)	1	ea	
1150		Splicing & retention snapped conductor	1	ea	
1160		Bandit strap all cables to pole (1 m intervals)	1	ea	
1170		Dressing a double shackle pole incl. accessories	1	ea	
1180		Install of any outreach bracket	1	ea	
1190		Installation of LV stay assembly	1	ea	
1200		Installation of MV stay assembly	1	ea	
1210		Installation of flying stay assembly	1	ea	
1220		Install fly-stay-Pole incl accessories	1	ea	
6-MAINTENANCE	SECTION 6: STREET LIGHTS (CONSTRUCTION AND MAINTENANCE) AND HIGH MAST MAINTENANCE CARRIED FORWARD				

CONTRACT NUMBER:		PUBLIC LIGHTING CONSTRUCTION AND MAINTENANCE			SECTION 6
ITEM CODE	PAYMENT REFERS	DESCRIPTION	UNIT	QTY	RATE
6	SECTION 6: STREET LIGHTS (CONSTRUCTION AND MAINTENANCE) AND HIGH MAST MAINTENANCE CARRIED FORWARD				
1230		Install & fix inter-pole incl. all accs	1	ea	
1240		Install & fix Double Shackle pole incl. accs	1	ea	
1250		Install & fix Terminal-pole incl. accs.	1	ea	
1260		Pole-mounted DB 1&3 phase boxes	1	ea	
1270		Install, Comm street light SDB/SPB on plinth	1	ea	
1280		Install pole-ext- 2,3m (M way)	1	ea	
1290		Installation of lamps only	1	ea	
1300		Cleaning of Luminaire bowls	1	ea	
1310		Install fitting & lamp (Different sizes)	1	ea	
1320		Install stl lmr & 100mm-brack incl Lamp	1	ea	
1330		Remove and replace any size luminaire incl lamp	1	ea	
1340		Supply 200W LED PV floodlight for high Mast	1	ea	
1350		Supply 100W LED PV floodlight for street lights	1	ea	
1360		Supply 100W LED floodlight for street lights	1	ea	
1370		Supply 57W LED floodlight for street lights	1	ea	
1380		Supply 72W LED floodlight for street lights	1	ea	
1390		Supply 75W LED PV floodlight for street lights	1	ea	
1400		Supply 75W LED PV floodlight for street lights	1	ea	
1420		Supply 75W LED floodlight for street lights	1	ea	
1430		Install & wire Photocell	1	ea	
1440		Install & wire Timer	1	ea	
1450		Install & wire ripple receiver	1	ea	
1460		Install & wire ripple transmitter	1	ea	
1470		Replace Timer	1	ea	
1480		Replace photo-electrical cell	1	ea	
1490		Replace Timer	1	ea	
1500		Replace ripple receiver	1	ea	
1520		Repalce ripple transmitter	1	ea	
1530		Install Streetlight Control circuit in L/C	1	ea	
1540		Remove and install a timer	1	ea	
1550		Remove and install a ripple relay	1	ea	
1560		Replace pole cover only	1	ea	
1570		Straightening of skew poles	1	ea	
1580		Install or replace street light bracket - all sizes	1	ea	
1590		Removal of welded covers	1	ea	
1600		Welding of pole covers	1	ea	
1620		Wire any pole size	1	ea	
1630		Numbering of all poles	1	ea	
1640		Painting of all poles (Any Length)	1	ea	
1650		Sleeving of poles	1	ea	
1660		install pole earths ,incl. all excav.	1	ea	
1670		Install stainless steel wire rope	1	ea	
6-MAINTENANCE	SECTION 6: STREET LIGHTS (CONSTRUCTION AND MAINTENANCE) AND HIGH MAST MAINTENANCE CARRIED FORWARD				

CONTRACT NUMBER:		PUBLIC LIGHTING CONSTRUCTION AND MAINTENANCE			SECTION 6
ITEM CODE	PAYMENT REFERS TO	DESCRIPTION	UNIT	QTY	RATE
1680		Install 4-way term block & photocell	1	ea	
1690		Install a by-pass switch for photo cell	1	ea	
1700		convert exist_ inner door to vandalproof	1	ea	
1710		disconnect and lower mast as specified	1	ea	
1720		disconnect & remove-photo elec. switch	1	ea	
1730		inspection and certification of Masts	1	ea	
1740		inspection and report on suspect/fault	1	ea	
1750		inspection, tests and report on masts	1	ea	
1760		install earth leakage isolator_mast DB	1	ea	
1770		lowering and raising of sectional poles	1	ea	
1780		lowering and raising a luminaries	1	ea	
1790		mech & electrical tests on repairs	1	ea	
1800		painting damaged galvanizing	1	ea	
1810		Lowering and raising a repaired mast	1	ea	
1820		replace 1,5mm ² x 3 core silicone insul.	1	ea	
1830		replace 16 amp 220 volt switched socket	1	ea	
1840		replace 2,5mm ² x 5 core trailing cable	1	ea	
1850		replace 30 amp triple pole circuit	1	ea	
1860		replace 5 pin male plug top on trailing	1	ea	
1870		replace 5 pin socket outlet in mast	1	ea	
1880		replace 60 amp fusebase, cart and fuse	1	ea	
1890		replace cable separator	1	ea	
1900		replace complete DB inside mast	1	ea	
1910		replace compression glands for above	1	ea	
1920		replace faulty contactor	1	ea	
1930		replace fiberglass hood/canopy	1	ea	
1940		replace luminaries cable splitter box	1	ea	
1950		replace neutral bar on mast DB.	1	ea	
1960		replace only 250 HPS watt lamp	1	ea	
1970		replace only 500 HPS watt lamp	1	ea	
1980		replace only 500 MV watt lamp	1	ea	
1990		replace only 1000 HPS watt lamp	1	ea	
2000		replace only 1000 MV watt lamp	1	ea	
2010		retrofit only 200 EE HPS watt lamp	1	ea	
2020		replace only 400 HPS watt lamp	1	ea	
2030		replace only HPS watt lamp	1	ea	
2040		replace pole cover only	1	ea	
2050		replace pulley& hous. 4 steel wire rope (per mast)	1	ea	
2060		replace pulleys for trailing cable (per mast)	1	ea	
2070		replace steel wire ropes complete with accessories	1	ea	
2080		reset any size circuit breaker	1	ea	
2090		replace and reset single pole circuit	1	ea	
2100		replace and reset triple pole circuit	1	ea	
2110		replacing and tack welding a new nuts (per mast)	1	ea	
6	SECTION 6: STREET LIGHTS (CONSTRUCTION AND MAINTENANCE) AND HIGH MAST MAINTENANCE CARRIED FORWARD				

CONTRACT NUMBER:		PUBLIC LIGHTING CONSTRUCTION AND MAINTENANCE			SECTION 6
ITEM CODE	PAYMENT REFERS TO	DESCRIPTION	UNIT	QTY	RATE
2120		replacing and tack welding a used nuts (per mast)	1	ea	
2130		Replace street light bracket - all sizes	1	ea	
2140		Install street lighting luminaries-all sizes	1	ea	
2150		supply and install complete DB	1	ea	
2160		supply and mount stubby as specified	1	ea	
2170		supply new vandal proof inner door	1	ea	
2180		touch up paint (per container)	1	ea	
2190		collection of material from stores	1	ea	
2200		compaction certificate (public roads)	1	ea	
2210		provision of security per 12hr shift	1	ea	
2220		decommissioning of meters	1	ea	
2230		decommissioning of supply	1	ea	
2240		commissioning of supply	1	ea	
2250		Transport material during normal hrs	1	ea	
2260		Transport cable and large equipment	1	ea	
2270		prep of As-built drwgs electronically	1	ea	
2280		preparation of hand over documents	1	ea	
2290		Inspect/remove and replace 5 A 1 phase meter	1	ea	
2300		Inspect/remove & replace polyphase meter	1	ea	
2310		Second visit to check for tampering	1	ea	
2320		Hand prescribed notice for irregularity	1	ea	
2330		Issue Engineer with cert. of completion	1	ea	
2340		Install hasp & staple	1	ea	
2350		Standby - Special Events(per occasion) incl Technician, assistant & vehicle	1	ea	
2360		Supply of 4core x 16mm CU PVC SWA PVC 600/1000V	1	m	
2370		Supply of 4core x 25mm CU PVC SWA PVC 600/1000V	1	m	
2380		Supply of cement	1	ea	
2390		String ABC (new) of 35mm ² (4/5 core)	1	m	
2400		String ABC (new) of 50mm ² (4/5 core)	1	m	
2410		Retentioning of ABC of 35mm ² (4 core)	1	m	
2420		Retentioning of ABC of 50mm ² (4 core)	1	m	
2430		Retentioning of ABC of 35mm ² (4 core plus SL)	1	m	
2440		Retentioning of ABC of 50mm ² (4 core plus SL)	1	m	
2450		Removal of ABC 35mm ²	1	m	
2460		Removal of ABC 50mm ²	1	m	
2470		Retentioning of Fox per conductor	1	m	
2480		Retentioning of Mink per conductor	1	m	
2490		Retentioning of Hare per conductor	1	m	
2500		Retentioning of Squirrell per conductor	1	m	
2510		Retentioning of Ferret per conductor	1	m	
2520		Stringing of Fox per conductor	1	m	
2530		Stringing of Mink per conductor	1	m	
6-MAINTENANCE	SECTION 6: STREET LIGHTS (CONSTRUCTION AND MAINTENANCE) AND HIGH MAST MAINTENANCE CARRIED FORWARD				

CONTRACT NUMBER:		PUBLIC LIGHTING CONSTRUCTION AND MAINTENANCE			SECTION 6
ITEM CODE	PAYMENT REFERS TO	DESCRIPTION	UNIT	QTY	RATE
2540		Stringing of Hare per conductor	1	m	
2550		Removal of Fox per line (Not ABC)	1	m	
2560		Removal of Mink per line (Not ABC)	1	m	
2570		Removal of Hare per line (Not ABC)	1	m	
2580		Cable Fault finding (per cable)	1	ea	
2590		Spotting streetlights (No Repairs incl) Technician & Vehicle per Hour	1	ea	
2600		Removal and transportation of highmast	1	ea	
2610		Stringing ABC 1x25mm	1	M	
2620		Install double strain fitting	1	ea	
2630		Install suspension fitting	1	ea	
2640		Install IPCS	1	ea	
2650		LV jointing	1	ea	
2660		Install box	1	ea	
2670		Bandit strapping	1	ea	
2680		Install circuit breakers	1	ea	
2690		Label service cables	1	ea	
2700		Decommission existing LV line	1	ea	
2710		Removal of redundant cables off pole	1	M	
2720		Test ABC	1	ea	
2730		Test service cables	1	ea	
2740		Test Service cable (loop impedance)	1	ea	
2750		Lifting of paving	1	M2	
2760		Reinstatement of paving	1	M2	
2770		Installation of stay pedestal	1	ea	
2780		Installation of plain mast dis 1	1	ea	
2790		Numbering of steel poles	1	ea	
2800		Hard hand pickable soil	1	M3	
2810		Hard hand pickable soil with soft rock	1	M3	
2820		Removal of rubble from site	1	M3	
2830		Sign board	1	ea	
2840		Traffic deviation	1	ea	
2850		Cutting and removal of tarred pavement	1	M3	
2860		Reinstatement of tar	1	M3	
2870		Remove and replace Luminaries	1	ea	
2880		Install / replace pole mounted street light	1	ea	
2890		Termination for 95 - 185 mm ² x 4 core CU	1	ea	
2900		Joints for 95 - 185 mm ² x 4 core CU 600/	1	ea	
2910		Termination for ABC up to 120 mm ²	1	ea	
2920		Lay 95 - 185 mm ² 4 core SWA cable	1	M	
2930		Lay 16 mm ² or less 4 core SWA cable	1	M	
2940		Painting of steel pole	1	ea	
2950		Supply and install high mast luminaire ring	1	m	
6-MAINTENANCE	SECTION 6: STREET LIGHTS (CONSTRUCTION AND MAINTENANCE) AND HIGH MAST MAINTENANCE CARRIED FORWARD				

[illegible]

CONTRACT NUMBER:		PUBLIC LIGHTING CONSTRUCTION AND MAINTENANCE						SUMMARY
SECTION	DESCRIPTION							AMOUNT
SECTION 1	PRELIMINARY AND GENERAL							
SECTION 2	HIGH MAST FOUNDATIONS							
SECTION 3	INSTALLATION OF NEW SOLAR AND CONVENTIONAL MASTS							
SECTION 4	CONVERSION OF CONVENTIONAL MASTS TO SOLAR							
SECTION 5	INSTALLATION OF STREETLIGHTS							
SECTION 6	STREET LIGHTS (CONSTRUCTION AND MAINTENANCE) AND HIGH MAST MAINTENANCE							
SUBTOTAL								
ADD VAT @ 15%								
TOTAL PROJECT CONSTRUCTION COSTS								



MIDVAAL LOCAL MUNICIPALITY

BID NO.: (8/2/2/446) (5EP/4EPPE OR HIGHER) (2025-2028)

**REFURBISHMENT AND INSTALLATION OF HIGHMAST LIGHTS AND STREET LIGHTS
FOR MIDVAAL LOCAL MUNICIPALITY ON AN AS AND WHEN REQUIRED BASIS
FROM DATE OF AWARD FOR A PERIOD OF 36 MONTHS**

C3: SCOPE OF WORK

C3 Scope of Work

1 DESCRIPTION OF THE WORKS

1.1 Employer's objectives

The employer's objectives are to:

- a) provide public lighting to the Midvaal community at a lower cost enhancing overall security at night
- b) to reduce the energy demand by utilizing energy efficient lighting system using conventional LED luminaires as well as solar LED floodlights
- c) to have equipment in the network which is high quality at low capital and maintenance costs
- d) to match new high masts to maintenance equipment that is already within use in the municipality
- e) have infrastructure which is simple in execution, operation and maintenance
- f) have infrastructure that lends itself to perform well despite lack of human skills and other restrictions, typical of a developing country environment.

1.2 Overview of the works

The work is on an as and when required basis from date of award for a period of 36 months. The works include:

A) SUPPLY DELIVERY TO SITE AND INSTALLATION OF CONVENTIONAL 30M HIGH MASTS

- a) Supply 30m high mast galvanized steel column inclusive of luminaire ring, 3 rope hoisting system, baseplate, foundation bolts template, access door, design drawings signed off by manufacturer structural engineer. Designed to SANS 10225. Mast is designed for category 2 terrain, wind speed 144km/h. The works include delivery of mast to site, design of mast foundations as per the soil tests, excavation of foundation holes and removal of poor load bearing soil, and all necessary concrete works for the 30m masts. The mast installation shall include the supply and installation, connection, testing and commissioning of surface mounted glass fibre distribution boards (IP30) inside the mast/s poles, complete with photocell control and all wire equipment, switch gear and wiring diagrams; including all wire trays, doors, labels, locks, architrave, busbars, conduit connections and wiring connections-supply cable connection include prewired splitter box and 5 core trailing cable. Ensuring that you take acceptable measures to vandal proof the installation.
- b) Supply and install 6 x 200W LED Luminaire (IP66) on each mast. The luminaire shall be complete with lamps control gear and aiming indication. The tenderer shall provide simulation results of the light fitting where six of the fittings are installed on a luminaire ring on a 30m high mast, simulated for 3 masts arranged 300m apart in equilateral triangle position.
- c) Provide SABS approved lightning protection/earthing system complete including drawings and earth resistance readings.
- d) Where required, construct an overhead line network from an existing pole mounted transformer to feed the installed high masts.

- e) Provide power supply from the network to the high mast by use of the 4 core 16mm² 600V/1000V, Cu, SWA cable or the equivalent AL cable.
- f) Provide a certificate of compliance for the installation.

B) MAINTENANCE OF VANDALISED 30m HIGH MASTS

- a) Provide a crane for lowering and lifting of the entire the high mast.
- b) Conduct an assessment of the lowered high mast. The works on the high masts include but may not be limited to:
 - i) Supply and installation of the high mast luminaire ring.
 - ii) Supply and installation of the three rope hoisting system, including rollers, eye-bolts and thimbles, etc
 - iii) Supply and installation of the fibreglass canopy
 - iv) The supply and installation, connection, testing and commissioning of surface mounted glass fibre distribution boards (IP30) inside the mast/s poles, complete with photocell control and all wire equipment, switch gear and wiring diagrams; including all wire trays, doors, labels, locks, architrave, busbars, conduit connections and wiring connections-supply cable connection include prewired splitter box and 5 core trailing cable
 - v) Supply and install 6 x 200W LED Luminaire (IP66) on each mast. The luminaire shall be complete with lamps control gear and aiming indication. The tenderer shall provide simulation results of the light fitting where six of the fittings are installed on a luminaire ring on a 30m high mast, simulated for 3 masts arranged 300m apart in equilateral triangle position.
 - vi) High mast earthing.
 - vii) The supply and installation of a vandalism –proof access door.
 - viii) Supply and install a pole top box, t-off with a 16mm² 4 core Cu 600V/1000V from the existing overhead line network to provide power to the high mast distribution board.
 - ix) Repair high mast grouting

C) INSTALLATION OF CONVENTIONAL MAINS POWERED STREET LIGHTS

- a) Supply 100W LED or equivalent streetlights
- b) Provide datasheets of the proposed streetlight
- c) Install the light fitting on existing wooden poles on an overhead line network
- d) Supply and installation of streetlight poles, these may be gooseneck or henley poles

D) SUPPLY DELIVERY TO SITE AND INSTALLATION OF SOLAR 22M HIGH MASTS

- a) Supply 22m high mast galvanized steel column inclusive of luminaire ring, 3 rope hoisting system, baseplate, foundation bolts template, access door, design drawings signed off by manufacturer structural engineer. Designed to SANS 10225. Mast is designed for category 2 terrain, wind speed 144km/h.
- b) The works include delivery of mast to site, design of mast foundations as per the soil tests,
- c) Excavation of foundation holes and removal of poor load bearing soil the foundation holes
- d) The casting of concrete for the high mast, this shall include mast earthing as well as positioning of high mast bolts in the concrete.
- e) After the curing period of the concrete, the 22m mast shall be installed onto the bolts, this shall require the use of a crane.

- f) Supply and install 8 x 150W solar LED Luminaire (IP66) on each mast. The luminaire shall be complete with lamps, MPPT, battery, inverter and solar panel and all necessary equipment for complete and automatic switching operation
- g) Provide SABS approved lightning protection/earthing system complete including drawings and earth resistance readings.

E) CONVERSION OF CONVENTIONAL EXISTING 30M RAILOW MASTS TO 22M SOLAR MASTS

The works for conversion of mains powered 30m railow masts to 22m solar masts shall entail:

- (a) Use of a single drum or doble drum winch to lower the existing luminaire ring with old HPS fittings
- (b) Removal of old HPS fittings, the existing luminaire ring, the existing steel rope suspension system, existing distribution boards or cables in the mast
- (c) Lowering of the 30m high mast by use of a crane
- (d) Cutting the mast to 22m
- (c) Supply and installation of new PV luminaire ring, mast head, pulleys and steel rope suspension system
- (d) Raising of the 22m high mast by use of a crane and installation thereof.
- (e) Supply and installation of PV luminaires onto the luminaire ring
- (f) Lifting of the luminaire ring by use of the winch
- (g) Supply and installation of a vandal proof access door
- (h) delivery of old material to the municipality premises
- (i) The works shall include simulation tests of the PV floodlights to ensure their suitability for the conversion

(F) INSTALLATION OF CONVENTIONAL SOLAR POWERED STREET LIGHTS

The scope of works shall entail:

- (a) The supply of streetlight poles
- (b) The supply of solar LED streetlights / floodlights
- (c) Excavation of holes, planting of poles, backfilling and compacting
- (d) Streetlight earthing
- (e) the conversion of existing streetlights from mains power to solar streetlights

1.3 Extent of the works

The *Contractor shall* provide all Plant, Materials, Equipment and Labour for the whole of the *works*, which includes:

Permanent work

- Execute all the scope of works and upgrades as instructed in the detailed design drawings.
- Test and Commission the High masts and street lights and issue certificates of compliance.
- Attendance of all defects during the defect liability period.

Restrictions in Providing the Works

Visit every resident and arrange access for mid-block high masts and for street lights.

Treat residents in a courteous, friendly and polite manner and keep them informed of changes to the required access.

Foster close relationships with recognised community structures.

Staff other than key *Contractor*-staff is employed from the local community.

Definition of Completion

The *works* are to be completed in accordance with the specifications in all respect and taken-over by the *Employer*, except cleaning of the *site* and breaking of camp which may be done within 1 week after Completion

1.4 Location of the works

1.4.1 High Mast and street lights are in Midvaal Local Municipality.

1.5 Temporary works

Clear the right of way and campsites, in order to erect the necessary site offices, own accommodation facilities, sanitary units, bulk water containers, site store, etc.

The works also include the clean-up of site camp and site store, as well as transportation of excess material not used, back to the stores.

2. Drawings

- 1.1 High Mast Mapping Drawing
- 1.2 Typical street light drawing
- 1.3 Typical scissor mast drawing
- 1.4 Typical high mast detail drawing
- 1.5 Typical solar high mast drawing

3. Procurement

3.1 Preferential procurement procedures

The works shall be executed in accordance with the conditions attached to preferences granted in accordance with the preferencing schedule.

3.2 Scope of mandatory subcontract work

Portions of the works can only be subcontracted to CIDB registered contractors. The contractor shall compile work packages for work that he/she intends to subcontract. The work package shall be submitted to the Engineer who will determine if the work can be subcontracted.

Competitive tenders shall be invited in respect of each of the above portions of the works in accordance with the relevant provisions of the latest edition of the CIDB Standard for Uniformity in Construction Procurement. The Contract Data in the associated procurement documents shall be based on the use of BIFSA Non-Nominated Subcontract for use with the JBCC Series 2000 Principal Building Agreement / CIDB Standard subcontract (labour only) / JBCC series 2000 Nominated / Selected Subcontract Agreement / SAFCEC General conditions of subcontract (2003 edition) (select appropriate option) / NEC Engineering and Construction Subcontract / NEC Engineering and Construction Short Subcontract with minimal project specific variations and amendments that do not change their intended usage.

The Employer together with the Contractor shall evaluate the tenders received in accordance with the provisions of the Standard Conditions of Tender contained in Annex F of Standard for Uniformity in Construction Procurement. The evaluation panel shall comprise equal representatives from the Employer and from the Contractor.

The Contractor shall without delay enter into contract with the successful tendering subcontractor based on their accepted tender submission. The Contractor shall remain responsible for providing the subcontracted portion of the works as if the work had not been subcontracted. Subcontracting shall be to subcontractors within Midvaal Local Municipality except for specialised works.

4. CONSTRUCTION

Applicable national and international standards

The standard specifications on which this contract is based are Standard South Africa's Standardized Specifications based on the specifications of department of public works as below:

A. PVC-INSULATED CABLES 600/1 000V GRADE

1. GENERAL

This section covers the requirements for PVC-insulated cables for general installations under normal environmental conditions.

2. CONSTRUCTION

2.1 Cables shall be manufactured in accordance with SANS 1507, shall come only from fresh stocks, and shall be constructed as follows:

- (a) Unarmoured cables PVC-insulated/PVC-sheathed
- (b) Armoured cables PVC-insulated/PVC-bedded/armoured/black extruded PVC outer sheath
- (c) Single core cables PVC-insulated/unsheathed

2.2 The conductors shall be of high conductivity annealed stranded copper and the cores may be shaped

or circular.

- 2.3 The insulation shall be general purpose PVC, 600/1 000V Grade.
- 2.4 The bedding shall consist of a continuous impermeable sheath of PVC extruded to fit the core or cores closely and in the case of multi-core cables, to fill the interstices between the cores.
- 2.5 Where armouring is specified it shall consist of one layer of galvanised steel wire in the case of multi-core cables and nonmagnetic metallic wire in the case of single core cables. Aluminium strip or tape armouring is not acceptable.
- 2.6 Where specified, an earth continuity conductor shall be provided in the armouring in accordance with SANS 1507.

3. PVC-SHEATHED ALUMINIUM-COVERED CABLES

- 3.1 Aluminium-covered cables shall comprise PVC-insulated copper conductors protected by an aluminium foil tape screen and a PVC sheath.
 - 3.2 Cable ends shall be made off with compression glands fitted with a neoprene ring to seal the end.
 - 3.3 Aluminium sheathed cable shall be installed on surface only using matching saddles installed at suitable intervals to prevent sagging.
- A.** Where exposed to sunlight, the cable shall have a stabilised black outer sheath.

4. LENGTHS

Cable shall be manufactured and supplied in one length to the lengths specified unless these lengths exceed a standard drum length in which case a ruling shall be obtained from the Department.

5. TESTS

At the option of the Department, acceptance tests shall be carried out on production runs of the cable in accordance with SANS 1507.

B. GLANDS FOR PVC-INSULATED CABLES

1. Glands to be used for terminating PVC/PVC/SWA/PVC cables shall be of the adjustable type.
2. Glands shall be suitable for general purpose 600/1 000 V Grade cable with steel armouring.
3. The glands shall be made of nickel-plated cadmium plated or in coastal area bronze or brass.
4. The glands shall consist of a barrel carrying a cone bush screwed into one end and a nickel-plated brass nipple carrying a nickel-plated brass or a heavy galvanised steel locknut screwed into the other end. The galvanising shall comply with SANS 32 & 121.
5. Non-watertight glands must be easily converted to watertight glands by means of a waterproofing shroud and inner seal kit. On the cable entry side of the barrel a concave groove shall be provided to accommodate the top rim of the waterproofing shroud.
6. The shrouds shall be made of non-deteriorating neoprene or other synthetic rubber, and shall be resistant to water, oil and sunlight. The shrouds shall fit tightly around the glands and cable.
7. Glands shall be provided with ISO threads and shall be suitable for the specified cable sizes.
8. Flameproof glands shall comply with SANS 808, Groups 1, 2a and 2b.
9. Suitable accessories shall be provided with glands to be used on ECC armoured cables to facilitate a bolted lug connection of the earth continuity conductors. Grooves cut into the barrel or cone bush to accommodate the earth continuity conductors are not acceptable.
10. For unarmoured cables the cone bush and compression ring of the gland shall be replaced with a synthetic rubber compression bush and ring to provide the required grip on the outer sheath of the cable.

C. CABLE TERMINATIONS AND JOINTS

1. HEAT-SHRINKABLE MATERIALS

1.1 GENERAL

- 1.1.1 Heat-shrinkable materials may only be used in exceptional circumstances with the written permission of the Department.
- 1.1.2 The complete kit shall be packed in a container that is marked for the type of cable insulation and construction as well as the voltage range for which the materials are suitable.
- 1.1.3 An illustrated set of instructions for the installation of the materials shall accompany every kit.
- 1.1.4 The joints and terminations shall make minimal, if any, use of insulating or stress relieving tapes. The use of electrical stress control and insulating tubing that is heat-shrunk onto the termination or joint, is preferred above other methods.
- 1.1.5 The materials shall comply with VDE 0278 and the supplier shall be called upon to confirm this aspect before acceptance of the materials or installation.
- 1.1.6 The heat-shrinkable and other materials used for the terminations and joints shall be of a high quality and shall retain their electrical and mechanical properties without deterioration.

1.2 TERMINATIONS WITH HEAT-SHRINKABLE MATERIALS

- 1.2.1 Terminations shall be made of a material that gives lasting protection against ultraviolet radiation.
- 1.2.2 The cores of all cables terminated outdoors and the cores of 3,3 kV and higher voltage cables terminated indoors, shall be completely covered with a shrunk-on protective layer against surface tracking, ultraviolet radiation and weathering.
- 1.2.3 Outdoor terminations shall be designed to prevent flashover under wet or contaminated conditions and to ensure additional mechanical strength. This shall be achieved with shrunk-on insulating spacers and rain shields.

1.3 JOINTS WITH HEAT-SHRINKABLE MATERIALS

- 1.3.1 The electrical continuity of all the conductors, screens and armouring shall not be impaired by the joints and the earth continuity shall be accomplished within the joints, i.e. no external earth continuity conductor that will be subject to corrosion, is acceptable. The joints shall be completely covered by a watertight sheath to prevent corrosion.
1. In the case of joints in cables with an outer PVC anti-electrolysis sheath, the joints shall be subject to the same electrical insulation test as the outer sheath of the cable.

