



**REQUEST FOR FORMAL WRITTEN PRICE QUOTATION FORM**

**Procurement from R30 000, 00 up to a transaction value of R200 000, 00 (including Vat). (For publication on Lesedi Local Municipality Website and Notice Board)**

**THE SUPPLY, DELIVERY AND OFF-LOADING OF STEEL DISTRIBUTION AND STREET LIGHT POLES AND BRACKETS**

DATE OF ADVERTISEMENT	29 MARCH 2019
DATE OF CLOSING	10 APRIL 2019 AT 12H00
COMPULSORY BRIEFING SESSION ( IF APPLICABLE)	
<b>DETAILS OF BIDDER</b>	
FULL NAME	
ADDRESS OF BIDDER	
ID NUMBER (SOLE PROPRIETOR) COMPANY OR CC NUMBER	
REGISTRATION NUMBER (PTY) LTD	
TAX REFERENCE NUMBER	
VAT REGISTRATION NUMBER (IF ANY)	
CONTACT PERSON	
ALTERNATIVE CONTACT PERSON	
TELEPHONE NUMBER	
CELL PHONE NUMBER	
FAX NUMBER	
CIDB NUMBER (IF ANY)	

**Must be completed in full**

**THE SUPPLY, DELIVERY AND OFF-LOADING OF STEEL DISTRIBUTION AND STREET LIGHT POLES AND BRACKETS ON AN AS AND WHEN REQUIRED BASIS FOR AN AMOUNT NOT EXCEEDING R200 000 INCLUSIVE OF VAT.**

## **SPECIFICATION**

### **INTRODUCTION**

Steel distribution and street light poles and brackets are used in the Lesedi Local Municipality area of supply for public lighting and distribution applications. The quality of these steel poles is considered extremely important as failure will critically compromise the public safety within LLM. The implication to suppliers is that the Lesedi Local Municipality will only purchase steel poles that comply with the relevant SANS specifications regarding steel poles.

#### **1. Scope**

This specification details minimum requirements for manufacturing, testing and supply of steel distribution and street light poles and brackets, for the Lesedi Local Municipality, on an as and when required basis for an amount not exceeding R200 000 inclusive of vat.

#### **2. Normative References**

The following documents contain provisions that, through reference in the text, constitute requirements of this specification. At the time of publication, the editions indicated were valid. All standards and specifications are subject to revision, and parties to agreements based on this specification are encouraged to investigate the possibility of applying the most recent editions of the documents listed below.

SANS 50219-1:2010	Cold formed welded structural hollow sections of non-alloy and fine grain steels.
SANS 657-1:2011	Steel tubes for non-pressure purposes: Sections for scaffolding, general engineering and structural applications.
SANS 12944 (PARTS 1 – 8)	Paints and varnishes – Corrosion protection of steel structures by protective paint systems.
SANS 3834 (PARTS 1 – 6)	Quality requirements for fusion welding of metallic materials.
SANS 10167:2004	The quality evaluation of fusion welded joints in steel structures.
SANS 44:2009	Welding consumables – Technical delivery conditions for welding filler materials – Type of product, dimensions, tolerances and markings.
SANS 10225:2012	The design and construction of lighting masts.
SANS 32:1997	Internal and/or external protective coatings for steel tubes – Specification for hot dip galvanized coatings applied in automatic plants.
SANS 1063:2011	Earth rods, couplers and connections.
SANS 1088:2004	Luminaire entries and spigots.
SANS 14713 (PARTS 1 & 2)	Zinc coatings – Guidelines and recommendations for the protection against corrosion of iron and steel in structures.
SANS 10064:2011	The preparation of steel surfaces for coating.

#### **3. Definitions and Abbreviations**

The terms, definitions and abbreviations of specifications as listed in Normative References shall apply to this specification.

#### **4. Quantities**

Due to the uncertainty and fluctuation of the LLM requirements, no indication can be given as to the quantities of the items covered in this specification that will be required under this contract however the municipality will buy to the total value of R200 000 when required. The supplier will therefore be required to supply the requirements in such quantities as may be required by the LLM from time to time. When supplies are required, the LLM will endeavor to place orders, on an as and when required basis, as far in advance as possible.

#### **5. Requirements**

##### **5.1 General**

- 5.1.1 All poles shall comply fully with the requirements of SANS 10225 and this specification.
- 5.1.2 The poles shall be suitable for use at a mean altitude of 1800 m above sea level in an environment subject to heavy pollution at ambient temperatures of -15°C to 65°C.
- 5.1.3 The poles will be installed in locations subject to high wind loading (as detailed in clause 5.2 below) and high lightning ground flash density (>10 flashes/km<sup>2</sup>/year).
- 5.1.4 The poles shall be designed, approved and certified by an individual who is professionally registered with the Engineering Council as a structural engineer in accordance with SANS 10225 and manufactured from new materials.

