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TITLE	SPECIFICATION FOR CONCRETE PLINTHS	REFERENCE	CP_TSSPEC_027	REV	3
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TABLE OF CONTENTS

	Page
FOREWORD	3
1 SCOPE	4
2 NORMATIVE REFERENCES	4
3 DEFINITIONS AND ABBREVIATIONS	4
4 REQUIREMENTS	4
4.1 General.....	4
4.2 MSS plinths	4
4.3 RMU plinths.....	5
4 TESTS	5
5 MARKING AND PACKAGING	5
6 DOCUMENTATION	5
8 TRAINING	5
9 QUALITY MANAGEMENT	5
10 ENVIRONMENTAL MANAGEMENT	5



11 HEALTH AND SAFETY5

Annex A - Bibliography6

Annex B - Revision information7

Annex C - Technical schedules A and B9

Annex D – Stock Items15

FOREWORD

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INTRODUCTION

Concrete plinths are used to support miniature substations, free standing ring main units. City Power has standardised all its pre-cast plinths.

1 SCOPE

This specification covers City Power's requirements for concrete plinths for use with miniature substations, free-standing ring main units in accordance to City Power drawing CP_TSDRAW_069, CP_TSDRAW_071, CP_TSDRAW_072

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.

CP_TSDRAW_069, Type "B" Mini-substation with cable front entry R.M.U. plinth details (pre-cast)

CP_TSDRAW_071 11 kV and 22 kV 3 way SF6 ring main unit plinth details (pre-cast)

CP_TSDRAW_072, 11 kV and 22 kV 4 way SF6 ring main unit plinth details (pre-cast)

SANS 5863, Concrete tests – Compressive strength of hardened concrete

3 DEFINITIONS AND ABBREVIATIONS

The definitions and abbreviations in the above document shall apply to this specification. In addition, the following abbreviations shall apply:

3.1 MSS: Miniature Substation

3.2 RMU: Ring Main Unit

4 REQUIREMENTS

4.1 General

4.1.1 The reinforced concrete plinths shall be manufactured strictly in accordance with the relevant drawing and shall have a compressive strength of 25 MPa when tested according to SANS 5863.

4.1.2 The finished concrete surfaces shall be smooth and flat.

4.1.3 The plinths shall comply fully with the notes on each drawing, which form an integral part of this specification.

4.2 MSS plinths

4.2.1 The pre-cast concrete plinth for the Type B MSS shall comply with CP_TSDRAW_069

Note: The Bulk Metering Kiosk (BMK) uses the same plinth as the Type B MSS and there is no need for a separate plinth.

4.3 RMU plinths

1. The pre-cast concrete plinth for the 3-way RMU shall comply with requirements of CP_TSDRAW_071.
2. The pre-cast concrete plinth for the 4-way RMU shall comply with requirements of CP_TSDRAW_072

4 TESTS

The test requirements of SANS 5863 shall be completed.

5 MARKING AND PACKAGING

Each plinth shall be marked on the plinth sidewall with the gross mass, City Power SAP number (refer to Annex D) and the relevant drawing number CP_TSDRAW_069 in the case of MSS plinths or CP_TSDRAW_071/CP_TSDRAW_072 in the case of RMU plinths.

6 DOCUMENTATION

- 7.1 Detailed test reports confirming compliance with SANS 5863 shall be provided.
- 7.2 In addition to the documentation required above, full technical information relating to the performance, construction, operation, etc of the pre-cast concrete plinths shall be supplied.

8 TRAINING

- 8.1 The following certified training courses shall be offered for City Power's staff:
 - a) Safe and correct handling, storage and transport of the pre-cast concrete plinths.
- 8.2 The associated costs for the certified training course in 8.1 shall be given per person and shall be fixed for the period of the contract.

9 QUALITY MANAGEMENT

A quality management certificate shall be set up to assure the proper quality management of the concrete plinth during design, development, production, installation and servicing phases. Guidance on the requirements for a quality management certificate may be found in the ISO 9001:2015. The details shall be subject to agreement between City Power and the Supplier.