2. RESIN FILLED JOINTS

- 2.1 The resin filled joint kit shall comprise a self-sealing plastic mould of high mechanical strength having sufficient connector space.
- 2.2 The exact amount of cold hardening resin shall be provided in a two-compartment plastic bag.
- 2.3 The resin shall have absolute minimum shrinkage.
- 2.4 The mould and resin shall be completely waterproof and non-hygrosopic and shall be resistant to ultraviolet radiation.

Joint kits shall be of "SCOTCHCAST", "CELLPACK" or similar

3. CABLE JOINTS BOX

- 3.1 Cable joint boxes shall be manufactured of die cast aluminium material for normal conditions or glass fibre reinforced thermosetting compound where exposed to corrosive conditions.
- 3.2 The lid shall provide an absolute moisture barrier.
- 3.3 Boxes shall contain 2, 3 or 4 entries as required.
- 3.4 Unused entries shall be sealed with watertight blanking plugs.
- 3.5 Earth continuity shall be maintained through the box by means of the material of the box in the case of aluminium boxes or by means of earth straps and studs in the case of glass fibre reinforced boxes.

D. CONDUIT AND CONDUIT ACCESSORIES

1. GENERAL

This section covers the requirements for conduit and conduit accessories for general installations under normal environmental conditions.

The type of conduit and accessories required for the service, i.e. whether the conduit and accessories shall be of the screwed type, plain-end type or of the non-metallic type and whether metallic conduit shall be black enameled or galvanized, is specified in Part 2 of this specification. Unless other methods of installation are specified for certain circuits, the installation shall be in conduit throughout. No open wiring in roof spaces or elsewhere will be permitted.

The conduit and conduit accessories shall comply fully with the applicable SANS Specifications as set out below and the conduit shall bear the mark of approval of the South African National Standards.

- (a) Screwed metallic conduit and accessories: SANS 1065 parts 1 and 2.
- (b) Plain-end metallic conduit and accessories: SANS 1065 Parts 1 and 2.
- (c) Non-metallic conduit and accessories: SANS 950

Bushes used for metallic conduit shall be brass and shall be provided in addition to lock nuts at all points where the conduit terminates at switchboards, switch-boxes, draw-boxes, etc.

Only one manufacture of conduit and conduit accessories will be permitted throughout the installation.

All metallic conduits shall be manufactured of mild steel with a minimum thickness of 1,2mm for plain-end conduit and 1,6mm in respect of screwed conduit.

2. SCREWED CONDUIT

- 2.1 Conduits shall comply with SANS 1065 and shall bear the SANS mark.
- 2.2 All conduit shall be heavy gauge, welded or solid drawn, hot-dip galvanised or black enameled, screwed tube.
- 2.3 Galvanised conduit shall be hot-dipped inside and outside in accordance with SANS 32 & 121.
- 2.4 All conduit ends shall be reamed and threaded on both sides and delivered with a coupling at one end and a plastic cap on the other end.

3. METAL CONDUIT ACCESSORIES

All metal conduit accessories shall be of malleable cast iron or pressed steel with brass bushes in accordance with SANS 1065. Alloy or pressure cast metal accessories or zinc base alloy fittings are not acceptable. All fittings whether galvanised or black enameled, shall be fitted with brass screws.

4. CIRCULAR TYPE BOXES

- 4.1 The boxes shall be of the long spout pattern, manufactured of malleable cast iron or pressed steel and stove enamelled jet black or galvanised as required. The two cover fixing holes shall be diametrically opposite each other, drilled and tapped at 50mm centres.
- 4.2 Junction, draw-in and inspection boxes shall be of adequate size and shall be supplied with heavy gauge metal cover plates.
- 4.3 Boxes shall comply with SANS 1065.

5. SWITCH BOXES AND SOCKET OUTLET BOXES

- 5.1 All switch boxes and socket outlet boxes shall be manufactured of pressed galvanised steel of at least 1mm thickness. All boxes shall be fitted with the necessary lugs to suit standard flush mounted switches and socket outlets manufactured in accordance with SANS 1085.
- 5.2 Light switch boxes shall be 100 x 50 x 50mm with two 20mm knockouts on the sides, one 20mm knockout on the top, bottom, side and back.
- 5.3 Socket outlet boxes shall be 100 x 100 x 50mm with two 20mm knockouts each on the top, bottom, sides and back.
- 5.4 Switch and socket outlet cover plates shall comply with SANS 1084.

9. EARTH CLAMPS

Earth clamps shall consist of copper strips at least 1,2mm thick and not less than 12mm wide secured with a brass bolt, nut and washer and shall be so constructed that the clamp fit firmly to the conduit without any additional packing.

E. CABLE END BOXES AND COMPOUND

1. CABLE END BOXES

- 1.1 Cable end boxes shall be suitable to accept PLSTS, PLSTC, PESTS and PESTC cables.
- 1.2 The cable end boxes shall be of the metal clad type suitable for indoor or outdoor use as required for the specific application.

Only inverted type boxes shall be supplied for outdoor use. The insulators of the inverted type boxes are angled downwards.
- 1.3 The boxes shall be equipped with armour clamps and brass or gunmetal conical wiping glands.
- 1.4 All cable end boxes shall comply with BS 542.
- 1.5 The cable boxes shall be suitable for filling with bituminous, cold filling compound or resin oil semi-fluid compound.
- 1.6 The cable boxes for resin oil semi-fluid compound shall be equipped with a sight glass for compound level indication.

2. CABLE END BOX FILLING COMPOUND

- 2.1 Bituminous Compound
 - 2.1.1 The compound shall be suitable for filling metal clad cable end boxes.
 - 2.1.2 The compound shall comply with BS 1858, shall be non-hygroscopic and shall have a high dielectric strength and insulation resistance.

- 2.1.3 The compound shall have good adhesive properties and shall not be susceptible to cracking.
- 2.1.4 The compound shall be suitable for use in high ambient temperatures and system voltages of up to 22kV nominal.
- 2.2 Resin Oil Semi-fluid Compound
 - 2.2.1 The compound shall be suitable for filling metal clad cable end boxes with level indicators.
 - 2.2.2 The compound shall have a pouring temperature above 100°C,
 - 2.2.3 The compound shall be non-hygroscopic and shall have a high dielectric strength and insulation resistance.
 - 2.2.4 The compound shall have minimal contraction when cooling.
 - 2.2.5 Specification "HENLEY COMPOUND NO. 57018. INSULOL DG" conforms to this specification.

3. QUANTITY

An adequate quantity of compound shall be supplied to fill each cable end box. The supply of the compound is included in the contract. The compound level shall be checked after approximately 6 months and topped up.

F. WIRING TERMINALS

1. Terminal bodies and screws shall be of non-corrosive metal, enclosed in fire resistant, molded plastic insulating bodies. Terminal bodies or screws shall not project beyond the insulating material and shall afford suitable protection against accidental contact by personnel and against short circuits and tracking.
2. The construction of the terminal block and mounting rail shall be such as to ensure a firm and positive location of the terminal blocks. It shall be possible to add additional terminal blocks within the terminal sequence without having to disconnect or dismantle the terminal strip. The terminal blocks shall be held in position by means of standard end clamps.
3. It shall be possible to intermix terminals of various sizes, i.e. for different sizes of conductors, whilst utilizing the same mounting rail. Where smaller terminal blocks occur adjacent to larger terminal blocks, suitable shielding barriers shall be inserted to cover the terminals that might otherwise be exposed.
4. The terminal bodies and clamping screws shall be so constructed as to ensure that conductors are not nicked or severed when the clamping screws are tightened. Screws shall not come in direct contact with the conductors.
5. Terminals shall be sized and rated to match the conductors that are connected to them.
6. Each terminal block shall have provision for clip-in numbering or labelling strips to be installed, together with protective, clear caps over the sheets.

G. UNSWITCHED AND SWITCHED SOCKET-OUTLETS

1. GENERAL

This section covers the requirements for unswitched and switched socket-outlets for use in general installations under normal environmental conditions.

2. FLUSH AND SURFACE MOUNTED SWITCHED SOCKETS

- 2.1 All switched socket-outlets shall be suitable for mounting in 100 x 100 x 50mm or 100 x 50 x 50mm boxes, shall comply with SANS 164.
- 2.2 Switches shall be of the tumbler operated microgap type rated at 16A, 220/250V.
- 2.3 Terminals shall be enclosed for safe wiring.

- 2.4 Contacts shall be of silver material.
- 2.5 Safety shutters shall be provided on live and neutral openings.
- 2.6 The yoke strap shall be slotted to allow for easy alignment
- 2.7 The covers of surface mounted switched socket shall have toggle protectors.
- 2.8 Miniature circuit-breakers shall be used in lieu of a switch where specified.
- 2.9 Where 13A flat pin switched socket-outlets are specified, these shall comply with BS 1363.

3. WATERTIGHT SWITCHED SOCKETS

- 3.1 The housing of watertight switched sockets shall be of galvanised cast iron or die cast aluminium with watertight machined joints.
- 3.2 The switch shall have a porcelain base and a quick-acting spring mechanism and shall be rated at 16A. 220/250V.
- 3.3 The ON/OFF positions shall be clearly marked on the switch housing.
- 3.4 The socket openings shall be rendered watertight by means of a gasketed cover plate which is screwed onto the body of the unit. The cover plate shall be secured to the body of the unit by means of a chain.

4. UNSWITCHED SOCKET-OUTLETS

- 4.1 Unswitched socket-outlets shall only be used in the case of 5A, 220/250V, 3-pin socket-outlets intended for the connection of recessed light fittings installed in false ceilings.
- 4.2 The socket-outlets shall have shuttered live and neutral openings.
- 1.3 The socket-outlets shall be suitable for installation in pre-punched wiring channels. Deep round conduit boxes, 100 x 50 x 50mm or 100 x 100 x 50mm boxes.

5. THREE-PHASE SWITCHED SOCKET-OUTLETS

- 5.1 Three-phase switched socket-outlets shall have 5 pins, one for each phase, neutral and earth. The current rating shall be as specified in the Detail Technical Specification.
- 5.2 The units shall be interlocked to prevent switching on if the plug top is not installed.
- 5.3 The units shall be supplied complete with plug top.

H. MOULDED-CASE CIRCUIT-BREAKERS

- 1. This section covers single or multi pole molded case circuit breakers for use in power distribution systems, suitable for panel mounting, for ratings up to 1 000 A, 600 V. 50 Hz.
- 2. The circuit breakers shall comply with SANS 156.
- 3. The continuous current rating, trip rating and rupturing capacity shall be as specified.
- 4. The contacts shall be silver alloy and shall close with a high pressure wiping action.
- 5. Where specified, the circuit breaker shall be capable of accommodating factory fitted shunt trip or auxiliary contact units or similar equipment.
- 6. The operating handle shall provide clear indication of "ON", "OFF" and "TRIP" positions.
- 7. The mechanism shall be of the TRIP-FREE type preventing the unit from being held in the ON position under overload conditions.

8. All molded case circuit breakers in a particular installation shall as far as is practical be supplied by a single manufacturer.
9. The incoming terminals of single pole miniature circuit breakers shall be suitable for connection to a common busbar.
10. The circuit breaker shall have a rating plate indicating the current rating, voltage rating and breaking capacity.

I. KILOWATT-HOUR METERS

1. Unless specified to the contrary, kilowatt-hour meters shall be suitable for operation on 220/250 V. 50 Hz systems.
2. Meter elements shall be of the inductor disc type and designed to carry the rated current continuously.
3. Kilowatt-hour meters shall comply with the relevant parts of BS 37 and BS 5685.
4. The integrating period on maximum demand meters shall be 30 minutes unless specified to the contrary.
5. The registering mechanism shall be of the cyclometer type, providing a six digit readout with the sixth digit indicating one-tenth of a unit.
6. Unless specified to the contrary, the meters shall conform to accuracy Class 1 as specified in IEC 51.
7. Kilowatt-hour meters shall be graded and calibrated for the specific application to avoid the application of multiplication factors where possible. Where multiplication factors are unavoidable this shall be clearly indicated in unit form and not as a combination of several factors. Current transformer ratios shall be incorporated in the factor.
8. The kilowatt-hour meter shall preferably be provided with a magnetic type of bearing for the disc spindle.
9. Facilities for a security seal shall be provided on the fixing screws of the cover

J. EARTH LEAKAGE RELAYS

1. Earth leakage relays shall be single or three-phase units with a sensitivity of 30mA with associated circuit breaker or on-load switch for use on 220/250V single phase or 380/433 V three phase, 50 Hz, supplies.
2. The units shall be suitable for installation in switchboards in clip-in trays or bolted to the chassis.
3. The earth leakage relay shall function on the current balance principle and shall comply with SANS 767 as amended, and shall bear the SANS mark. Integral test facilities shall be incorporated in the unit.
4. Circuit breakers with trip coils used integrally with earth leakage units (two pole for single phase units and three pole for three phase units) shall comply with SANS 156.
5. On-load switches used integrally with earth leakage units (two pole for single-phase units and three pole for three phase units) shall comply with SANS 60497.
6. The fault current rating of the unit shall be 2,5kA or 5kA as required, when tested in accordance with SANS 156.

K. TIME SWITCHES AND PHOTOCELLS

1. Time switches shall be of single-pole type, suitable for 220/250 V systems, with contacts rated for the

duty to be performed with a minimum rating of 15A. Contacts shall be of high quality material, e.g. silver-plated or solid silver.

2. The clock shall be driven by a self-starting, hysteresis synchronous motor, keeping accurate mains time. All clocks shall be controlled by an electrically wound escapement providing the main spring with a minimum of 15 hours reserve in case of a power failure. The main spring shall be kept fully wound without the use of slipping clutch devices that may wear and fall out of adjustment.
3. The main spring shall have a minimum of 15 hours reserve under full load and if fully discharged, shall be completely rewound within 15 minutes of the restoration of power.
4. An external manual bypass switch shall be provided to permit the circuit to be switched "ON" or "OFF" manually without affecting the operation of the time switch.
5. The time switch shall have a 24 hour dial, with day and night indication, that can be set to switch in 30 minute steps. The dial shall be fitted with 48 tappets corresponding to 48 change-over operations in a 24 hour period.
6. The time switch shall be fitted with a day omission dial comprising 14 tappets, which can be set to switch in 12-hour steps.
7. The time switch shall be housed in a dust-tight molded plastic or metal case, consisting of a plastic clip-on front cover and a molded plastic or metal base. Time switches to be used for surface mounting on walls shall be provided with a suitably positioned 20mm conduit knock-out.

PHOTOCELLS

1. GENERAL

- 1.1 The switches shall be used for the control of streetlights and shall be provided with switch contacts able to carry at least 5 A. The current during no-load conditions may not exceed 50 mA.
- 1.2 The units shall be suitable for 240 V + 6%. 50Hz. single-phase alternating current.

2. CONSTRUCTION

- 2.1 The units shall be weather and vibration resistant as they are to be mounted on top of streetlight luminaires. The design shall be of such a nature that the units will be able to withstand both hail damage and damage by stone-throwers. If the units do not meet with these requirements, separate wire screens shall be provided for this purpose.
- 2.2 The units shall be provided with a standard NEMA plug and socket. The socket shall have a bracket for mounting on a pole.
- 2.3 All components shall be treated to be corrosion resistant.

3. OPERATING CONDITIONS

- 3.1 The units shall be suitable for operating under dusty conditions between temperatures of -5 EC and 55 EC.

4. TECHNICAL REQUIREMENTS

- 4.1 units shall switch on when the light intensity drops to 15 lux + 20% and shall switch off when the light intensity again reaches 40 lux + 20%.
- 4.2 When the unit is in the "on" position there must be a delay of one minute if it were to switch off in the case of a sudden increase in the light intensity.

L. CONTACTORS

1. Contactors shall be of the open or totally enclosed, triple- or double-pole, electromechanically operated, air-break type suitable for 380/433 V or 220/250 V supplies.
2. Contactors shall have the following characteristics:
 - (a) Enclosed coil easily replaceable.
 - (b) A permanent air gap in the magnetic circuit to prevent sticky operation.
 - (c) Provision for quick and simple inspection of contacts.
 - (d) Clearly marked main and auxiliary terminals.
3. All parts shall be accessible from the front.
4. Contactors which are not located in switchboards shall be housed in enclosures which comply with IP 54 of IEC 144.
5. The current rating of the contactor shall be as specified for the circuit with a switching duty in accordance with the ~~SANS 1092~~ or IEC 158-1, utilization category AC1 for lighting and power circuits and utilization category AC3 for motor starting.
6. In addition to the required current carrying capacity and switching duty of a contactor, the contactor chosen for a particular application shall be rated for the maximum through fault current allowed by the back-up protection devices at the point where the contactor is installed. Careful co-ordination of short circuit devices shall take place.
7. All laminations of the magnetic system of the contactor shall be tightly clamped. Noisy contactors will not be accepted.
8. Non-current-carrying metallic parts shall be solidly interconnected and a common screwed earth terminal shall be provided. The contactor shall be earthed to the switchboard earth bar.
9. Latched contactors shall be provided with a trip coil and a closing coil. The contactor shall remain closed after de-energizing the closing coil and shall only trip on energizing the trip coil.
10. Contactor operating coils shall have a voltage rating as required by the control circuitry and shall have limits of operation and temperature rise as specified in Clause 7.5 and Table IV of IEC 158-1. Latched contactors shall be capable of being tripped at 50% of the rated coil voltage.
11. Contactors for normal/standby changeover circuits shall be electrically and mechanically interlocked. Contactors in star-delta starters shall be electrically interlocked.
12. Contactors with provision to add auxiliary contacts and convert auxiliary contacts on site are preferred. Contactors with permanently fixed auxiliary contacts shall have at least 1 x N/O and 1 x N/C spare auxiliary contacts in addition to the contacts specified for control purposes and in addition to contacts required for self-holding operations or economy resistances. Where the number of auxiliary contacts required is greater than the number of contacts that can be accommodated on the contactor, an auxiliary relay or additional contactor shall be provided to supply the additional contacts.
13. It shall be possible to replace main contacts without disconnecting wiring.
14. Auxiliary contacts shall be capable of making, carrying continuously and breaking 6A at 230V AC, unity power factor for contactors used on 380-433/220-250 V systems.

UPGRADING OF HIGH MASTS AND STREET LIGHTS

15. Auxiliary contact functions required e.g. "lazy" contacts late-make, late-break, make-before-break, etc. shall be inherent in the contact design. Under no circumstances may these functions be improvised by bending contacts, loading contacts, etc. These functions shall be available in all contactors.
16. Spare auxiliary contacts shall be wired to numbered terminal strips in the switchboard and shall appear on the switchboard drawings.
17. All contactors on a specific project shall be from a standard range of one single manufacturer, unless specified to the contrary.

M. LED FLOODLIGHTING

1. GENERAL

- 1.1 To promote work creation in South Africa, the luminaire should preferably be manufactured within the Republic of South Africa and should have a local content of at least 50%.
- 1.2 If the luminaire offered is of foreign origin, full specifications on technical performance and quality must be submitted and full reasons shall be given why the unit had to be imported.
- 1.3 A sample luminaire shall be provided for evaluation and approval by the Electrical Engineer prior to installation.
- 1.4 Luminaires, associated equipment and control gear shall be new and unused and shall be supplied complete with lamps, control gear, diffusers, mounting brackets. etc. and shall be delivered to site in a protective covering.
- 1.5 Lamps shall be delivered separately.

2. STANDARDS

The following standard specifications of the South-African National Standards and the International Electrotechnical Commission shall apply to this luminaire specification:

The electrical engineering services shall comply with the following relevant standards: -

- The Code of Practice for Wiring of Premises, SANS 10142-1 where applicable.
- South African National Standard SANS 10225:2012. The design and construction of lighting masts,
- South African National Standard SANS1277 – Street lighting luminaires
- South African National Standard SANS 1279 – flood lighting
- South African National Standard 60598-2-3
- South African National Standard 62031 LED modules for general lighting
- SANS 60188: High-pressure mercury vapour lamps.
- IEC 662: High-pressure sodium vapour lamps
- IEC 61167: Metal Halide lamp
- SANS 1088:Luminaire entries and spigots.
- Any standard referred to in the above specifications.

3. PHYSICAL AND ENVIRONMENTAL REQUIREMENTS

- 3.1 AREAS OF APPLICATION: The LED floodlights are intended for standard exterior use on high mast lights which are 30m high. The LED floodlights for streetlights shall be mounted on 9m wooden poles
- 3.2 FIXING: The luminaires shall be suitable for mounting on vertical poles.

- 3.3 ENVIRONMENTAL: Unless otherwise specified in the detail specification the luminaires shall be suitable for operation in ambient temperatures between -10°C and +45°C. The luminaire shall have an ingress protection rating of IP55 in order to prevent air from entering the lamp compartment and this rating shall be certified by a SANS report.
- 3.4 ELECTRICAL SAFETY CLASS (IEC): CLASS I
- 3.5 POWER: the luminaire shall be LED power input 200W or equivalent for high masts and 100W for streetlights
- 3.6 COLOUR RENDERING INDEX: Minimum 70
- 3.7 MECHANICAL IMPACT WITHSTAND: IK08
- 3.8 SURGE PROTECTION: 10KV/10KA minimum
- 3.9 IP PROTECTION RATING: IP55 minimum
- 3.10 AVERAGE LIFE: 50 000hrs
- 3.11 MOUNTING HEIGHT: 30m for high masts and 9m for streetlights
- 3.12 COLOUR TEMPERATURE: 4000K (neutral white)
- 3.12 CORROSION RESISTANT MATERIAL: High pressure die cast Aluminium
- 3.14 LINE VOLTAGE: 230V
- 3.15 MAINS VOLTAGE TOLERANCE: 200V to 264V

4. PHOTOMETRIC DATA

Photometric data sheets of the luminaire as prepared by a laboratory that complies with SANS requirements, shall be submitted with the luminaire.

7. TECHNICAL INFORMATION

The Tenderer shall include full technical particulars regarding the luminaire offered with the tender.

N. SPECIFICATIONS FOR SOLAR HIGH MASTS

(a) The pole structure

The mast shall be of telescopic or railow shape which at the mast head allows for the accommodation of a luminaire ring.

The pole is designed to carry a maximum of 12 luminaires on the ring

The design shall be based on a pole height of 22m

The recommended pole shall be designed for a minimum 50-year horizon

The pole at the base shall have an access door and allows a single drum or double drum winch to be mounted. The access door shall have a locking mechanism which provides security and minimises vandalism.

The following mast parameters shall apply:

Description	Value
Altitude	1500m
Ambient temperature (degrees Celsius)	-15 to +65
Average humidity	54%
Wind velocity	40m/s
Mean annual rainfall	700mm
Lightning flashes density	7.5
Atmospheric pollution	Heavy

High mast structure shall be hollow centre and made from mild steel. The system shall be designed to comply with SANS 10255 at height of 22m.

The deflection of the mast top shall not exceed 2.5% of the mast height when subjected to two thirds of the maximum wind velocity.

The axis of the mast when erected shall not deviate from the vertical by more than 0.3% of the height above the base flange.

The mast shall carry at its top the floodlights evenly around its circumference.

(b) Luminaire ring

The luminaire carriage shall be of circle shape; formed of two semi-circles bolted together.

The ring shall be capable of carrying luminaires each a maximum of 50kg.

The luminaire ring shall have eight arms which are bolted and not welded to the ring to be movable and removable

(c) Lighting technology

The lighting technology shall be solar LED floodlight technology and shall:

- Lead to reduced maintenance cost, lasting longer than HPS systems
- Be corrosion resistant
- Withstand mechanical vibration due to wind and vehicles
- Be surge protected
- Survive high temperatures
- Light colour should be neutral white CRI of minimum 70
- The minimum lumen output of the luminaire shall be 14000lm
- The design considers technology which results in ease of use and requires maintenance

The following minimum parameters will apply:

i) Lamp / light source

Light Efficiency	120lm/W
Output minimum	14000lm
Colour Rendering index	70
Lifetime	>8 years
Weight	Maximum 50kg

ii) Battery

Battery type	LiFePO4
Capacity	1100Wh

iii) Charger controller

Type	MPPT
Circuit protection	Overcharge, discharge, short circuit, open load, lightning protection
Ingress protection	IP65
Operating temperature	-20°C to 45°C

(d) Suspension system

The mast shall include a luminaire ring which can be raised or lowered for installation and maintenance of luminaires without necessarily lowering the pole.

The high mast shall consist of a hoisting mechanism that consists of two or three stainless steel suspension ropes. At the mast head, each rope runs over a pair of pulleys. The mast head shall have a cover over the pulley system to avoid water ingress and minimise the effect of bird nesting on the system.

The suspension ropes shall terminate onto a plate inside the mast to give an inverted cone shape when the luminaire ring is pulled. The plate shall at the bottom allow a safety chain to be attached. The safety chain forms part of the locking mechanism inside the access door at the base of the mast that prevents lowering of the ring without a winch.

On the luminaire ring, the ropes shall go through an eyebolt with a wire rope thimble and crimped using ferrules.

g) Luminaries

The mast shall carry a maximum of 12 luminaires and minimum 6 luminaires. The luminaires shall be solar LED floodlights. The minimum solar LED floodlight parameters shall be as follows:

Description	Value
Power input	Upto 200W
Mean lumens	14000lm
System Efficacy	120lm/W
Average life	> 8 years
Colour Temperature	6000K
Colour Rendering Index (CRI)	>70
Weight	14kg maximum
Mechanical Impact Withstand	IK07
IP protection Rating	IP66
Corrosion resistant material	High pressure die-cast AL
Operating temperature range of LED luminaires	-40°C to +35°C
Mounting height of LED luminaires	22m

(e) Foundation

The high mast shall have a base plate which shall be bolted onto a concrete plinth.

Soil bearing pressure tests shall be performed for each selected mast position before casting concrete. The tests are to ensure that the soil load bearing conditions are suited to the specific concrete base design.

The minimum concrete strength shall be 25MPA.

O. SOLAR STREETLIGHTS SPECIFICATIONS

Item No.	Item Description	Value
1.	LED	
1.1	Lumen output	$\geq 12000\text{lm}$
1.2	Luminous Efficiency	120lm/W
1.3	Wattage	100W
1.4	Lens/ Beam angle	type III (155*70 degrees)
1.5	Daytime control	turns off automatically
1.6	Light failure	$< 3\%$ within 3000hrs
2	BATTERY	
2.1	Battery type	LiFePO4
2.2	Battery size	$> 80\text{Ah}$
2.3	Charging time	6- 7hrs
2.4	Cycles	> 2000 cycles / 8 to 10 years
2.5	Voltage	12V / 24V /36V /48V
3	SOLAR PANEL	
3.1	Panel type	Monocrystalline or better
3.2	Power rating	$> 120\text{W}$
4	MPPT CONTROLLER	
4.1	Charging and discharging protection, over voltage protection	
4.2	Reverse polarity protection	
4.3	Charging efficiency upto 98%	
5	HOUSING	
5.1	IP rating	$\geq \text{IP65}$
5.3	Mounting Height	7m -11m

C3.1.1 LIST OF DRAWINGS

APPLICABLE DESIGN DRAWINGS

To be given to successful contractor

DESCRIPTION	DRAWING NO.
1. High Mast Mapping Drawing	To be given to successful bidder
2. Street light mapping drawing	To be given to the successful bidder
3. Network drawings	To be given to the successful bidder
4.	
5.	
6.	



MIDVAAL LOCAL MUNICIPALITY

BID NO.: (8/2/2/446) (5EP/4EPPE OR HIGHER)

FOR THE APPOINTMENT OF A SERVICE PROVIDER FOR THE REFURBISHMENT AND INSTALLATION OF HIGHMAST LIGHTS AND STREET LIGHTS FOR MIDVAAL LOCAL MUNICIPALITY ON AN AS AND WHEN REQUIRED BASIS FROM DATE OF AWARD FOR A PERIOD OF 36

PORTION 2: CONTRACT

PART C3.2

GENERAL SPECIFICATIONS

C3.3: PROJECT SPECIFICATIONS

MATERIAL & EQUIPMENT SPECIFICATIONS

GENERAL

The Contractor shall install lighting luminaires in accordance with Municipal Standards and Eskom's Electrification Standards.

The new luminaires will be LED technology that replaces the old HPS installations in both the high masts and street lights. The LED fittings shall either be conventional mains powered or shall be solar powered.

LED FLOODLIGHT LUMINAIRES

1. SCOPE

This specification covers the requirements for floodlight luminaires, for outdoor applications, using LED technology with standard wattage ratings as specified in the project specification.

