SOUTH AFRICAN ROAD FEDERATION

Symposium on the Preparation of Contract Documentation and Administration of Civil Engineering Contracts

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Symposium on the Preparation of Contract Documentation and Administration of Civil Engineering Contracts

- **A South African Road Federation seminar dealing with:**
  - **The general principles of contract documentation; and**
  - **The general principles of practical contract management through the various stages of a contract**

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! Explanatory Note !

- This course provides tried and tested general and specific principles and procedures that are appropriate to civil engineering contract documentation and contract administration.
- The slides were updated in 2020 considering the current legislation in RSA (dealing with the CIDB Prescripts and the Standard for Uniformity as an example) and to take account of the recent publication of the new FIDIC 2 Red Book "Conditions of Contract for Construction" – 2nd Edition 2017.
- The notes should be carefully studied in your own time and the principles applied in your respective civil engineering duties.

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! Explanatory Note !

- The presentation slides are used to present the principles contained in the notes and also to incorporate any changes that may have occurred subsequent to the last drafting of the notes. It is more appropriate to regularly update the slides than to attempt to update the course notes, bearing in mind that SARF has offered up to 4 courses a year in the past.

- Updating the slides for each course enables the presenter to more readily introduce new material as it becomes available or is requested by course delegates, such as typical contractual claim case studies, etc.

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A Pharoe's vision of the Future??

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Port of Ngqura

Port of Ngqura Berth C100/101

Port of Ngqura
Harbour Entrance Breakwater

The Conditions of Contract & The Contract Itself

- Introduction
  - This section provides a broad overview of the Conditions of Contract
  - The Conditions of Contract are a legal document and are subjected to the over-riding provisions of the general law of contract and it is important to understand this right from the start.
  - Do not attempt to give a legal opinion on a contract if you are not competent to do so – you are likely to get things wrong!

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The Conditions of Contract & The Contract Itself

- The Construction Industry Development Board [CIDB] was inaugurated in 2000 with the objective of establishing and promoting uniform standards for the construction industry and Regulation 24(b) of the Construction Industry Regulations states that every Employer of a state institution must solicit tenders in accordance with the Standard for Uniformity in Construction Procurement.
- These course notes take the latest regulations and requirements into account.

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The Conditions of Contract & The Contract Itself

- **Several forms of contract were evolved in the United Kingdom in the 1920's and 1930's, and in 1945 the Institution of Civil Engineers [ICE] in London issued its first edition of the ICE Conditions of Contract.**

- **This milestone document formed the model base on which the South African Institution of Civil Engineers [SAICE] and the European International Federation of Consulting Engineers [FIDIC] subsequently developed their own forms of contract.**

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The Conditions of Contract & The Contract Itself

- **The SAICE Conditions – Current publication GCC 2015 (3rd Edn.) has replaced GCC 2010 (2nd Edn.) which was preceded by GCC 1990 and 2004 'Blue Books'**
  - **GCC 2015 was a total re-draft of GCC2010 with much simpler language and several new clauses. SAICE also published a 'Guide to the GCC 2015'**
  - **GCC 2015 complies fully with all the Construction Industry Development Board (CIDB) requirements for a form of contract**

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The Conditions of Contract & The Contract Itself

- **Types of Contract Conditions for Civil Engineering Construction (Cont'd)**
  - **The FIDIC Conditions of Contract: the current version is termed FIDIC 2nd Edition 2017 and is commonly known as the 'Red Book' – "Conditions of Contract for Construction for Building and Engineering Works Designed by the Employer"**
    - **The current version was preceded by FIDIC I 1999, which FIDIC decided required a complete rearrangement of style and layout of clauses**

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The Conditions of Contract & The Contract Itself

- **Types of Contract Conditions for Civil Engineering Construction (Cont'd)**
- **Under its 1999 suite of documents FIDIC also publishes:**
  - **"Conditions of Contract for Plant and Design-Build" (commonly known as the Yellow Book); this is for Electrical and Mechanical Plant and for Building and Engineering Works designed by the Contractor.**
  - **"Conditions of Contract for EPC/Turnkey Projects" (commonly known as the Silver Book); this is for Engineering, Procurement and Construction of Turnkey Projects in which the Contractor provides a completed project ready for occupation.**

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The Conditions of Contract & The Contract Itself

- **Types of Contract Conditions for Civil Engineering Construction (Cont'd)**
  - **The FIDIC "Short Form of Contract" is for Building or Engineering Works of relatively small capital value or time period or for relatively simple works (commonly known as the Green Book).**
  - **In 2008 FIDIC published "Conditions of Contract for Design, Build and Operate Projects" (commonly known as the Gold Book); this is specifically structured to cater for a 'green-field' Design-Build-Operate scenario, with a 20 year operation period based on a single contract awarded to a single contracting entity, this being a consortium or joint venture due to the scale of the project.**

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The Conditions of Contract & The Contract Itself

- **Types of Contract Conditions for Civil Engineering Construction (Cont'd)**
  - **FIDIC published in 2000 "The FIDIC Contracts Guide", which provides detailed guidance on the use of the three principal 1999 Contracts (Red, Yellow and Silver books**

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The Conditions of Contract & The Contract Itself

- Types of Contract Conditions for Civil Engineering Construction (Cont'd)
  - New Engineering Contract (NEC4)
    - This form of contract has been developed in the United Kingdom in recent years and is a radical departure from all existing forms. Its primary aim is to remove the adversarial attitudes between Employer, Engineers and Contractors and consequently requires a dedicated 'pro-active' and co-operative approach to the management of the contract by all parties involved.
    - Used by Eskom, Transnet and Sasol and certain organs of state.

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The Conditions of Contract & The Contract Itself

- Types of Contract Conditions for Civil Engineering Construction (Cont'd)
  - New Engineering Contract (NEC) (Cont'd)
    - *Note: there are some challenges associated with the use of the NEC's family of contracts including a culture change, executive commitment, training requirements, discipline with rigorous timescales and response times, the operation of compensation event procedure, increased documentation and administration, the issuing and monitoring of notices and other documents; and the understanding of early warning processes.*

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The Conditions of Contract & The Contract Itself

- Types of Contract Conditions for Civil Engineering Construction (Cont'd)
  - Joint Building Contracts Committee (JBCC)
    - The JBCC Series 2000 Principal Building Agreement is specifically designed for use on, and should be confined to, building works.

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Other Types of Contract Conditions for Civil Engineering Construction

- COLTO Contract Conditions, which were subsequently replaced by GCC 2004
- NEC Conditions of contract more common with TRANSNET
- Eskom Conditions – NEC and FIDIC 2 & FIDIC DPB used
- Mining Houses – generally apply their own Contract conditions
- Major Local Authorities –now bound to follow the 'Standard for Uniformity' formulated by the CIDB, using FIDIC DPB, SAICE GCC 2015, JBCC 2014, NEC3/4

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Other Types of Contract Conditions for Civil Engineering Construction

- State Departments – follow the CIDB 'Standard for Uniformity' and use the following forms of Contract:
  - FIDIC suite of documents, which includes appropriate Contract Conditions for civil engineering works and for mechanical and electrical works;
  - SAICE GCC 2015 General Conditions of Contract;
  - JBCC 2014 and
  - NEC3/4

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The Conditions of Contract & The Contract Itself

- So – the question to be asked is *"What Conditions of Contract should be used for any particular project?"*
- The selected Conditions of Contract must be appropriate for the type of work defined in the contract.
- It is no good taking the conditions of contract from a building contract which entailed the construction of a house or an office block and applying these to a civil engineering project embracing roads, bridges, services and the like.

