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## **SCOPE OF WORK: PROVISION OF AN EIGHT (8) YEARLY MAINTENANCE FOR TEN (10) HIGH MAST STEEL POLES (35m) AT TRANSNET NATIONAL PORTS AUTHORITY (TNPA) PORT OF PORT ELIZABETH FOR ONCE OFF PERIOD**

For: **TNPA Port of Port Elizabeth**  
Prepared by: **TNPA Port Engineering, Port of Port Elizabeth**

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## 1. INVITATION TO SUBMIT A QUOTATION

- 1.1 Prospective Bidders are hereby invited to submit tenders for the execution of 8-year scheduled maintenance on ten (10) high mast lighting structures, each 35 (Thirty-five) meters in height, located at the Port of Port Elizabeth.
- 1.2 Only bidders with a minimum CIDB contractor grading designation of **3 ME or higher** will be considered.
- 1.3 All prospective Bidders are required to attend a compulsory site briefing as part of the tender process.

## 2. INTRODUCTION

- 2.1 The project aims to ensure the longevity and structural integrity of Mast 74,72,62,65,44,46,98,100,48,59 by applying specified paint systems and corrosion protection measures in compliance with relevant standards and specifications(appended).

## 3. SCOPE OF WORKS AND GENERIC CONDITIONS OF CONTRACT

### 3.1. SCOPE OF WORKS

- 3.1 This scope covers inspection, surface preparation, coating maintenance, and associated works for ten (10) steel high mast light poles, each 35 meters high, installed in a polluted coastal environment within the sea water splash zone. The maintenance is to be performed on an 8-year cycle, in accordance with BS 5493:1977 and AMPP guidelines.

### 3.2. Objectives

- Restore and maintain corrosion protection systems to ensure structural integrity and serviceability.
- Address deterioration due to aggressive marine and polluted conditions.
- Comply with BS 5493 and AMPP requirements for maintenance intervals, preparation, and coating application.

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#### 4. Detailed works specification

##### 4.1. Inspection and Assessment

- Visual and close-up inspection of each pole, including all welds, fasteners, and base areas.
- Assessment of coating conditions, corrosion, and structural damage.
- Documentation of findings and photographic records.

##### 4.2. Surface Preparation

- Remove all loose, flaking, or degraded coatings and corrosion products.
- Surface preparation to be performed by abrasive blast-cleaning to a minimum standard of Sa 2½ (as per BS 5493, Section 16).
- Special attention to crevices, welds, and splash zone areas.

##### 4.3. Repairs

- Localized repair of steelwork if pitting or section loss is detected.
- Weld repairs to be performed where required, followed by grinding to smooth finish.

##### 4.4. Coating Application

- Application of protective coating system suitable for polluted coastal environment, as recommended in BS 5493 Table 3(Part 3) for medium time to first maintenance and further relevant sections of Table 4
- Stripe coating on welds, edges, and difficult-to-access areas.
- Apply hot dip galvanizing on all high mast ring
- Minimum dry film thickness to be in accordance with manufacturer's specification and BS 5493 recommendations.
- All coatings to be compatible with existing systems or previous maintenance treatments.
- Colour Codes: SABS 1091 (National Colour Standards for Paint).

**N.B. Bidders to indicate which coating system is to be used on pricing document**

##### 4.5. Provision of a 35-Ton Mobile Crane for High Mast Lighting Pole Taking Down and Lifting

- Minimum 35-ton capacity with sufficient boom length to safely lift 35m high mast poles.
- Certified and inspected for compliance as per lifting equipment regulations

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- Shall be provided with competent operator and rigger to ensure safe execution of the works
- Crane shall be equipped with anti-sway and load monitoring systems.

#### 4.6. Quality Control and Inspection

- Measurement of surface profile and cleanliness prior to coating (using appropriate gauges).
- Measurement of coating thickness (wet and dry film) at specified intervals.
- Inspection for coating defects (pinholes, runs, etc.).
- Final acceptance inspection and reporting.

#### 4.7. Environmental and Safety Controls

- Containment and collection of blast debris and old paint in compliance with environmental regulations.
- Protection of surrounding area and personnel.
- Compliance with all health and safety requirements as per BS 5493 Section 56 and 57

### 5. Deliverables

- Completed Work: Fully painted and corrosion-protected high mast poles.
- Documentation: Test reports for adhesion and DFT (dry film testing), along with a completion certificate.
- Warranty: Provide a 12-month guarantee for the coating system against defects.

### 6. Reference Standards:

- AMPP Document (as appended)
- BS 5493:1977 – Code of Practice for Protective Coating of Iron and Steel Structures Against Corrosion.

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