2. GENERAL

- 2.1 To promote work creation in South Africa, the luminaire should preferably be manufactured within the Republic of South Africa and should have a local content of at least 50%.
- 2.2 If the luminaire offered is of foreign origin, full specifications on technical performance and quality must be submitted and full reasons shall be given why the unit had to be imported.
- 2.3 A sample luminaire shall be provided for evaluation and approval by the Electrical Engineer prior to installation.
- 2.4 Luminaires, associated equipment and control gear shall be new and unused and shall be supplied complete with lamps, control gear, reflectors, mounting brackets, etc. and shall be delivered to site in a protective covering.
- 2.5 Lamps shall be delivered separately.

3. STANDARDS

The following standard specifications of the South-African National Standards and the International Electrotechnical Commission shall apply to this luminaire specification:

- 3.1 South African National Standard SANS 1279 – flood lighting
- 3.2 South African National Standard 60598-2-3
- 3.3 South African National Standard 62031 LED modules for general lighting

4. PHYSICAL AND ENVIRONMENTAL REQUIREMENTS

- 4.1 AREAS OF APPLICATION: The luminaires are intended for exterior use in high mast lighting
- 4.2 FIXING: The luminaires shall be suitable for mounting poles as described in the project Specification.
- 4.3 ENVIRONMENTAL: Unless otherwise specified in the detail specification the luminaires shall be suitable for operation in ambient temperatures between -10°C and +45°C. The luminaire shall have an ingress protection rating as indicated below and this shall be certified in a SANS report.
- 4.4 SAFETY: The luminaire shall bear the SANS 1464 safety mark.

5. GENERAL TECHNICAL REQUIREMENTS

5.1 General

- 5.1.1 The internal components of the luminaire shall be able to withstand internal temperatures of at least 45°C without resulting in any electrical or mechanical component exceeding its maximum rated operating temperature. Certified proof from an authorised testing facility shall be presented on request.
- 5.1.2 The luminaire shall bear the SANS 1279 and SANS 1464 marks.

5.2 Construction

- A. Floodlight shall be rated 200W or nearest equivalent that is rated to replace 400W HPS flood light luminaire

1. The luminaire shall consist of a body manufactured from high-pressure die-cast aluminium, or from filled ultra-violet stabilised glass-fibre reinforced polyester with a transparent prismatic diffuser.
2. The housing shall be equipped with a clear transparent high-impact resistant acrylic bowl, treated against discolouring due to UV and lamp radiation, with a silicon-rubber gasket. The dome shall preferably be hinged and mounted with stainless steel clips.
3. The luminaire shall be designed to accommodate the control gear, wiring, lamp holders, the diffuser and reflectors. It shall be possible to reach the control gear without disconnecting wiring or removing the luminaire.
3. The reflector shall be mounted on the luminaire body. The reflector shall be made from highly polished 99,98% pure specular anodised aluminum plate and shall be manufactured to give optimum performance with the prismatic diffuser as applicable. For wider beam spread, a hammered finish shall be provided.
5. All components, including screws, bolts and nuts utilised in the construction of the luminaire or fixing of its components, shall be corrosion proof. Cadmium plated, or stainless-steel materials are preferred.
6. The luminaire shall be provided with a cable entry at the back of the luminaire by means of a plastic gland. However, it shall be possible to provide 20mm diameter conduit entries or cable entries from the sides of the luminaire and suitable drilling indents or knockouts shall be furnished on the luminaire body.
- 6 A heavy gauge galvanised steel stirrup bracket for mounting the luminaire shall be supplied with the luminaire unless omitted in the project specification.
- 7 The luminaire shall have an ingress protection rating of at least IP43.

5.3 Internal wiring

- 5.3.1 Luminaires shall be completely wired internally. Conductors shall be protected with grommets where they pass through holes in the body or control gear trays.
- 5.3.2 The wiring shall be totally metal enclosed to prevent any possible contact with live components while changing lamps.
- 5.3.3 The conductor insulation shall be rated to withstand the temperature inside the luminaire body without deterioration.
- 5.3.4 The wiring shall terminate on a suitable terminal block having screw down plates bearing on the wires. Terminals where screws bear down directly on wires will not be acceptable.
- 5.3.5 Where circuits requiring the use of ignitors are used the wire between the ignitor and the lamp holder shall be insulated to withstand at least 5kV.

- 5.3.6 An earth terminal, forming part of the luminaire body, shall be provided. To ensure good earth continuity the earth terminal shall not be spray painted. The earth conductor shall be connected to this terminal by means of a crimped lug.

5.5 Control gear

- 5.5.1 The control gear, ballasts, capacitors and starters shall be designed and manufactured to suit the control circuitry adopted
- 5.5.2 Ballasts shall comply with IEC 922 and 923 as applicable and shall be suitable for operation on 220V to 250V, 50Hz supplies.
- 5.5.3 Ballasts shall further be suitable for the particular luminaire to ensure that the thermal limits specified in Clause 5.1.1 above are not exceeded.
- 5.5.4 The luminaire control gear shall be mounted onto the inside of the control gear compartment of the body on a separate mounting plate. The gear-mounting tray shall be manufactured from sheet steel at least 0,7mm thick and shall be epoxy powder coated.
- 5.5.5 The gear tray and luminaire body shall be equipped with the components suitable for the luminaires and lamps specified in the project specification.
- 5.5.6 In those applications where ignitors are used, these shall be of the superposed pulse type.

5.6 Capacitors

Capacitors shall comply with SANS 1250. The power factor of each complete fitting shall be corrected to at least 0,85.

5.7 Lamps

- 5.7.1 The following standard LED arrays shall be used for the purposes of this specification:

6. LIGHT DISTRIBUTION

The floodlights shall be available with at least three types of symmetrical light distribution characteristics. These shall be:

- 6.1 Wide beam
- 6.2 Medium beam
- 6.3 Narrow beam

7. PHOTOMETRIC DATA

Photometric data sheets of the luminaire as prepared by a laboratory that complies with SANS requirements, shall be submitted with the luminaire.

8. TECHNICAL INFORMATION

The Tenderer shall include full technical particulars regarding the luminaire offered with the tender.

STREET-LIGHT LUMINAIRES

1. SCOPE

This specification covers the requirements for streetlight luminaires, for outdoor applications, using LED technology with standard wattage ratings as specified in the project specification. The LED floodlights shall either be conventional mains powered or solar powered.

2. GENERAL

- 2.1 To promote work creation in South Africa, the luminaire should preferably be manufactured within the Republic of South Africa and should have a local content of at least 50%.
- 2.2 If the luminaire offered is of foreign origin, full specifications on technical performance and quality must be submitted and full reasons shall be given why the unit had to be imported.
- 2.3 A sample luminaire shall be provided for evaluation and approval by the Electrical Engineer prior to installation.
- 2.6 Luminaires, associated equipment and control gear shall be new and unused and shall be supplied complete with lamps, control gear, reflectors, mounting brackets, etc. and shall be delivered to site in a protective covering.
- 2.7 Lamps shall be delivered separately.

3. STANDARDS

The following standard specifications of the South-African National Standards and the International Electrotechnical Commission shall apply to this luminaire specification:

- 3.3 South African National Standard SANS1277 – Street lighting luminaires
- 3.4 South African National Standard 60598-2-3
- 3.3 South African National Standard 62031 LED modules for general lighting

4. PHYSICAL AND ENVIRONMENTAL REQUIREMENTS

- 4.1 AREAS OF APPLICATION: The luminaires are intended for exterior use in street lighting
- 4.2 FIXING: The luminaires shall be suitable for mounting on 9m wooden poles, steel gooseneck poles or henley poles Specification.
- 4.3 ENVIRONMENTAL: Unless otherwise specified in the detail specification the luminaires shall be suitable for operation in ambient temperatures between -10°C and +45°C. The luminaire shall have an ingress protection rating as stated below and this shall be certified in a SANS report.
- 4.4 SAFETY: The luminaire shall bear the SANS 1464 safety mark.

5. GENERAL TECHNICAL REQUIREMENTS

5.1 General

- 5.1.1 The internal components of the luminaire shall be able to withstand internal temperatures of at least 45°C without resulting in any electrical or mechanical component exceeding its maximum rated operating temperature. Certified proof from an authorised testing facility shall be presented on request.
- 5.1.3 The luminaire shall bear the SANS 1279 and SANS 1464 marks.

5.2 Construction

- B. Streetlight to be rated 100W or nearest equivalent that is rated to replace 250W HPS street

light luminaire

1. The luminaire shall consist of a body manufactured from high-pressure die-cast aluminum, or from filled ultra-violet stabilised glass-fibre reinforced polyester with a transparent prismatic diffuser.
2. The housing shall be equipped with a clear transparent high-impact resistant acrylic bowl, treated against discolouring due to UV and lamp radiation, with a silicon-rubber gasket. The dome shall preferably be hinged and mounted with stainless steel clips.
3. The luminaire shall be designed to accommodate the control gear, wiring, lamp holders, the diffuser and reflectors. It shall be possible to reach the control gear without disconnecting wiring or removing the luminaire.
4. The reflector shall be mounted on the luminaire body. The reflector shall be made from highly polished 99, 98% pure specular anodised aluminum plate and shall be manufactured to give optimum performance with the prismatic diffuser as applicable. For wider beam spread, a hammered finish shall be provided.
5. All components, including screws, bolts and nuts utilised in the construction of the luminaire or fixing of its components, shall be corrosion proof. Cadmium plated or stainless steel materials are preferred.
6. The luminaire shall be provided with a cable entry at the back of the luminaire by means of a plastic gland. However, it shall be possible to provide 20mm diameter conduit entries or cable entries from the sides of the luminaire and suitable drilling indents or knockouts shall be furnished on the luminaire body.
- 8 A heavy gauge galvanised steel stirrup bracket for mounting the luminaire shall be supplied with the luminaire unless omitted in the project specification.
- 9 The luminaire shall have an ingress protection rating of at least IP43.

5.3 Internal wiring

- 5.3.1 Luminaires shall be completely wired internally. Conductors shall be protected with grommets where they pass through holes in the body or control gear trays.
- 5.3.2 The wiring shall be totally metal enclosed to prevent any possible contact with live components while changing lamps.
- 5.3.3 The conductor insulation shall be rated to withstand the temperature inside the luminaire body without deterioration.
- 5.3.4 The wiring shall terminate on a suitable terminal block having screw down plates bearing on the wires. Terminals where screws bear down directly on wires will not be acceptable.
- 5.3.5 Where circuits requiring the use of ignitors are used the wire between the ignitor and the lamp holder shall be insulated to withstand at least 5kV.
- 5.3.6 An earth terminal, forming part of the luminaire body, shall be provided. To ensure good earth continuity the earth terminal shall not be spray painted. The earth conductor shall be connected to this terminal by means of a crimped lug.

5.5 Control gear

- 5.5.1 The control gear, ballasts, capacitors and starters shall be designed and manufactured to suit the control circuitry adopted
- 5.5.2 Ballasts shall comply with IEC 922 and 923 as applicable and shall be suitable for operation on 220V to 250V, 50Hz supplies.
- 5.5.3 Ballasts shall further be suitable for the particular luminaire to ensure that the thermal limits specified in Clause 5.1.1 above are not exceeded.
- 5.5.4 The luminaire control gear shall be mounted onto the inside of the control gear compartment of the body on a separate mounting plate. The gear-mounting tray shall be manufactured from sheet steel at least 0,7mm thick and shall be epoxy powder coated.

5.5.5 The gear tray and luminaire body shall be equipped with the components suitable for the luminaires and lamps specified in the project specification.

5.5.7 In those applications where ignitors are used, these shall be of the superposed pulse type.

5.6 Capacitors

Capacitors shall comply with SANS 1250. The power factor of each complete fitting shall be corrected to at least 0,85.

5.7 Lamps

5.7.1 The following standard LED arrays shall be used for the purposes of this specification:

6. LIGHT DISTRIBUTION

The floodlights shall be available with at least three types of symmetrical light distribution characteristics. These shall be:

- 6.1 Wide beam
- 6.2 Medium beam
- 6.3 Narrow beam

7. PHOTOMETRIC DATA

Photometric data sheets of the luminaire as prepared by a laboratory that complies with SANS requirements, shall be submitted with the luminaire.

8. TECHNICAL INFORMATION

The Tenderer shall include full technical particulars regarding the luminaire offered with the tender.

DISTRIBUTION BOARDS (Up to 1 kV)

1. GENERAL

1.1 Scope

This section covers the manufacturing and testing of flush mounted, surface mounted and floor standing distribution boards for general installations in normal environmental conditions and for system voltages up to 1 kV. For high mast installations, the distribution board shall consist of a 40A 3 pole circuit breaker minimum 3kA, 3 x 10A single phase circuit breakers, 1 x 5A circuit breaker for switching the photocell on and off, 1 x 5A circuit breakers to bypass the photocell, 1 x Photocell, 1 x 32A contactor 220A coil, a 5 pin welding plug and socket attached to the distribution board for connecting a 5 core trailing cable, 20A single phase earth leakage, 20A circuit breaker and socket for plugging a winch during operation.

1.2 Size

All distribution boards shall be of ample size to accommodate the specified switchgear and provide space for future switchgear. For every 4 (or part of 4) 5kA circuit-breakers on a switchboard, space for an additional 5kA circuit breaker shall be allowed unless future space requirements are clearly specified. For circuit breakers above 5kA, this factor shall be 15%. The clearance between adjoining switchgear openings shall be as specified in par. 6.2.

1.3 External Dimensions

The maximum allowable height of free-standing distribution boards is 2,2m. Cubicle type boards may be up to 2,4m high if they can be fully dismantled into individual cubicles. Where, due to space restrictions, a board exceeds 2,4m in height, equipment not normally requiring access, shall be installed in the top section, enabling equipment normally requiring access to be installed lower down in the board. All other specified external dimensions for distribution boards shall be strictly adhered to. If the clearances specified in par. 6.2 cannot be adhered to as a result of restricting external dimensions,

the Contractor shall obtain the approval of the Department before manufacturing the distribution boards.

1.4 Moisture and Vermin

All distribution boards shall be rendered moisture proof and vermin proof and shall be adequately ventilated. Refer to par. 4.10 and 4.11.

1.5 Load Balance

The load shall be balanced as equally as possible across multiphase supplies.

2. CONSTRUCTION OF FLUSH MOUNTED DISTRIBUTION BOARDS

2.1 Standard

Flush mounted distribution boards shall comply fully with SANS 1765. Unless the depths of the distribution boards are specified, the depths shall be determined in accordance with par. 6.

2.2 Expanded Metal

Where distribution boards are to be built into 115mm thick walls, expanded metal shall be spot-welded to the rear of the bonding trays. The expanded metal shall protrude at least 75mm on each tray side to prevent plaster from cracking.

2.3 Knock-outs

Knock-outs shall be provided in the top and bottom ends of each switchboard tray to allow for the installation of conduits for the specified and future circuits. Knock-outs shall be provided for an equal number of 20mm and 25mm dia. conduits.

2.4 Panel

Front panels shall have machine punched slots for housing the specified and future flush mounted switchgear. The distance between the inside of the closed doors and the panel shall not be less than 20mm. No equipment may be mounted on the panel unless the panel is permanently hinged to the switchboard frame.

2.5 Fixing of Front Panels

The front panel shall be secured to the architrave frame by means of 6mm studs and chromium-plated hexagonal domed nuts, hank nuts or captive fasteners. Alternatively the panel may be secured to the architrave frame by means of two pins at the bottom and a latch or lock at the top of the panel. Self-tapping screws will not be allowed. All front panels shall be provided with a minimum of one chrome plated handle.

2.6 Door Handles and Catches

Switchboard doors shall be equipped with handles and catches. Locks shall only be provided when specified. In all cases where lockable doors are required and in all cases where the switchboard doors are higher or wider than 450mm, handles consisting of a push-button-and-handle combination with spring loaded catch or rotary handle-and-catch combination shall be installed. Switchboard doors smaller than 450mm in height and width may be equipped with spring loaded flush mounted ring type latches. Square key operated catches are not acceptable unless specified.

EARTH LEAKAGE RELAYS

1. Earth leakage relays shall be single or three-phase units with a sensitivity of 30mA with associated circuit breaker or on-load switch for use on 220/250V single phase or 380/433 V three phase, 50 Hz, supplies.

2. The units shall be suitable for installation in distribution boards in clip-in trays or bolted to the chassis.
3. The earth leakage relay shall function on the current balance principle and shall comply with SANS 767 as amended, and shall bear the SANS mark. Integral test facilities shall be incorporated in the unit.
4. Circuit breakers with trip coils used integrally with earth leakage units (two pole for single phase units and three pole for three phase units) shall comply with SANS 156.
5. On-load switches used integrally with earth leakage units (two pole for single-phase units and three pole for three phase units) shall comply with SANS 60497.
6. The fault current rating of the unit shall be 2,5kA or 5kA as required, when tested in accordance with SANS 156.

KILOWATT-HOUR METERS

- 1.1 Instruments shall be suitably rated for the supply voltage and frequency to be applied, which shall be 400/230 V, 50 Hz unless specified to the contrary.
- 1.2 All the instruments used for a particular application or a specific project shall be from the range of a single reputable supplier and shall have the same face dimensions. The face dimensions shall be square and not less than 96 x 96mm.
- 1.3 All instruments shall comply with BS 89 and/or IEC 51.
- 1.4 Instruments shall be screened against magnetic interference and shall have anti-static, impact-resistant glass faces.
- 1.5 Preference will be given to locally manufactured instruments.
- 1.6 Instruments shall be insulated to achieve a 2 kV insulation resistance to earth.
- 1.7 All instruments shall be splash proof and dustproof unless more stringent requirements are specified for hazardous locations.
- 1.8 Instruments shall be sufficiently resistant to vibration that may be encountered in the specific application.
- 1.9 For normal environmental and supply conditions, instruments shall be suitable for use inside the limits specified in Tables III and VI of IEC 51.
- 1.10 All instruments shall be capable of withstanding overloads of continuous or short duration in accordance with section 8.3 of IEC 51.
- 1.11 Instruments shall be provided with studs for rear connection. Shrouds shall be provided to prevent accidental contact where instruments are to be installed in hinged panels of distribution board.
- 4.1 Unless specified to the contrary, kilowatt-hour meters shall be suitable for operation on 220/250 V, 50 Hz systems.
- 4.2 Meter elements shall be of the inductor disc type and designed to carry the rated current continuously.
- 4.3 Kilowatt-hour meters shall comply with the relevant parts of BS 37 and BS 5685.
- 4.4 The integrating period on maximum demand meters shall be 30 minutes unless specified to the contrary.
- 4.5 The registering mechanism shall be of the cyclometer type, providing a six-digit readout with the sixth digit indicating one-tenth of a unit.
- 4.6 Unless specified to the contrary, the meters shall conform to accuracy Class 1 as specified in IEC 51.
- 4.7 Kilowatt-hour meters shall be graded and calibrated for the specific application to avoid the application of multiplication factors where possible. Where multiplication factors are unavoidable this shall be clearly indicated in unit form and not as a combination of several factors. Current transformer ratios shall be incorporated in the factor.
- 4.8 The kilowatt-hour meter shall preferably be provided with a magnetic type of bearing for the disc spindle.

4.9 Facilities for a security seal shall be provided on the fixing screws of the cover

HIGH MAST 30m

(f) The pole structure

- The match existing masts in the network, the mast shall be of telescopic or railow shape which at the mast head allows for the accommodation of a luminaire ring.
- To allow for simplified maintenance hydro masts mast shall be excluded
- The pole is designed to carry a maximum of 8 luminaires on top at maximum of 14kg each
- The high mast design shall be based on a pole height of 30m
- The recommended high shall be designed for a minimum 50 year horizon
- The pole at the base shall have an access door inside which is a distribution board and allows a single drum or double drum winch to be mounted. The access door shall have a locking mechanism which provides security and minimises vandalism.

(g) Luminaire ring

- The luminaire carriage shall be of circle shape; formed of two semi-circles bolted together.
- The ring shall be capable of carrying 8 luminaires each a maximum of 14kg.
- The luminaire ring shall have eight arms which are bolted and not welded to the ring in order to be movable and removable
- The design ensures that there is a 5 core flexible trailing cable which connects to luminaires through a splitter box. The splitter box is attached to the luminaire ring. Each luminaire has a cable connecting to the trailing cable through the splitter box as the junction box.

(h) Lighting technology

The lighting technology shall be LED floodlight technology and shall:

- Lead to reduced maintenance cost, lasting longer than HPS systems
- Be corrosion resistant
- Withstand mechanical vibration due to wind and vehicles
- Be surge protected
- Survive high temperatures
- Light colour should be neutral white CRI of minimum 70
- The minimum lumen output of the luminaire shall be 27000lm
- The technology should result in ease of use and requires minimum maintenance

(i) Suspension system

- The mast shall include a luminaire ring which can be raised or lowered for installation and maintenance of luminaires without necessarily lowering the pole
- The high mast shall consist of a hoisting mechanism that consists of three stainless steel suspension ropes. At the mast head, each rope runs over a pair of pulleys. The mast head shall have a cover over the pulley system to avoid water ingress and minimise the effect of bird nesting on the system.
- The suspension ropes shall terminate onto a plate inside the mast to give an inverted cone shape when the luminaire ring is pulled. The plate shall at the bottom allow a safety chain to be attached. The safety chain forms part of the locking mechanism inside the access door at the base of the mast that prevents lowering of the ring without a winch.
- On the luminaire ring, the ropes shall go through an eye-bolt with a wire rope thimble and crimped using tarulit ferrules.

(j) Control circuit

Inside the access door at the base of the mast shall the distribution board for power to the luminaires be placed. The distribution board shall consist of:

- One 40A three pole circuit breaker
- Three by 10A single phase circuit breakers each per phase for protection of the luminaires 2 per phase for a six luminaire array, three and two per phase for an eight luminaire array
- One 230V, 32A contactor
- One 5A circuit breaker for bypassing the contactor control
- One eye-like contactor to be mounted near base of mast for ease of maintenance
- One 5A circuit breaker for switching the photocell
- One 20A, single phase earth leakage
- One 20A single phase circuit breaker
- One socket outlet for plugging motor for winch operation
- One industrial socket outlet for the trailing cable
- One 5 core 2.5mm trailing cable.
- Earth bar and neutral bar.
- Corresponding splitter box attached to luminaire ring with industrial socket for trailing cable.

(k) Foundation

The high mast shall have a base plate which shall be bolted onto a concrete plinth.

Soil bearing pressure tests shall be performed for each selected mast position before casting concrete. The tests are to ensure that the soil load bearing conditions are suited to the specific concrete base design.

The minimum concrete strength shall be 25MPA.

g) Electrical parameters

The mast shall carry a maximum of 8 luminaires and minimum 6 luminaires. The luminaires shall be LED floodlights. The minimum LED parameters shall be as follows:

Description	Value
Power input	200W
Mean lumens	27000lm
System Efficacy	110lm/W
Average life	30 000hrs
Colour Temperature	4000K
Colour Rendering Index (CRI)	70
Surge Protection	10kA/10kV
Weight	14kg maximum
Mechanical Impact Withstand	IK07
IP protection Rating	IP66
Corrosion resistant material	High pressure die-cast AL
Operating temperature range of LED luminaires	-40°C to +35°C
Mounting height of LED luminaires	30m

- The nominal flux and optical efficiency of available LED technologies is indicative only at set design conditions. The actual LED flux is dependent on the environmental conditions such as temperature in area of use.
- Maximum temperature of operation shall be 45°C outdoor and indoor.

Labour recruitment conditions

A Project Steering Committee (PSC) will be established and is a vital means of communication between all parties involved with the project. The composition of the PSC comprises representation by the Employer, the Engineer and formal structures within the community.

The contractor shall make use of these communication channels, and shall appoint from amongst his site personnel a responsible person to participate in the affairs of the PSC, and this representative may be also required to attend the monthly PSC meetings.

It is mandatory that the Contractor shall interact with the community via proactive project liaison and project participation by its leaders and constituted organizations and forums, as well as through the employment of its people, and these activities shall constitute essential facets of the project.

Local labor is to be used and the employment of such labor is to be done in conjunction with the PSC.

The PSC shall appoint a Community liaison officer (C.L.O.) (which shall be remunerated under the contract) who shall be in full time employ of the contractor. The duties of the C.L.O. shall consist inter alia of the following:

- To be available on site daily between the hour of 07:00 and 17:00 and at other times as the need arises. His normal working day will extend from 07:00 in the morning until 17:00 in the afternoon.
- To communicate daily with regard to number and skills, to facilitate in labour disputes and to assist in their resolution.
- To attend all meetings in which the community and/or labour are present or are required to be represented.
- To attend all PSC meeting to report on labour.
- To assist in the identification and screening of laborers from the community in accordance with the contractor's requirements.
- To advise and inform temporary laborers of their conditions of employment and to inform temporary laborers as early as possible when their period of employment will be terminated.
- To attend disciplinary proceedings to ensure that hearings are fair and reasonable.
- To keep a daily written record of his interviews and community liaison, labour force etc.
- To attend monthly site meetings and report in writing on labour and contract matters.
- Keeping a data base of available labour.
- All such other duties as agreed upon between all parties concerned.
- Compile a list of available skills in the area (skills audit).

Construction in confined Areas

It may be necessary for the Contractor to work within confined areas. Except where provided for in the specifications, no additional payment shall be made for work done in restricted areas. In certain places the width of the fill material and pavement layers may decrease to zero and the working space may be confined. The method of construction in these confined areas largely depends on the Contractor's constructional plant.

However, the Contractor shall note that, unless provided for in terms of the scheduled payment items in the COLTO Standard Specifications or these project specifications, measurement and payment shall be in accordance with the specified cross sections and dimensions only, irrespective of the method used for achieving these cross sections and dimensions, and that the Bided rates and amounts shall include full compensation for all special equipment and construction methods and for all difficulties encountered when working in confined areas and narrow widths, and at or around obstructions, and that no extra payment shall be made nor shall any claim for additional payment be considered in such cases.

CONSTRUCTION AND MANAGEMENT REQUIREMENTS

General

The Contractor is referred to **SANS 1921: 2004 parts 1, 2 and 3: Construction and Management Requirements for Works Contracts**. These specifications shall be applicable to the contract under consideration and the Contractor shall comply with all requirements relevant to the project.

Certain aspects however require further attention as described hereafter.

Drawings *(Read with SANS 1921 – 1: 2004 clauses 4.1.7; 4.1.11 and 4.1.12)*

The contractor shall be supplied with three complete paper copies of the construction drawings free of charge. The Contractor shall at his own expense re-produce further paper prints required for the construction of the work.

At the completion of the Contract, the Contractor shall return to the Engineer all drawings, provided or made, during the contract period.

Any information, which the Contractor has control over and which is required by the Resident Engineer to complete the as-built drawings, shall be made available to the Resident Engineer before the Certificate of Completion is issued.

Only written dimensions may be used. Dimensions are not to be scaled from drawings unless ordered by the Engineer. The Engineer will supply all figures / dimensions which are not shown on the drawings.

Contractor's camp site and depot

The Contractor is responsible to provide a suitable site for his camp and to provide accommodation for his personnel and laborers. If the Employer can make any specific site available to the Contractor, such site will be pointed out to the Contractor.

The chosen site shall be subject to the approval of the Engineer and the Project Steering Committee (PSC). Possible locations for a campsite shall be pointed out at the Site inspection. The Contractor shall conform to all local authority, environmental and industrial regulations.

The Contractor shall make his own arrangements concerning the supply of electrical power and all other services. No direct payment shall be made for the provision of electrical and other services. The cost thereof shall be deemed to be included in the rates and amounts Bided for the various items of work for which these services are required.

The Contractor shall provide security watchmen for the contract as he deems fit at no extra cost for the Employer. The Contractor must ensure that all his employees as well as the employees of his subcontractors are able to identify themselves as members of the construction team.

Accommodation of Employees

No employees except for security guards will be allowed to sleep or be accommodated on the site in urban areas.

No housing is available for the Contractor's employees and the Contractor shall make his own arrangements to house his employees and to transport them to site.

No informal housing or squatting will be allowed.

The Contractor shall provide the necessary ablution facilities at his camp site and the site of the works for the use of his employees. Chemical toilets will only be allowed where temporary facilities have to be provided.

Survey beacons *(Read with SANS 1921 – 1 : 2004 clause 4.15)*

The Contractor shall take special precautions to protect all permanent survey beacons or pegs such as bench-marks, stand boundary pegs and trigonometrical beacons, regardless whether such beacons or pegs were placed before or during the execution of the Contract. If any such beacons or pegs have been disturbed by the Contractor or his employees, the Contractor shall have them replaced by a registered land surveyor at his own cost.