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The Conditions of Contract & The Contract Itself

- Quite often one might find that an Employer may have had contract documents prepared based on conditions of contract that are, in practical and contractual terms, unsuitable for the nature of the works entailed.
- This often happens because the person entrusted with the preparation of the documents was familiar with, or favoured a particular (inappropriate) form of contract.
- In this course we will be confining ourselves to conditions of contract relating to civil engineering works only.

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The Essential Structure of The Contract Document

- Projects are often complex, costly and may contain higher than normal *levels of uncertainty*; so therefore the document must *clearly 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 plays a crucial role in the contract and, as such, it should be as *comprehensible* as possible
- The document should be *concise*, *clear* and *complete* in its statements of requirements
- Thus the preparation of a contract document requires a certain level of *skill in drafting* capability combined with a sound knowledge of the form of contract

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The Conditions of Contract & The Contract Itself

- **Key matters to be addressed in the Conditions of Contract**

- **Who is involved**
- **What obligations/rights does each party have and how are these protected**
- **What powers does each party have**
- **What is to be done**
- **How much time is allowed**
- **How much will the work cost and how will it be evaluated**
- **How are disagreements handled**
- **How are changes and unforeseen conditions assessed**
- **How are the risks shared**

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The Conditions of Contract & The Contract Itself

- **For typical civil engineering works:**

We are obliged to follow a prescribed procurement process

following which

a formal Contract is formed

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Ref: SAICE Practice Manual #1, March 2004; and SAICE Management Guide to GCC 2010 – 2nd Edition 2010

The Procurement Process

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What is a Contract?

- A contract is an agreement between two parties (the Employer and the Contractor) about what each party will do for the other and what each can expect the other to do for it.
- Personal rights and obligations are created by the agreement.
- Agreements are intended to be enforceable by law, so if one party defaults on his obligation(s), the other may invoke the assistance of the law to enforce his right.
- There must be a 'meeting of the minds' – a consensus – an essential element of a contract.
- Referred to in legal terms as *'animus contrahendi'.* There must be an 'offer' and 'acceptance'.

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What is a Contract (Cont'd)

- An offer must be made with the intention of it being accepted.
- Agreement must be reduced to writing.
- Performance must be possible from Day 1.
- Each party to the contract must be adequately responsible (must have contractual capacity) to make the agreement:
  - must have reached (now) 18 years of age, previously 21 years;
  - must be a natural person or a juristic person (company, close corporation etc). A natural person representing a juristic person needs the necessary authorisation having been granted by the company, close corporation etc.

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Juristic Personality

- A company or corporate body has a separate legal existence and personality from its founders, shareholders, officers and employees – called juristic personality
- Shareholders, officers, employees etc are protected against the company's creditors by operation of the principle of limited legal liability
- The individuals associated with the company or corporate body are not themselves responsible for the company debts or liabilities, including the liability for breach of contract
- Essential to determine precisely who and what legal entity one is contracting with
- This is one of the most fundamental contracting principles, which is often overlooked with serious consequences

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Example

- Simon Ndlovu enters into negotiations with Joe Bloggs for the supply of 500m^3 of concrete stone. They settle on a price and Simon provides Joe with a contract to sign
- The contract states that the contracting parties are Simon Ndlovu and BUSY BEE Stone Quarry CC
- The contract makes provision for an advance payment by Simon Ndlovu of R100 000, which he pays to Joe Bloggs
- When the stone is not delivered Simon goes to his attorney who advises him that he has no cause of action (in terms of the contract) against Joe and that, after conducting a company search, he has found that there is no such entity as BUSY BEE Stone Quarry CC

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The Contract (Cont'd)

- Contracts are private law created by the agreement between contracting parties within the parameters of well-established basic legal mechanisms.
- Once having entered into a contract a party to the contract is not empowered to unilaterally change the terms and conditions of the contract.

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Offer and Acceptance (Summary)

- Offer
  - Must be definite and complete and with the intention that a binding contract will be entered into.
- Acceptance
  - Must be unambiguous and unconditional and made in response to the offer.
- The "Form of Offer and Acceptance" included in GCC 2015 (and earlier editions) or "Letter of Tender, Letter of Acceptance and Contract Agreement" in FIDIC 2017, detail the offer and the basis of acceptance and lists all the documents which will together form the basis of the Contract.
- Letter of intent
  - Is not acceptance of a tender and creates no legal obligations. If a contractor proceeds to do work and incur expense on the basis of such a letter he does so at his own risk and will have no claim for recompense if his tender is ultimately not accepted.

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DOCUMENT STRUCTURE IN ACCORDANCE WITH SANS 10403:2003

- CIDB 3 Volume Approach.pdf
- CIDB Single Volume Approach.pdf

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DOCUMENT STRUCTURE
Three Volume Format

- **The three volume format is structured such that only documents relevant to the tender procedures are contained in the first volume**
- **The second volume contains the returnable documents**
- **The third volume contains only those documents that relate to the draft contract**
- **Tenderers receive all 3 volumes when the tender document is collected, but only the tender returnables (Volume 2) are returned as the tender offer**

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DOCUMENT STRUCTURE
Single Volume Format

- The single volume format 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 delivers the tender back to the Employer bound in the same volume that it was in when it was received
- On acceptance the Employer signs the "acceptance" document in the forms of offer and acceptance and the tender document now becomes the contract document
- This single volume approach is only suited to contracts and situations where small variances are anticipated between draft and final contract

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DOCUMENT STRUCTURE
Important CIDB References

- August 2019 CIDB Standard for Uniformity.pdf
- SANS10403.pdf Formatting and Compilation of Construction Procurement Documents

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The Main Players

- The parties to the contract:
  - The Employer (note the terminology is not 'the Client');
  - The Contractor
- The construction contract exists between the Employer and the Contractor
- The Engineer is granted contractual powers in terms of the contract but is not a party to the contract
- The contract for professional services exists between the Employer and the Engineer
- There is no contract between the Contractor and the Engineer

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The Contracting Parties

- The Employer
  - Has the primary right to have the Works constructed in accordance with the Contract (in time, in budget and to specification);
  - Has the primary obligation to pay the Contract price for the work completed.
- The Contractor
  - Has the primary right to receive payment for the work completed;
  - Has the primary obligation to construct the Works in accordance with the Contract (in time, in budget and to specification).