10 ENVIRONMENTAL MANAGEMENT

An environmental management certificate shall be set up in order to assure the proper environmental management of the concrete plinth throughout its entire life cycle (i.e. during design, development, production, installation, operation and maintenance, decommissioning and disposal phases). Guidance on the requirements for an environmental management system may be found in ISO 14001:2015 standards. The details shall be subject to agreement between City Power and the Supplier. This is to ensure that the asset created conforms to environmental standards and City Power SHERQ Policy

11 HEALTH AND SAFETY

A health and safety certificate shall be set up to ensure proper management and compliance of the concrete plinth during installation operation, maintenance, and decommissioning phases. Guidance on the requirements of a health and safety certificate may be found in ISO 45001:2018 standards. This is to ensure that the asset conforms to standard operating procedures and City Power SHERQ Policy. The details shall be subject to agreement between City Power and the Supplier.

Annex A - Bibliography

None

Annex B - Revision information

DATE	REV. NO.	NOTES
April 2005	0	First issue
November 2013	1	General editing 3.3 Added abbreviation GMLVSDK 4.2.1 CP_TSDRAW_070 type A MSS 4.2.2 CP_TSDRAW_069 type B MSS 4.3.1 CP_TSDRAW_071 3-way RMU concrete plinth precast 4.3.2 CP_TSDRAW_072 4-way RMU concrete Plinth precast 4.4 Added Ground Mounted- Low Voltage Service Distribution- Kiosk 4.4.1 CP_TSSDRAW_067 9. Quality Assurance 10. Environmental Management Added Technical Schedule A&B- Item 6
October 2018	2	General Editing New study Committee Added Health and Safety

SPECIFICATION FOR CONCRETE PLINTHS

REFERENCE

REV

CP_TSSPEC_027

3

PAGE

8

OF

15

August 2023

3

Removed, CP_TSDRAW_070, 11/22 kV Universal Type 'A' Mini-substation plinth (pre-cast),

Removed, CP_TSDRAW_048, Plinth details for "Type A Long" miniature substation

Removed, CP_TSDRAW_067, Plinth details for Ground mounted low voltage service distribution kiosk plinth (precast

Annex C - Technical schedules A and B

Item 1: Type B MSS Plinth

Schedule A: Purchaser's specific requirements

Schedule B: Guarantees and technical particulars of equipment offered

Item	Sub-clause of CP_TSSPEC_027	Description		Schedule A	Schedule B
1		Name of manufacturer		Required	
2		Place of manufacture		Required	
3		Manufacturer's identification reference		Required	
4	4.1.3	Does plinth fully comply with the requirements of this specification (CP_TSSPEC_027)?	Yes	Yes	
5	4.2.2	Does plinth fully comply with the requirements of this specification (CP_TSDRAW_069)	Yes	Yes	
6	4.1.1	Compressive strength of concrete	MPa	25	
7	6	Marking as per clause 6	Yes	Yes	
8	7	Certified copy of test reports provided with documentation	Yes	Yes	
9	9	Quality management certificate	Yes	Yes	

Note: Ticks, Cross [√, X], Astrick [*], Word [Noted] or TBA ["To Be Advice"] will not be accepted.

Tender Number: _____

Tenderer's Authorised Signatory: _____
Name in block letters Signature

Full name of company: _____

Technical schedules A and B

Item 1: Type B MSS Plinth

Deviation schedule

Any deviations offered to this specification shall be listed below with reasons for deviation. In addition, evidence shall be provided that the proposed deviation will at least be more cost-effective than that specified by City Power.

Item	Sub-clause of CP_TSSPEC_027	Proposed deviation

Note: Ticks, Cross [√, X], Astrick [*], Word [Noted] or TBA ["To Be Advice"] will not be accepted.

