

**SOUTH AFRICAN ROAD FEDERATION**  
**SYMPOSIUM ON THE PREPARATION OF CONTRACT DOCUMENTATION**  
**AND ADMINISTRATION OF CIVIL ENGINEERING CONTRACTS**  
**CHAPTER 3: GENERAL STRUCTURE OF THE DOCUMENT**

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**GENERAL STRUCTURE OF THE DOCUMENT**

## **1. INTRODUCTION**

In most engineering contracts the written contract document is normally prepared by the Employer or his Consulting Engineer. Projects are often complex, costly and sometimes contain higher than normal levels of uncertainty.

These circumstances require that extensive documentation is provided in order to define the rights, duties, responsibilities, risks and obligations of the parties to the contract. The responsibilities of the Engineer, who is not a party to the contract, have also to be defined. The contract documentation therefore, plays a crucial role in the contract and, as such, it should be as comprehensive as possible.

In the relatively short time available for the preparation of a tender, there is no time for tenders to read through and assimilate long verbose statements or waste time sorting out uncertainties and ambiguities in the document. The document should therefore be concise, clear and complete in its statements of requirements. This requires a certain level of skill in drafting capability combined with a sound knowledge of the form of contract. A document that does not meet with these requirements opens the door to disagreement and arguments between the parties to the contract which very often lead to unpleasantness and, more often than not, to claims from the Contractor. The document, or perhaps more importantly, the Conditions of Contract and Specification components thereof should seek to achieve an equitable distribution of risk between the Employer and the Contractor. Let us now have a look at various components of the document which starts off as a tender document and ends up as a contract document.

## **2. DOCUMENT STRUCTURE IN ACCORDANCE WITH THE CIDB STANDARD FOR UNIFORMITY AND SANS 10403:2003**

Procurement documents for engineering and construction works in South Africa must, where applicable, be formatted and compiled under certain prescribed headings in accordance with the CIDB Standard for Uniformity in Construction Procurement (SFU). This standard applies specifically to organs of State but does not compulsorily apply to private sector procurement

procedures. These requirements have now been developed into SANS 10403:2003 “Formatting and compilation of construction procurement documents”

Private sector organizations are still able to develop procurement documents to suit their particular requirements.

The following tables identify the standard headings and sequencing of documents when soliciting tenders under a three volume or one volume structure.

**Table 3.1: Three Volume Approach<sup>1</sup>**

<b>Volume</b>	<b>Contents</b>	
	<b>Number</b>	<b>Heading</b>
<b>Volume 1</b>	<b>Tendering Procedures</b>	
	T1.1	Tender notice and invitation to tender
	T1.2	Tender data
<b>Volume 2</b>	<b>Returnable Documents</b>	
	T2.1	List of returnable documents
	C1.1	Form of Offer and Acceptance
	C1.2	Contract Data (Part 2: Data provided by the Contractor)
	C2.2	Activity Schedule or Bills of Quantities
	T2.2	Returnable schedules
<b>Volume 3</b>	<b>Draft Contract</b>	
	<b>Part C1: Agreement and Contract Data</b>	
	C1.2	Contract Data (Part 1: Data provided by the Employer)
	<b>Part C2: Pricing data</b>	
	C2.1	Pricing instructions
	<b>Part C3: Scope of Work</b>	
	C3	Scope of Work
	<b>Part C4: Site information</b>	
	C4	Site information

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<sup>1</sup> From Table 3 – SANS10403:2003

**Table 3.2: Single Volume Approach<sup>2</sup>**

<b>Contents</b>	
<b>Number</b>	<b>Heading</b>
<b>TENDER</b>	
<b>Part T1: Tendering Procedures</b>	
T1.1	Tender notice and invitation to tender
T1.2	Tender data
<b>Part T2: Returnable Documents</b>	
T2.1	List of returnable documents
T2.2	Returnable schedules
<b>CONTRACT</b>	
<b>Part C1: Agreement and Contract Data</b>	
C1.1	Form of Offer and Acceptance
C1.2	Contract Data
<b>Part C2: Pricing data</b>	
C2.1	Pricing instructions
C2.2	Activity Schedule or Bills of Quantities
<b>Part C3: Scope of Work</b>	
C3	Scope of Work
<b>Part C4: Site information</b>	
C4	Site information

From the tables above it can be seen that the three volume format is structured such that only those documents relevant to the tender procedures are contained in the first volume. The second volume contains the returnable documents and the third volume contains only those documents that relate to the draft contract. Although the tenderer receives three volumes when the tender document is collected, only the tender returnables (Volume 2) are returned as the tender offer.