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Heideveld Pedestrian Bridge

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Heideveld Pedestrian Bridge

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Powers of the Parties to the Contract

- The Employer
  - Appoint and dismiss the Engineer
  - Define the limits of Engineer's contractual authority
  - Appoint the Contractor
  - Draw up Contract agreement
  - Apply penalties (GCC 2010/15) for late completion
  - Claim for delay damages (FIDIC 2) for late completion
  - Take over completed work
  - Assign the Contract (with Contractor's agreement)
  - Insure the Works
  - Carry out urgent repairs
  - Determine the Contract (Contractor default)
  - Go to arbitration or litigation
- The Contractor
  - Appoint his representative
  - Plan the construction to suit his method of working
  - Seek additional payment for extra work
  - Assign the Contract (with Employer's agreement)
  - Request additional time (claims)
  - Insure the Works
  - Determine the Contract (for Employer default)
  - Go to arbitration or litigation

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Powers of the Engineer

The Engineer can or may:

- Issue instructions and drawings regarding the work
- Approve or reject all or part of the Works
- Order additional or varied work and value it accordingly
- Grant extensions of time (often restricted by the Employer)
- Decide disputes in the first instance
- Explain ambiguities in the document
- Approve the appointment of the Contractor's representative
- Suspend the Works (often restricted by the Employer)
- Measure the quantities of work done and certify payments to the Contractor
- Issue Certificates of Completion (GCC 2015)
- Issue Taking-Over Certificates (FIDIC 2017)

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Obligations of the Parties to the Contract

The Employer is required to:

- Make site available for pre-tender inspection
- Approve the performance bond or surety
- Accept responsibility for excepted risks
- Indemnify the Contractor against certain risks
- Pay the Contractor against the Engineer's certificate
- Enter into a contract with the Contractor
- Not to assign the Contract without Contractor's agreement
- Insure the Works in certain circumstances
- Make the site available and provide right of access
- Pay interest to the Contractor for late payments by the Employer

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Obligations of the Parties to the Contract

The Contractor is required to:

- Enter into a contract with the Employer
- Provide all labour, construction equipment and materials necessary
- Comply with instructions of the Engineer
- Provide a programme
- Set out the Works
- Watch and care for the Works
- Indemnify the Employer
- Clear the site on completion
- Care for employees
- Allow Engineer access for testing and inspection
- Construct and complete the Works and remedy defects
- Give notice of changed or adverse conditions
- Carry out work to the Engineer's satisfaction
- Provide adequate superintendence for the Works
- Insure the Works, the public and workmen
- Provide facilities for other contractors
- Test materials and workmanship (QA)

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Obligations of the Parties to the Contract

Contractor (Cont'd):

- Maintain the Works and search for defects
- Commence and complete the Works within time
- Submit monthly statement of claims for payment
- Accept variations
- Assist Engineer with measurement
- Carry out urgent repairs

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Obligations of the Engineer

The Engineer is required to:

- Observe (monitor) the Works and test all materials
- Record all facts and circumstances of adverse conditions
- Monitor rate of progress
- Value variations and fix new rates
- Measure the quantities of work done and certify monthly payments to the Contractor
- Ensure all defects are remedied
- Value the work completed at determination of the Contract
- Resolve disputes in the first instance
- Ensure all defects are remedied
- Issue drawings and instructions timeously
- Approve the programme of the Works (but not in FIDIC 8.3)
- Order variations in writing
- Value claims from the Contractor
- Assure payments to sub-contractors as necessary
- Certify release of retention monies
- Issue Certificate(s) of Practical Completion, Certificate of Completion and Final Approval Certificate (GCC 2015)
- Issue Taking-Over Certificates (FIDIC 2)

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The Alternative Forms of Contract

- GCC 2015 – for civil engineering works predominantly designed by the Employer (i.e. the Consultant) - suited to RSA conditions and the use of SANS *[Note – GCC 2010 now superseded by GCC 2015]*
- FIDIC 2, 2017 (Red Book & 1999 Suite of [other] Contracts)
- Adopted by the World Bank and other funding agencies as their standard contracts. Increasing usage in the Southern African region.
  - "Red Book" – for building and engineering work designed by the Employer
  - "Yellow Book" – for electrical and mechanical plant and building and engineering work designed by the Contractor
  - "Silver Book" – for EPC (Engineer, Procure, Construct)/Turnkey Projects
  - "Gold Book" – for Design, Build and Operate
- JBCC 2018 – the Joint Building Contracts Committee form for building works
- NEC4 - the New Engineering Contract – more equitable risk sharing between Employer and Contractor. Should not be used without some formal training.
- Others (may be Employer specific)

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The Concept of 'Risk'

'Risk' – A chance or possibility of danger, loss, injury, or other adverse consequences

The risk of loss or damage to property and of death and personal injury,

and the legal responsibility for such eventualities between the Employer and the Contractor, must be

allocated in a manner which reflects their respective ability to prevent such loss, damage, or injury from occurring so as to

permit the Contractor to be able to assess those risks on a fair and reasonable basis without having to allow in his tender price for contingencies that may never occur.

"No project is risk free. Risk can be managed, minimised, shared, transferred or accepted. It cannot be avoided"

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The Concept of 'Risk' (Cont'd)

In the context of construction contracts, risk can be broadly described as "…the chance that an undesirable event will occur and the consequences of its potential outcomes"

Risk can be seen as a source of uncertainty in achieving defined project objectives.

Risks are assigned as 'Contractor's risks' and as 'Employer's risks'.

The insurance of the risks associated with the construction of the Works must be distinguished from the legal responsibilities and liability of the parties. Such responsibilities and liabilities and the apportionment thereof between the parties apply whether or not the associated risks are insured.

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General Rules Regarding Equitable Apportionment of Risk *[from 'Management Guide to the General Conditions of Contract 2015]*

- The risk should be carried by the party that is in a position to control such risk
- Contractor to carry risks inherent in doing business and risks that can be anticipated when tendering – like utilisation of resources and dealing with uncertain weather conditions
- Employer must accept the risks that the Contractor cannot assess better than the Employer – like unforeseen adverse physical conditions, contract price adjustment due to inflation and legislation, variations and delays due to the Employer, or other circumstances like fossils discovered on Site. These risks have definite financial consequences.
- Risks that are fortuitous and over which the parties have no control should be carried by the Employer, otherwise the Contractor will have to make provision in his rates and prices, in which case the Employer will pay for such risks, whether they materialise or not
- These factors to be considered when drafting documents

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The Assignment of Risk

- **The Employer's risks**
  - **Lack of contract definition**
  - **Poor design and administration by the Engineer**
  - **Uninsurable risks – Special and Excepted**
  - **Unforeseen conditions with time and cost over-runs**
  - **Financial strength of the Contractor**
  - **Non-performance by the Contractor**
  - **Litigious or 'claims conscious' Contractors**
  - **Delayed payment by the Employer > compound interest GCC 2015**
  - **Delayed payment by the Employer > simple interest GCC 2010**
- **The Contractor's risks**
  - Assessment of the scope of the Contract
  - Adequacy of tender
  - Adequacy of construction methods
  - Adequacy of the Contractor's construction programme
  - Errors in tendered rates
  - Balancing of the tender
  - Equipment breakdowns and material inadequacies
  - Labour relations and suitable labour
  - Material quality and delivery
  - Climatic conditions
  - Delayed payment by the Employer

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10 Golden Rules of Project Risk Management

1. **Make risk management part of the project**
2. **Identify risks early in the project**
3. **Communicate about risks**
4. **Consider both threats and opportunities**
5. **Clarify ownership issues**
6. **Prioritize risks**
7. **Analyse risks**
8. **Plan and implement risk responses (risk avoidance, risk minimization or risk acceptance)**
9. **Register project risks**
10. **Track risks and associated risks**