Tender Number: _____

Tenderer's Authorised Signatory: _____
Name in block letters Signature

Full name of company: _____

Technical schedules A and B

Item 4: 3-way RMU Plinth

Schedule A: Purchaser's specific requirements

Schedule B: Guarantees and technical particulars of equipment offered

Item	Sub-clause of CP_TSSPEC_027	Description		Schedule A	Schedule B
1		Name of manufacturer		Required	
2		Place of manufacture		Required	
3		Manufacturer's identification reference		Required	
4	4.1.3	Does plinth fully comply with the requirements of this specification (CP_TSSPEC_027)?	Yes	Yes	
5	4.3.1	Does plinth fully comply with the requirements of CP_TSDRAW_071	Yes	Yes	
6	4.1.1	Compressive strength of concrete	MPa	25	
7	6	Marking as per clause 6	Yes	Yes	
8	7	Certified copy of test reports provided with documentation	Yes	Yes	
10	9	Quality management certificate	Yes	Yes	

Note: Ticks, Cross [√, X], Astrick [*], Word [Noted] or TBA ["To Be Advice"] will not be accepted.

Tender Number: _____

Tenderer's Authorised Signatory: _____
Name in block letters Signature

Full name of company: _____

Technical schedules A and B

Item 4: 3-way RMU Plinth

Deviation schedule

Any deviations offered to this specification shall be listed below with reasons for deviation. In addition, evidence shall be provided that the proposed deviation will at least be more cost-effective than that specified by City Power.

Item	Sub-clause of CP_TSSPEC_027	Proposed deviation

Note: Ticks, Cross [√, X], Astrick [*], Word [Noted] or TBA [“To Be Advice”] will not be accepted.

Tender Number: _____

Tenderer's Authorised Signatory: _____
 Name in block letters Signature

Full name of company: _____

Technical schedules A and B

Item 5: 4-way RMU Plinth

Schedule A: Purchaser's specific requirements

Schedule B: Guarantees and technical particulars of equipment offered

Item	Sub-clause of CP_TSSPEC_027	Description		Schedule A	Schedule B
1		Name of manufacturer		Required	
2		Place of manufacture		Required	
3		Manufacturer's identification reference		Required	
4	4.1.3	Does plinth fully comply with the requirements of this specification (CP_TSSPEC_027)?	Yes	Yes	
5	4.3.2	Does plinth fully comply with the requirements CP_TSDRAW_072	Yes	Yes	
6	4.1.1	Compressive strength of concrete	MPa	25	
7	6	Marking as per clause 6	Yes	Yes	
8	7	Certified copy of test reports provided with documentation	Yes	Yes	
10	9	Quality management certificate	Yes	Yes	

Note: Ticks, Cross [√, X], Astrick [*], Word [Noted] or TBA ["To Be Advice"] will not be accepted.

Tender Number: _____

Tenderer's Authorised Signatory: _____

Name in block letters Signature

Full name of company: _____

Technical schedules A and B

Item 5: 4-way RMU Plinth

Deviation schedule

Any deviations offered to this specification shall be listed below with reasons for deviation. In addition, evidence shall be provided that the proposed deviation will at least be more cost-effective than that specified by City Power.

Item	Sub-clause of CP_TSSPEC_027	Proposed deviation

Note: Ticks, Cross [√, X], Astrick [*], Word [Noted] or TBA [“To Be Advice”] will not be accepted.

Tender Number: _____

Tenderer’s Authorised Signatory: _____

Name in block letters Signature

Full name of company: _____

Annex D – Stock Items**Material Group: PLTH**

Item	SAP Number	SAP Short Description	SAP Long Description
1	5201	MSS PLINTH TYPE B	Miniature substation plinth type 'B' precast. Item specification no. CP_TSSPEC_027.
4	493	RMU PLINTH 3 WAY	Ring main unit plinth 3 way precast. Item specification no. CP_TSSPEC_027.
5	494	RMU PLINTH 4 WAY	Ring main unit plinth 4 way precast. Item specification no. CP_TSSPEC_027.