Existing Services *(Read with SANS 1921 – 1: 2004 clause 4.17)*

The Contractor shall make himself acquainted with the position of all existing services before any excavation or other work likely to affect the existing services is commenced.

It is the contractor's responsibility to identify services that will interact with the construction work. The contractor will be responsible to do the application and negotiation on the relocation of the siting of services.

The Contractor will be held responsible for any damage to known existing services caused by or arising out of his operations and any damage shall be made good at his own expense. Damage to unknown services shall be repaired as soon as possible and liability shall be determined on site when such damage should occur.

Two weeks prior to commencing construction activities in a particular area, the Contractor shall also diligently enquire of local landowners as to whether there are any other known services which have not been shown on the drawings but which may be affected by the construction activities in that area, and any such services shall be brought to the attention of the Engineer immediately. The contractor shall make provision in his programme for the location and/or shifting of services.

The Contractor shall take note of the requirements of clause 1202 of the standard specifications with regard to services.

Health and Safety *(Read with SANS 1921 - 1: 2004 clause 4.18)*

General statement

It is a requirement of this contract that the Contractor shall provide a safe and healthy working environment and to direct all his activities in such a manner that his employees and any other persons, who may be directly affected by his activities, are not exposed to hazards to their health and safety. To this end the Contractor shall assume full responsibility to conform to all the provisions of the Occupational Health and Safety Act (OHSA) No 85 and Amendment Act No 181 of 1993, and the OHSA 1993 Construction Regulations 2014 issued on 7 February 2014 by the Department of Labour.

For the purpose of this contract the Contractor is required to confirm his status as mandatory and employer in his own right for the execution of the contract by entering into an agreement with the Employer in terms of the Occupational Health and Safety Act in the form as included in section C1.5.

Health and Safety Specifications and Plans

(a) Employer's Health and Safety Specification

The Employer's Health and Safety Specification is included in Section C3.3, of the Bid documents as part of the Particular Specifications.

(b) Bidder's Health and Safety Plan

The Bidder shall submit with the bid his own documented Health and Safety Plan he proposes to be implement for the execution of the work under the contract. The Health and Safety Plan must at least cover the following:

- (i) a proper risk assessment of the works, risk items, work methods and procedures in terms of Regulations 9 to 30;
- (ii) Pro-active identification of potential hazards and unsafe working conditions;
- (iii) Provision of a safe working environment and equipment;
- (iv) Statements of methods to ensure the health and safety of subcontractors, employees and visitors to the site, including safety training in hazards and risk areas (*Regulation 7*);
- (v) monitoring health and safety on the site of works on a regular basis, and keeping of records and registers as provided for in the Construction Regulations;
- (vi) details of the Construction Supervisor, the Construction Safety Officers and other competent persons he intends to appoint for the construction works in terms of Regulation 8 and other applicable regulations; and
- (vii) details of methods to ensure that his Health and Safety Plan is carried out effectively in accordance with the Construction Regulations 2014.

The Contractor's Health and Safety Plan will be subject to approval by the Employer, or amendment if necessary, before commencement of construction work. The Contractor will not be allowed to commence work, or his work will be suspended if he had already commenced work, before he has obtained the Employer's written approval of his Health and Safety Plan.

Time lost due to delayed commencement or suspension of the work as a result of the Contractor's failure to obtain approval for his safety plan, shall not be used as a reason to claim for extension of time or standing time and related costs

Cost of compliance with the OHSA Construction Regulations

The rates and prices Bided by the Contractor shall be deemed to include all costs for conforming to the requirements of the Act, the Construction Regulations and the Employer's Health and Safety Specification as applicable to this contract.

Should the Contractor fail to comply with the provisions of the Construction Regulations, he will be liable for penalties as provided in the Construction Regulations and in the Employer's Health and Safety Specification.

4.13 Requirements for Accommodation of Traffic (*Read with SANS 1921 - 2 : 2004*)

4.13.1 General

The Contractor will be responsible for the safe and easy passage of public traffic past and

on sections of roads of which he has occupation or where work has to be done near traffic. The travelling public shall have the right of way on public roads, and the Contractor shall make use of approved methods to control the movement of his equipment and vehicles so as not to constitute a hazard on the road.

Accommodation of traffic, where applicable shall comply with SANS 1921-2: 2004: Construction and Management Requirements for Works Contracts, Part 2: Accommodation of Traffic on Public Roads occupied by the Contractor. The Contractor shall obtain this specification from Standards South Africa if accommodation of traffic will be involved on any part of the construction works.

4.13.2 Basic Requirements

The travelling public shall have the right of way on public roads, and the Contractor shall make use of approved methods to control the movement of his equipment and vehicles so as not to constitute a hazard on the road.

The Contractor shall ensure that all road signs, barricades, delineators, flagmen and speed controls are effective and that courtesy is extended to the public at all times.

Failure to maintain road signs, warning signs or flicker lights, etc, in a good condition shall constitute ample reason for the Engineer to suspend the work until the road signs, etc, have been repaired to his satisfaction.

The Contractor may not commence constructional activities affecting existing roads before adequate provision has been made to accommodate traffic in accordance with the requirements of this document and the South African Road Traffic Signs Manual.

The Contractor shall construct and maintain all temporary drainage works necessary for temporary deviations.

The Contractor shall provide and grant access to persons whose properties fall within or adjoin the area in which he is working.

4.13.3 Payment

The Contractor's Bided rates for the relevant items in the Bill of Quantities shall include full compensation for all possible additional costs which may arise from this, and no claims for extra payment due to inconvenience as a result of the *modus operandi* will be considered.

4.14 Management of the environment *(Read with SANS 1921 - 1 : 2004 clause 4.19)*

Respect for the environment is an important aspect of this contract and the Contractor shall pay special attention to the following:

4.14.1 Natural Vegetation

The Contractor shall confine his operation to the limits of the road reserve for the purpose of constructing the works and where applicable detours, shall be sited in consultation with the Engineer and the local communities.

Only those trees and shrubs directly affected by the works and such others as the Engineer may direct in writing shall be cut down and stumped. The natural vegetation, grassing and other plants shall not be disturbed other than in areas where it is essential for the execution of the work or where directed by the Engineer.

4.14.2 Fires

The Contractor shall comply with the statutory and local fire regulations. He shall also take all necessary precautions to prevent any fires. In the event of fire the Contractor shall take active steps to limit and extinguish the fire and shall accept full responsibility for damages and claims resulting from such fires which may have been caused by him or his employees.

PS-5 Expanded Public Works Programme (EPWP) labour intensive specification

5.1. Labour Regulations

5.1.1 Payment for the labour-intensive component of the works

Payment for works identified in the Project Specifications as being labour-intensive shall only be made in accordance with the provisions of the Contract if the works are constructed strictly in accordance with the provisions of the scope of work. Any non-payment for such works shall not relieve the Contractor in any way from his obligations either in contract or in delict.

5.1.2 Applicable labour laws

The Ministerial Determination for Special Public Works Programmes, issued in terms of the Basic Conditions of Employment Act of 1997 by the Minister of Labour in Government Notice N° R949 in Government Gazette 33665 of 22 October 2010, as reproduced below, shall apply to works described in the scope of work as being labour.

5.1.3 Introduction

This document contains the standard terms and conditions for workers employed in elementary occupations on a Special Public Works Programme (EPWP). These terms and conditions do NOT apply to persons employed in the supervision and management of a EPWP.

In this document –

- (a) “department” means any department of the State, implementing agent or contractor;
- (b) “employer” means any department, implementing agency or contractor that hires workers to work in
elementary occupations on a EPWP;
- (c) “worker” means any person working in an elementary occupation on a EPWP;
- (d) “elementary occupation” means any occupation involving unskilled or semi-skilled work;
- (e) “management” means any person employed by a department or implementing agency to administer or
execute an EPWP;
- (f) “task” means a fixed quantity of work;
- (g) “task-based work” means work in which a worker is paid a fixed rate for performing a task;
- (h) “task-rated worker” means a worker paid on the basis of the number of tasks completed;
- (i) “time-rated worker” means a worker paid on the basis of the length of time worked.

5.1.4 Terms of Work

5.1.4.1 Workers on a EPWP are employed on a temporary basis or Contract Basis.

5.1.5 Normal Hours of Work

5.1.5.1 An employer may not set tasks or hours of work that require a worker to work–

- (a) more than forty hours in any week
- (b) on more than five days in any week; and
- (c) for more than eight hours on any day.

5.1.5.2 An employer and worker may agree that a worker will work four days per week. The worker may then work up to ten hours per day.

5.1.5.3 A task-rated worker may not work more than a total of 55 hours in any week to complete the tasks allocated (based on a 40-hour week) to that worker.

5.1.6 Meal Breaks

5.1.6.1 A worker may not work for more than five hours without taking a meal break of at least thirty minutes duration.

5.1.6.2 An employer and worker may agree on longer meal breaks.

5.1.6.3 A worker may not work during a meal break. However, an employer may require a worker to perform duties during a meal break if those duties cannot be left unattended and cannot be performed by

another worker. An employer must take reasonable steps to ensure that a worker is relieved of his or

her duties during the meal break.

5.1.6.4 A worker is not entitled to payment for the period of a meal break. However, a worker who is paid on the basis of time worked must be paid if the worker is required to work or to be available for work during the meal break.

5.1.7 Special Conditions for Security Guards

5.1.7.1 A security guard may work up to 55 hours per week and up to eleven hours per day.

5.1.7.2 A security guard who works more than ten hours per day must have a meal break of at least one hour or two breaks of at least 30 minutes each.

5.1.8 Daily Rest Period

Every worker is entitled to a daily rest period of at least eight consecutive hours. The daily rest period is measured from the time the worker ends work on one day until the time the worker starts work on the next day.

5.1.9 Weekly Rest Period

Every worker must have two days off every week. A worker may only work on their day off to perform work which must be done without delay and cannot be performed by workers during their ordinary hours of work ("emergency work").

5.1.10 Sick Leave

- 5.1.10.1 Only workers who work four or more days per week have the right to claim sick-pay in terms of this clause.
- 5.1.10.2 A worker who is unable to work on account of illness or injury is entitled to claim one day's paid sick leave for every full month that the worker has worked in terms of a contract.
- 5.1.10.3 A worker may accumulate a maximum of twelve days' sick leave in a year.
- 5.1.10.4 Accumulated sick-leave may not be transferred from one contract to another contract.
- 5.1.10.5 An employer must pay a task-rated worker the worker's daily task rate for a day's sick leave.
- 5.1.10.6 An employer must pay a time-rated worker the worker's daily rate of pay for a day's sick leave.
- 5.1.10.7 An employer must pay a worker sick pay on the worker's usual payday.
- 5.1.10.8 Before paying sick-pay, an employer may require a worker to produce a certificate stating that the worker was unable to work on account of sickness or injury if the worker is –
 - (a) absent from work for more than two consecutive days; or
 - (b) absent from work on more than two occasions in any eight-week period.
- 5.1.10.9 A medical certificate must be issued and signed by a medical practitioner, a qualified nurse or a clinic staff member authorised to issue medical certificates indicating the duration and reason for incapacity.
- 5.1.10.10 A worker is not entitled to paid sick-leave for a work-related injury or occupational disease for which the worker can claim compensation under the Compensation for Occupational Injuries and Diseases Act.

5.1.11 Maternity Leave

- 5.1.11.1 A worker may take up to four consecutive months' unpaid maternity leave.
- 5.1.11.2 A worker is not entitled to any payment or employment-related benefits during maternity leave.
- 5.1.11.3 A worker must give her employer reasonable notice of when she will start maternity leave and when she will return to work.
- 5.1.11.4 A worker is not required to take the full period of maternity leave. However, a worker may not work for four weeks before the expected date of birth of her child or for six weeks after the birth of her child, unless a medical practitioner, midwife or qualified nurse certifies that she is fit to do so.
- 5.1.11.5 A worker may begin maternity leave –
 - (a) four weeks before the expected date of birth; or
 - (b) on an earlier date –
 - (i) if a medical practitioner, midwife or certified nurse certifies that it is necessary for the health of the worker or that of her unborn child; or
 - (ii) if agreed to between employer and worker; or
 - (c) on a later date, if a medical practitioner, midwife or certified nurse has certified that the worker is able to continue to work without endangering her health.
- 5.1.11.6 A worker who has a miscarriage during the third trimester of pregnancy or bears a stillborn child may take maternity leave for up to six weeks after the miscarriage or stillbirth.

5.1.12 Family responsibility leave

5.1.12.1 Workers, who work for at least four days per week, are entitled to three days paid family responsibility leave each year in the following circumstances -

- (a) when the employee's child is born;
- (b) when the employee's child is sick;
- (c) in the event of a death of –
 - (i) the employee's spouse or life partner;
 - (ii) the employee's parent, adoptive parent, grandparent, child, adopted child, grandchild or sibling.

5.1.13 Statement of Conditions

5.1.13.1 An employer must give a worker a statement containing the following details at the start of employment –

- (a) the employer's name and address and the name of the EPWP;
- (b) the tasks or job that the worker is to perform; and
- (c) the period for which the worker is hired or, if this is not certain, the expected duration of the contract;
- (d) the worker's rate of pay and how this is to be calculated;
- (e) the training that the worker will receive during the EPWP.

5.1.13.2 An employer must ensure that these terms are explained in a suitable language to any employee who is unable to read the statement.

5.1.13.3 An employer must supply each worker with a copy of these conditions of employment.

5.1.14 Keeping Records

5.1.14.1 Every employer must keep a written record of at least the following –

- (a) the worker's name and position;
- (b) in the case of a task-rated worker, the number of tasks completed by the worker;
- (c) in the case of a time-rated worker, the time worked by the worker;
- (d) payments made to each worker.

5.1.14.2 The employer must keep this record for a period of at least three years after the completion of the EPWP.

5.1.15 Payment

5.1.15.1 An employer must pay all wages at least monthly in cash or by cheque or into a bank account.

5.1.15.2 a worker may not be paid less than the minimum EPWP wage rate of **R150.00** per day or per task. This will be adjusted annually on the 1st of November in line with inflation (Available CPI as provided by StatsSA six (6) weeks before implementation)

5.1.15.3 A task-rated worker will only be paid for tasks that have been completed.

5.1.15.4 An employer must pay a task-rated worker within five weeks of the work being completed and the work having been approved by the manager or the contractor having submitted an invoice to the employer.

5.1.15.5 A time-rated worker will be paid at the end of each month.

5.1.15.6 Payment must be made in cash, by cheque or by direct deposit into a bank account

designated by the worker.

- 5.1.15.7 Payment in cash or by cheque must take place –
- (a) at the workplace or at a place agreed to by the worker;
 - (b) during the worker's working hours or within fifteen minutes of the start or finish of work;
 - (c) in a sealed envelope which becomes the property of the worker.
- 5.1.15.8 An employer must give a worker the following information in writing –
- (a) the period for which payment is made;
 - (b) the numbers of tasks completed or hours worked;
 - (c) the worker's earnings;
 - (d) any money deducted from the payment;
 - (e) the actual amount paid to the worker.
- 5.1.15.9 If the worker is paid in cash or by cheque, this information must be recorded on the envelope and the worker must acknowledge receipt of payment by signing for it.
- 5.1.15.10 If a worker's employment is terminated, the employer must pay all monies owing to that worker within one month of the termination of employment.

5.1.16 Deductions

- 5.1.16.1 An employer may not deduct money from a worker's payment unless the deduction is required in terms of a law.
- 5.1.16.2 An employer must deduct and pay to the SA Revenue Services any income tax that the worker is required to pay.
- 5.1.16.3 An employer who deducts money from a worker's pay for payment to another person must pay the money to that person within the time period and other requirements specified in the agreement law, court order or arbitration award concerned.
- 5.1.16.4 An employer may not require or allow a worker to –
- (a) repay any payment except an overpayment previously made by the employer by mistake;
 - (b) state that the worker received a greater amount of money than the employer actually paid to the worker; or
 - (c) pay the employer or any other person for having been employed.

5.1.17 Health and Safety

- 5.1.17.1 Employers must take all reasonable steps to ensure that the working environment is healthy and safe.
- 5.1.17.2 A worker must –
- (a) work in a way that does not endanger his/her health and safety or that of any other person;
 - (b) obey any health and safety instruction;
 - (c) obey all health and safety rules of the EPWP;
 - (d) use any personal protective equipment or clothing issued by the employer;
 - (e) report any accident, near-miss incident or dangerous behaviour by another person to their employer or manager.

5.1.18 Compensation for Injuries and Diseases

- 5.1.18.1 It is the responsibility of the employers (other than a contractor) to arrange for all persons employed on a EPWP to be covered in terms of the Compensation for Occupational Injuries and Diseases Act, 130 of 1993.
- 5.1.18.2 A worker must report any work-related injury or occupational disease to their employer or manager.
- 5.1.18.3 The employer must report the accident or disease to the Compensation Commissioner.
- 5.1.18.4 An employer must pay a worker who is unable to work because of an injury caused by an accident at work 75% of their earnings for up to three months. The employer will be refunded this amount by the Compensation Commissioner. This does NOT apply to injuries caused by accidents outside the workplace such as road accidents or accidents at home.

5.1.19 Termination

- 5.1.19.1 The employer may terminate the employment of a worker for good cause after following a fair procedure.
- 5.1.19.2 A worker will not receive severance pay on termination.
- 5.1.19.3 A worker is not required to give notice to terminate employment. However, a worker who wishes to resign should advise the employer in advance to allow the employer to find a replacement.
- 5.1.19.4 A worker who is absent for more than three consecutive days without informing the employer of an intention to return to work will have terminated the contract. However, the worker may be re-engaged if a position becomes available for the balance of the 24-month period.
- 5.1.19.5 A worker who does not attend required training events, without good reason, will have terminated the contract. However, the worker may be re-engaged if a position becomes available for the balance of the 24-month period.

5.1.20 Certificate of Service

- 5.1.20.1 On termination of employment, a worker is entitled to a certificate stating –
 - (a) the worker's full name;
 - (b) the name and address of the employer;
 - (c) the EPWP on which the worker worked;
 - (d) the work performed by the worker;
 - (e) any training received by the worker as part of the EPWP;
 - (f) the period for which the worker worked on the EPWP;
 - (g) any other information agreed on by the employer and worker.

5.1.21 Contractor's default in payment to Labourers and Employees

Any dispute between the Contractor and labourers, regarding delayed payment or default in payment of fair wages, if not resolved immediately may compel the Employer to intervene.

The Employer may, upon the Contractor defaulting payment, pay the moneys due to the workers not honoured in time, out of any moneys due or which may become due to the Contractor under the Contract.

5.1.22 Provision of Hand tools

The Contractor shall provide his labour force with hand tools of adequate quality, sufficient in numbers and make the necessary provisions to maintain the tools in good and safe working conditions.

5.1.23 Reporting

The Contractor shall submit monthly returns/reports as specified below:

Personnel	NQF level	Unit standard titles	Skills programme description
Team leader / supervisor	2	Apply Labour Intensive Construction Systems and Techniques to Work Activities	This unit standard must be completed, and
		Use Labour Intensive Construction Methods to Construct and Maintain Roads and Storm water Drainage	} any one of these 3 unit standards
		Use Labour Intensive Construction Methods to Construct and Maintain Water and Sanitation Services	
		Use Labour Intensive Construction Methods to Construct, Repair and Maintain Structures	
Foreman/ supervisor	4	Implement labour Intensive Construction Systems and Techniques	This unit standard must be completed, and
		Use Labour Intensive Construction Methods to Construct and Maintain Roads and Storm water Drainage	} any one of these 3 unit standards
		Use Labour Intensive Construction Methods to Construct and Maintain Water and Sanitation Services	
		Use Labour Intensive Construction Methods to Construct, Repair and Maintain Structures	
Site Agent / Manager (i.e. the contractor's most senior representative that is resident on the site)	5	Manage Labour Intensive Construction Processes	Skills Programme against this single unit standard

- Signed Muster rolls/pay sheets of temporary workers and permanent staff detailing the number, category, gender, rate of pay and daily attendance.
- Plant utilization returns
- Progress report detailing production output compared to the programme of works intensive and
which are undertaken by unskilled or semi-skilled workers.

9.2 Labour intensive competencies of supervisory and management staff

Contractors having a CIDB contractor grading designation of 3CE and higher shall only engage supervisory and management staff in labour intensive works who have either completed, or for the period 1 April 2004 to 30 June 2006, are registered for training towards, the skills programme outlined in Table 1.

The managing principal of the contractor, namely, a sole proprietor, the senior partner, the managing director or managing member of a close corporation, as relevant, having a contractor grading designation of 1GB, 2 GB, 3 GB and 4 GB shall have personally completed, or for the period 1 April 2004 to 30 June 2006 be registered on a skills programme for the NQF level 2. All other site supervisory staff in the employ of such contractors must have completed, or for the period 1 April 2004 to 30 June 2006 be registered on a skills programme for, the NQF level 2 unit standards or NQF level 4 unit standards.

Table 1: Skills programme for supervisory and management staff

5.2 Employment of unskilled and semi-skilled workers in labour-intensive works – According to SANS 1914-5.

5.2.1 Requirements for the sourcing and engagement of labour.

5.2.1.1 Unskilled and semi-skilled labour required for the execution of all labour intensive works shall be engaged strictly in accordance with prevailing legislation and SANS 1914-5, Participation of Targeted Labour.

5.2.1.2 The normal Government Gazette rate as published by the department of labour and revised annually will be applicable in case the MARULENG do not have a set rate for the Locals and EPWP Projects. When Government Gazette becomes applicable, the rate will change when the new rates become gazetted by the Minister of Labour

5.2.1.3 Tasks established by the contractor must be such that:

- a) the average worker completes 5 tasks per week in 40 hours or less; and
- b) the weakest worker completes 5 tasks per week in 55 hours or less.

5.2.1.4 The contractor must revise the time taken to complete a task whenever it is established that the time taken to complete a weekly task is not within the requirements of 5.2.1.3.

5.2.1.5 The Contractor shall, through all available community structures, inform the local community of the labour intensive works and the employment opportunities presented thereby. Preference must be given to people with previous practical experience in construction and / or who come from households:

- a) where the head of the household has less than a primary school education;
- b) that has less than one full time person earning an income;
- c) where subsistence agriculture is the source of income.
- d) those that are not in receipt of any social security pension income

5.2.1.6 The Contractor shall endeavour to ensure that the expenditure on the employment of temporary workers is in the following proportions:

- a) 55 % women;
- b) 55% youth who are between the ages of 18 and 35; and
- c) 2% on persons with disabilities.

5.3 Specific provisions pertaining to SANS 1914-5

5.3.1 Definitions

Targeted labour: Unemployed persons who are employed as local labour on the project.

5.3.2 Contract participation goals

5.3.2.1 There is no specified contract participation goal for the contract. The contract participation goal shall be measured in the performance of the contract to enable the employment provided to targeted labour to be quantified.

5.3.2.2 The wages and allowances used to calculate the contract participation goal shall, with respect to both time-rated and task rated workers, comprise all wages paid and any training allowance paid in respect of agreed training programmes.

5.3.3 Terms and conditions for the engagement of targeted labour

Further to the provisions of clause 3.3.2 of SANS 1914-5, written contracts shall be entered into with targeted labour.

5.3.4 Variations to SANS 1914-5

5.3.4.1 The definition for net amount shall be amended as follows:

Financial value of the contract upon completion, exclusive of any value-added tax or sales tax which the law requires the employer to pay the contractor.

5.3.4.2 The schedule referred to in 5.2 shall in addition reflect the status of targeted labour as women, youth and persons with disabilities and the number of days of formal training provided to targeted labour.

5.3.5 Training of targeted labour

5.3.5.1 The contractor shall provide all the necessary on-the-job training to targeted labour to enable such labour to master the basic work techniques required to undertake the work in accordance with the requirements of the contract in a manner that does not compromise worker health and safety.

5.3.5.2 The cost of the formal training of targeted labour will be funded by the provincial office of the Department of Labour. This training should take place as close to the project site as practically possible. The contractor, must access this training by informing the relevant provincial office of the Department of Labour in writing, within 14 days of being awarded the contract, of the likely number of persons that will undergo training and when such training is required. The employer must be furnished with a copy of this request.

5.3.5.3 A copy of this training request made by the contractor to the DOL provincial office must also be faxed to the EPWP Training Director in the Department of Public Works.

5.3.5.4 The contractor shall be responsible for scheduling the training of workers and shall take all reasonable steps to ensure that each beneficiary is provided with a minimum of six (6) days of formal training if he/she is employed for 3 months or less and a minimum of ten (10) days if he she is employed for 4 months or more.

5.3.5.5 The contractor shall do nothing to dissuade targeted labour from participating in training programmes.

5.3.5.6 An allowance equal to 100% of the task rate or daily rate shall be paid by the contractor to workers who attend formal training, in terms of 5.3.5.1 to 5.3.5.5 above.

5.3.5.7 Proof of compliance with the requirements of 5.3.5.1 to 5.3.5.5 must be provided by the Contractor to the Employer prior to submission of the final payment certificate.

C3.4 VARIATIONS AND ADDITIONS TO STANDARD SPECIFICATIONS

SANS 1200 A: GENERAL

PSA 1

QUALITY OF MATERIALS (Sub clause 3.1)

Add the following:

All materials used in this Contract shall be the official SANS mark where applicable.

All materials shall be new and of the best quality available unless otherwise specified.

PSA 2

CONTRACTOR'S OFFICES, STORES AND SERVICES (Clause 4.2)

Add the following to the provisions of Clause 4.2.

- a) The location of the Contractor's offices, stores and services on site shall be subject to approval by the Engineer.
- b) The Contractor's office is to include a facility with furniture suitable for the use during site meetings, accommodating 8 persons.
- c) The Contractor's designated site agent shall be in possession of a cellular telephone

No additional payment is made for this service, and shall be deemed to be included in the preliminary and general.

PSA 3

SETTING OUT OF THE WORKS (Clause 5.1.1)

Substitute the first sentence of Clause 5.1.1 with the following. The engineer will provide information for setting out of the works,

Add the following:

Setting out the Works will not be measured and paid for directly, and compensation for the works involved in setting out shall be deemed to be covered by the rates and prices tendered and paid for in the various items of works included under this Contract.

PSA 4

WATCHING, BARRICADING, LIGHTING AND TRAFFIC CROSSINGS

(Clause 5.2)

The Contractor shall make adequate provision for the supply of temporary warning signs, barriers drums etc. to the satisfaction of the Engineer for the entire duration of the contract. Road and traffic signs shall comply with the requirements of the "South African Road Traffic Manual".

PSA 5

LOCATION AND PROTECTION OF EXISTING SERVICES (Clause 5.4)

Add the following provisions of Clause 5.4.1

PSA 5.1

Location of existing services

Before underground or excavation work is carried out, the Contractor shall ascertain the presence and position of all services likely to be damaged or interfered with by his activities. He shall obtain up-to-date plans from the Engineer for this purpose, showing the position of services in the area where he intends to work.

As services can often not be reliably located from such plans, the Contractor shall determine the exact position of such services by means of suitable detecting equipment **and afterwards by careful hand excavation where necessary** in order to expose the services at the positions of possible interference by his activities. This procedure shall also be followed in respect of services not shown on the plans but believed to be **present**

All such services, the positions of which have been located at the critical points, shall **be designates as "known"** services and their positions shall be indicated on a separate set of Drawings, a copy of which shall be furnished to the Engineer.

While he is occupying the Site, the Contractor shall be liable for all damage caused by him to known services as well as for consequential damage, whether caused directly by his operations or by the lack of proper protection.

PSA 6

ACCOMMODATION OF TRAFFIC (New clause 5.9)

Temporary traffic signs shall be erected at all diversions.

The number and layout of the traffic signs shall comply with the Site Manual entitled "Safety at Roadwork's in Urban Areas", as published by the Department of Transport.

Traffic signs shall have a yellow background with either a red / black border.

PSA 7

TOLERANCES

PSA 7.1

General (New sub clause 6.4)

No guarantee is given that the full specified tolerance will be available independently of each other, and the Contractor is cautioned that the liberal or full use of any one or more of the tolerances may deprive him of the full or any use of tolerances relating to other aspects of the work.

Except where the contrary is specified or then clearly not applicable all quantities for **measurement** and payment shall be determined from the "authorized dimensions. **These are** specified dimensions or those shown on the Drawings or, if changed, as finally prescribed by the Engineers, without any allowances for the specified tolerances.

Except if otherwise specified, all measurements for determining quantities for payment **will be based on the "authorized" dimensions.**

If the work is **therefore constructed in accordance** with the "authorized" dimensions plus **or minus the tolerances allowed, quantities will be based on the** "authorized dimensions **regardless** of the actual dimensions to which the work has been constructed.