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Frequently Occurring Project Risks

1. Risks related to the Employer/Client
   - Unclear project goals
   - Unclear deadlines
   - Slow decision making by Employer/Client
   - Role of Principal inadequately fulfilled
   - Unclear project scope
   - Scope changes

2. Risks related to 'Project Management'
   - Inadequate project management
   - Insufficient risk analysis
   - Lack of capacity/expertise
   - Unclear project priorities
   - Bad project estimates
   - Bad measurements
   - Inadequate checks or inspections/monitoring
   - Poor quality control

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Frequently Occurring Project Risks (Cont'd)

3. Risks related to Project Team
   - Inadequate staff resources
   - Inadequately experienced staff
   - Key members leave
   - Lack of motivation
   - Team members situated at different locations
   - Ignoring project problems
   - Conflicting personalities

4. Risks related to Project Execution
   - Contract overruns time
   - Unanticipated technical difficulties
   - Fraud/corruption
   - Political interference
   - Bureaucracy

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Frequently Occurring Project Risks

5 Risks related to Finances

- Inadequate business plan
- Budget too low
- Source of funding fails

6 Risks related to the Contract Environment

- Commitment of senior personnel
- Lack of commitment from stakeholders
- Change in Employer/Client corporate strategy/perspective
- Labour relations
- Capacity problems
- Subcontract non delivery (both nominated and domestic)
- Working environment not appropriate/attractive
- Sourcing procedures disrupted
- Hiding project problems

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Types of Contract and Sharing of Risk (Pricing strategies)

The choice of Pricing Strategy changes the incentive to the Contractor and flexibility for the Employer

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Some Methods of Sharing Risk

- Accurate definition of the scope of the Works by the Employer
- Selection of the type of Contract appropriate to the definition of the Works
- Warrant basic information provided and avoid disclaimers
- Specify the scope of insurable risk
- Specify Special and Excepted risks to be borne by the Employer
- Contract documents to be well drafted and unambiguous

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Some Methods of Sharing Risk (Cont'd)

•Pre-qualification of Contractors

•Advance payments to assist start-up cash-flow

•Procedures to cover unforeseen conditions

•Contract Price Adjustment provisions (or alternatively 'Rise and Fall' for selected and pre-determined items)

•Cessionary arrangements for direct payments to suppliers and subcontractors (Discuss)

•Waiver of Performance Guarantee/Performance Security (Discuss)

•Other methods (Discuss)

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Structure of the Tender Document

- The Tender Data will comprise:
  - The Standard Conditions of Tender (as developed by CIDB) PLUS
  - The Tender Data, which will include modifications and additions to the clauses in the Standard Conditions of Tender
- The Returnable Documents will comprise:
  - Those documents that are returned with, or constitute, a tender. Many of these may be required for the purpose of evaluating tenders and some will form part of the subsequent contract.
  - Essential that tenderers provide all information requested

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Structure of the Tender Document

- **Form of Offer and Acceptance contains:**
  - **The offer by the tenderer to undertake the construction of the Works and to remedy any defects therein for a clearly identified price;**
  - **Confirmation from the Employer that he accepts the tender offer following his evaluation and that a contract therefore exists;**
  - **A schedule of deviations which records any agreed changes to the documentation that occur between the receipt of the tender offer and the award of the contract.**

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Structure of the Tender Document

- **The Conditions of Contract comprise:**
  - **The applicable General Conditions of Contract will be incorporated by reference in the Contract Data Part 1–SAICE GCC 2015; FIDIC 2; etc. contain standard clauses and forms the legal basis of the contract**
  - **The Contract Data (Part 1 – provided by the Employer and Part 2 – provided by the Contractor with his tender). Contract Data Part 1 will include modifications and additions to the GCC standard clauses**
  - ***Note that the term 'Contract Data' is now found in the FIDIC 2 CC, which also uses the term 'Particular Conditions' (1.1.59). When drafting tender documents based on FIDIC appropriate amendments need to be introduced to harmonize structure and terminology with the requirements of the CIDB SFU.***

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Structure of the Tender Document (Cont'd)

- The Contract Data / (FIDIC Particular Conditions)
  - Status – takes precedence over the General Conditions. Thus essential that drafting of the Contract Data is given particular attention and that the contractual language used matches that of the General Conditions
  - Take care in the degree to which modifications to the General Conditions are introduced. Can have a significant effect upon the pricing of the Works by the Tenderer

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Structure of the Tender Document

- The Pricing Data comprise:
  - 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.
  - The basic issues to be covered are:
    - Method of measurement of quantities;
    - Definitions;
    - Need to price all items and consequence of not doing so;
    - Prices to be fully inclusive of all activities related to each item;
    - Dealing with errors and omissions;
    - Provisional (estimated) nature of quantities and the principle of remeasurement;
    - Alterations to the Schedule;
    - Value Added Tax.

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Structure of the Tender Document (Cont'd)

- **Scope of Works will comprise:**
  - Description of the works required;
  - Design brief including design data performance requirements, if applicable;
  - Applicable standards dealing with:
    - Construction and management requirements for works contracts;
    - Targeted procurement;
    - Construction works;
    - Material standards; and
  - Standardized specifications, (SANS 10120 & COLTO), and project specifications dealing with technical and physical matters including:
    - Properties of materials to be used;
    - Standards of workmanship;
    - Description of how work items are to be measured for payment purposes and how they are to be paid for.

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Structure of the Tender Document (Cont'd)

- **Scope of Works (Cont'd):**
  - Drawings:
    - Tender drawings should be in sufficient detail to enable a contractor to determine as precisely as possible what is required of him, and to price and plan his work;
    - Should enable the contractor to formulate his construction plan, prepare his programme and evaluate possible alternative solutions if these are permitted;
    - Any major alteration to a tender drawing will be a vasriation to the contract.
    - Construction drawings to be issued during the course of the contract without prejudicing the contractor's programme.

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Structure of the Tender Document (Cont'd)

- Site Information documentation may include:
  - Geotechnical investigations, borehole records and test results;
  - Interpretive reports by the Employer concerning the incorporation of the site information into the design process;
  - Other reports concerning the physical conditions within the Site or its surroundings, including mapping, hydrographic data and hydrological information;
  - References to information in the public domain;
  - Information about existing services, service connection points etc.;
  - Information about adjacent buildings and structures;
  - Atmospheric and environmental criteria.

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Structure of the Tender Document (Cont'd)

- Precaution regarding Site Information that is included:

  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 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 (Project Specification), as they are constraints on how the contractor executes the contract.

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Structure of the Tender Document (Cont'd)

- Pro-formas
  - Samples of the form of Contract Agreement;
  - Form of Surety;
  - Bid (Tender) Bonds;
  - Advance Payment Guarantee;
  - Retention Guarantee; etc as appropriate to the Tender.

75

Structure of the Tender Document (Cont'd)

- Addenda to Tender
  - Addenda issued during the period of the tender to advise tenderers of any further changes to the tender documents or to provide any further information that may affect the tenders (in terms of price or otherwise);
  - These must be circulated to all tenderers who must acknowledge receipt.
- Clarifications requested by Tenderers
  - Clarifications may be issued – these amplify but do not amend the tender documents.