The single volume structure in Table 3.2 clearly identifies those documents related to the tender and to the contract. The list of returnable documents should identify which of the documents a tenderer must complete when submitting his tender offer. The tenderer submits his tender offer by completing those forms, signing the “offer” document in the forms of offer and acceptance and delivering it back to the Employer bound up in the same volume that it was in when it was received. If the tender offer is accepted, the Employer simply signs the “acceptance” document in the forms of offer and acceptance and a contract is formed, i.e., the tender document becomes the contract document. This single volume approach is, however,

<sup>2</sup> From Tables 1 and 2 - SANS 10403:2003

only suited to contracts and situations where small variances, if any, are anticipated between the draft contract and the final contract.<sup>3</sup>

### **3. TENDER DATA**

The Tender Data informs tenderers about the tendering procedures that are to be observed and the documentation that needs to be submitted with tender offers, failing which, tender offers may be rejected or not be evaluated. The Tender Data does this by identifying the conditions of tender or the conditions of tender that are generally applicable to procurement and establishes the variables relating thereto by means of amendments to specific clauses in the applicable conditions.<sup>4</sup>

The conditions of tender should cover topics which include eligibility and qualification criteria, cost of tendering, checking of documents, confidentiality and copyright of documents, acknowledgement of addenda, site visits and/or clarification meetings, seeking of clarifications, pricing of tender offer, alterations to tender offers, alterations to documents, the submission of tender offers, tender offer validity periods, clarification of tender offers after submission, submission of securities, bonds and insurance policies, responses to requests for clarifications, issuing of addenda, returning of late tender offers, opening of tender offers, non-disclosure, grounds for rejection and disqualification, testing for responsiveness, non-responsive tender offers, rectification of arithmetical errors, evaluation of responsive tender offers, evaluation criteria, preferences, insurance provided by the employer, acceptance of tender offers, issuing of notices to unsuccessful tenderers, and issuing of the final contract.<sup>5</sup>

Essentially therefore, the conditions of tender identify the 'Rules of the Game' as far as the tender process is concerned. These 'Rules' are not only for the tenderers to abide by but also stipulate the various conditions and procedures that the employer is obliged to follow. Sadly this is an area where many problems occur when employers and tenderers alike fail to strictly implement and/or follow the 'Rules'.

### **4. RETURNABLE DOCUMENTS**

The returnable documents are those that are returned with, or constitute, a tender. Whilst many of the returnables are required for the purpose of evaluating tenders, some will form part of the subsequent contract, as they form the basis of the tender offer. For this reason it is very important that all tenderers return all information requested.

Returnable schedules comprise those schedules that are used for evaluation purposes only such as a certificate for signatories, a certificate of attendance at clarification meetings, tender

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<sup>3</sup> SANS 10403:2003 – Table 3 'Note'

<sup>4</sup> SANS 10403:2003 – Section 5.2.3.1

<sup>5</sup> SANS 10403:2003 – Section 5.2.3.1.3

securities, a form of intent to provide a performance guarantee, experience of a tenderer and proposed subcontractors. Also included in this category are those schedules that are included in the subsequent contract such as curricula vitae of key personnel, quality plans, management plans and preference schedules. Returnable schedules that form part of the subsequent contract should be attached to the scope of work.<sup>6</sup>

## **5. FORMS OF OFFER AND ACCEPTANCE**

The forms of offer and acceptance should contain:

- a) The offer by the tenderer to undertake the construction of the works and to remedy any defects therein for a clearly identified price,
- b) Confirmation from the employer that he accepts the tender offer following his tender evaluation and that a contract therefore exists, and
- c) A schedule of deviations which records any agreed changes to the documentation that occur between the receipt of the tender offer and award of the contract.<sup>7</sup>

## **6. CONTRACT DATA**

The Contract Data establishes the conditions of contract that describe the responsibilities, liabilities and obligations of the contracting parties and the agreed procedures for the administration of the contract. Where these terms have been standardized, the Contract Data identifies the applicable standard conditions of contract and sets out all the contract-specific variables, data schedules, appendices, etc., that the parties are required to provide during the tender process.

Standardized conditions of contract need not be issued with a tender or included in the final contract document, but should be referred to as being part of the contract. Information should also be made available as to where copies of these documents can be obtained.<sup>8</sup>

The Contract Data will also introduce, where appropriate, any amendments to the GCC that may be required by the Employer.

It should be noted that the terminology 'Contract Data' is not found in the FIDIC GCC, which instead uses the term 'Particular Conditions of Contract'. It is therefore essential that anyone responsible for the drafting of tender documents using the FIDIC GCC as the standardized conditions must introduce appropriate amendments in the 'Particular Conditions' to harmonize the structure and terminology being used with the requirements of the CIDB SFU.