When the work is not **constructed in accordance** with the "authorized" dimensions plus or minus the tolerances allowed, the Engineers may nevertheless, at his sole discretion, accept the work for payment. In such cases no payment shall be made for quantities of **work or material in excess of those calculated for the "authorized" dimensions, and** where the actual dimensions are less than the "authorized dimensions minus the tolerance allowed quantities for payment shall be based on the actual dimensions as constructed.

PSA 9**MEASUREMENT AND PAYMENT****PSA 9.1****Contractual Requirements (sub clause 8.3.1)**

Add to sub-clause 8.3.1:

"In addition, the sum tendered shall cover all initial costs incurred in complying with the requirements of the Special Conditions of Contract.

PSA 9.2**Contractual Requirements (sub clause 8.4.1)**

The Contractor shall tender a lump sum in the Schedule of Quantities to cover his time **related** establishment costs. The amount tendered and paid shall be full compensation to the Contractor for:

The maintenance of his whole organization as established for this Contract.

The maintenance of all insurances, indemnities and guarantees required in terms of the Conditions of Contract or Tender where applicable.

Compliance with all general conditions and requirements, which are not specifically, measured elsewhere for payment in these Contract Documents.

The Contractor shall tender a lump sum for the abovementioned items.

Payment of the lump sum shall be made monthly in compliance with the method laid down in Sub-clause 8.2.2 of SANS 1200:A.

The Contractor will not be paid Time-Related Preliminary and General charges for any Special Non-Working Days, as stipulated in the Appendix, which shall be deemed to **have been allowed for in his rates**.

PSA 9.3**Adjusted Payment for Time-Related Items**

The payment to the Contractor for Time-Related Items shall be adjusted in accordance with the following formula in the event of the Contract being extended by means of a variation order:

Sum of Tendered amounts for Time Related Items X Extension of Time authorized by variation order

Tender contract period

*For the purposes of applying this formula "Extension of Time" will exclude the Contractor's December/January closedown period, if applicable.

The abovementioned adjustment of the payment for Time-Related Items shall be made in the Completion Payment Certificate and shall be the only payment for additional Time Related costs irrespective of the actual period required to complete the Contract including its authorized extensions.

In the case of fixed price contracts, the amount by which the Time-Related Items is adjusted shall not be subject to the Contract Price Adjustment formula.

In the case of contracts subject to Contract Price Adjustment the amount by which the time-related items is adjusted shall be subject to the Contract Price Adjustment formula.

PSA 9.4**Compliance with OHS Act and Regulations**

(Including The Construction Regulations 2003) unit: sum

The tendered sum shall include full compensation to the Contractor for compliance with all the requirements of the OHS Act and Regulations (including the Construction Regulations 2003) at all times for the full duration of the Contract.

This sum will be paid to the contractor in equal monthly amounts subject to proper/substantial compliance.

PSA 9.5**Accommodation of Traffic (Clause 8.8.2)**

Where the new works interferes with the existing roads, the Contractor shall construct these sections of the works under traffic. The work will involve catering for the safe and **easy passage** of public traffic in all weather, both day and night for the full traffic control and signposting.

The Contractor may alternatively make his own arrangement for detours to be constructed, all subject to the Engineers approval.

Add the following after the first paragraph:

"All temporary road signs, **devices, sequences, layouts and spacing** shall comply with the requirements of the Road Traffic Act, 1996 (Act 93 of 1996), the National Road Traffic Regulations, 2000, the South African Road Traffic Signs Manual and the **requirements of the relevant road** authority. All temporary traffic control facilities shall also comply with the guidelines set in SA Road Traffic Signs Manual, Volume 2, Chapter 13: Road works Signing, (SARTSM, June 1999, obtainable from the Government Printer, Pretoria)"

PSAB 5**SURVEY EQUIPMENT**

The Contractor shall provide the following tested and approved survey equipment on site for the duration of the contract and for the use of the Engineer whenever needed.

- a) One automatic level plus tripod,
- b) One level staff, all graduated metrically and
- c) One 5m and one 25m-**tape measure**.

The above-mentioned equipment may, by arrangement be shared between the Contractor and the Engineer's Representative. The Contractor shall keep the equipment insured against any loss; damage or breakage and he shall indemnify the Engineer and the Employer against any claims in this regard.

SANS 1200 C: SITE CLEARANCE**PSC 1****SCOPE (Clause 1.1)**

Add the following:

"The specification also covers the removal of unreinforced and reinforced concrete, existing pipe culverts and existing roadway and layerworks, (at tie-ins and road widening), and saw cutting of existing road surfacing."

PSC 2

MATERIALS

Disposal of Material (Sub clause 3.1)

Delete the first two sentences of this clause and replace with:

"Debris arising from clearing operations or from the demolition of existing structures that are not suitable for re-use in the works or for landscaping in **areas designated by the Engineer**, shall be removed by the Contractor and disposed of at the approved tip site. Transport of such material shall not be paid separately, but shall be included in the relevant items for clearing

The rates tendered shall allow for any **fees to be paid** at the tip site."

PSC 3

MEASUREMENT AND PAYMENT

PSC 3.1

Clear and Grub (sub-clause 8.2.1)

The location of disposal or dumping sites shall be the Contractor's responsibility and no overhaul shall be payable to the Contractor for loading, temporary and dumping of material thus cleared under this scheduled item.

SANS 1200 DA: EARTHWORKS (SMALL WORKS)

PSDA 1

CLASSIFICATION FOR EXCAVATION PURPOSES (Clause 3.1)

Delete Sub-Clause 3.1.1 and 3.1.2 and replace with the following:

PSDA 1.1 Method of Classifying

The Contractor may use any method he chooses to excavate any class of material but his chosen method of excavation shall not determine the classification of **the excavation**. The Engineer or his Representative will decide on the classification of materials. In the first instance classification will be based on inspection of the material to be excavated and on the criteria given in PSD 3.1.2(a) and (c).

PSDA 1.2

Classes of Excavation

All materials encountered in any excavation for any purpose including restricted **excavation** will be classified as follows:

(a) Soft Excavation

Any material, which can be removed by bulldozers or backhoes, shall be classified as soft excavation.

Soft excavation shall be material not falling into the category of hard rock **excavation**.

(b) Hard rock excavation

Hard rock excavation shall be excavation in material (including undecomposed boulders exceeding 0.17 cubic meter in individual volume) that cannot be efficiently removed without blasting, wedging and splitting, or hydraulic hammers.

This classification includes materials such as: • solid unfractured rock occurring in bulk.

- solid ledges thicker than 200mm.
- igneous rock intrusions.
- cemented sedimentary rocks.

PSDA2

PSDA2.1 CONSTRUCTION Conservation of Topsoil (5.2.1.2)

Add the following to Subclause 5.2.1.2:

"Topsoil shall not be stockpiled higher than 2,0m. Care shall be exercised to prevent the compaction of topsoil in any way especially by vehicles travelling over **such material.**"

C3.5 PARTICULAR SPECIFICATIONS

In addition to the Standardized and Project Specifications the following Particular Specifications shall apply to this contract and are bound in hereafter.

SECTION EMP	ENVIRONMENTAL MANAGEMENT SPECIFICATION
SECTION OHS	OHS 1993 SAFETY SPECIFICATION

SECTION EMP: ENVIRONMENTAL MANAGEMENT SPECIFICATION

EMP.1 General

In order to ensure that the construction works is carried out in an environmentally sensitive matter, strict compliance to the Environmental Management Plan (EMP) guidelines is required. The EMP is bounded to this document under Part C4: **Site Information**. The purpose of the EMP is to:

- Encourage good management practices through planning and commitment to environmental issues,
- Provide rational and practical environmental guidelines to:
 - i. Minimize disturbance of the natural environment,
 - ii. Prevent pollution of land, air and water,
 - iii. Prevent soil erosion and facilitate re-vegetation.
- Adopt the best practicable means available to prevent or minimize adverse environmental impact,
- Develop waste management practices based on prevention, minimization, recycling, treatment or disposal of wastes,
- Train employees and contractors with regard to environmental obligations.

EMP.2 Training and Induction of Employees

- The Contractor has a responsibility to ensure that all those people involved in the project are aware of and familiar with the environmental requirements for the project (this includes sub-contractors, casual labour, etc.). The EMP shall be part of the terms of reference for all contractors, sub-contractors and suppliers.

(viii) EMP.3 Complaints Register and Environmental Incident Book (ix)

Any complaints received by the project team from the public will be recorded. The complaint should be brought to the attention of the site manager, who will respond.

The following information must be recorded:

- Time, date and nature of the complaint,
- Type of communication (telephone, letter etc.)
- Name, contact address and telephone number of the complainant,
- Response and investigation undertaken and
- Actions taken and by whom.

All complaints received will be investigated and a response given to the complainant within 14 days.

All environmental incidents occurring on the site will be recorded. The following information will be provided:

- Time, date, location and nature of the incident,
- Actions taken and by whom.

EMP.4 Site Cleanliness and Neatness

- Location of a construction camp is to be approved by the Engineer and is to be restored to its previous condition after completion of construction.
- The construction camp should preferably be fenced with a 1.8m bonnox fence or similar approved.
- All materials, equipment, plant and vehicles must be stored within the construction camp.
- A dedicated area must be made available for construction staff to change and store their personal belongings.

EMP.5 Access

- Access to existing roads, schools, buildings, shops and residential properties must not be impeded during construction.
- Access roads utilised by the Contractor must be maintained in good condition.

EMP.6 Borrow Pits

- Mining authorizations (permits) for borrow pits must be obtained from the Department of Minerals and Energy (DME) in consultation with the Department of Water Affairs and Forestry (DWAF).
- Spoil dumps resulting from borrow pits must not interfere with any natural surface drainage.
- Borrow pits must be rehabilitated after use in accordance with the requirements of DME and DWAF.
- Borrow pits will be fenced and the necessary warning signs will be erected.

EMP.7 Dust Control / Air Quality

- Dust suppression measures must be implemented during construction by ensuring that all surfaces prone to dust generation are kept damp (e.g. use of water tanker).
- Ensure that vehicles and equipment are in good working conditions and that emissions are not excessive.
- Ensure that vehicles and equipment are in good working conditions and that emissions are not excessive.
- Special care must be taken in areas where the route passes close to schools and residential areas.
- The speed of construction vehicles must be reduced.

EMP.8 Fauna

- Contractor staff may not chase, catch or kill animals encountered during construction.

EMP.9 Fire Prevention and Control

- Smoking is prohibited in the vicinity of flammable substances.
- The contractor must ensure that fire-fighting equipment is available on site, particularly where flammable substances are being stored or used, and that construction staff are aware of where it is kept and how it is operated.
- Fires started for comfort (warmth) are prohibited, due to the risk of veld fires and risk to adjacent property owner's lands.

EMP.10 Grave Sites

- Gravesites in close proximity to the road must not be disturbed during construction.

EMP.11 Materials Handling and Spills Management

- Any hazardous materials to be used during construction (e.g. lime, fuel, paint, etc.) are to be stored in a designated area at the campsite.
- The storage containers/facilities (including any diesel/petrol tanks) must be placed on an impermeable surface and surrounded by a bund wall, in order to ensure that accidental spillage does not pollute the environment.
- Workers must at all times be made aware of the health and safety risks associated with any hazardous substances used (e.g. smoking near fuel tanks), and must be provided with appropriate protective clothing/equipment in case of spillages or accidents.
- Ensure all staff and contractors undergo relevant training in the maintenance of equipment to prevent the accidental discharge or spill of fuel, oil, lubricants and other

chemicals.

- Any spill of potentially hazardous materials must be cleaned up immediately (Potentially hazardous materials on site include paint, oil, grease, fuel, turpentine, etc).
- The area of contaminated soil or spill must be deposited into the hazardous waste container(s).
- The contractor should keep Peat, Sorb or a similar absorbent on site to clean up any spills. The absorbent must be stored in a designated area and be available for inspection.
- All spills are to be recorded in the environmental incident book.

EMP.12 Noise

- Noise generating activities must be restricted to between 07:00 and 17:00 Monday to Friday, unless otherwise approved by the appropriate competent person in consultation with adjacent landowners/affected persons.
- All equipment, vehicles and machinery must be in good working condition and be equipped with sound mufflers if necessary.
- Construction staff must be trained and made aware of not creating unnecessary noise such as hooting and shouting.

EMP.13 Pollution Control

- Soil and water pollution through usage of fuel, oil, paint, bitumen or other hazardous substances must be avoided.
- All construction vehicles are to be maintained in good working order so as to prevent soil or water pollution from oil, fuel or other leaks, and to reduce noise pollution.

EMP.14 Rivers and Streams

- During construction of bridge structures, there must be no obstruction of the water flow of rivers and streams.
- Excavated material must not be stockpiled on or near riverbanks, in order to prevent sedimentation occurring.
- Erosion control measures must be employed both during and after construction.
- No impediments to natural surface water flow, other than approved erosion control measures, must occur.

EMP.15 Safety

- Safety measures, such as detour signs, must be implemented during construction to ensure the safety of workers, pedestrians and drivers/passengers in vehicles in the vicinity of construction work.
- Special care must be taken in the vicinity of schools to ensure the safety of children wishing to cross the road under construction.
- The relevant signage (e.g. speed control signs) must be erected alongside the road during the operation phase in order to control traffic.
- Accommodation must be made for pedestrian pathways alongside the road during the construction and operation phases.

EMP.16 Soil Management

- Stormwater drainage pipes must be installed alongside the road in all areas susceptible to soil erosion.
- Erosion should be minimized by the construction of meadow drains and the planting of indigenous vegetation on the side slopes and drains to reduce flow velocity of stormwater.
- Spoil from cuts may be used in existing erosion galleys.
- Stone pitching and gabions should be constructed at pipe culvert outlets.

- Accidental spills of contaminants onto the ground e.g. oil, concrete, fuel and chemicals should be removed together with the contaminated soil.
- If necessary, an absorbent such as Peat Sorb should be used the aid in cleaning up the spill. The contaminated soil should be disposed of in an appropriate container, depending on its classification.
- Servicing and re-fueling of vehicles must only be carried out at construction camp.

EMP.17 Worker Conduct

Code of Conduct for Construction Personnel:

- Do not leave the construction site untidy and strewn with rubbish which will attract animal pests.
- Do not set fires.
- Do not cause any unnecessary, disturbing noise at the construction camp/site or at any designated worker collection/drop off points.
- Do not drive a construction-related vehicle under the influence of alcohol.
- Do not exceed the national speed limits on public roads or exceed the recommended speed limits on the site.
- Do not drive a vehicle which is generating excessive noise or gaseous pollution (noisy vehicles must be reported and repaired as soon as possible).
- Do not litter along the roadsides, including both the public and private roads.
- Do not pollute any water bodies (whether flowing or not).
- No member of the construction team is allowed to enter the areas outside the construction site.

EMP.18 Traffic Disturbances and Diversions

- Any traffic diversions must be undertaken with the approval of all relevant authorities and in accordance with all relevant legislation.
- Wherever possible, traffic diversion must only take place on existing disturbed areas and remain within the existing road reserve.
- Traffic diversion routes must be rehabilitated after use.

EMP.19 Vegetation

- Only vegetation falling directly on the route must be removed where necessary.
- Alien vegetation within the road reserve must be eradicated, and management measures must be implemented for future control of these species.
- Vegetation that has been removed from large areas (e.g. on traffic diversion routes) during construction must be replaced with indigenous vegetation after construction has been completed.

EMP.20 Waste Management

- All general, non-hazardous waste must be placed in a skip container and disposed of at a registered waste disposal site.
- The contractor is to ensure that the portable toilet facilities at the campsite are properly maintained and in working order.
- No disposal, or leakage, of sewage must occur on or near the site.
- All hazardous waste (e.g. oil, paint, empty lime bags, contaminated wash water, etc.) must be stored in leak proof containers and disposed of at a registered hazardous waste disposal site.
- The contents of waste storage containers must, under no circumstances, be emptied to the surrounding area. In general, littering, discarding or burying of any materials is not allowed on site or along the route.
- Adequate waste receptacles must be available at strategic points around the construction camp and site for all domestic refuse and to minimize the occurrence of littering.
- Concrete rubble must be collected and disposed of as directed by the Project

Manager.

- Each working area must be cleared of litter and building waste (e.g. rubble, wood, concrete packets etc) on completion of the day's work.
- Any spill around the container(s) should be treated as per Section EMP11 and EMP16.

SECTION OHS : OHSA 1993 HEALTH AND SAFETY SPECIFICATION

OHS.1 SCOPE

This specification covers the health and safety requirements to be met by the Contractor to ensure a continued safe and healthy environment for all workers, employees and subcontractors under his control and for all other persons entering the site of works.

This specification shall be read with the Occupational Health and Safety Act (Act No 85 and amendment Act No 181) 1993, and the corresponding Construction Regulations 2014, and all other safety codes and specifications referred to in the said Construction Regulations.

In terms of the OHSA Agreement in Section C1.2.4 of the Contract document, the status of the Contractor as mandatory to the Employer (client) is that of an employer in his own right, responsible to comply with all provisions of OHSA 1993 and the Construction Regulations 2014.

This safety specification and the Contractor's own Safety Plan as well as the Construction Regulations 2014, shall be displayed on site or made available for inspection by all workers, employees, inspectors and any other persons entering the site of works.

The following are possible risks associated with this project:

- Working high above the ground on top and below the bridge, most of the time in a restricted environment with limited landings (working platforms)
- Working above a continuously flowing river and in an flood plain environment subject to flooding
- Lifting and lowering of materials and equipment from the ground to the bridge and vice versa, exposed to cross winds
- Steep and restricted access to the lower flood plain below the bridge
- Potentially dangerous existing services, i.e. gas lines, water and sewerage mains, electrical high voltage cables, on the bridge, buried and overhead
- Deep excavations in soils requiring shoring or reducing of slopes
- Blasting of hard rock or demolition of concrete
- High pressure during testing of the relocated pipe lines, which could result in potentially dangerous situations in the event of the pipeline or fittings failing
- Potentially harmful gasses when tying into the existing sewer mains
- Movement of construction vehicles on site, taking into consideration steep slopes, other traffic and existing services
- Exposure to possible injuries due to mishandling or failure of power and hand tools
- Falling debris, tools and materials from bridge
- Non-conformance to specifications with regards to fasteners and materials
- Risks related to general safety and security on site

Additional risks may arise from specific methods of construction selected by the Contractor which are not necessary covered in the above.

OHS.2 DEFINITIONS

For the purpose of this contract, the following shall apply:

- (a) **Employer** where used in the contract documents and in this specification, means the Employer as defined in the General Conditions of Contract and it shall have the exact same meaning as **client** as defined in the Construction Regulations 2014. **Employer** and **client** is therefore interchangeable and shall be read in the context of the relevant document.
- (b) **Contractor** wherever used in the contract documents and in this specification, shall have the same meaning as **Contractor** as defined in the General Conditions of

Contract.

In this specification the terms “**principal contractor**” and “**contractor**” are replaced with “**Contractor**” and “**subcontractor**” respectively.

For the purpose of this contract the **Contractor** will in terms of OHSA 1993, be the mandatory, without derogating from his status as an employer in his own right.

- (c) “**Engineer**” where used in this specification, means the Engineer as defined in the General Conditions of Contract. In terms of the Construction Regulations the Engineer may act as agent on behalf of the Employer (the client as defined in the Construction Regulations).

OHS.3 TENDERS

The Contractor shall submit the following with his tender:

- (a) a documented Health and Safety Plan as stipulated in Regulation 7 of the Construction Regulations. The Safety Plan must be based on the Construction Regulations 2014 and will be subject to approval by the Employer;
- (b) a declaration to the effect that he has the competence and necessary resources to carry out the work safely in compliance with the Construction Regulations 2014;
- (c) a declaration to the effect that he made provision in his tender for the cost of the health and safety measures envisaged in the Construction Regulations.
- (d) Failure to submit the foregoing with his tender, will lead to the conclusion that the Contractor will not be able to carry out the work under the contract safely in accordance with the Construction Regulations.

OHS.4 NOTIFICATION OF COMMENCEMENT OF CONSTRUCTION WORK

After award of the contract, but before commencement of construction work, the Contractor shall, in terms of Regulation 4, notify the Provincial Director of the Department of Labour in writing if the following work is involved:

- (a) The demolition of structures and dismantling of fixed plant of height of 3,0m or more;
- (b) The use of explosives;
- (c) Construction work that will exceed 30 days or 300 person-days;
- (e) excavation work deeper than 1,0m; or
- (f) working at a height greater than 3,0m above ground or landings.

The notification must be done in the form of the pro forma included under Section 9 (Forms to be Completed by Successful Tenderer) of the tender document.

A copy of the notification form must be kept on site, available for inspection by inspectors, Employer, Engineer, employees and persons on site.

OHS.5 RISK ASSESSMENT

Before commencement of any construction work during the construction period, the Contractor shall have a risk assessment performed and recorded in writing by a competent person. (Refer Regulation 9 of the Construction Regulations 2014).

The risk assessment shall identify and evaluate the risks and hazards that may be expected during the execution of the work under the contract, and it shall include a documented plan of safe work procedures to mitigate, reduce or control the risks and hazards identified.

The risk assessment shall be available on site for inspection by inspectors, Employer, Engineer, subcontractors, employees, trade unions and health and safety committee members, and must be monitored and reviewed periodically by the Contractor.

OHS.6 APPOINTMENT OF EMPLOYEES AND SUBCONTRACTORS

6.1 Health and Safety plan

The Contractor shall appoint his employees and any subcontractors to be employed on the contract, in writing, and he shall provide them with a copy of his documented Health and Safety Plan, or relevant sections thereof. The Contractor shall ensure that all subcontractors and employees are committed to the implementation of his Safety Plan.

6.2 Health and safety induction training

The Contractor shall ensure that all employees under his control, including subcontractors and their employees, undergo a health and safety induction training course by a competent person before commencement of construction work. No visitor or other person shall be allowed or permitted to enter the site of the works unless such person has undergone health and safety training pertaining to hazards prevalent on site.

The Contractor shall ensure that every employee on site shall at all times be in possession of proof of the health and safety induction training issued by a competent person prior to commencement of construction work.

OHS.7 APPOINTMENT OF SAFETY PERSONNEL

7.1 Construction Supervisor

The Contractor shall appoint a full-time **Construction Supervisor** with the duty of supervising the performance of the construction work.

He may also have to appoint one or more competent employees to assist the construction supervisor where justified by the scope and complexity of the works.

7.2 Construction safety officer

Taking into consideration the size of the project and the hazards or dangers that can be expected, the Contractor shall appoint in writing a full-time or part-time **Construction Safety Officer** if so decided by the Inspector of the Department of Labour. The Safety Officer shall have the necessary competence and resources to perform his duties diligently.

Provision shall be made by the Contractor in his rates, to cover the cost of this dedicated construction safety officer appointed after award of the contract.

7.3 Health and safety representatives

In terms of **Section 17 and 18 of the Act (OHSA 1993)** the Contractor, being the employer in terms of the Act for the execution of the contract, shall appoint a **health and safety representative** whenever he has more than 20 employees in his employment on the site of the works. The health and safety representative must be selected from employees who are employed in a full-time capacity at a specific workplace.

The number of health and safety representatives for a workplace shall be at least one for every 100 employees.

The function of health and safety representative(s) will be to review the effectiveness of health and safety measures, to identify potential hazards and major incidents, to examine causes of incidents (in collaboration with his employer, the Contractor), to investigate

complaints by employees relating to health and safety at work, to make representations to the employer (Contractor) or inspector on general matters affecting the health and safety of employees, to inspect the workplace, plant, machinery etc. on a regular base, to participate in consultations with inspectors and to attend meetings of the health and safety committee.

7.4 Health and safety committee

In terms of Sections **17 and 18 of the Act (OHSA 1993)** the Contractor (as employer), shall establish one or more **health and safety committee(s)** where there are two or more health and safety representatives at a workplace. The persons selected by the Contractor to serve on the committee shall be designated in writing.

The function of the health and safety committee shall be to hold meetings at regular intervals, but at least once every three months, to review the health and safety measures on the contract, to discuss incidents related to health and safety with the Contractor and the inspector, and to make recommendations regarding health and safety to the Contractor and to keep record of recommendations and reports made by the committee.

7.5 Competent persons

In accordance with the Construction Regulations, the Contractor has to appoint in writing **competent persons** responsible for supervising construction work on each of the following work situations that may be expected on the site of the works.

- (a) Risk assessment and induction training as described in Regulation 9 of the Construction Regulations;
- (b) Fall protection as described in Regulation 10;
- (c) Excavation work as described in Regulation 13;
- (d) Demolition work as described in Regulation 14;
- (e) Scaffolding work as described in Regulation 16;
- (f) Suspended platform operations as described in Regulation 17;
- (g) Material hoists as described in Regulation 19;
- (h) Bulk Mixing plant operations as described in Regulation 20;
- (i) Explosive actuated fastening device as described in Regulation 21;
- (j) Cranes as described in Regulation 22;
- (k) Construction vehicle and mobile plant inspections on a daily basis by a competent person as described in Regulation 23(1);
- (l) Control of all temporary electrical installation on the construction site as described in Regulation 24;
- (m) Stacking and storage on construction sites as described in Regulation 28; and
- (n) Fire precautions on construction sites as described in Regulation 29.

A competent person may be appointed for more than one part of the construction work with the understanding that the person must be suitably qualified and able to supervise at the same time the construction work on all the work situations for which he has been appointed.

The appointment of competent persons to supervise parts of the construction work does not relieve the Contractor from any of his responsibilities to comply with **all** requirements of the Construction Regulations.

OHS.8 RECORDS AND REGISTERS

In accordance with the Construction Regulations the Contractor is bound to keep records and registers related to health and safety on site for periodic inspection by inspectors, the Engineer, the Employer, trade union officials and subcontractors and employees. The following records and registers must be kept on site and shall be available for inspection at all times.

- (a) A copy of the OHS Act 1993 Construction Regulations 2014;
- (b) A copy of this Health and Safety Specification;
- (c) A copy of the Contractor's Health and Safety Plan (Regulation 7);
- (d) A copy of the Notification of Construction Work (Regulation 4);
- (e) A health and safety file in terms of Regulation 7(1b) with inputs by the Construction Safety Officer (Regulation 8(5));
- (f) A copy of the risk assessment described in Regulation 9;
- (g) A full protection plan and the corresponding records of evaluation and training of employees working from elevated positions as described in Regulation 10;
- (h) Drawings pertaining to the design of structures (Regulation 11(1c)) and temporary works (Regulation 10) must be kept on site;
- (i) Pronouncement of the safety of excavations must be recorded in a register to be kept on site (Regulation 13(2)(h));
- (j) A copy of the certificate of the system design for suspended platforms (Regulation 17(3));
- (k) A notice must be affixed around the base towers of material hoists to indicate the maximum mass load, which may be carried at any one time by material hoists (Regulation 11(2));
- (l) Maintenance records of material hoists and inspection results must be kept in a record book to be kept on site (Regulation 19(8));
- (m) A record of any repairs to or maintenance of a batch plant must be kept on site (Regulations 19(8));
- (n) A warning notice must be displayed in a conspicuous manner when and wherever an explosive powered tool is used (Regulation 21(2));
- (o) A register for recording of findings by the competent person appointed to inspect construction vehicles and mobile plant (Regulation 23(1) (k)).

OHS.9 CONTRACTORS RESPONSIBILITIES

For this contract the Contractor will be the mandatory of the Employer (Client), as defined in the Act (OHS Act 1993), which means that the Contractor has the status of employer in his own right in respect of the contract. The Contractor is therefore responsible for all the duties and obligations of an employer as set out in the Act (OHS Act 1993) and the Construction Regulations 2014.

Before commencement of work under the contract, the Contractor shall enter into an agreement with the Employer (Client) to confirm his status as mandatory (employer) for the contract under consideration.

The Contractor's duties and responsibilities are clearly set out in the Construction Regulations 2014, and are not repeated in detail but some important aspects are highlighted hereafter, without relieving the Contractor of any of his duties and responsibilities in terms of the Construction Regulations.

- (a) Contractor's position in relation to the Employer (Client) (Regulation 5)

In accordance with Section 4 of the Regulations, the Contractor shall liaise closely with the Employer or the Engineer on behalf of the Employer, to ensure that all requirements of the Act and the Regulations are met and complied with.