76

Structure of the Tender Document (Cont'd)

- Clauses in the General Conditions that refer to the Contract Data (as per GCC 2015])
  - Clause 1 – Definitions, Interpretations and General Provisions
    - Employer; Contractor; Engineer; Defects Liability Period; Due Completion Date; Applicable Law and Language; Pricing Strategy; Communications.
  - Clause 2 – Basis of Contract
    - Adverse physical conditions delaying Practical Completion.
  - Clause 3 – Engineer
    - Identify any specific approval required from Employer prior to execution of any part of Engineer's functions or duties.
  - Clause 5 – Time and Related Matters
    - Identify special non-working days; documentation required before commencement; days from Commencement Date for production of documentation required; access to and possession of Site not exclusive to Contractor; non-working times; penalty for delay.

77

Structure of the Tender Document (Cont'd)

- Clauses in the General Conditions that refer to the Contract Data (as per GCC 2015)
  - Clause 6 – Security
    - Security for due performance of the Contract ('Performance Bond'); percentage allowance for dayworks; provisions for Contract Price Adjustment ('CPA'); price adjustment for variation in the cost of special materials; percentage limit for valuation of Plant and materials on Site; percentage retention and limit of retention money.
  - Clause 8 – Risks and Related Matters
    - Detail Contractor's insurance obligations.
  - Clause 10 – Claims and Disputes
    - Identify dispute resolution procedure; arbitration or litigation.
  - Contract Price Adjustment Schedule
    - Provide coefficients, indices.
  - Adjudication Board Rules
    - Identify Board structure

78

Structure of the Tender Document (Cont'd)

- Standard and Project specifications
  - Specification – A technical description of the standards of materials and workmanship that the contractor is to use in the works to be executed, the performance of works when complete and the manner in which payment is to be made.

79

Structure of the Tender Document (Cont'd)

- Standard and Project specifications
  - Standardized Specifications – Such as SANS 1200, now replaced by SANS 10120, developed by the SA Bureau of Standards for civil engineering construction works.
    - A generalized specification applicable across a range of civil engineering projects;
    - Contains many sections, some of which may not be relevant for the particular works being undertaken;
    - Refer in the Tender Document to the selected Standardized Specifications;
    - Identify which sections will be applied to the contract;
    - Ensure that clause numbering used conforms to the standardized specifications.

80

Structure of the Tender Document (Cont'd)

- Project Specification
  - Introduces project specific information and any modifications to the Standardized Specifications;
  - Takes precedence over the Standardized Specifications.

81

Structure of the Tender Document (Cont'd)

Project Specification: Typical information included

- General description of the project;
- Description of the Site and access;
- Nature of ground and subsoil conditions;
- Details of the Contract (the Scope of Works);
- Suggested construction programme;
- Site facilities available and those required;
- Features requiring special attention – proximity to buildings; cooperation with other contractors working on the project, etc;
- Any other special particulars about the project (relevant climatic and hydrological data);
- The relevant sections of the Standardized Specifications to be applied; and
- Any modifications to the Standardized Specifications.

82

Structure of the Tender Document Summary

- The Contract Data form a most critical part of the Tender Document;
- Take care in the drafting of the 'Contract Data' (or 'Particular' Conditions of Contract for FIDIC 2);
- The Project Specification must be drafted with similar care and attention;
- Use appropriate technical specifications;
- Use appropriate language;
- Be clear in the intent of the clause modifications;

83

Structure of the Tender Document Summary

- Give as much information as is possible to minimize the tenderers pricing for the risk of unknown factors;
- Beware of ambiguities (the *contra proferentem* rule);
- Beware of the 'cut and paste' errors – use word processing 'search/find' functions to remove/replace unwanted text;
- Cross-check clause references thoroughly.

84

The '*contra proferentem*' rule

- Latin *'contra'* – 'against'; *'proferens'* – 'the one bringing forth'
- The *proferens* is the party to the contract who, whether personally or through his agent, is the author of the wording of the contract. If that wording is incurably ambiguous the rationale of the *'contra proferentem'* rule is simply that the author should be the one to suffer because he had it in his power to make his meaning plain;
- Generally no cause for concern in GCC 2015 and FIDIC 2017 which are well drafted;
- The problem occurs when amendments are introduced into standard documents.

85

Qualifying Words or Phrases

Examples

- 'The fire was extinguished before any serious damage was done by the fire brigade'
- 'In respect of facilities for another contractor, the Contractor will be paid the cost of making available forms, scaffolding, laddering, hoists and access roads approved by the Engineer'
- Structure text to avoid this and to separate the qualifying words from the substantive words
- For example GCC 2010/ 2015 [Clause 6.9.2] overcome this problem by the use of the words "all of which"

86

The Bill of Quantities

- A Bill of Quantities is a list of items giving the estimated quantities and brief description of the work to be performed and materials to be provided under the contract.
  - Derived from the drawings and the specification;
  - Provides tenderers with information for them to price each work item;
  - Used to evaluate the Tender Price;
  - Quantities are estimated and subject to final measurement;
  - Used during the contract to evaluate the amount due to the contractor for work done;
  - Used to value variations, where relevant rates are applicable;
  - Identifies payment clauses from the specification applicable to the individual work items;
  - Method of measurement used in arriving at quantities is based on accepted norms and tenderers are required to make allowances for essential methods of working (such as in trench excavations)

88

The Bill of Quantities (Cont'd)

- Structure of the SoQ and terms utilized
  - Preamble (now 'Pricing Instructions') – sets out how the SoQ must be interpreted and how it must be completed
  - Essential components
    - Item number;
    - Payment reference – linked to specifications and payment clauses;
    - Short description – generally the same as contained in the specification (which contains full description of the work to be undertaken);
    - Quantity – includes the estimated quantities as taken off the drawings and in accordance with the specification;
    - Unit – m; m^2; m^3; No.; km; must correspond to the unit of measurement prescribed in the relevant payment clause;
    - Rate – the unit price offered by the tenderer to undertake the works as described in the relevant specification and providing for the requirements of the relevant payment clause;
    - Amount – the product of the quantity and the rate for each item. During tender evaluation if there are any errors in extension the rate is taken to be correct and the amount is adjusted accordingly;
    - Work items must identify any limitations relevant to measurement and payment such as ranges of depths for trench excavation;

89

The Bill of Quantities (Cont'd)

- Structure of the BoQ and terms utilized (cont'd)
  - Preliminary and General (P&G) items
    - Meant to cover the contractor's contractual obligations such as his establishment; insurances; supervision; etc;
    - Structured as 'Fixed Costs' and 'Time-related Costs';
    - 'Time-related Costs' generally used to assess any payment due as a result of an extension of time;
  - 'Extra over'
    - Payment for additional effort and resultant additional cost incurred for items such as rock excavation (payment having initially been made for excavation in 'soft' material) or for excavation at increasing depths;

90

The Bill of Quantities (Cont'd)

- **Structure of the BoQ and terms utilized (cont'd)**

❑ Prime Cost Items and Provisional Sums

- Most building contracts include provision for prime cost items and provisional sums.