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<sup>6</sup> SANS 10403: 2003 – Section 5.2.4

<sup>7</sup> SANS 10402: 2003 – Section 5.3.2.1

<sup>8</sup> SANS 10403:2003 – Section 5.3.2.2

## 7. GENERAL CONDITIONS OF CONTRACT (GCC)

The GCC provide the legal basis of the contract and are applicable to a multitude of different contracts. Probably the most widely used GCC are those of the SAICE known as the General Conditions of Contract for Construction Works – 2<sup>nd</sup> Edition 2010 (known as GCC 2010) and the General Conditions of Contract for Construction Works - 3<sup>rd</sup> Edition 2015 (GCC 2015), which has replaced the General Conditions GCC 2010, and GCC 2004.

In the past the major road building authorities used the Committee of State Road Authorities General Conditions of Contract 1986 (CSRA). CSRA was very different from the GCC 1990 and was often regarded as too heavily biased in favour of the Employer. The Committee of Land Transport Officials (COLTO) developed conditions of contract which superseded CSRA. These COLTO conditions were replaced by GCC 2004.

There is also a move by some authorities (such as SANRAL) to adopt the FIDIC Conditions of Contract (refer to Chapter 1), which require certain amendments in order to bring the provisions of some of the standard clauses in line with prevailing commercial and contractual practice in South Africa. Such amendments must be introduced with care and, as stated above, require good drafting skills to be applied by the person (or persons) responsible for the development of the tender documents.

## 8. PRICING DATA

The pricing data comprises the pricing instructions and the activity schedules or bills of quantities. The pricing instructions describe the criteria and assumptions which will be assumed in the contract that the tenderer has taken into account when developing his prices or unit rates.<sup>9</sup> The rules tend to vary slightly from employer to employer but there are certain basic issues which have to be covered in the pricing instructions. Among these are:-

- Method of Measurement of Quantities
- Definitions
- Need to price all items and consequences of not doing so
- Prices to be fully inclusive of all activities related to each item
- Dealing with errors and omissions
- Provisional nature of quantities and the principle of remeasurement
- Alterations to the Schedule
- Value Added Tax

The bills of quantities define the quantum and variety of work which is to be undertaken. They form the basis on which the Contract Price is determined. The Contractor enters rates against the various items of work listed having regard to the type of work involved in each item and

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<sup>9</sup> SANS 10403: 2003 – Section 5.3.3

also the quantity of work. The rates tendered are fixed for the duration for the contract and where appropriate are also used in valuation of variations in the nature of the work.

## 9. SCOPE OF WORK

The scope of work for engineering construction works is largely dependent upon the contracting strategy that is adopted by the employer, but should generally include information on items such as:

- a) description of the works,
- b) design brief including design data performance requirements, if applicable,
- c) applicable standards dealing with:
  - i. construction and management requirements for works contracts
  - ii. targeted procurement
  - iii. construction works
  - iv. materials standards
  - v. standardized and/or project specifications, which will deal with technical and physical matters amongst which are: -
    - properties of materials to be used in the works
    - standards of workmanship
    - description of how work items are to be measured for payment purposes and how they are to be paid for

The standardized specifications are the technical counterpart of the General Conditions of Contract in that they are applicable to many contracts. They can be national, such as the South African SANS Standardized Specifications or standard countrywide for a particular employer or group of employers. The COLTO Standard Specification for road and bridge works is such a document.

The project specification is the technical equivalent and fulfills the same function as its legal counterpart, the Contract Data. It adapts and modifies standardized specifications to suit the

## 10. DRAWINGS

It is a very true saying that a picture saves a thousand words. The better the picture the more words are saved.

The drawings which form part of the contract documentation should be in sufficient detail to enable a contractor to determine as precisely as possible what is required of him. From the detail provided he should be able to formulate his construction plan, prepare his programme and evaluate possible alternative solutions if these are permitted.



The scale of the drawings should always be sufficient to allow the contractor to read the text and the dimensions and any other relevant information. One drawing must show the locality of the works together with all access details.

Tender drawings may or may not be construction drawings, but it must be remembered that any major alteration to a tender drawing is in fact a variation to the contract. While it is desirable that all designs and plans should be completed before tenders are called, it is not essential. As long as sufficient details are provided to enable accurate pricing and planning additional drawings can safely be issued to the contractor during the course of the contract without prejudicing his program. This is the norm on major contracts. Sometimes drawings and designs are modified to suit the construction method.

## **11. SITE INFORMATION**

Documentation included in this section of the tender document should describe the site as at the time of tender to enable the tenderer to price his tender and to decide upon his method of working and programming. Normally only actual information about physical conditions of the site and its surroundings is included in the site information and interpretation is a matter for the tenderer. However, some employers may wish to include interpretive information, such as inferred geological sections, or site class designations.