- (b) The Principal Contractor and Contractor (Regulation 7)

The Contractor is in terms of the definition in Regulation 2(b) the equivalent of Principle Contractor as defined in the Construction Regulations, and he shall comply with all the provisions of Regulation 7.

Any subcontractors employed by the Contractor must be appointed in writing, setting out the terms of the appointment in respect of health and safety. An independent subcontractor shall however provide and demonstrate to the Contractor a suitable, acceptable and sufficiently documented health and safety plan before commencement

of the subcontract. In the absence of such a health and safety plan the subcontractor shall undertake in writing that he will comply with the Contractor's safety plan, the health and safety specifications of the Employer and the Construction Regulations 2014.

(c) Management Supervision of construction work (Regulation 8)

The Contractor shall appoint the safety and other personnel and employees as required in terms of Regulation 8 and as set out in paragraph 7 above. Appointment of those personnel and employees does not relieve the Contractor from any of the obligations under Regulation 8.

(d) Risk assessment for construction works (Regulation 9)

The Contractor shall have the risk assessment made as set out in paragraph 3 above before commencement of the work and it must be available on site for inspection at all times. The Contractor shall consult with the health and safety committee or health and safety representative(s) etc. on a regular basis to ensure that all employees, including subcontractors under his control, are informed and trained by a competent person regarding health hazards and related work procedures.

No subcontractor, employee or visitor shall be allowed to enter the site of works without prior health and safety induction training, all as specified in Regulation 9.

(e) Fall protection (Regulation 10)

Fall protection, if applicable to this contract shall comply in all respects with Regulation 10 of the Construction Regulations.

(f) Structures (Regulation 11)

The Contractor will be liable for all claims arising from collapse or failure of structures if he failed to comply with all the specifications, project specifications and drawings related to the structures, unless it can be proved that such collapse or failure can be attributed to faulty design or insufficient design standards on which the specifications and the drawings are based.

In addition, the Contractor shall comply with all aspects of Regulation 11 of the Construction Regulations.

(g) Temporary works (Regulation 12)

The Contractor will be responsible for the adequate design of all formwork and support structures by a competent person.

All drawings pertaining to formwork shall be kept on site and all equipment and materials used in formwork, shall be carefully examined and checked for suitability by a competent person.

The provisions of Regulation 12 of the Construction Regulations shall be followed in every detail.

(h) Excavation (Regulation 13)

It is essential that the Contractor shall follow the instructions and precautions in the Standard Specifications and Project Specifications as well as the provisions of the Construction Regulations to the letter as unsafe excavations can be a major hazard on any construction site. The Contractor shall therefore ensure that all excavation work is carried out under the supervision of a competent person, that inspections are carried out by a Professional Engineer or Technologist, and that all work is done in such a manner that no hazards are created by unsafe excavations and working conditions.

Supervision by a competent person will not relieve the Contractor from any of his duties and responsibilities under Regulation 13 of the Construction Regulations.

(i) Demolition work (Regulation 14)

Whenever demolition work is included in a contract, the Contractor shall comply with all the requirements of Regulation 14 of the Construction Regulations. The fact that a competent person has to be appointed by the Contractor does not relieve the Contractor from any of his responsibilities in respect of safety of demolition work.

(j) Tunneling (Regulation 15)

The Contractor shall comply with Regulation 15 wherever tunneling of any kind is involved.

(k) Scaffolding (Regulation 16)

The Contractor shall ensure that all the provisions of Regulation 16 of the Construction Regulations are complied with. [Note: Reference in the Regulations to "Section 44 of the Act" should read "Section 43 of the Act"].

(l) Suspended platforms (Regulation 17)

Wherever suspended platforms will be necessary on any contract, the Contractor shall ensure that copies of the system design issued by a Professional Engineer are submitted to the Engineer for inspection and approval. The Contractor shall appoint competent persons as supervisors and competent scaffold erectors, operators and inspectors and ensure that all work related to suspended platforms are done in accordance with Regulation 17 of the Construction Regulations.

(m) Rope Access (Regulation 18)

Where rope access are required on the construction site, the Contractor shall comply with Regulation 18.

(n) Material Hoists (Regulation 19)

Wherever applicable, the Contractor shall comply with the provisions of Regulation 19 to the letter.

(o) Bulk Mixing plants (Regulation 20)

Wherever applicable, the Contractor shall ensure that all lifting machines, lifting tackle, conveyors, etc. used in the operation of a batch plant shall comply with, and that all operators, supervisors and employees are strictly held to the provisions of Regulation 20. The Contractor shall ensure that the General Safety Regulations (Government Notice R1031 of 30 May 1986), the Driven Machinery Regulations (Government Notice R295 of 26/2/1988) and the Electrical Installation Regulations (Government Notice R2271 of 11/10/1995) are adhered to by all involved.

In terms of the Regulations, records of repairs and maintenance shall be kept on site.

i (p) Explosive actuated fastening devices (Regulation 21)

The Contractor shall ensure that, wherever explosive-powered tools are required to be used, all safety provisions of Regulation 21 are complied with.

It is especially important that warning notices are displayed and that the issue and return of cartridges and spent cartridges be recorded in a register to be kept on site.

(q) Cranes (Regulation 22)

Wherever the use of tower cranes becomes necessary, the provisions of Regulation 22 shall be complied with.

(r) Construction vehicles And mobile plant (Regulation 23)

The Contractor shall ensure that all construction vehicles and plant are in good working condition and safe for use, and that they are used in accordance with their design and intended use. The vehicles and plant shall only be operated by workers or operators who have received appropriate training, all in accordance with all the requirements of Regulation 23.

All vehicles and plant must be inspected on a daily basis, prior to use, by a competent person and the findings must be recorded in a register to be kept on site.

(s) Electrical installation and machinery on construction sites (Regulation 24)

The Contractor shall comply with the Electrical Installation Regulations (Government Notice R2920 of 23 October 1992) and the Electrical Machinery Regulations (Government Notice R1953 of 12 August 1993). Before commencement of construction, the Contractor shall take adequate steps to ascertain the presence of, and guard against dangers and hazards due to electrical cables and apparatus under, over or on the site.

All temporary electrical installations on the site shall be under the control of a competent person, without relieving the Contractor of his responsibility for the health and safety of all workers and persons on site in terms of Regulation 24.

(t) Use of temporary storage of flammable liquids on construction sites (Regulation 25)

The Contractor shall comply with the provisions of the General Safety Regulations (Government Notice R1031 of 30 May 1986) and all the provisions of Regulation 25 of the Construction Regulations to ensure a safe and hazard-free environment to all workers and other persons on site.

(u) Water environments (Regulation 26)

Where construction work is done over or in close proximity to water, the provisions of Regulation 26 shall apply.

(v) Housekeeping and general safeguarding on construction sites (Regulation 27)

Housekeeping on all construction sites shall be in accordance with the provisions of the environment Regulations for workplaces (Government Notice R2281 of 16 October 1987) and all the provisions of Regulation 27 of the Construction Regulations.

(w) Stacking and storage on construction sites (Regulation 28)

The provisions for the stacking of articles contained in the General Safety Regulations (Government Notice R1031 of 30 May 1986) as well as all the provisions Regulation 28 of the Construction Regulations shall apply.

(x) Fire precautions on construction sites (Regulation 29)

The provisions of the Environmental Regulations for Workplaces (Government Notice R2281 of 16 October 1987) shall apply.

In addition the necessary precautions shall be taken to prevent the incidence of fires, to provide adequate and sufficient fire protection equipment, sirens, escape routes etc. all in accordance with Regulation 29 of the Construction Regulations.

(y) Construction welfare facilities (Regulation 30)

The Contractor shall comply with the construction site provisions as in the Facilities Regulations (Government Notice R1593 of 12 August 1988) and the provisions of Regulation 30 of the Construction Regulations.

(z) Non-compliance with the Construction Regulations 2014

The foregoing is a summary of parts of the Construction Regulations applicable to all construction projects.

The Contractor, as employer for the execution of the contract, shall ensure that all provisions of the Construction Regulations applicable to the contract under consideration are complied with to the letter.

Should the Contractor fail to comply with the provisions of the Regulations 4 to 30 as listed in Regulation 33, he will be guilty of an offence and will be liable, upon conviction, to the fines or imprisonment as set out in Regulation 33.

The Contractor is advised in his own interest to make a careful study of the Act and the Construction Regulations as ignorance of the Act and the Regulations will not be accepted in any proceedings related to non-conformance to the Act and the Regulations.

OHS.10 MEASUREMENT AND PAYMENT

10.1 Principles

It is a condition of this contract that Contractors, who submit tenders for this contract, shall make provision in their tenders for the cost of all health and safety measures during the construction process. All associated activities and expenditure are deemed to be included in the Contractor's tendered rates and prices.

(a) Safety personnel

The Construction Supervisor, the Construction Safety Officer, Health and Safety Representatives, Health and Safety Committee and Competent Persons referred to in clauses 9.1 to 9.5 shall be members of the Contractor's personnel, and no additional payment will be made for the appointment of such safety personnel.

(b) Records and Registers

The keeping of health and safety-related records and registers as described in 8 is regarded as a normal duty of the Contractor for which no additional payment will be considered, and which is deemed to be included in the Contractor's tendered rates and prices.



MIDVAAL LOCAL MUNICIPALITY

BID NO.: (8/2/2/446) (5EP/4EPPE OR HIGHER)

FOR THE APPOINTMENT OF A SERVICE PROVIDER FOR THE REFURBISHMENT AND INSTALLATION OF HIGHMAST LIGHTS AND STREET LIGHTS FOR MIDVAAL LOCAL MUNICIPALITY ON AN AS AND WHEN REQUIRED BASIS FROM DATE OF AWARD FOR A PERIOD OF 36

C3.6 HIV/AIDS REQUIREMENTS

C1001 SCOPE

This specification contains all requirements applicable to the Contractor for creating HIV/AIDS awareness amongst all of the Workers involved in this project for the duration of the construction period, through the following strategies:

- Raising awareness about HIV/AIDS through education and information on the nature of the disease, how it is transmitted, safe sexual behaviour, attitudes towards people affected and people living with HIV/AIDS, how to live a healthy lifestyle with HIV/AIDS, the importance of voluntary testing and counselling, the diagnosis and treatment of Sexually Transmitted Infections and the closest health Service Providers.
- Informing Workers of their rights with regard to HIV/AIDS in the workplace.
- Providing Workers with access to condoms and other awareness material that will enable them to make informed decisions about sexual practices.

C1002 DEFINITIONS AND ABBREVIATIONS

a) Definitions

Service Provider: The natural or juristic person recognised and approved by the Department of Public Works as a specialist in conducting HIV/AIDS awareness programs.

Service Provider Workshop Plan: A plan outlining the content, process and schedule of the training and education workshops, presented by a Service Provider which has been approved by the Representative/Agent.

Worker: Person in the employ of the Contractor or under the direction or supervision of the Contractor or any of his Sub-contractors, who is on site for a minimum period of 30 days in all,

b) Abbreviations

HIV : Human Immunodeficiency Virus

AIDS : Acquired Immune Deficiency Syndrome

STI : Sexually Transmitted Infection

C1003 BASIC METHOD REQUIREMENT

The Contractor shall, through a Service Provider, conduct onsite workshops with the Workers.

The Service Provider shall develop and compile a Service Provider Workshop Plan to be presented at the workshops and which will be best suited for this project to achieve the specified objectives with regard to HIV/AIDS awareness.

The Service Provider Workshop Plan shall be based on the following information provided by the Contractor:

- Number of Workers and Sub-contractors on site
- When new Workers or Sub-contractors will join the construction project
- Duration of Workers and Sub-contractors on site
- How the maximum number of Workers can be targeted with workshops

- How the Contractor prefers workshops to be scheduled, e.g. three hourly sessions per Worker, or one 2.5-hour workshop per Worker
- Profile of Workers, including educational level, age and gender (if available)
- Preferred time of day or month to conduct workshops
- A Gantt chart reflecting the construction programme, for scheduling of workshops
- Suitable venues for workshops

The Contractor shall submit the Service Provider Workshop Plan for approval within 14 days after the Commencement Date. After approval by the Representative/Agent, the Contractor shall make available a suitable venue that will be conducive to education and training.

The Service Provider Workshop Plan shall address, but will not be limited to the following:

- a) The nature of the disease;
- b) How it is transmitted;
- c) Safe sexual behaviour;
- d) Post exposure services such as voluntary counselling and testing (VCT) and nutritional plans for people living with HIV/AIDS;
- e) Attitudes towards other people with HIV/AIDS;
- f) Rights of the Worker in the workplace;
- g) How the Awareness Champion will be equipped prior to commencement of the HIV/AIDS awareness programme with basic HIV/AIDS information and the necessary skills to handle questions regarding the HIV/AIDS awareness programme on site sensitively and confidentially;
- h) How the Service Provider will support the Awareness Champion;
- i) Location and contact numbers of the closest clinics, VCT facilities, counselling services and referral systems;
- j) How the workshops will be presented, including frequency and duration;
- k) How the workshops will fit in with the construction programme;
- l) How the Service Provider will assess the knowledge and attitude levels of attendees to structure workshops accordingly;
- m) How the video will be used;
- n) How the Service Provider will elicit maximum participation from the Workers;
- o) A questions and answers slot (interactive session)

The Service Provider Workshop Plan shall encompass the Specific Learning Outcomes (SLO) as stipulated.

C1004 HIV/ AIDS AWARENESS EDUCATION AND TRAINING**a) Workshops**

The Contractor shall ensure that all Workers attend the workshops.

The workshops shall adequately deal with all the aspects contained in the Service Provider Workshop Plan. A video of HIV/AIDS in the construction industry, which can be obtained from all Regional Offices of the Department of Public Works, is to be screened to Workers at workshops. In order to enhance the learning experience, groups of not exceeding 25 people shall attend the interactive sessions of the workshops.

b) Recommended practice**i) Workshop Schedule**

Presenting information contained in the Service Provider Workshop Plan can be divided in as many workshop sessions as deemed practicable by the Contractor, provided that all Workers are exposed to all aspects of the workshops as outlined in the Service Provider Workshop Plan.

Breaking down the content of information to be presented to Workers into more than one workshop session however, has the added advantage that messages are reinforced over time while providing information. Workers will also have an opportunity to ask questions at a following session.

ii) Service Providers

A database of recommended Service Providers is available from all Regional Offices of the Department of Public Works.

iii) HIV/AIDS Specific Learning Outcomes and Assessment Criteria

Workers shall be exposed to workshops for a minimum duration of two-and-a-half hours.

c) Displaying of plastic laminated posters and distribution of information booklets.

The Contractor shall obtain a set of four laminated posters conveying different key messages and information booklets, which are available from all Regional Offices of the Department of Public Works.

The above-mentioned posters and information booklets have been prepared to raise awareness and to share information about HIV/AIDS and STI's.

Posters or display stands shall be displayed on site as soon as possible, but not later than 14 days after the date of site handover.

Posters shall be displayed in areas highly trafficked by Workers, including toilets, rest areas, the site office and compounds.

The posters on display must always be intact, clear and readable.

Information booklets must be distributed to all Workers as soon as possible, but not later than 14 days after site handover, or as soon as the Worker joins the site.

C1005 PROVIDING WORKERS WITH ACCESS TO CONDOMS

The Contractor shall provide and maintain condom dispensers and make both male and female condoms, complying with the requirements of SANS ISO 4074, available at all times to all Workers at readily accessible points on site, for the duration of the contract. The Contractor may obtain condom dispensers from the Department of Health and condoms may be obtained from the Local Clinic or the Department of Health.

At least one male and one female condom dispenser and a sufficient supply of condoms, all to the approval of the Representative/Agent, shall be made available on site within 14 days of site hand over. Contractors should note that arrangements to obtain condoms from the Department of Health Clinics prior to site hand over may be necessary, to ensure that condoms are available within 14 days of site handover.

Condoms shall be made available in areas highly trafficked by Workers, including toilets, the site office and compounds.

C1006 ENSURING ACCESS TO HIV/AIDS TESTING AND COUNSELLING FACILITIES AND TREATMENT OF SEXUALLY TRANSMITTED INFECTIONS (STI)

The Contractor shall provide Workers with the names of the closest Service Providers that provide HIV/AIDS testing and counselling and Clinics providing Sexually Transmitted Infection (STI) diagnosis and treatment. Information on these Service Providers and Clinics must be displayed on a poster of a size not smaller than A1 in an area highly trafficked by Workers.

C1007 APPOINTMENT OF AN HIV/AIDS AWARENESS CHAMPION

Within 14 days of site hand over the Contractor shall appoint an Awareness Champion from amongst the Workers, who speaks, reads and writes English, who speaks and understands all the local languages spoken by the Workers and who shall be on site during all stages of the construction period. The Contractor shall ensure that the Awareness Champion has been trained by the Service Provider on basic HIV/AIDS information, the support services available and the necessary skills to handle questions regarding the HIV/AIDS programme in a sensitive and confidential manner.

The Awareness Champion shall be responsible for:

- a) Liaising with the Service Provider on organising awareness workshops;
- b) Filling condom dispensers and monitoring condom distribution;
- c) Handing out information booklets;
- d) Placing and maintaining posters

C1008 MONITORING

The Contractor shall grant to the Representative/Agent reasonable access to the construction site, in order to establish that the Contractor complies with his obligations regarding HIV/AIDS awareness under this contract.

The Contractor must report problems experienced in implementing the HIV/AIDS requirements to the Representative/Agent.

C3.7 OCCUPATIONAL HEALTH AND SAFETY

D1001 GENERAL

a) Tender Document

This document is the pre-contract Health and Safety Specification which must be used by the Principal Contractor and Sub Contractors appointed by the Principal Contractor to compile Health and Safety Plans for this project and forms part of the tender documentation.

The Principal Contractor and Sub Contractors' particular attention is drawn to paragraph 2 of this specification whereby

"Upon award of the contract, the contractor is to assume and adopt the function and duties of the Principal Contractor as set out in the Construction Regulations 2003 No. R. 1010 promulgated 18 July 2003."

The health and safety specifications outlined herein must be taken into account and due allowance made within the pricing of appropriate items contained within the specification. Where the Tenderer is of the opinion that a requirement is missing or is not adequately specified then this shall be drawn to the Client / Client's Agent's attention during the tender period. In the absence of any direction to the contrary, the Tenderer shall as part of the tender submission, set out the details of such discrepancy together with the costs associated therewith, separately identified and included within the tender figure.

b) Principal Contractor

The successful Tenderer will on be signing of the contract for; **FATENG TSE NTHO-CONSTRUCTION OF 1.4KM BLOCK PAVED ROAD AND STORMWATER CHANNELS** be required to fulfil the function and duties of the Principal Contractor as set out in the Construction Regulations 2003 No. R. 1010 promulgated 18 July 2003.

c) Start of Construction Phase

The construction phase shall not commence until the Principal Contractor's Health and Safety Plan was considered and approved by the Client / Client's Agent and Design Team. The Client / Client's Agent shall discuss and negotiate with the Principal Contractor the contents of the Health and Safety Plan submitted by the Principal Contractor before finally approving it for implementation.

The construction phase shall not commence until written permission is received from the Client / Client's Agent. In this respect the Client / Client's Agent may rely on the advice of the Design Team as to the adequacy and comprehensiveness of the Plan offered by the Principal Contractor.

In preparing their detailed Health and Safety Plan based on the relevant sections of this Health and safety Specifications supplied to them by the Client, Client's Agent, contractors must allow for the adoption of safe working procedures and co-ordinate and rationalize activities to avoid controllable hazards arising due to clashes of activities.

d) Sub-Contractors, Suppliers & Designers

The Principal Contractor shall ensure that all direct appointments in connection with this project include provisions for the compliance of his sub-contractors, suppliers and designers, etc, with the relevant provision of the Occupational Health and Safety Act (Act 85 of 1993) and its Regulations, in particular the Construction Regulations 2003 No. R. 1010 promulgated 18 July 2003.

e) **Liaison**

The Principal Contractor shall together with all his appointees, liaison with the Client / Client's Agent as required under the Regulations and agree procedures for the transfer of relevant Information in respect of designs and in connection with the preparation of the Health and Safety File.

f) **Advice**

The Tenderer shall, as part of the tender submission, indicate where advice will or may be required of the Client / Client's Agent in respect of the competence of the Tenderer's designers and the adequacy of resources allocated or to be allocated by them.

g) **Undertaking by Principal Contractor and Sub-Contractors appointed by the Principal Contractor**

The Principal Contractor as well as Sub-Contractors appointed by him / her shall undertake in writing to ensure that the provisions of the Occupational Health and Safety Act (Act 85 of 1993) and its Regulations, in particular the Construction Regulation of 2003 No. R 1010 and any amendments or re-enactments thereto are complied with. The attached Occupational Health and Safety provisions undertaking form for the Principal Contractor in Appendix 1 shall be completed and signed by the Managing Director of the company / firm awarded the tender.

h) **Client's Occupational Health and Safety Agent:**

Name: Successful Tenderer will be informed.

Address:

Tel:

Fax:

Mobile:

D1002 INFORMATION REQUIREMENTS

The contractor must provide the following information.

a) **General**

- The Principal Contractor / Sub-Contractor shall have an OHS Policy in accordance with the OHS (Occupational Health and Safety Act, Act 85 of 1993) and include a copy of the Policy in the Health and Safety Plan to be submitted by the Principal Contractor / Sub-Contractor.
- The Principal Contractor / Sub-Contractor shall promptly display a copy of the Company's OHS Policy on the OHS Notice Board for the duration of the contract and include it into information provided to persons at the contract OHS induction.
- The Principal Contractor shall develop a Contract specific OHS Management Commitment Statement based on the Company's OHS Policy.
- The Principal Contractor's Managing Director shall sign the Commitment Statement and prominently display a copy on the OHS Notice Board for the duration of the contract. A copy of the Commitment Statement shall be included in information provided to persons at the Contract OHS induction and a copy shall also be supplied to each sub-contractor.

b) **Management**

- Details of the personnel and management systems to be put in place to prepare, manage, implement, conduct and monitor the Health and Safety Plan for the project. Broadly speaking your:
 - Organisation's internal structure that establishes SHE (Safety, Health and Environmental) ROLES, RESPONSIBILITIES, ACCOUNTABILITIES, and REPORTING RELATIONSHIPS,
 - SHE (Safety, Health and Environmental) PLANS, POLICIES, PROCEDURES, DIRECTIVES and STANDARDS that provide instructions as to how activities and functions are to be carried out,
 - SHE (Safety, Health and Environmental) CONTROLS, INSPECTIONS, REVIEWS, etc. built into construction operations to ensure that performance is consistent with SHE (Safety, Health and Environmental) objectives and requirements,
 - SHE (Safety, Health and Environmental) COMMUNICATION MECHANISMS for collecting, handling and reporting information.

In other words, Management Systems that specifies WHO is going to do WHAT, WHERE, WHEN, Why and HOW.

- Details of relevant qualifications and experience held by the persons nominated above, including recent health and safety education and training undertaken.
- Procedures for determining the competence of contractors engaged on the project, whether employed by the contractor directly or by others, to fulfil their duties under the Construction Regulations 2003 (No. R. 1010 Promulgated 18 July 2003).

c) **Hazard Identification, Risk Assessment and control**

- The Principal Contractor / Sub-Contractor shall detail and implement procedures that will identify hazards, assess risks and determine suitable control measures as they arise throughout term of the contract. These procedures shall both comply with and be implemented and managed in accordance with the specification.
- The Principal Contractor / Sub-Contractor shall detail and implement procedures that ensure control measures are evaluated for effectiveness and modified as necessary. The evaluation procedure shall detail the responsibilities, timelines and records that will be kept as part of the process.
- Where Risk is controlled through administrative control measures, the Principal Contractor / Sub-Contractor shall ensure that the administrative measures are:
 - Clearly documented and those personnel responsible for implementation and management are explicitly defined;
 - Understood by all relevant personnel through training and assessment;
 - Implemented as documented and promptly reviewed for effectiveness following initial implementation;
 - Amended and authorized as required;
 - Adequately supervised, managed and audited to ensure continuing compliance;
 - Available at all times wherever the measures are being implemented.

- Any piece of plant or equipment not complying with the specification shall cease operation until the Principal Contractor / Sub-Contractor can demonstrate to the satisfaction of the Client / Client's Agent that the piece of non-conforming plant or equipment conforms to these requirements.

d) **Health and Safety Plan**

The Principal Contractor / Sub-Contractor shall develop a Health & Safety Plan to reflect variations in design or changes in site conditions and liaise with the Client /Client's Agent.

The Principal Contractor shall develop this Health and Safety Plan so that it:

- Incorporates the contractor's approach to managing the construction work to ensure the health and safety of all persons carrying out the construction work and all persons who may be affected by their work.
- Includes the risk assessments prepared by all Contractors under their duties set out in the Construction Regulations 2003 and any other relevant legislation (i.e. the OHS Act and Regulations, etc).
- Includes the arrangements for ensuring that, where appropriate or specifically requested, all Contractors / Sub-Contractors prepare suitable and sufficient method statements for their construction works which incorporate adequate measures for ensuring the health and safety of all persons who may be affected by these works.
- Incorporates the common arrangements for site safety, statutory notices and registers etc.
- Includes the site rules to be adopted for controlling the risks to health and safety during the construction phase(s) or the project.
- Includes reasonable arrangements for monitoring compliance with health and safety legislation and site rules.
- Includes reasonable measures to ensure co-operation between all Contractors and Sub-Contractors in respect of health and safety provisions and prohibitions.
- Includes the steps to be taken to ensure that only authorised persons are allowed into any premises or parts of the site / premises where construction work is being carried out.
- Includes arrangements for emergency procedures.
- Includes arrangements for ensuring that, so far as is reasonably practicable, every Contractor and Sub-Contractor is provided with comprehensible information about the risks to health and safety of that Contractor / Sub-Contractor, or of any employees or other persons under their control, arising out of the construction works, including the emergency procedures
- Includes details of the arrangements for ensuring, so far as is reasonably practicable, that the employees or other persons under the control of any Contractor / Sub-Contractor, and any visitors to the site, receive adequate information about the risks to their health and safety arising out of the construction works and, where necessary, adequate training to carry out their work in a safe and healthy manner.
- Includes arrangements for providing all persons at work on the site and visitors to the site with the opportunity and means of discussing and offering advice on health and safety issues relating to the construction works.

- Includes arrangements for the reporting of any accidents, injuries or dangerous occurrences, including conforming to the statutory requirements.
- Can be modified as the work proceeds to take account of any information received from Contractors / Sub-Contractors, any experience gained during the course of the project or any changes necessary because of unforeseen circumstances or alterations to the design.

e) **Programme**

A time estimate required by the contractor to implement the Health & Safety Plan sufficiently for works to commence on site.

f) **Cost**

A detailed breakdown of costs allowed in the contractor's tender for preparing, managing, implementing and monitoring the Health and Safety Plan, and for complying with the requirements imposed on the Principal Contractors under the Construction Regulations of 2003(No. R. 1010 Promulgated 18 July 2003).

D1003 GENERAL SITE SAFETY

a) **Safety training & education**

The Principal Contractor shall detail the OHS competencies and training received by its contract management personnel.

The Principal Contractor's Health and Safety Plan shall have a detailed register of the skills and competencies for all personnel for the activities that the personnel will undertake under the contract. (E.g. Mobile plant operators, crane operators etc.)

The Principal Contractor shall demonstrate and maintain documentary evidence of competencies on site for the duration of the contract.

b) **Induction Training**

The Principal Contractor / Sub-Contractor shall develop and detail a Site Induction Training Programme as part of the Occupational Health and Safety Plan to be submitted to the Client / Client's Agent prior to commencement of construction that includes as a minimum:

- i) Training related to hazards likely to be encountered on Site and control measures that have been developed in response to these hazards;
- ii) Roles and Responsibilities;
- iii) The requirements of the Health and Safety Plan submitted and approved;
- iv) Address the identified issues in the Fire Safety, Emergency, Evacuation and Rescue Plan to ensure that all Site personnel are aware of procedures in the event of an incident or emergency occurring;

The Principal Contractor / Sub-Contractor shall evaluate all persons undertaking the site Induction Training through a written test to ensure that inductees have an understanding of the OHS (Occupational Health and Safety) requirements for the contract. The written tests shall be signed and dated by the person undertaking the induction training to attest to their understanding and be retained by the Principal Contractor / Sub-Contractor as a record that the training has been completed.

c) **Induction training for specified work**

The Principal Contractor/Sub-Contractor shall conduct Site Specific Occupational Health and Safety Induction Training for all personnel, the Client/Client's Agent and all visitors not escorted on Site by inducted persons.