❑ A prime cost item is an allowance in the contract for the supply of necessary items not yet finally selected, for example taps or door furniture.

❑ A provisional sum is an allowance in the contract for the cost of foreseeable necessary work, including the supply of materials not fully described or detailed at the time that the contract commenced, for example joinery items or a service connection.

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The Bill of Quantities (Cont'd)

- **Structure of the BoQ and terms utilized (cont'd)**

❑ Prime Cost Items and Provisional Sums (Cont'd)

- Prime costs sums are also used for work by nominated sub-contractors, which has not been defined at the time of contract signature. Alternatively they might be used for large single items such as lifts, which will be decided by the tenant when one is found. Thus the cost is the cost plus whatever (percentage, overheads, attendance or whatever) is stated in the Contract.

- Provisional sums are those which will be paid following instructions from the Engineer and may be for work not totally defined at tender stage or to provide for unknown items such as locating underground services, where neither number, duration nor costs can be defined at contract signature. Thus the cost is the cost plus whatever (percentage, overheads, attendance or whatever) is stated in the Contract.

92

The Bill of Quantities (Cont'd)

- Structure of the BoQ and terms utilized (cont'd)
  - Daywork
    - The method of valuing work on the basis of time spent by workmen, the materials used and the equipment employed;
  - 'Rate only'
    - Rates requested at the time of tender for specific items, but not extended to the amount column. 'Rate only' items should always have a quantity indicated where this possible. Beware of 'Rate only' items where no quantity is specified.
  - Issuing the SoQ as a Computer file
    - Acceptable to assist tenderers in preparing tenders;
    - Not desirable to accept computer file as the tender SoQ;

93

BILLS OF QUANTITIES – SOME MEASUREMENT PRINCIPLES.

CESMM3 - Civil Engineering **Standard Method of Measurement** Southern African Edition. Edition: 3. Year Published: 2011. Author: ICE Publisher: ICE

94

OK Guys!
Hold still and we'll use my tail as the ranging rod!

95

96

The Tendering Process

- Tendering is a formal process by which competing bids for a particular contract are invited, received and evaluated, whereupon the contract is awarded to the tenderer who has submitted the most advantageous bid.
- Think of John Glenn in his space capsule!! ('Friendship 7' – 1962)!!
- The CIDB regulations now control the tender procedures relating to tenders invited in the public sector
- The private sector is self-regulating with regard to tender procedures and is not bound to follow the CIDB regulations
- Tender Document
  - Is an invitation to submit an offer. The Employer has absolute discretion at common law to decide who should be awarded the contract and does not need to accept the lowest or, in fact, any tender.

97

TENDER PERIOD

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The Tendering Process (Cont'd)

•Tender Advertisement published for open tenders; or alternatively

•A selected list of tenderers may be invited based on the Employer's knowledge of their capabilities; or alternatively

•A process of prequalification may be followed requiring interested tenderers to submit details such as:

- Company details; experience and past performance with references; personnel and equipment and availability for the intended contract; financial status; present commitments; broad plan of execution of the works.

•Tender period should be determined to suit the nature and magnitude of the proposed works. Tenderers have a considerable amount of input to formulate and must be given adequate time to assess their risks and costs

99

The Tendering Process (Cont'd)

- The open tender process – procedures
  - Tender Documents should be issued to tenderers responding to the advertisement and the issue recorded together with details of the company, address, contact details etc;
  - Record the receipt of any deposit or non-refundable fee paid for the documents;
  - Conditions of Tender (Tender Data) should clearly indicate the date of the proposed inspection of the Site and whether or not it will be compulsory for tenderers to attend; the date and time by which tenders are to be received by the Employer must be clearly stated together with details of the form of tender required (e.g. no faxed tenders) and the documents forming the tender itself;

100

The Tendering Process (Cont'd)

- The open tender process – procedures (Cont'd)
  - The Engineer must organize and conduct the Site inspection and ensure that all information that may be relevant is made available; he must also record the proceedings of any formal meeting together with any questions raised and the answers provided;
  - 'Clarifications' – may be issued during the tender period clarifying certain matters that may have been raised during the tender period but such clarifications will not modify the tender documents ;
  - 'Addenda' may be issued if required, modifying the tender documents in any way. Adequate time must be allowed after the issuing of the final Addendum to enable tenderers to take the factors in the Addendum into account and to finalize their tenders;

101

The Tendering Process (Cont'd)

- The open tender process – procedures (cont'd)
  - Tenders must be received by the date and time specified and the receipt recorded;
  - Late tenders must be returned unopened;
  - Tenders should be opened and details recorded by a panel selected for the task; if a public opening the tenderers' names and tender prices should be announced.

102

Tender Evaluation & Award

- The Evaluation of Tenders comprises:
  - Examination;
  - Evaluation; and
  - Post-qualifications.

Tender Evaluation & Award (Cont'd)

- Examination entails following the procedures detailed in the conditions of tender to confirm that tenders are:
  - Complete and properly signed;
  - Responsive to the invitation to tender and without deviation from the instructions;
  - Arithmetically correct (with corrections being applied in accordance with the Conditions of Tender);
  - Tenders that are deemed to be 'substantially responsive' are considered in the subsequent detailed evaluation process.
  - To be 'substantially responsive' a tender must conform to all the terms conditions and specifications in the Tender Documents without material deviation or reservation.

104

Tender Evaluation & Award (Cont'd)

- The Evaluation of Tenders entails the objective determination of the preferred bidder based on the lowest evaluated cost (not necessarily the lowest submitted price) and must take into account:
  - Time of completion of construction or delivery;
  - Operating costs (as may be appropriate) and efficiency;
  - Availability of service and spare parts (as may be appropriate);
  - Reliability of construction or production methods proposed;
  - Compliance with preferential procurement requirements (as may be appropriate);

105

Tender Evaluation & Award (Cont'd)

- Other important areas to be examined include:
  - Covering letters
  - Other enclosures
  - Forms completed
  - Signatures consistent
  - Alterations by tenderer; any amendments
  - Any qualifications; alternatives [if permitted]
  - Addenda acknowledged and taken account of
- Arithmetic checking:
  - Extensions
  - Sub-totals
  - Section totals
  - Carried forward
  - Summary

106

Tender Evaluation & Award (Cont'd)

- Detailed comparative analysis of the financial aspects of the tenders including:
  - Correcting errors in accordance with the procedures described in the conditions of tender;
  - Analysis of sensitivity of tendered rates to significant changes in the scheduled quantities;
  - Unbalanced rates;
  - Anomalous rates;
  - Missing rates;

107

Tender Evaluation & Award (Cont'd)

- Has tenderer understood the specification
- Has he made a fatal error
- Has he noticed a loophole (which could lead to claims)
- Assess P&G items as a percentage of the total tender sum
- Assess impact of time related items with respect to extensions of time
- What is the tenderer's financial standing
- Resources (personnel and equipment) available
- Method statements
- Proposed sub-contractors
- Time for completion

108

Tender Evaluation & Award (Cont'd)

- **Qualifications to Tender**
  - **Analyse with care, assess additional risk that may be introduced and financial implications;**
  - **Always check the wording of any documents included in the tender (such as tenderer's own commercial conditions or those included in any support documents from proposed sub-contractors or suppliers) for potential conflict with the tender documents.**
  - **Look out for statements limiting liability, maintaining ownership of goods until fully paid for, arbitration clauses contrary to the requirements of the Conditions of Contract, etc.**

109

Tender Evaluation & Award (Cont'd)

- **Tender Evaluation Report**
  - **Report factually and professionally;**
  - **Remember that report will be scrutinized by others;**
  - **Clearly identify any analyses undertaken and any conclusions drawn;**
  - **Be prepared to answer criticism and to stand by the professional judgements applied.**

110

Tender Evaluation & Award (Cont'd)

- **Tender Evaluation Report**
  - **Make a definite recommendation. This should be along the lines of:**

"…it is recommended that Tenderer A be awarded the contract, subject to the following points being satisfied (provide a list of points for potential negotiation). Should negotiation with Tenderer A be unsuccessful then it is recommended that Tenderer B be invited to negotiate the following points in his tender (provide a list of points for potential negotiation) and, if the negotiation is successful Tenderer B should be awarded the contract."