Site information may include:

- a) subsoil investigations, borehole records and test results,
- b) reports obtained by the employer concerning the physical conditions within the site or its surroundings including mapping, hydrographic data, and hydrological information,
- c) references to publicly available information about the site and its surroundings such as published papers and interpretations of the geotechnical investigation,
- d) information about piped and other services below the surface of the site for contracts involving ground works, and about service connection points and boundary details for contracts interfacing with other developments, in addition to anything about the physical site which impacts upon the contract,
- e) information about adjacent buildings and structures, and about existing buildings and structures on the site (restrictions for heavy loads etc.), and
- f) atmospheric and environmental criteria.

*[Note: Should the actual conditions on site turn out to be different to those described, then under most conditions of contract the contractor would have a claim for compensation and/or for extension of time.]*

*Matters relating to site facilities, access, places for delivery, lay-down areas, etc. are not site information and should be included in the scope of work, as they are constraints on how the contractor executes the contract.]<sup>10</sup>*

## **12. PRO-FORMAS**

It is customary to include a typical proforma of the Contract Agreement, the Form of Surety, Tender Bonds, etc.

## **13. ADDENDA TO TENDER**

Should it be necessary to clarify any matters during the period of tender or issue further information or amendments to the documents, this is achieved by issuing an addendum (or addenda) to Tenderers. These are circulated to all tenderers. Tenderers have to acknowledge receipt and any amendments to the tender documents made in the addenda will be incorporated in the contract.

Clarifications requested by Tenderers must be carefully managed to amplify but do not amend the tender documents.

## **14. THE ENGINEER or THE EMPLOYER'S AGENT**

In the conditions of contract and the specifications there is extensive reference to "The Employer's Agent," (GCC 2015) or "The Engineer," (GCC 2010 or FIDIC 1999). Who is this individual?

In a nutshell the Engineer is the Agent of the Employer. He or she can be a nominated member of the Employer's organization or more commonly a Consulting Engineer appointed by the Employer. The duties of the Employer's Agent/Engineer are defined in the conditions of contract but are governed by the contract between the Employer and the Employer's Agent/Engineer. For simplicity, these notes will use the term "Engineer," which will help to avoid confusion between the various documents discussed. The Contractor is not a party to this contract but must be made aware, at time of tender, of any limitations on the powers of the Engineer.

So what broadly does the Engineer do? A former director of the South African Association of Consulting Engineers (now Consulting Engineers South Africa – CESA) put it as follows: -

"The Engineer exercises two distinctively different functions. In terms of his contract with the Employer he is the "agent" of the Employer, employed to use his skill and knowledge to do what the Employer himself cannot or will not do, namely: to report on, design and administer

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<sup>10</sup> SANS 10403: 2003 – Section 5.3.5.2

the construction of the works. In so doing, the Engineer has a duty to use his talents, skill and experience to produce a final project on paper which will meet the wishes of the Employer, but it is the Contractor who is responsible for seeing that the project is built according to the plans. The Engineer's function is not to instruct the Employer what he should want but to advise him of the engineering implications and consequences of meeting his stated requirements; it is the Employer's function to make up his own mind once he has received the advice and recommendations of the Engineer.

In terms of the contract between the Employer and the Contractor, the Engineer must act as an "adjudicator". The limitations of his powers in this respect are defined by the terms of the contract and the Engineer's decision may or may not be final, according to whether the contract does or does not contain provisions to go to adjudication, arbitration or litigation about any matter in dispute. Often the Engineer's decisions in respect of materials and workmanship are final, but usually in the standard General Conditions of Contract applicable to most types of work "any dispute or difference of any kind whatsoever may be referred to arbitration" (often preceded by adjudication).

It is essential that the two separate functions of the Engineer should not be confused. It is the duty of the Engineer to advise the Employer about what has to be done to construct a works which will satisfy the Employer's requirements and to draw up the contract documents, specifications and plans to provide for this. Once he has done that he must in all other respects act independently of both Employer and Contractor. He must "hold the scales" fairly between them and act by way of his professional skill in accordance with the ethics and general practices of his profession (If, in a dispute the Engineer concurs with the Contractor's contentions he must ally himself to the Contractor's cause and motivate the Employer to agree with the Contractor and, if applicable, to compensate him for any additional cost to which he might be entitled).

The independence of the Engineer is an essential ingredient in the process and must be fully appreciated by all parties, not the least being the Engineer himself. The same argument applies to the architect in building contracts"

In summary it can be said that the Engineer's first duty is to his client the Employer. The Engineer must ensure that the Employer gets what he is paying for at the price he expects to pay in terms of the Contract, within the time he expects and to the standards and quality required by the Specifications. At the same time the Contractor is entitled to fair payment for work done and the Engineer has to ensure this as well. The Contractor's profit is fairly due for a job well done.