##### **5.2 Design**

- 5.2.1 The steel tubes used shall comply fully with SABS 657-1.
- 5.2.2 The poles shall have mechanical properties that comply to SANS 50219-1 and shall have a minimum yield stress of 300 MPa and a minimum tensile strength of 450 MPa, in accordance with SANS 657-1:2011.
- 5.2.3 The poles should be designed to support two luminaries and carry low voltage aerial bundled aluminium conductor in accordance with SANS 1418 or low voltage hard drawn bare copper conductor in accordance with SANS 182-1. Tenderers are required to consult these documents for accurate information concerning the characteristics of the conductors, as the information given below is for information only.
  - Aluminium Aerial Bundle Conductor 4 x 95 mm<sup>2</sup> + 1 x 25 mm<sup>2</sup>
  - Low voltage hard drawn bare copper conductor 4 x 95 mm<sup>2</sup> + 2 x 16 mm<sup>2</sup>.
  - The maximum angle of deviation shall be 30°.
- 5.2.4 In addition, the poles shall be designed to support advertising signboards, measuring approximately 1225 mm (H) x 900 mm (B) and are mounted approximately 3,0 m from the ground level (measured to the lower edge of the board). In exceptional circumstances, mainly in CBD areas, they may be mounted at a height of up to 4.0 m in order to avoid being damaged by buses, etc.
- 5.2.5 The steel poles, when loaded as detailed above, shall be capable of withstanding a fluctuating wind load in accordance with the requirements of the SANS 10225. The terrain category shall be Category 3, and the wind velocity shall be 40 ms<sup>-1</sup>. The force coefficient Cf = 1.5.
- 5.2.6 The horizontal and vertical deflections shall not exceed the requirements of SANS 10225.
- 5.2.7 The design of each pole shall be accompanied by comprehensive strength calculations certified by a qualified professional structural engineer. As this structural engineer will take full responsibility for the design of the poles, he or she is free to deviate from the drawings supplied for structural reasons. For instance, the structural engineer may feel that the strength of a particular pole is inadequate, and he or

she is therefore at liberty to increase the pole thickness or diameter, etc. These changes must be detailed in the strength calculations supplied.

- 5.2.8 All spigot brackets will comply with the required SANS 1088 and will be required to handle the same forces from wind, lightning, etc, as those detailed for the distribution poles. Spigots will be required to support luminaries having a maximum side area of 0,3 m<sup>2</sup> and a mass of 20 kg.
- 5.2.9 The complete spigot bracket will be constructed of steel and the same steps will be followed in cleaning and galvanising, as has been detailed for the distribution poles.
- 5.2.10 All poles shall have an M10 nut welded to the pole at a height of 1,5 m and 0,3 m from the top of the pole. This is to provide a point of earthing to the pole when it is carrying overhead conductors or ABC. The corresponding full-thread M10 bolt shall be supplied fitted into the nut. The arrangement shall be such that the full length of the bolt is able to enter the nut.
- 5.2.11 The expected life span of all items on this contract will be a minimum of 30 years, all measures and specifications will be taken to attain this life span.

## **6 Specification – Steel Distribution Poles**

### **6.1 Design criteria**

- One pipe 140 mm o/d x 4,47 mm thickness x 5220 mm long;
- One pipe 114 mm o/d x 4,47 mm thickness x 2210 mm long, slide-in 140 mm pipe: 305 mm;
- One pipe 89 mm o/d x 4,06 mm thickness x 1820 mm long, slide-in 114 mm pipe: 203 mm.
  - Approximate mass of each pole : 120 kg.
  - Approximate working load of each pole : 500 kg.
  - Approximate breaking force of each pole : 200 kg.
- The drawings will be shared at the compulsory briefing session which will be held on 28 March 2019 at 10am at the Infrastructure boardroom.

## **7 Specifications - Streetlight Poles**

### **7.1 Design criteria**

- 9,25m Galvanised Steel Distribution Pole in accordance with guide drawing.
- 4,5m Galvanised Steel Pole in accordance with guide drawing.
- 6m Galvanised Steel Pole in accordance with guide drawing.
- 8,7m Galvanised Steel pole in accordance with guide drawing.
- 8,7m Galvanised Steel pole and single outreach bracket in accordance with guide drawing.
- 9m Galvanised Steel pole in accordance with guide drawing.
- 11,5m Galvanised Steel pole and double outreach bracket in accordance with guide drawing.
- 13,5m Galvanised Taper Shaft Steel Pole in accordance with drawing plan.
- 17m Galvanised Taper Shaft Steel Pole in accordance with guide drawing.