The Principal Contractor / Sub-Contractor shall evaluate all persons undertaking the Site Induction Training through a written test to ensure that inductees have an understanding of the OHS (Occupational Health and Safety) requirements for the contract. The written tests shall be signed and dated by the person undertaking the induction training to attest to their understanding and be retained by the Principal Contractor / Sub-Contractor as a record that the training has been completed.

d) **Recording & reporting of injuries**

Make arrangements for all contractors to report accidents, ill health and dangerous occurrences notifiable to the Department of Labour under Section 24 of the OHS Act (Occupational Health and Safety Act, Act 85 of 1993) (Reporting to DOL (Department of Labour) Inspector regarding certain incidents).

All lost time incidents associated with the contract works or reportable as defined by Section 24 of the OHS Act shall be immediately reported to the Client / Client's Agent.

The Principal Contractor / Sub-Contractor shall provide a detailed report of all accidents / incidents, including events that could have become lost time incidents were it not for fortuitous circumstances to the Client / Client's Agent within 5 days of the incident occurring. The Principal Contractor / Sub-Contractor shall provide copies of all reports and information associated with the incidents to the Client / Client's Agent. Copies of reports must be placed on the Health and Safety File.

Where the Principal Contractor / Sub-Contractor has been:

- Served with a prohibition, contravention or improvement notice under the OHS Act; or
- Required to comply with any order issued by an inspector for the Department of Labour;

The Principal Contractor / Sub-Contractor shall immediately supply a copy of that notice, order or notification to the Client / Client's Agent.

Where the Principal Contractor / Sub-Contractor have been served with a summons or is convicted of any offence in relation to occupational health and safety, the Principal Contractor / Sub Contractor shall immediately supply a copy of that summons to the Client / Client's Agent.

The Principal Contractor / Sub-Contractor shall detail the reporting and investigation procedures for incident investigation. The procedures shall include the investigating officer responsible and the time limits imposed for reporting and investigating the incident and to implement corrective action in a timely manner so as to prevent a recurrence.

The client / Client's Agent may participate in or undertake an investigation into the incident, injury or illness at its discretion and the Principal Contractor / Sub-Contractor shall cooperate with and provide assistance to the investigation organised and undertaken by the Client / Client's Agent.

e) **First Aid**

Establish and implement a first-aid programme to provide emergency treatment to victims of accidents, chemical substances or excessive exposure to toxic substances.

The programme shall include:

- proper first aid facilities administered by qualified personnel,
- first-aid boxes,
- first-aid room, where there are 500 or more workers on site,
- training and re-training of first-aiders,
- first-aid treatment procedures,
- standard procedures,
- special procedures, e.g. for poisoning,
- maintenance of first-aid facilities

All first-aid provisions shall comply with the OHS Act (Act 85 of 1993)

f) **Fire protection and prevention**

- Appropriate measures must be taken to avoid the risk of fire.
- Sufficient and suitable storage must be provided for flammable liquids, solids and gases.
- Smoking must be prohibited and notices in this regard must be prominently displayed in all places containing readily combustible or flammable materials;
- Combustible materials must not accumulate on the construction site.
- Welding, flame cutting and other hot work may only be done after the appropriate precautions have been taken to reduce the risk of fire.
- Suitable and sufficient fire-extinguishing equipment must be placed at strategic locations and such equipment must be maintained in good working order
- A sufficient number of workers must be trained in the use of fire-extinguishing equipment.

g) **Site Emergency Procedures**

The Principal Contractor/Sub-Contractor shall establish an Emergency Evacuation and Rescue plan.

The plan shall include the following detail:

- The role and responsibility of every individual in the work area on fire safety emergency evacuation and rescue;
- General work area precautions, fire prevention, detection, protection and warning alarm systems;
- Firefighting and rescue equipment including types of fire extinguishers;
- Fire safety measures for Site accommodation;
- Escape and communication;
- Fire brigade access, facilities and coordination;
- Fire drills and training including the use of firefighting equipment;
- Material storage including flammable liquids, gasses and waste;

The Principal Contractor / Sub-Contractor shall ensure that all procedures, precautionary measures and safety standards stipulated in the Plan are communicated, implemented and complied with by all workers including other interfacing contractors on Site.

The Principal Contractor / Sub-Contractor shall practise their emergency preparedness within six (6) weeks of the commencement of work and at least four (4) monthly intervals thereafter.

The Principal Contractor / Sub-Contractor shall review and ensure the adequacy of the Plan as the work progresses.

The Principal Contractor / Sub-Contractor shall conduct monthly checks on firefighting equipment and test alarms and detection devices installed on Site and document findings in a register which shall be on site at all times for inspection.

The Principal Contractor / Sub-Contractor shall conduct weekly inspections of escape routes, fire brigade access, firefighting facilities and working areas to ensure that the requirements stipulated in the Fire Safety, Emergency, Evacuation and Rescue Plan are complied with. All inspection records shall be documented in registers and kept in the Health and Safety file for inspection at any time.

h) **Housekeeping**

Suitable housekeeping must continuously be implemented on the construction site, including:

- proper storage of materials and equipment
- removal of scrap, waste and debris at appropriate intervals;

Loose materials shall not be placed or allowed to accumulate on the site to obstruct access and egress from workplaces and passageways.

i) **Stacking & Storage**

- Adequate storage areas must be provided.
- Storage areas must be kept neat and under control.

j) **Illumination**

Provide adequate artificial lighting when work is carried out after dark or inside buildings.

k) **Sanitation / Hygiene**

Provision of site hygiene facilities:

- One sanitary facility for every 30 workers.
- Adequate washing facilities.
- One shower facility for every 15 workers;

Drying sheds, huts, rooms or other accommodation for sheltering during bad weather, storing clothes and taking meals. Facilities should include tables and chairs, suitable means for boiling water and a supply of wholesome drinking water.

The contractor shall provide reasonable and suitable living accommodation for the workers at construction sites which are remote from their homes and where adequate transportation between the site and their homes, or other suitable living accommodation, is not available.

l) Personal Protective Equipment

The Principal Contractor / Sub-Contractor shall provide and maintain suitable PPE (Personal Protective Equipment) for all employees employed on the Site.

The Principal Contractor / Sub-Contractor shall ensure that such PPE comply with the requirements of the OHS Act (Occupational Health and Safety Act, Act 85 of 1993).

The Principal Contractor / Sub-Contractor shall also ensure that all equipment is properly used by his / her employees during the course of their work.

The Principal Contractor / Sub-Contractor shall record all issues of all equipment to his / her employees in documented registers and such registers shall be kept in the Health and Safety File on site and made available for inspection at all times.

The Principal Contractor / Sub-Contractor shall provide the Client / Client's Agent with a colour code by which employees will be identified with regard to occupations, responsibilities, accountabilities, reporting relationships and access to different locations on site. (E.g. hard hats, overalls).

PPE shall be provided, used, and maintained in a sanitary and reliable condition wherever it is necessary by reason of hazards.

All personal protective equipment shall be of safe design and construction for the work to be performed.

m) Permit to work requirements

Institute a "hot work" permit system in respect of:

- metalwork flame cutting,
- site welding.

n) Lock-out

Institute a "Lock-out" procedure in respect of controlling energy to prevent unexpected operation or activation of machinery or equipment. This procedure must include a written policy, specific procedures, rules and supervisory follow-up, covering the positive locking of switches and valves to ensure that alterations, maintenance, set-up and or other work can be performed safely.

o) Monthly Health and Safety Audits

The Principal Contractor shall carry out monthly Health and Safety Audits on the measures contained within his / her Health and Safety Plan submitted to the Client / Client's Agent as well as Health and Safety Plans submitted by Sub-Contractors appointed by the Principal Contractor to demonstrate that the required level of health and safety are being achieved and maintained and compile a full report to the Client / Client's Agent on such audit.

The Client / Client's Agent will audit the Principal Contractor as well as his / her Sub-contractor's Health and Safety Plans from time to time and will advise the Principal Contractor of any matter with which he / she is not satisfied and the Principal Contractor shall take such steps as are necessary to satisfy the Client / Client's Agent.

The Client / Client's Agent will carry out such audits as he / she considers necessary but not less than monthly.

The Principal Contractor shall make available, specialist personnel as the Client / Client's Agent may consider necessary for the performance of such audits.

The Principal Contractor shall develop and maintain an Audit Schedule that details the audits planned to be undertaken by the Principal Contractor of the work under the contract, including sub-contractors, for the duration of the contract. The Audit Schedule shall form part of the Health and Safety Plan that needs to be submitted by the Principal Contractor.

Audit reports shall detail the scope of the audit, the audit questions and the audit findings.

The Client / Client's Agent shall be promptly provided with copies of all audit reports together with other documentation to show that all matters raised have been appropriately addressed.

Unless otherwise directed by the Client / Client's Agent the Principal Contractor / Sub-Contractor shall undertake its initial OHS Audit within 4 weeks of commencement of work. The Principal Contractor / Sub-Contractor shall undertake subsequent OHS Audits at a frequency not less than once every 3 months.

All Principal Contractor's OHS Audits shall include an assessment of Sub-Contractor compliance with the approved OHS Plan.

p) **Management Review**

The Principal Contractor shall undertake an independent review of the Health and Safety Plan for the contract in accordance with the requirements of the OHS Act, relevant Regulations and in particular the Construction Regulations 2003.

A review shall be undertaken 3 months after commencement of the contract and every 6 months thereafter for the duration of the contract.

Following the completion of the review, the Principal Contractor shall submit a written report that details the suitability, adequacy and effectiveness of the OHS Plan and to certify that the Site procedures, practises and operations are in accordance with the contract.

q) **Provision of Information**

- Provide Sub-Contractors appointed by him / her with the relevant sections of the Health and Safety specifications pertaining to the construction work, which has to be performed.
- Where changes are brought to the design and construction, provide sufficient information and appropriate resources to the Sub-Contractor to execute the work safely.
- Discuss and negotiate with Sub-Contractors the contents of the Health and Safety Plan / Plans submitted by them and finally approve such plans for implementation.
- Ensure that copies of Health and Safety plans compiled by the Principal Contractor and his / her Sub-Contractors are available on request to an employee, DOL Inspector, contractor, Client / Client's Agent.
- The Principal Contractor / Sub-Contractor shall detail procedures that will ensure that personnel are suitably consulted and communicated with during the planning and application of work activities associated with the contract.
- The Principal Contractor / Sub-Contractor shall detail the procedures for the identification, assessment and control of hazards associated with the day-to-day work activities. These procedures shall include requirements for consultation with personnel involved in the work activity.
- The Principal Contractor / Sub-Contractor shall have procedures for ensuring that OHS information is communicated to and from its personnel. The Principal Contractor / Sub-Contractor shall hold OHS meetings with all personnel or their representatives at the site on a weekly basis.

- Minutes shall be recorded for all OHS meetings and posted on OHS notice boards within 48 hours of the meeting.
- The Principal Contractor / Sub-Contractor shall maintain at the Site an OHS Notice Board located in a prominent position and accessible to all personnel, for the distribution of OHS information.
- The Principal Contractor / Sub-Contractor shall as a minimum, establish and implement procedures for reporting relevant and timely information with regard to OHS Performance and incidents.
- The Principal Contractor / Sub-Contractor shall establish, implement and maintain a controlled copy of all Contract OHS documentation on Site.
- Where the Principal Contractor / Sub-Contractor's Health and Safety Plan references other documentation including the contract, the Principal Contractor / Sub-Contractor shall ensure that section and clause numbers are clearly denoted in its Health and Safety Plan. All documentation referenced in the Health and Safety Plan shall be available on Site for the duration of the contract.
- Ensure that Health and Safety Files kept by Sub-Contractors appointed by the Principal Contractor is kept on site and made available to an inspector, Client / Client's Agent.
- Hand over a consolidated health and safety file to the Client / Client's Agent upon completion of construction work, including all drawings, designs, materials used and other similar information concerning the completed structure.
- In addition to the Health and Safety File compile a comprehensive and updated list of all contractors on site accountable to the Principal Contractor as well as the agreements between the parties and the type of work done by them.

r) **Stop the execution of Construction Work**

Stop any construction / construction related work conducted by any person on the construction site, which is not in accordance with the Principal Contractor's health and safety plan and or the health and safety plans of Sub-Contractors which possess a threat to the health and or safety of persons.

s) **Handing over of Project Health and Safety file**

- Hand over a consolidated health and safety file to the Client / Client's Agent upon completion of construction work, including all drawings, designs, materials used and other similar information concerning the completed structure.
- In addition to the Health and Safety File compile and hand over a comprehensive and updated list of all contractors on site accountable to the Principal Contractor as well as the agreements between the parties and the type of work done by them.

t) **Records and Records Management**

- The control of records shall be in accordance with the Principal Contractor's / Sub-Contractor's approved Health and Safety Plan for the contract.
- Records shall be registered, ordered and retained on Site in the Health and Safety File for the duration of the contract.

D1004 CHEMICAL HAZARDS

The following construction materials and substances to be used in the works have been identified as potentially posing special health and/or safety hazards during the project:

a) **Substances**

- Asphalt
- Bitumen
- RTH Tar prime
- Synthetic Polymer (Polyester / Polypropylene / Polyethylene)
- Stabilising agents
- Anionic stable grade emulsion
- Rubber
- Bitumen Rubber mix
- Hydrophilic aggregates
- Cationic emulsion
- Proprietary chemical additive
- Styrene
- Butadiene rubber (SBR latex)
- Cleaning agent
- Paint
- Oxygen
- Acetylene
- Diesel
- Petrol
- Weed killer

b) **Material**

- Cement
- Lime
- Mud rock
- Shale
- Clay
- Synthetic fibre filter fabric
- Geo-textile (synthetic polymer)
- Crushed aggregate
- Weathered dolerite gravel
- Fine slurry
- Crusher dust
- Paving blocks

Adhesives / solvents which may make personnel ill by breathing in vapours, irritation if in contact with skin and eyes and can be highly flammable.

Cement can cause ill health by:

- Skin contact, cement burns and dermatitis.
 - Eye contact, irritation and inflammation.
 - Inhalation of dust, irritation to nose and throat and causes difficulty with breathing.
- Oil based paint can cause illness by breathing in vapours.

Silicone sealant with fungicide can cause skin irritation.

Timber preservative / flame retardant, which can cause irritation to the skin, eyes, nose and throat and harmful if, ingested.

Paving slabs which may contain silica can, when cut, create dust which may affect the lungs.

Chemical cleaners can cause ill health mainly by:

- Skin contact, acids and alkalis are highly corrosive and destructive to body tissue causing burns.
- Inhaling fumes or mist, concentrated solutions of acids and alkalis emit toxic and corrosive fumes.

All materials contained within aerosol containers which are pressurised. Contractors are required to take appropriate measures to manage the risks arising and to provide details of their proposed measures within their tenders and to incorporate adequate method statements within the Health and Safety Plan.

This is not a definitive list of all potential harmful products. Other materials and substances commonly used during construction may also present health or safety hazards, however, it is deemed that these should be familiar to the average competent Contractor as part of routine risk and OHS (Occupational Health, Safety and Hygiene) assessments and are therefore not included here.

Adopt all precautionary measures provided by manufacturers for storage, use and application of specified materials.

Data sheets for these, and any other materials that will be used for the works, are to be obtained by the contractor from the manufacturers.

D1005 SAFETY HAZARDS

a) Tools

i) Hand tools

- Employers shall not issue or permit the use of unsafe hand tools.
- Wrenches, including adjustable, pipe, end, and socket wrenches shall not be used when jaws are sprung to the point that slippage occurs.
- Impact tools, such as drift pins, wedges, and chisels, shall be kept free of mushroomed heads.
- The wooden handles of tools shall be kept free of splinters or cracks and shall be kept tight in the tool.

ii) *Portable electrical Tools*

No person shall use a portable electric tool with an operating voltage which exceeds 50 to earth unless –

- it is connected to a source of electrical energy incorporating an earth leakage protection device which meets the requirements of section 36 of the OHS Act or,
- it is connected to a source of high frequency electrical energy derived from a generator which is used solely for supplying energy to such portable electric tool and which arrangement is approved by the chief inspector; or
- it is clearly marked that it is constructed with double or reinforced insulation.

Portable electric tools, together with its flexible cord and plug shall be maintained in a serviceable condition.

D1006 EXCAVATIONS

- The contractor shall ensure that all excavation work is carried out under the supervision of a competent person who has been appointed in writing.
- The contractor shall evaluate the stability of the ground before excavation work begins.
- The Contractor shall take suitable and sufficient steps in order to prevent any person from being buried or trapped by a fall or dislodgement of material in an excavation;
- The contractor shall not permit any person to work in an excavation which has not been adequately shored or braced.
- Shoring and bracing may not be necessary where:
 - the sides of the excavation are sloped to at least the maximum angle of repose measured relative to the horizontal plane; or
 - such an excavation is in stable material:
 - Provided that-
 - permission being given in writing by the appointed competent person upon evaluation by him or her of the site conditions; and
 - where any uncertainty pertaining to the stability of the soil still exists, the decision from a professional engineer or a professional technologist competent in excavations shall be decisive and such a decision shall be noted in writing and signed by both the competent person and a professional engineer or technologist, as the case may be;
- Take steps to ensure that the shoring or bracing is designed and constructed in such a manner rendering it strong enough to support the sides of the excavation in question;
- Ensure that no load, material, plant or equipment is placed or moved near the edge of any excavation where it is likely to cause its collapse and thereby endangering the safety of, any person, unless precautions such as the provision of sufficient and suitable shoring or bracing are taken to prevent the sides from collapsing;
- Cause convenient and safe means of access to be provided to every excavation in which persons are required to work and such access shall not be further than 6m from the point where any worker within the excavation is working;
- Cause every excavation, including all bracing and shoring, to be inspected-
 - daily, prior to each shift;
 - after every blasting operation;
 - after an unexpected fall of ground;
 - after substantial damage to supports; and
 - after rain,

by a competent person in order to pronounce the safety of the excavation to ensure the safety of persons, and those results are to be recorded in a register kept on site and made available to an inspector, client, client's agent, contractor or employee upon request;

- Cause every excavation which is accessible to the public or which is adjacent to public roads or thoroughfares, or whereby the safety of persons may be endangered, to be-
- adequately protected by a barrier or fence of at least one meter in height and as close to the excavation as is practicable; and
- provided with warning illuminants or any other clearly visible boundary indicators at night or when visibility is poor
- Cause warning signs to be positioned next to an excavation within which persons are working or carrying out inspections or tests.

D1007 FORMWORK & SUPPORT WORK

The contractor shall ensure that-

- all formwork and support work operations are carried out under the supervision of a competent person who has been appointed in writing for that purpose;
- all formwork and support work structures, are adequately designed, erected, supported, braced and maintained so that they will be capable of supporting all anticipated vertical and lateral loads that may be applied to them and also that no loads are imposed onto the structure that the structure is not designed to withstand.
- The designs of formwork and support work structures are done with close reference to the structural design drawings and where any uncertainty exists, the structural designer should be consulted.
- All drawing pertaining to the design of formwork or support work structures are kept on the site and are available on request by an inspector, contractor, client, client's agent or employee.
- All equipment used in the formwork or support work structure are carefully examined and checked for suitability by a competent person, before being used.
- A competent person inspects all formwork and support work structures immediately before, during and after the placement of concrete or any other imposed load and thereafter on a daily basis until the formwork and support work structure has been removed and the results have been recorded in a register and made available on site.
- If, after erection, any formwork and support work structure is found to be damaged or weakened to such a degree that its integrity is affected, it shall be safely removed or reinforced immediately.
- Adequate precautionary measures are taken in order to-
 - Secure any deck panels against displacement, and
 - Prevent any person from slipping on support work or formwork due to the application of formwork or support work release agents.
- The health of any person is not affected through the use of solvents, oils, or any other similar substances.
- Upon casting concrete, the support work or formwork structure should be left in place until the concrete has acquired sufficient strength to support safely, not only its own weight but also any imposed loads and not removed until authorisation has been given by a competent person.
- Provision is made for safe access by means of secure ladders or staircases for all work to be carried out above the foundation bearing level.

- All employees required to erect, move or dismantle formwork and support work structures are provided with adequate training and instruction to perform these operations safely
- The foundation conditions are suitable to withstand the weight caused by the formwork and support work structure and any imposed loads, such that the formwork and support work structure are stable.

D1008 CONSTRUCTION VEHICLES

The contractor shall ensure that all construction vehicles and mobile plants-

- are of an acceptable design and construction;
- are maintained in a good working order;
- are used in accordance with their design and the intention for which they were designed, having due regard to safety and health;
- are operated by workers who-
 - have received appropriate training and been certified competent and been authorised to operate such machinery; and
 - are physically and psychologically fit to operate such construction vehicles and mobile plant by being in possession of a medical certificate of fitness;
- have safe and suitable means of access;
- are properly organised and controlled by providing adequate signalling or other control arrangements to guard against the dangers relating to the movement of vehicles and plant, in order to ensure their continued safe operation;
- are prevented from falling into excavations, water or any other area lower than the working surface by installing adequate edge protection, which may include guardrails and crash barriers;
- where appropriate, are fitted with structures designed to protect the operator from falling material or from being crushed should the vehicle or mobile plant overturn;
- are equipped with an electrically operated acoustic signalling device and a reversing alarm;
- are on a daily basis inspected prior to use, by a competent person who has been appointed in writing and the findings of such inspection is recorded in a register.

The contractor shall furthermore ensure that-

- no person rides or be required or permitted to ride on any construction vehicle or mobile plant otherwise than in a safe place provided thereon for that purpose;
- every construction site is organised in such a way that pedestrians and vehicles can move safely and without risks to health;
- the traffic routes are suitable for the persons using them, sufficient in number, in suitable positions and of sufficient size;
- every traffic route is, where necessary indicated by suitable signs.
- all construction vehicles and mobile plant left unattended at night, adjacent to a freeway in normal use or adjacent to construction areas where work is in progress, shall have appropriate lights or reflectors, or barricades equipped with appropriate lights or reflectors, in order to identify the location of the vehicles or plant;

- bulldozers, scrapers, loaders, and other similar mobile plant are, when being repaired or when not in use, fully lowered or blocked with controls in a neutral position, motors stopped and brakes set;
- whenever visibility conditions warrant additional lighting, all mobile plant are equipped with at least two headlights and two taillights when in operation;
- tools and material are secured in order to prevent movement when transported in the same compartment with employees;
- vehicles used to transport employees have seats firmly secured and adequate for the number of employees to be carried; and
- when workers are working on or adjacent to public roads, reflective indicators are provided and worn by the workers.

D1009 ELECTRICAL INSTALLATIONS

- Before construction commences and during the progress thereof, adequate steps must be taken to ascertain the 'presence of and guard against danger to workers from any electrical cable or apparatus.
- All parts of electrical installations and machinery must be of adequate strength to withstand the working conditions on construction sites;
- In working areas where the exact location of underground electric power lines is unknown, employees using jackhammers, shovels or other hand tools which may make contact with a power line, must be provided with insulated protective gloves or otherwise that the handle of the tool being used is insulated;
- All temporary electrical installations must be inspected at least once a week and electrical machinery on a daily basis before use on a construction site by competent persons and the records of these inspections must be recorded in a register to be kept on site.
- The control of all temporary electrical installations on the construction site must be designated to a competent person who has been appointed in writing.

D1010 USE & STORAGE OF FLAMMABLE LIQUIDS

- Where flammable liquids are being used, applied or stored it must be done in such a manner that would cause no fire or explosion hazard, and that the workplace is effectively ventilated:

Provided that where the workplace cannot effectively be ventilated-

- every employee involved is provided with a respirator, mask or breathing apparatus of a type approved by the chief inspector, and
- steps are taken to ensure that every such employee, while using or applying flammable liquid, uses the apparatus supplied to him or her;
- No person smokes in any place in which flammable liquid is used or stored, and the contractor shall affix a suitable and conspicuous notice at all entrances to any such areas prohibiting such smoking;
- Flammable liquids on a construction site is stored in a well-ventilated reasonably fire-resistant container, cage or room and kept locked with proper access control measures in place;
- An adequate amount of efficient fire-fighting equipment is installed in suitable locations around the flammable liquids store with the recognized symbolic signs;

- Only the quantity of flammable liquid needed for work on one day is to be taken out of the store for use;
- All containers holding flammable liquids are kept tightly closed when not in actual use and, after their contents have been used up, to be removed from the construction site and safely disposed of;
- Where flammable liquids are decanted, the metal containers are bonded or earthed;
- No flammable material such as cotton waste, paper, cleaning rags or similar material is stored together with flammable liquids.

D1011 DISPOSAL OF MATERIALS

See – Environmental Management Plan – Tender Document

D1012 WELDING & CUTTING

No contractor shall require or permit welding or flame cutting operations to be undertaken, unless –

- the person operating the equipment has been fully instructed in the safe operation and use of such equipment and in the hazards, which may arise from its use;
- effective protection is provided and used for the eyes and respiratory system and, where necessary, for the face, hands, feet, legs, body and clothing of persons performing such operations, as well as against heat, incandescent or flying particles or dangerous radiation;
- leads and electrode holders are effectively insulated; and
- the workplace is effectively partitioned off and where not practicable all other persons exposed to the hazards are warned and provided with suitable protective equipment.
- No contractor shall require or permit electric welding to be undertaken in wet or damp places, inside metal vessels or in contact with large masses of metal, unless –
- the insulation of the electrical leads is in a sound condition;
- the electrode holder is completely insulated to prevent accidental contact with current-carrying parts;
- the welder is completely insulated by means of boots, gloves or rubber mats; and
- at least one other person who has been properly instructed to assist the welder in case of an emergency is and remains in attendance during operations

No contractor shall require or permit welding, flame cutting, grinding, soldering or similar work to be undertaken in respect of any tube, tank, drum, vessel or similar object or container where such object or container –

- is completely closed, unless a rise in internal pressure cannot render it dangerous; or
- contains any substance which, under the action of heat, may –
 - ignite or explode; or
 - react to form dangerous or poisonous substances,

Where hot work involving welding, cutting, brazing or soldering operations is carried out at places, other than workplaces which have been specifically designated and equipped for such work, the employer shall take steps to ensure that proper and adequate fire precautions are taken.

D1013 BLASTING & USE OF EXPLOSIVES

a) Safety distances

The contractor shall –

- apply the safety distances for the respective categories of explosives as stipulated in Annexure 1 of the Explosives regulations;
- where less than five kilograms of explosives is used, apply to the chief inspector of occupational health and safety for a determination of a safety distance which the employer shall enforce;

b) Supervision of explosives

In order to ensure that the provisions of the Act and its regulations in relation to explosives workplaces are complied with, the contractor shall in writing appoint a competent and certificated person in a full-time capacity to be explosives manager in respect of every workplace where explosives are being used, tested, stored or manufactured:

The contractor shall appoint one or more persons, who are suitably qualified and experienced, as authorized supervisors to assist the explosives manager.

The contractor shall ensure that –

- the explosives manager
 - approves in writing the rules, methods, materials, equipment and tools to be used in the danger area;
 - ensures that all persons under his or her control are informed of the hazards related to their tasks and are thoroughly trained in safe work procedures, in particular with respect to shock, friction risk of fire, or static electricity, and are familiar with the requirements of the Explosives regulations
 - prescribes all protective clothing and equipment to be used in the danger area
 - ensures that the processes and equipment specified in schedule licences are safe and appropriate for the manufacturing processes envisaged for the workplace.
- the supervising official
 - is at all times in a position to exercise control over the operations
 - reports without delay to the explosive's manager any plant or equipment under his or her control that has or may have posed a risk:
 - ensures that all rules implemented in the interest of health and safety are at all times complied with;
 - Stops all work involving explosives if he or she becomes aware of any risk posed to the health and safety of persons.

c) **Safe handling of explosives**

The contractor shall ensure that –

- all explosives or ingredients thereof are at all times free of foreign material;
- all reasonable precautions are taken to prevent the spillage of explosives;
- cleaning procedures in the case of a spillage of explosives are prescribed in writing by the explosive's manager: Provided that where no cleaning procedures have been prescribed any unusual spillage of explosives shall be reported immediately to the supervising official:
- all waste, paper, timber, rags, cotton and similar materials that have been in contact with explosives or an ingredient of an explosive are disposed of in a manner prescribed in writing by the explosives manager: Provided that at the end of the working day all waste and floor sweepings from danger areas shall be deposited in the designated places;
- the explosives or partly mixed explosives are conveyed as soon and as carefully as possible and taking such precautions and in such a manner as will effectively guard against any accidental ignition or explosion
- only containers provided for the conveyance of explosives are used for transporting explosives or partly mixed explosives and that such containers are at all times kept clean, free from grit and in a good state of repair:
- vehicles containing explosives are left unattended only in designated places

The contractor shall ensure that –

- all material, equipment, tools or similar articles used in a danger area are decontaminated after such use, and that no person makes use of any such article that has not been decontaminated after use in a contaminated area;
- the certification of the decontamination process is certified and approved by the explosives manager or a person authorized by the explosive's manager.
- Unless permission has been granted by the chief inspector of occupational health and safety, no contractor shall use –
- explosives in workplaces other than explosives workplaces approved by the chief inspector of occupational health and safety;
- any explosives for which no provision is made in Explosives regulations.

