

**CONTRACT № 054/2024/PMID/MCWAP2/RFB**

**VOLUME 3**

**PART C3.1: SPECIFICATION**

## **PART C3.1.0: PREAMBLE TO SPECIFICATION**

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## PART C3.1.0: PREAMBLE TO SPECIFICATION

### C3.1.0.1 MODULAR FORMAT

A modular suite of bespoke “specifications” constitute the Specification in terms of the FIDIC Conditions of Contract for Construction for Building and Engineering Works Designed by the Employer (Red book). To further provide for and integrate the multidisciplinary aspects of the Contract to be designed by the Contractor, Employer Requirements are also included in the modular suite of bespoke “specifications”. This is done by integrating the required provisions of FIDIC Conditions of Contract for Plant and Design-Build for Electrical and Mechanical Plant and for Building and Engineering Works, designed by the Contractor (Yellow book) in the Particular Conditions of Contract prepared in terms of the Red book. The integrated Particular Conditions of Contract provides for Specifications and Employer Requirements to form part of the modular suite. The combined modular suite is referred to as the Specification in terms of the Red book being the applicable General Conditions of Contract.

The Specification has been developed in modular format to facilitate:

- a) the ease of use by different disciplines; and
- b) an integrated implementation approach for all disciplines within the same Contract.

The modules are referred to as Sections of the construction Specification in terms of the Red book which should not be confused with Sections of the Works. Sections of the construction Specification is identified with a unique composite number which serves to locate and refer to it in the Contract Document. The electronic file names also use the same numbering convention. The unique number is compiled as follows:

Volume of Contract	Part of Volume	Section of the Specification (X)	Specification Clause (Y)	Specification Sub-clause (Z)
3	1 - Specification	X=1 to 50	X.Y	X.Y.Z

For example the “Survey and Setting Out” Section of the Specification has the following Reference number:

Electronic file name:

C315 – Survey and Setting Out

It reflects Contract Volume 3; Part 1; Specification Section 5

Hard copy of Contract:

The cover page of the Specification Section reflects the Contract, Volume, Part of Volume and the Specification Section.

C3.1 Section 5 - Survey and Setting Out

The Table of Contents reflects the further subdivision of the Specification Section 5, referred to as Clauses.

The Survey of Ground Profiles is covered under Clause 5.7 and the Original Ground Profiles is covered under Clause 5.7.1. .

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**C3.1.0.2 BASIS**

The Specification is based on:

- a) A bespoke suite of specifications addressing the requirements of a macro scale Contract;
- b) The use of the FIDIC suite of Conditions of Contract to accommodate international role players;
- c) The use of the latest Civil Engineering Standard Method of Measurement (CESMM3-SA);
- d) Selected applicable SANS 2001 Standards; and
- e) The technical requirements of the DWS standard specifications updated where required.

The bespoke suite of Specification Sections can take the form of a:

- Particular Specification;
- Project Specification; or
- Performance Specification (Employer's Requirement).

**C3.1.0.3 SPECIFICATION VERSUS EMPLOYERS REQUIREMENTS**

The definition of the terms Specification and Employer's Requirements are detailed in the Particular Conditions of Contract. Without prejudice to these definitions, the Specification is essentially a construction specification for Employer designed aspects of the Works, whilst Employer's Requirements are a performance specification for those aspects of the Works designed by the Contractor.

In this Contract, Employer's Requirements are not explicitly placed in a separate document or part, but rather are located within the document entitled Part C3.1 Specification. Thus Part C3.1 Specification shall be interpreted as follows:

- a) For the Employer design aspects it shall be regarded as a Specification; and
- b) For the Contractor design aspects it shall be regarded as an Employer's Requirement.

This distinction is particularly relevant to those Specification Sections describing mechanical and electrical parts of the Works.

**C3.1.0.4 STRUCTURE OF MECHANICAL, ELECTRICAL AND CONTROL & INSTRUMENTATION SECTIONS**

The structure of the mechanical, electrical and C&I Sections of the Specification is based on the following philosophy:

- a) The general Section covers the project specific system requirements. (Project specific requirements); and
- b) The plant supply and installation Section covers the plant specific employer requirements. ("Employer standard specification").

**C3.1.0.5 STANDARD LIST OF SPECIFICATION SECTIONS**

<b>Specification Section Number</b>		<b>Section Title</b>	<b>Applicability</b>
1		General	√
2		Occupational Health and Safety	√
3		Social Management & SED Requirements	√
4		Environmental Management	√
5		Survey and Setting Out	√
6		Fencing	√
7		Clearing Site	√
8		Dealing with Water	√
9		Bulk Surface Excavations and Trenching	√
10		Pipe Jacking	√
11		Trenchless Pipe Rehabilitation	Not Used
12		Blasting	√
13		Rock Support	√
14		Spoil, Borrow and Excavated Materials	√
15		Backfilling and Bedding	√
16		Embankment Construction	√
17		Reservoir Membranes and Liners	√
18		Drilling and Grouting (Inclusive of jet grouting)	√
19		Foundation Piling	Not Used
20		Concrete Works (Structural)	√
21		Gabions and Reno Mattress Structures	√
22		Reinforced Earth Retaining Walls	Not Used
23		Concrete Retaining Block Walls	√
24		Structural Steel	√
25		Roadworks and Paving	√
26		Road Maintenance	√
27		Drainage and Erosion Protection	√
28		Mechanical General	√
29		Hydro-Mechanical Plant	√
30		Pumps and Ancillary Plant	√
31		Cranes, Hoists and Winches	√
32		Pipes and Pipe Specials	√
33		Laying and Testing Steel Pipes	√
34		AC Mitigation and Cathodic Protection	√
35		Valves	√
36		Flow Meters	√
37		Painting and Corrosion Protection	√
38		Electrical General	√
39		Electrical Plant & Installation	√
40		Control and Instrumentation General	√
41		Control and Instrumentation - Plant & Installation	√

Specification Section Number	Section Title	Applicability
42	HVAC	√
43	Security General	√
44	Security Plant & Installation	√
45	Non-Lethal Electric Fence System	√
46	General Building Work	√
47	Landscaping and Rehabilitation	√
48	Tests on Completion	√
49	Water Treatment	Not Used
50	Socio Economic Targets & Penalties	√