All the drawing will be shared during the briefing session.

## **8 Specifications - Streetlight Brackets**

### **8.1 Design criteria for rake of 5° and 15° to fit on a pole with an outside diameter of 88mm with spigot length of 125mm x 42mm outside diameter.**

- Single side entry galvanised bracket with 5° Rake, 125mm Spigot and 88mm Bottom entry.
- Single side entry galvanised bracket with 15° Rake, 125mm Spigot and 88mm Bottom entry.
- Double side entry galvanised bracket with 5° Rake, 125mm Spigot and 88mm Bottom entry.
- Double side entry galvanised bracket with 15° Rake, 125mm Spigot and 88mm Bottom entry.
- Single 600mm outreach galvanised bracket with 15° Rake, 42mm outside diameter to be fitted against an 88mm steel pole.
- Single outreach galvanised arm.
- Double outreach galvanised arm.

## **9 Base Plates**

Each pole must have a 500 mm square x 6 mm thick mild steel base plate with two (2) M20 (20 mm) diameter “BSW” hook bolts, with which to secure the plate to the base of the pole. Holes for the base plate must be drilled into each pole, minimum size 23 mm.

## **10 Sleeves**

Poles must be fitted with a crimp sleeve or a galvanised sleeve. The sleeve must be approximately 7 mm thick and 600 mm long and must be fitted or crimped 1070 mm from the base of the pole, as indicated on drawing that will be supplied at the briefing session.

## **11 Joints**

Special attention must be paid to joints. All changes in diameter shall be by means of swaging or continuous tapering. Under no circumstances will welded pieces (pipe reducers) inserted into the poles be accepted. All joints shall be beveled prior to welding and shall present a symmetrical appearance after welding. In addition, all joints shall be designed and manufactured to ensure that there is no ingress of water into the interior of the pole. All welding shall be continuous and in compliance with SANS 44. All welding shall be dressed where necessary.

## **12 Galvanising**

- 12.1 After manufacturing is complete, but before galvanising may commence, pole shall have all weld slag removed by shot- or sand-blasting and a visual inspection shall be carried out to ensure the efficiency of this operation. In addition, the poles shall be internally and externally degreased and all grit, loose rust, welding flux and spatter, rough edges and burrs shall be removed.
- 12.2 All poles shall be hot-dip galvanised in accordance with SANS 14713 (PARTS 1 & 2). The minimum thickness of the zinc layer shall be 90 µm. The process used shall comply completely with the requirements of SANS 14713 (PARTS 1 & 2).

- 12.3 No material may be removed from the pole either mechanically or chemically after galvanising has been carried out. All items shall be protected against corrosion by either hot-dip galvanising as detailed above or by manufacture of stainless steel. All possibility of galvanic action shall be avoided.
- 12.4 Should no such details be submitted, the tender will be deemed to be in full compliance with specification SANS 14713 (PARTS 1 & 2) and a certificate to this effect may be requested before acceptance of the poles. The poles shall be manufactured in such a way that they have an elegant tapered construction or be of a stepped tubular design.

### **13. Statutory Requirements**

All poles and details offered against this specification should comply in all respects to the requirements and intentions of the latest edition of the Occupational Health and Safety Act and Regulations of the Republic of South Africa, where applicable.

### **14. Quality and Standards**

All material offered shall be unused material and shall comply with relative specifications of the South African National Standards in the first instance, where such specifications apply, or with the British Standards Institute, where either of the above standards are listed in this specification. The applicable testing certificate should accompany the tender document, failing the bid will be rejected.

### **15. Drawings and Design Calculations**

The tenderer is to supply detailed drawings and calculations of the poles offered, for approval, before manufacture commences. These calculations shall indicate the Factors of Safety applied.

### **16. Inspection and Testing**

- 16.1 In addition to the requirements listed below, all poles shall comply with the test requirements of the SANS regulations published.
- 16.2 Access to the site of manufacture of the poles will at reasonable times be granted to Council officials for inspection purposes. Notwithstanding the fact that the poles are approved it does not indemnify the supplier against any latent defect that may be evident at a later stage.
- 16.3 The Lesedi Local Municipality may appoint an independent test authority to act on its behalf. This inspection authority shall be allowed free access to any place where work for this contract is carried out, whether on site or at the place of manufacture.
- 16.4 The tenderer shall carry out all tests required by the inspection authority. The tests will be within the ambit of SANS 12944 (PARTS 1 – 8), SANS 10225 and SANS 3834 (PARTS 1 – 6).
- 16.5 The Lesedi Local Municipality or the appointed authority may also require the welding on 10% of the poles to be radio-graphed and evaluated. The maximum width of any isolated slag inclusion shall not exceed 3 mm, and the total length of isolated slag inclusion in any continuous length of weld shall not exceed 4% of the length of that weld. In addition, no more than four isolated slag inclusions of a maximum width of 3 mm in this length shall be permitted.
- 16.5 In addition to the above, no cracks shall be permitted, and penetration, lack of fusion, undercutting and porosity shall receive attention.
- 16.6 The cost of the initial testing will be borne by the Lesedi Local Municipality. In the event of any further testing arising out of any item failing a test, the cost of the further testing will be borne by the tenderer.
- 16.7 In the event of a pole failing the test, the entire consignment of poles shall be radio-graphed at the tenderer's expense. The pole will be individually accepted or rejected on the basis of these radio-graphs.