111

Tender Evaluation & Award (Cont'd)

- **Post-award activities**
  - **Letter of Acceptance – together with the tender forms a binding contract until formal agreement signed. Remember – Letter of Intent is not a Letter of Acceptance!!**
  - **Issue instruction to commence combined with the request for insurances, programme, etc.;**
  - **Notify unsuccessful tenderers.**

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Tender Evaluation & Award
Tenders Submitted
Employer's Evaluation
Preferred Bidder Identified
Negotiations
Letter Of Acceptance Issued
Sureties Provided
Agreement Signed
Contract Prepared
Notice to Commence

Review to Date

- Discussion from the floor
  - The general principles of contract documentation and contract administration [and the CIDB Standard for Uniformity]
    - **Potential problems?**
    - **Areas of conflict?**
    - **Complementary?**
    - **The way forward.**
  - Publications available relating to contract law and specific forms of contract.

115

Contract Administration

- **Comments prepared largely from the perspective of a Consulting Engineer;**
- **Contract administration entails the application of:**
  - **Sound planning principles;**
  - **Good site organization;**
  - **Tight controls;**
  - **Good record keeping;**
  - **Sound knowledge of the contract documentation;**
  - **Interpersonal skills;**
  - **An understanding of the aims of the project.**

116

Contract Administration (Cont'd)

- The Engineer (The Employer's Agent)
  - Must be professional;
  - Must observe his obligations governed by the agreement between the Engineer and the Employer;
  - Must exercise reasonable care and skill in design and when supervising the work;
  - When acting as the agent for the Employer the Engineer is liable for damages resulting from negligence or lack of skill;
  - Must act impartially between the Employer and the Contractor;
  - Must ensure that his staff adopt a similar attitude;
  - Must not allow an 'us and them' attitude to develop;
  - Must strive to create a cooperative relationship between the Engineer's site staff and that of the Contractor.

117

Contract Administration (Cont'd)

- The Resident Engineer (the 'Engineer's Representative'):
  - Must be suitably experienced;
  - Must be professional;
  - Must have management skills;
  - Must have a sound working knowledge of the Conditions of Contract and the Specifications;
  - Must avoid 'seat of the pants' administration;
  - Must have good interpersonal skills;
  - Must be prepared to act timeously within the bounds of the authority and duties delegated to him by the Engineer.

118

The Minefield Areas

- Poor documentation
  - Badly drafted 'Contract Data', 'Special' or 'Particular' Conditions and/or Specification (inadequate or with ambiguities)
- Poor supervision
  - 'Seat of the pants' contract management
  - Engineer acting to protect poor documentation
- Outside interference
  - A demanding and/or interfering Employer
- A combination of the above

119

The 3 Most Important Things on Site

- Records!
- Records!!
- Records!!!

120

The Fourth Most Important Thing on Site

- More records!!!!

121

Contract Administration (Cont'd)

- Site Administration Procedures to be established to cover:
  - Site requests and instructions;
  - Drawings issued and further information;
  - Prime Cost and Provisional Sum expenditure;
  - Monthly measurement and certificates;
  - Variation orders and claims;
  - Notification of unforeseen conditions;
  - Contract insurance matters;
  - Dayworks instructions and returns;
  - Labour, equipment and accident returns;
  - Materials on site;
  - Certificates on completion;
  - Compliance with Employer's procedures.

123

Contract Administration (Cont'd)

- Site Controls to be established to cover:
  - Approval of programmes and method statements (FIDIC differs from GCC 2015);
  - Daily record of construction;
  - Approval of materials including sources;
  - Stage by stage checking procedures and records – survey setting out; compaction tests etc.;
  - Testing and approval of materials and workmanship;
  - Monitoring of progress and delays;
  - Quality assurance;
  - Health and safety requirements;
  - Updated cost estimates to completion;
  - Record drawings (prepare these as work progresses – do not leave until the end of the contract – can become very costly)

124

Contract Administration (Cont'd)

Site communications

- Clear and unambiguous communication essential;
- All instructions, notifications, issues of information etc. to be in writing;
- All correspondence to be channeled through the RE;
- Verbal instructions to be confirmed in writing;
- Instructions issued to the Contractor to be commensurate with the applicable delegated authority (note that under GCC 2015 the Engineer cannot delegate powers to the RE to authorize variations or additional expenditure);
- Proformas for Site Requests, Site Instructions, Dayworks Orders, Drawing Issues, Requests for Inspections, Approval of Work, Materials Test Results to be developed and utilized;
- Schedules of regular meetings to be agreed and circulated to interested parties

125

Contract Administration (Cont'd)

- Measurement
  - Form of Monthly Statement to be agreed with the Contractor by the Resident Engineer. This reflects the amount that the Contractor considers to be due to him and is not necessarily the amount that the Resident Engineer will forward to the Engineer for certification;

  - Establish procedures for the preparation of the monthly measurement together with procedures for the recording of any disagreements;

126

Contract Administration (Cont'd)

- Measurement and Payment
  - GCC 2015 – Clause 6.10.4
  - RE to be aware of the time constraints relating to certification by the Engineer (within 7 days after receipt of the Contractor's Statement) and payment by the Employer (within 28 days after receipt of the Engineer's Payment Certificate).
  - FIDIC 2 – Clause14.6 and 14.7(b)
  - Engineer to issue his certificate to the Employer within 28 days after receiving the Contractor's Statement;
  - Employer to make payment of amount in Engineer's certificate within 56 days after Engineer receives the Contractor's Statement.

127

Contract Administration (Cont'd)

- Question
  - Which is the most critical document in the certification and payment process?
  - Answers from the floor required.

128

Contract Administration (Cont'd)

- THE CONTRACTOR'S STATEMENT
- THIS STARTS 'THE CLOCK TICKING'

129

Contract Administration (Cont'd)

- Typical scenarios that may arise:
  - The Engineer fails to deliver his certification to the Employer within the time required and the Employer exercises his time allocation from the date of receipt of the Engineer's certificate and pays the Contractor later than the Contractor may have expected in terms of the Contract;
  - The Employer fails to make payment to the Contractor within the time specified in the Contract, even though the Engineer's certificate was delivered in the time required;
  - For other reasons, possibly resulting from the Employer's internal administrative (or bureaucratic) processes, the Employer fails to make payment to the Contractor within the time specified even though the Engineer's certificate was delivered on time.