No contractor shall allow unauthorized access to such explosives or bury, dump, hide or abandon any explosives.

No contractor shall use any explosive material for blasting purposes unless –

- he or she is in possession of a written permission issued by or under the authority of the chief inspector of occupational health and safety;
- he or she is undergoing training while using such blasting material under the immediate and constant supervision of a person who is in possession of permission

d) **Dangerous areas**

The contractor shall ensure that entry and exit from danger areas is only permitted

- at the permanent authorized point of entry or exit: Provided that entry or exit at any other point may be authorized by the explosives manager or a person authorized by him if the authorized gatekeeper has been informed thereof;
- for persons and vehicles authorized thereto by the explosives manager or a person authorized by him:
- to visitors under escort by an authorized person who is aware of the hazards attached to the danger area.

The contractor shall keep a register of the entries and exits and that register shall be available on the premises for inspection by an inspector.

No person shall –

- enter the danger area with –
 - tobacco;
 - matches, cigarette lighters or other devices capable of generating heat or spark sources;
 - intoxicating liquor or narcotics;
 - food, medicine or drinkable fluids: Provided that authorization to enter with such articles may be granted by the explosive's manager for purposes of consumption in licensed mess rooms and smoking areas: Provided further that special rules for the control of such consumption and smoking, approved by the chief inspector of occupational health and safety shall be made in writing and shall be enforced by the employer, self-employed person or user; or
 - radio transmitters or cellular telephones; or

The contractor shall ensure that hazard warning signs are clearly displayed at the entrance to any danger area.

D1014 VESSELS UNDER PRESSURE

a) **Manufacturer's data plate**

Every user of a boiler or pressure vessel shall cause a manufacturer's plate with the following minimum particulars to be securely fixed in a conspicuous place to the shell of every such a boiler or pressure vessel:

- i) Name of manufacturer;
- ii) country or origin;
- iii) year of manufacture;
- iv) manufacturer's serial number;
- v) name, number and date of the standard of design;
- vi) design gauge pressure in Pascal; (design pressure)
- vii) maximum permissible operating pressure in Pascal;
- viii) operating temperature;
- ix) capacity in cubic meters; and
- x) mark of an approved inspection authority.

No person shall remove such a manufacturer's plate or wilfully damage or alter the particulars stamped thereon.

b) **Portable Gas Containers**

No user shall use or require or permit a portable gas container to be used, and no user shall fill, place in service, handle, modify, repair, inspect or test any portable gas container, other than in compliance with standards incorporated into the Vessels under Pressure regulations.

c) **Hand held Fire extinguishers**

No user shall use, require or permit the use of a hand-held fire extinguisher unless designed, constructed, filled, recharged, reconditioned, modified, repaired, inspected or tested in accordance with a safety standard incorporated into the Vessels under Pressure regulations.

No person shall fill, recharge, recondition, modify, repair, inspect or test any hand-held fire extinguisher unless a holder of a permit issued by the South African Bureau of Standards in terms of SANS 1475.

d) **Gas Fuel use, equipment and systems**

No person shall handle, store or distribute a gas fuel in any manner, including the filling of a container, other than in accordance with a health and safety standards.

e) **Inspection and test**

Any user of a boiler or pressure vessel shall cause, where reasonably practicable, such a boiler or pressure vessel, including the appurtenances and automatic controls and indicators, to be subjected to an internal and external inspection, and

a hydraulic pressure test to 1.25 times the maximum permissible safe operating pressure as the case may be –

- by an approved inspection authority before commissioning after installation, re-erection or repairs;
- by a person appointed in writing by the user and who is competent to do such inspections and tests by virtue of their training, knowledge and experience in the operation, maintenance, inspection and testing of a boiler or pressure vessel within 36 months from the date of the previous internal and external inspection and hydraulic pressure test: Provided that where a pressure vessel is not subjected to corrosion, the user may dispense with the internal inspection and hydraulic pressure test subject to the written approval of an approved inspection authority: Provided further that an inspector may require a specific boiler or pressure vessel to be inspected or tested more frequently or permit a specific boiler or pressure vessel to be inspected or tested less frequently:

f) **Recordkeeping**

Any user of a vessel under pressure shall keep on his premises a record which shall be open for inspection by an inspector in which the results of inspections, tests, modifications and repairs shall be recorded, dated and signed by the competent person.

g) **Maintenance**

No user shall use, cause or permit a vessel under pressure or gas fuel system, including all automatic controls, indicators and appurtenances, to be used unless it is at all times maintained in a safe working condition and the efficiency thereof is proved by regular testing.

No user shall use or cause or permit a vessel under pressure to be used unless it is kept clean and free from any:

- carbonized oil or other inflammable material which may ignite under working conditions;
- material which may cause corrosion; or
- material which is liable to chemical reaction which may cause an uncontrolled rise in pressure.

D1015 PHYSICAL HAZARDS

a) **Ergonomics**

- Ensure that assigned tasks do not exceed the limits of the performance capacities of the worker.
- Prevent injury or any detrimental effects to the health of the worker
- Provide that tasks and working conditions will not lead to impairments.

b) **Noise**

No contractor shall require or permit an employee to work in an environment in which he is exposed to an equivalent noise level equal to 85 dB(A) or higher. The contractor shall reduce the equivalent noise level to below 85 dB(A) or, where this is not reasonably practicable, he shall reduce the level to as low as is reasonably practicable and take all reasonable steps to isolate the source of the noise acoustically. Where the equivalent noise level in any workplace cannot be reduced to below 85 dB(A) the contractor shall –

- prohibit any person from entering a noise zone unless such person wears hearing protectors.

The contractor shall provide, free of charge, hearing protectors to each employee who works in or, to any person who is required or permitted to enter a noise zone, and no contractor shall require or permit any person to work in or enter such noise zone, and no person shall work in or enter such noise zone, unless he wears such hearing protectors in the correct manner: Provided that where the equivalent noise level to which employees are exposed, is such that the attenuation of the hearing protectors does not reduce the said noise to below 85 dB(A) the employer concerned shall limit the time during which employees work in that noise zone in such a way that they are not exposed to an equivalent noise level equal to 85 dB(A) or higher.

The contractor shall properly instruct any person who is required to wear hearing protectors in the use of such protectors and inform him of noise zones where the wearing thereof is compulsory.

The contractor shall –

- ensure that every employee employed in a noise zone is subjected to audiometric examinations conducted in accordance with section 7 of SANS 083, by an audiometric approved by the chief inspector;

- keep records of the results of each audiometric examination and make such records available for inspection by an inspector if he so requires; and
- keep such records for a minimum period of 30 years after termination of employment: Provided that if the employer ceases activities all such records shall be forwarded to the regional director.

c) **Vibration**

Whole-body vibration occurs when the body is supported on a surface which is vibrating (e.g., when sitting on a seat which vibrates, standing on a vibrating floor or recumbent on a vibrating surface). Whole-body vibration occurs in all forms of transport and when working near some industrial machinery.

Hand-transmitted vibration is the vibration that enters the body through the hands. It is caused by various processes where vibrating tools or work pieces are grasped or pushed by the hands or fingers. Exposure to hand-transmitted vibration can lead to the development of several disorders.

D1016 SITE WIDE ELEMENTS

a) **Site Access and Egress**

- Access to the site will involve crossing the public footpath.
- Store materials and plant away from means of access for the general public and occupants.
- Remove rubbish and demolition materials regularly. Do not allow to accumulate on flat roofs.
- Maintain free access through designated means of escape at all times
- Agree with the Client / Client's Agent delivery points for materials before commencing works.

b) **Visitors to the site**

- All visitors to report to the Principal Contractor's reception area for OHS Induction training.
- All visitors to sign the visitor's registration document.
- All visitors to be provided with a Visitors Permit to enable them to access the construction site.
- All un-inducted visitors must be accompanied on the construction site by an inducted person.
- No visitors shall be allowed to access the construction site without wearing the necessary PPE.

c) **Deliveries**

Access will involve crossing the public footpath.

d) **Emergencies**

Ensure that there are adequate escape routes and that they are kept clear at all times.

e) **Location of Temporary Site Accommodation**

See Site Layout Plan.

f) **Location of Materials unloading and storage**

Materials are to be unloaded and stored in locations which will not in any way affect access or egress to the site nor the works.

g) **Traffic and Pedestrian Routes**

The road, public footpaths and access way are to be kept open at all times. All necessary signage and barriers are to be put in place to protect pedestrians at the site entrance and access and egress points.

h) **Environment**

See Environmental Management Plan

i) **Safety**

- Ensure that all employees are aware of the Health and Safety policy and put into place arrangements to ensure that all visitors and workers new to the site are aware of the site safety provisions.
- Locate underground electricity cables, mark and take precautions to avoid.
- Ensure that cartridge operated tools are operated by trained personnel and in accordance with the maker's instructions that the gun is cleaned regularly and kept in a secure place when not in use.
- Protect people who may be exposed to health risks arising from hazardous substances.

D1017 CONTINUING LIAISON

The procedures for consideration and evaluation of the health and safety implications of Contractor designed elements of the works must follow the recognised principles of prevention and protection and take account of the issues highlighted in this OHS Specification.

The following information is to be submitted by the Contractor to the Client / Client's Agent in sufficient time to allow adequate consideration by the Client / Client's Agent and, where appropriate, the design team, and the provision of relevant information to those persons affected by the works, prior to the commencement of the relevant works:

- Suitable and sufficient information to demonstrate that health or safety issues have been adequately considered.
- Risk assessments.
- A list of health and/or safety hazards identified which cannot be designed out.
- A list of any materials or substances which are specified or inherent in the design which is potentially hazardous to health and/or safety.

a) **Unforeseen Eventualities**

The following action is to be taken in the event of unforeseen eventualities arising during the construction stage of the project, which require significant design changes, or affect the resources required to carry out the work without risk to health and/or safety, or have other health or safety implications.

The Client / Client's Agent and, where possible, the Principal Contractor are to be advised as soon as possible.

Full details of the relevant health and safety issues involved are to be reviewed with the Client / Client's Agent and Principal Contractor as soon as possible.

Full details of any revised designs, risk assessments and identified hazards and/or hazardous materials and substances are to be issued to the Client / Client's Agent and Principal Contractor in sufficient time to allow for the revision of the Health and Safety Plan and notification of all persons affected by the health and/or safety implications of the changes prior to the commencement of the affected works.

b) **Site Liaison**

Liaise with all other contractors and implement any agreed changes to the Health and Safety Plan arising from such liaison. Set up regular training for all operatives including induction training for all staff upon arrival to site.

c) **Health and Safety File**

Provide the Planning Supervisor with any relevant information which the contractor believes should be incorporated into the Health and Safety File.

d) **Design Development**

Provide the Client / Client's Agent with all design information prepared by sub-Contractors.

Arrange liaison meetings with sub-contractors to discuss and review health and safety issues arising from the sub-contractors' designs.

D1018 CONCLUSION

The hazards listed above were identified posing potential threats to the health and or safety of persons that will work on the contract. Although every effort were made to ensure that every possible hazard was identified OHSEC cannot guarantee this, therefore it is imperative for the contractor to conduct a comprehensive risk identification and hazard assessment in order to make certain that all hazards are identified.

C3.8 ENVIRONMENTAL MANAGEMENT REQUIREMENTS

E1001 LEGAL REQUIREMENTS

a) General

Construction will be according to the best industry practices, as identified in the project documents. This EMP, which forms an integral part of the contract documents, informs the contractor as to his duties in the fulfilment of the project objectives, with particular reference to the prevention and mitigation of environmental impacts caused by construction activities associated with the project. The contractor should note that obligations imposed by the EMP are legally binding in terms of environmental statutory legislation and in terms of the additional conditions to the general conditions of contract that pertain to this project. In the event that any rights and obligations contained in this document contradict those specified in the standard or project specifications then the latter shall prevail.

b) Statutory and other applicable legislation

The contractor is deemed to have made himself conversant with all legislation pertaining to the environment, including provincial and local government ordinances, which may be applicable to the contract.

E1002 ADMINISTRATION OF ENVIRONMENTAL OBLIGATIONS

a) Appointment of a Designated Environmental Officer (DEO)

For the purposes of implementing the conditions contained herein, the contractor shall submit to the engineer for approval the appointment of a nominated representative of the contractor as the DEO for the contract. The request shall be given, in writing, at least fourteen days before the start of any work clearly setting out reasons for the nomination, and with sufficient detail to enable the engineer to make a decision. The engineer will, within seven days of receiving the request, approve, reject or call for more information on the nomination. Once a nominated representative of the contractor has been approved, he/she shall be the DEO and shall be the responsible person for ensuring that the provisions of the EMP are complied with during the life of the contract. The engineer will be responsible for issuing instructions to the contractor where environmental considerations call for action to be taken. The DEO shall submit regular written reports to the engineer, but not less frequently than once a month.

The engineer shall have the authority to instruct the contractor to replace the DEO if, in the engineer's opinion, the appointed officer is not fulfilling his/her duties in terms of the requirements of the EMP or this specification. Such instruction will be in writing and shall clearly set out the reasons why a replacement is required.

There shall be an approved DEO on the site at all times. The DEO will be allowed to fulfil also other duties on the contract.

b) Administration

Before the contractor begins each construction activity the DEO shall give to the engineer a written statement setting out the following:

- The type of construction activity.
- Locality where the activity will take place.
- Identification of the environmental aspects and impacts that might result from the activity.
- Methodology for impact prevention for each activity or aspect.
- Methodology for impact containment for each activity or aspect.

- Emergency/disaster incident and reaction procedures.
- Treatment and continued maintenance of impacted environment.

The contractor may provide such information in advance of any or all construction activities provided that new submissions shall be given to the engineer whenever there is a change or variation to the original.

The engineer may provide comment on the methodology and procedures proposed by the DEO, but he shall not be responsible for the contractor's chosen measures of impact mitigation and emergency/disaster management systems. However, the contractor shall demonstrate at inception and at least once during the contract that the approved measures and procedures function properly.

c) **Good Housekeeping**

The Contractor shall undertake "good housekeeping" practices during construction as stated in the Standard Specifications for Routine Road Maintenance - October 2001 Edition (Volume 2) as prepared by South African National Roads Agency Limited and the General Conditions of Contract 2004. This will help avoid disputes on responsibility and allow for the smooth running of the contract as a whole. Good housekeeping extends beyond the wise practice of construction methods that leaves production in a safe state from the ravages of weather to include the care for and preservation of the environment within which the site is situated.

E1003 TRAINING

The designated environmental officer (DEO) must be conversant with all legislation pertaining to the environment applicable to this contract and must be appropriately trained in environmental management and must possess the skills necessary to impart environmental management skills to all personnel involved in the contract.

The contractor shall ensure that adequate environmental training takes place. All employees shall have been given an induction presentation on environmental awareness. Where possible, the presentation needs to be conducted in the language of the employees. The environmental training should, as a minimum, include the following:

- The importance of conformance with all environmental policies
- The environmental impacts, actual or potential, of their work activities;
- The environmental benefits of improved personal performance;

Their roles and responsibilities in achieving conformance to the environmental policy and procedures and with the requirement of the Agency's environmental management systems, including emergency preparedness and response requirements;

The potential consequences of departure from specified operating procedures;

The mitigation measures required to be implemented when carrying out their work activities.

In the case of permanent staff the contractor shall provide evidence that such induction courses have been presented. In the case of new staff (including contract labour) the contractor shall inform the engineer when and how he intends concluding his environmental training obligations.

E1004 ACTIVITIES/ASPECTS CAUSING IMPACTS

A list of possible causes of environmental impacts that occur during construction activities is given in the Table, which is to be found at the end of Part C. This list is not exhaustive, and shall be used for guideline purposes only.

E1005 ENVIRONMENTAL MANAGEMENT OF CONSTRUCTION ACTIVITIES**a) Site Establishment****i) Site Plan**

The contractor shall establish his construction camps, offices, workshops, staff accommodation and testing facilities on the site in a manner that does not adversely affect the environment. However, before construction can begin, the contractor shall submit to the engineer for his approval, plans of the exact location, extent and construction details of these facilities and the impact mitigation measures the contractor proposes to put in place.

The plans shall detail the locality as well as the layout of the waste treatment facilities for litter, kitchen refuse, sewage and workshop-derived effluents. The site offices should not be sited in close proximity to steep areas, as this will increase soil erosion. Preferred locations would be flat areas along the route. If the route traverses water courses, streams and rivers, it is recommended that the offices, and in particular the ablution facilities, aggregate stockpiles, spoil areas and hazardous material stockpiles are located as far away as possible from any water course as possible. Regardless of the chosen site, the contractor's intended mitigation measures shall be indicated on the plan. The site plan shall be submitted not later than the first site meeting. Detailed, electronic colour photographs shall be taken of the proposed site before any clearing may commence. These records are to be kept by the engineer for consultation during rehabilitation of the site.

ii) Vegetation

The contractor has a responsibility to inform his staff of the need to be vigilant against any practice that will have a harmful effect on vegetation.

The natural vegetation encountered on the site is to be conserved and left as intact as possible. Vegetation planted at the site shall be indigenous and in accordance with instructions issued by the engineer. Only trees and shrubs directly affected by the works, and such others as may be indicated by the engineer in writing, may be felled or cleared. In wooded areas where natural vegetation has been cleared out of necessity, the same species of indigenous trees as were occurring, shall be re-established.

The project specification for the rehabilitation of the grass cover shall be strictly adhered to. Any proclaimed weed or alien species that propagates during the contract period shall be cleared by hand before seeding. Fires shall only be allowed in facilities or equipment specially constructed for this purpose. A firebreak shall be cleared and maintained around the perimeter of the camp and office sites.

iii) Rehabilitation

The area where the site offices were erected will require rehabilitation at the end of the contract. All construction material, including concrete slabs and braai areas shall be removed from the site on completion of the contract.

iv) Water for human consumption

Water for human consumption shall be available at the site offices and at other convenient locations on site.

All effluent water from the camp / office sites shall be disposed of in a properly designed and constructed system, situated so as not to adversely affect water sources (streams, rivers, pans dams etc). Only domestic type wastewater shall be allowed to enter this drain.

v) Heating and Cooking fuel

The contractor shall provide adequate facilities for his staff so that they are not encouraged to supplement their comforts on site by accessing what can be taken from the natural surroundings. The contractor shall ensure that energy sources are available at all times for construction and supervision personnel for heating and cooking purposes.

b) **Sewage treatment**

To be drained to Works.

c) **Waste Management**

The contractor's intended methods for waste management and waste minimisation shall be implemented at the outset of the contract. All personnel shall be instructed to dispose of all waste in the proper manner.

i) Solid Waste

Solid waste shall be stored in an appointed area in covered, tip proof metal drums for collection and disposal. A refuse control system shall be established for the collection and removal of refuse to the satisfaction of the engineer. Disposal of solid waste shall be at a Department of Water and Sanitation (DWS) licensed landfill site or at a site approved by DWS in the event that an existing operating landfill site is not within reasonable distance from the site offices and staff accommodation. No waste shall be burned or buried at or near the site offices, nor anywhere else on the site, including the approved solid waste disposal site.

ii) Litter

No littering by construction workers shall be allowed. During the construction period, the facilities shall be maintained in a neat and tidy condition and the site shall be kept free of litter.

Measures shall be taken to reduce the potential for litter and negligent behaviour with regard to the disposal of all refuse. At all places of work the contractor shall provide litter collection facilities for later safe disposal at approved sites.

iii) Hazardous waste

Hazardous waste such as bitumen, tar, oils etc. shall be disposed of in a Department of Water Affairs and Forestry approved landfill site. Special care shall be taken to avoid spillage of tar or bitumen products such as binders or pre-coating fluid to avoid water-soluble phenols from entering the ground or contaminating water.

Under no circumstances shall the spoiling of tar or bituminous products on the site, over embankments, in borrow pits or any burying, be allowed. Unused or rejected tar or bituminous products shall be returned to the supplier's production plant. Any spillage of tar or bituminous products shall be attended to immediately and affected areas shall be promptly reinstated to the satisfaction of the engineer.

d) **Control at the workshop**

The contractor's management and maintenance of his plant and machinery will be strictly monitored according to the criteria given below, regardless whether it is serviced on the site (i.e. at the place of construction activity or at a formalised workshop).

i) Safety

All the necessary handling and safety equipment required for the safe use of petrochemicals and oils shall be provided by the contractor to, and used or worn by, the staff whose duty it is to manage and maintain the contractor's and his subcontractor's and supplier's plant, machinery and equipment.

ii) Hazardous Material Storage

Petrochemicals, oils and identified hazardous substances shall only be stored under controlled conditions. All hazardous materials e.g. tar or bitumen binders shall be stored in

a secured, appointed area that is fenced and has restricted entry. Storage of tar or bituminous products shall only take place using suitable containers to the approval of the engineer.

The contractor shall provide proof to the engineer that relevant authorisation to store such substances has been obtained from the relevant authority. In addition, hazard signs indicating the nature of the stored materials shall be displayed on the storage facility or containment structure. Before containment or storage facilities can be erected, the contractor shall furnish the engineer with details of the preventative measures he proposes to install in order to mitigate against pollution of the surrounding environment from leaks or spillage. The preferred method shall be a concrete floor that is bunded. Any deviation from the method will require proof from the relevant authority that the alternative method proposed is acceptable to that authority. The proposals shall also indicate the emergency procedures in the event of misuse or spillage that will negatively affect an individual or the environment.

iii) **Fuel and Gas Storage**

Fuel shall be stored in a secure area in a steel tank supplied and maintained by the fuel suppliers.. An adequate bund wall, 110% of volume, shall be provided for fuel and diesel areas to accommodate any leakage spillage or overflow of these substances. The area inside the bund wall shall be lined with an impervious lining to prevent infiltration of the fuel into the soil. Any leakage, spillage or overflow of fuel shall be attended to without delay.

Gas welding cylinders and LPG cylinders shall be stored in a secure, well-ventilated area.

iv) **Oil and Lubricant Waste**

Used oil, lubricants and cleaning materials from the maintenance of vehicles and machinery shall be collected in a holding tank and sent back to the supplier. Water and oil should be separated in an oil trap. Oils collected in this manner, shall be retained in a safe holding tank and removed from site by a specialist oil recycling company for disposal at approved waste disposal sites for toxic/hazardous materials. Oil collected by a mobile servicing unit shall be stored in the service unit's sludge tank and discharged into the safe holding tank for collection by the specialist oil recycling company.

All used filter materials shall be stored in a secure bin for disposal off site. Any contaminated soil shall be removed and replaced. Soils contaminated by oils and lubricants shall be collected and disposed of at a facility designated by the local authority to accept contaminated materials.

v) **Spillages**

Streams, rivers and dams shall be protected from direct or indirect spillage of pollutants such as refuse, garbage, cement, concrete, sewage, chemicals, fuels, oils, aggregate, tailings, wash water, organic materials and tar or bituminous products. In the event of a spillage, the contractor shall be liable to arrange for professional service providers to clear the affected area.

Responsibility for spill treatment lies with the contractor. The individual responsible for, or who discovers a hazardous waste spill must report the incident to his/her DEO or to the engineer. The Designated Environmental Officer will assess the situation in consultation with the engineer and act as required. In all cases, the immediate response shall be to contain the spill. The exact treatment of polluted soil / water shall be determined by the contractor in consultation with the DEO and the engineer. Areas cleared of hazardous waste shall be re-vegetated according to the engineer's instructions

Should water downstream of the spill be polluted, and fauna and flora show signs of deterioration or death, specialist hydrological or ecological advice will be sought for appropriate treatment and remedial procedures to be followed. The requirement for such input shall be agreed with the engineer. The costs of containment and rehabilitation shall be for the contractor's account, including the costs of specialist input.

vi) **Noise Control**

The contractor shall endeavour to keep noise generating activities to a minimum. Noises that could cause a major disturbance, for instance blasting and crushing activities, should only be carried out during daylight hours. Compliance with the appropriate legislation with respect to noise, shall be mandatory.

Should noise generating activities have to occur at night the people in the vicinity of the drilling shall be warned about the noise well in advance and the activities kept to a minimum.

vii) **Dust Control**

Dust caused by strong winds shall be controlled by means of water spray vehicles. Dust omission from batching plants shall be subject to the relevant legislation and shall be the subject of inspection by the relevant office of the Department of Minerals and Energy.

E1006 RECORD KEEPING

The engineer and the DEO will continuously monitor the contractor's adherence to the approved impact prevention procedures and the engineer shall issue to the contractor a notice of non-compliance whenever transgressions are observed. The DEO should document the nature and magnitude of the non-compliance in a designated register, the action taken to discontinue the non-compliance, the action taken to mitigate its effects and the results of the actions. The non-compliance shall be documented and reported to the engineer in the monthly report.

Copies of any record of decision or EMP's for specific borrow pits or quarries used on the project shall be kept on site and made available for inspection by visiting officials from the employer or relevant environmental departments.

E1007 COMPLIANCE AND PENALTIES

The contractor shall act immediately when such notice of non-compliance is received and correct whatever is the cause for the issuing of the notice. Complaints received regarding activities on the construction site pertaining to the environment shall be recorded in a dedicated register and the response noted with the date and action taken. This record shall be submitted with the monthly reports and a verbal report given at the monthly site meetings.

Any avoidable non-compliance with the above-mentioned measures shall be considered sufficient ground for the imposition of a penalty

CONTENTS	ENVIRONMENTAL IMPACTS				
	POLLUTION TYPE	DEFORMATION OF LANDSCAPE	SOIL EROSION	ALIEN VEGETATION	SENSITIVE AREAS
Camp Establishment	Waste treatment Hazardous waste Water supply Spillage Storage	Selection of site Preserve indigenous vegetation Preserve topsoil	Selection of site Preserve indigenous vegetation Preserve topsoil	Preserve indigenous vegetation Preserve topsoil Management of weeds	
Housing, Offices and laboratories	Waste treatment Hazardous waste Water supply Spillage Storage Noise/lights	Selection of site Preserve indigenous vegetation Preserve topsoil	Selection of site Preserve indigenous vegetation Preserve topsoil	Preserve indigenous vegetation Preserve topsoil Management of weeds	

CONTENTS	ENVIRONMENTAL IMPACTS				
	POLLUTION TYPE	DEFORMATION OF LANDSCAPE	SOIL EROSION	ALIEN VEGETATION	SENSITIVE AREAS
		Demarcate sensitive areas			
Drainage	Waste treatment Hazardous waste Water supply Spillage Storage	Selection of site Preserve indigenous vegetation Preserve topsoil	Selection of site Preserve indigenous vegetation Preserve topsoil	Preserve indigenous vegetation Preserve topsoil Management of weeds	

C3.9 MANAGEMENT OF THE WORKS

The management of the site shall be in accordance with the provisions of the Standard Specifications for Civil Engineering Construction SANS 1200

Training of local labour in social as well as labour intensive construction skills.



MIDVAAL LOCAL MUNICIPALITY

BID NO.: (8/2/2/446) (5EP/4EPPE OR HIGHER)

FOR THE APPOINTMENT OF A SERVICE PROVIDER FOR THE REFURBISHMENT AND INSTALLATION OF HIGHMAST LIGHTS AND STREET LIGHTS FOR MIDVAAL LOCAL MUNICIPALITY ON AN AS AND WHEN REQUIRED BASIS FROM DATE OF AWARD FOR A PERIOD OF 36

PART C4: SITE INFORMATION

C4.1 TENDER DRAWINGS

END



BID NO.: (8/2/2/446) (5EP/4EPPE OR HIGHER)

FOR THE APPOINTMENT OF A SERVICE PROVIDER FOR THE REFURBISHMENT AND INSTALLATION OF HIGHMAST LIGHTS AND STREET LIGHTS FOR MIDVAAL LOCAL MUNICIPALITY ON AN AS AND WHEN REQUIRED BASIS FROM DATE OF AWARD FOR A PERIOD OF 36