16.8 None of these provisions free the tenderer from any of the inspection and quality control requirements of SANS 12944 (PARTS 1 – 8), SANS 10225 and SANS 3834 (PARTS 1 – 6).

**17. Guarantee**

All poles shall be guaranteed for a period of 12 months against faulty material and/or faulty workmanship.

**18. Delivery and Offloading**

Deliveries shall be made at stores within LLM or any other site identified within LLM boundaries.

### Bill of Quantity

Item	Description	Quantity	Unit Price (Excl. Vat)	Max Delivery Period (Weeks)
1	Pole, Galvanised Steel Transmission, 9.25m,	Each		
2	Pole, Galvanised Steel, 4.5m,	Each		
3	Pole, Galvanised Steel, 6m,	Each		
4	Pole, Galvanised Steel, 8.7m,	Each		
5	Pole, Galvanised Steel, 9m,	Each		
6	Pole, Galvanised Taper Shaft Steel, 13.5m,	Each		
7	Pole, Galvanised Taper Shaft Steel, 17m,	Each		
8	Bracket, Galvanised Steel, Single Side Entry, 5° Rake, 125mm Spigot and 88mm Bottom Entry,	Each		
9	Bracket, Galvanised Steel, Single Side Entry, 15° Rake, 125mm Spigot and 88mm Bottom Entry,	Each		
10	Bracket, Galvanised Steel, Double Side Entry, 5° Rake, 125mm Spigot and 88mm Bottom Entry,	Each		
11	Bracket, Galvanised Steel, Double Side Entry, 15° Rake, 125mm Spigot and 88mm Bottom Entry,	Each		
12	Bracket, Galvanised Steel, Single 600mm outreach, 15° Rake, 42mm outside diameter to be fitted against an 88mm steel pole.	Each		
13	Bracket, Galvanised Steel, Single and Double outreach	Each		
14	Bracket, Galvanised Steel, Single outreach	Each		
15	Bracket, Galvanised Steel, Double outreach	Each		
16	Pole, Galvanised Steel Transmission, 11m	Each		

Name of Company: \_\_\_\_\_

Contact Person \_\_\_\_\_

Telephone No : \_\_\_\_\_

Fax/E-mail \_\_\_\_\_



The following information must be submitted with the quotation, failure in submitting these documents will result in a quotation being disqualified:

- Original tax clearance certificate/ Pin
- MBD Forms (MBD 1, MBD 2, MBD 4, MBD 6.1, MBD 8, MBD 9 & Clearance Certificate for Water & lights)
- Latest Municipal Account
- CSD report
- Copy of Workmen's Compensation Registration Certificate (or proof of payment of contributions in terms of the Compensation for Occupational Injuries and Diseases Act No. 130 of 1993) – a Letter of Good standing certificate or original

**EVALUATION CRITERIA:** 80/20 Preference point system as presented in the preferential procurement policy framework Act no 5 of 2000, for this purpose the MBD1, MBD 2, MBD4, MBD 6.1 MBD 8 MBD 9 and the Clearance Certificate for Water & lights can be downloaded from our website on the following link: [www.lesedilm.gov.za/key/scm](http://www.lesedilm.gov.za/key/scm) MBD forms should be scrutinized, completed and submitted together with your quotation. All objections and complaints must be lodged within 14 days and in writing to the municipal manager's office.

<b>Designated Group: An EME or QSE which is last 51% owned by:</b>	<b>EME</b>	<b>QSE</b>
Black people		
Black people who are youth		
Black people who are women		
Black people with disabilities		
Black people living in rural or underdeveloped areas or townships		
Cooperative owned by black people		
Black people who are military veterans		

**NB:** Bidders who did not submit an original or certified copy of their B-BBEE Certificate will not be allocated preference points.

All bidders must ensure that they are registered on the National Treasury Central Supplier Database via the following link: [business.support@csd.gov.za](mailto:business.support@csd.gov.za). No business will be conducted with any person who is not registered on this database.

**BIDDERS ARE WELCOME TO ATTEND THE OPENING ON THE CLOSING DATE**