130

Contract Administration (Cont'd)

- Measurement and Payment
  - Note that the late payment by the Employer of the amount due to the Contractor as certified by the Engineer will entitle the Contractor to interest on the late payment at the rate prescribed in the Contract. This is an ENTITLEMENT, and the Contractor does not need to register a claim for the interest – the Employer is bound by Clause 6.10.6.2 in GCC 2015 and by Clause 14.8 in FIDIC 2.
  - Note that interest rate in GCC 2015 & FIDIC 1 the interest is compounded monthly and,
  - unless otherwise stated in the Contract, the interest in GCC 2015 is charged at the prime overdraft rate at the Contractor's bank,
  - whereas FIDIC 2 is charged at an annual rate of 3% above the discount rate of the central bank in the country of the currency of payment.

Public Finance Management Act, 1999

- Definitions Clause 1

  "fruitless and wasteful expenditure"
  expenditure which was made in vain and would have been avoided had reasonable care been exercised.

- Clause 38(1) f – Accounting Officer responsibilities

  Accounting officer must settle all contractual obligations and pay all money owing.....within the prescribed period.

Contract Administration (Cont'd)

- Claims and Variations
  - Procedures for the notification of claims are set out in the Conditions of Contract (GCC 2015– Clause 10.1; FIDIC 2– Clause 20.1, 20.2);
  - These clauses provide for claims to be time-barred if the Contractor does not comply with the requirement to give notice within 28 days of becoming aware of the event or circumstances giving rise to the potential claim;
  - In some cases claims for additional payment may result in a Variation Order being issued – covering a change in the scope of work - rather than being treated as a contractual claim;

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Contract Administration (Cont'd)

- Claims and Variations
  - Resident Engineer to be aware of the events on site that may give rise to requests for additional time and/or payment;
  - Note that in GCC 2015 Clause 5.12.3 stipulates that if an extension of time is granted the Contractor shall be paid such additional time-related costs as are appropriate;
  - In FIDIC 2 the payment of time-related costs is not mentioned and it is left to the Engineer to determine what additional payment the Contractor may be entitled to – FIDIC 2 does not entitle the Contractor to additional payment if the extension of time is for 'Exceptionally Adverse Climatic Conditions' – it entitles him to time only.
  - *(remember the comments about 'seat of the pants' administration).*

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GENERAL CONDITIONS OF CONTRACT 2015

- GCC 2010 was an ideal document for dealing with civil, mechanical, electrical and building projects or a combination of various types of projects.
- Amendments now accommodate wider use of GCC 2015 for projects other than purely civil engineering construction.

GENERAL CONDITIONS OF CONTRACT 2015

Main Objectives of GCC 2015:

- Set out fair, equitable, efficient, economic and transparent contract administration procedures, and the allocation of risks
- Make GCC 2105 compliant with all of the CIDB requirements for a form of contract.
- Develop GCC 2015 comprehensively so that special conditions of contract for variations and additions to the contract conditions are kept to a minimum and the intended use of the conditions is kept unchanged.
- In GCC 2015, project specific data is accommodated in the Contract Data.

GENERAL CONDITIONS OF CONTRACT 2015

- GCC 2015 does not require a change in culture for management and administration of the contract, nor new process training.
- GCC 2015 is suitable for the full range of complexity of projects.
- Risk assignment is the same across the full range of complexity.
- The language in GCC 2015 is made plainer; e.g. “execute”, “execution”, and “executing”, are replaced by “carry out”, or “carrying out”.
- In GCC 2015 topics are more systematically sorted into chapters.
- GCC 2015 is not suitable for management contracts or construction management contracts.
- GCC 2015 is suitable for Employer’s Design as well as Design and Build contracts

GENERAL CONDITIONS OF CONTRACT 2015

Several important aspects, inter alia, are included as follows:

- The Contractor's time risk allowances must be indicated on the Programme of Works.
- The Contractor is permitted to suspend the works for non-payment on payment certificate.
- A Variable Performance Guarantee is allowed.
- It allows for the selection of inflation indices that are appropriate to the type of Works to be done.
- Disruptions by strikes and electricity outages are now included in the excepted risks, which makes such events Employer's risks and allow the Contractor to Claim for the consequences.

GENERAL CONDITIONS OF CONTRACT 2015

CHANGES IN TERMINOLOGY:

Management of the Contract is the responsibility of:

- The Contractor's CONSTRUCTION MANAGER (CM - previously "Site Agent.") Clause 4.12.2
- The EMPLOYER'S AGENT (EA - previously "Engineer.") Cl. 1.1.1.16
- The CM is authorised to receive, on behalf of the Contractor, all communications from the EA, and submits notifications, RFI's and claims to the EA on behalf of the Contractor. Cl. 4.12.3
- The EA's function is to administer the Contract as the Agent of the Employer according to the provisions in the Contract. Cl. 3.2.1
- GCC 2015 gives substantial authority to the EA. However the EA must consult with the Employer and Contractor before ruling on any matter. Cl. 3.2.2
- Provision is made for a knowledgeable Employer to restrict certain actions of the EA to requiring the Employer's prior approval. Cl. 3.2.3

NEW CLAUSES IN GCC 2015

- New Clause 3.1.1 Qualifications of the Employer's Agent
  - *The EA shall be a professionally registered natural person with experience and qualifications appropriate to the type of construction in the Scope of Work.*
- New Clause 4.4.2 The Contractor must obtain written approval of the EA for any Subcontractor he wishes to use:
  - *Except where otherwise provided in the Contract, the Contractor shall not subcontract any part of the Contract without the prior written consent of the EA, which consent shall not be unreasonably be withheld.*
- New Clauses 5.11.1, 5.11.1.1 and 5.11.1.2 – Provide for the Contractor to suspend the Works if the EA has failed to deliver a payment certificate, or if the Employer fails to make full payment of the certified amount:
  - *The Contractor may, after giving fourteen (14) days written notice to the Employer, with a copy to the EA (with specific reference to this Clause) suspend the progress of the Works where the EA or the Employer has failed in terms of Clause 6.10.4 to:*
  - *Deliver a payment certificate, or*
  - *Make a full payment of the amount certified in the payment certificate without prejudice to the Contractor's other rights under this Contract or by law.*

NEW CLAUSES IN GCC 2015

- New Clause 5.11.5 provides for recommencement of the suspended Works within 7 days after receipt of payment, or if not paid within 84 days. He may treat the Contract as being repudiated:
  - *If the progress of the Works is suspended in terms of Clause 5.11.1 and full payment is received of the amount certified in the payment certificate, the Contractor shall proceed with the Works within seven days of receiving such full payment.*
  - *If such payment is not received within 84 days following the Employer's receipt of the written notice of suspension, the Contractor may treat the non=payment as a repudiation of the Contract, in which case Clause 9.3 shall apply.*

NEW CLAUSES IN GCC 2015

- **New Clause 5.14.1 Issuing of the Completion Certificate**
  - ~~*Save as otherwise provided in the Contract,*~~ *The Contractor shall be entitled to receive a Certificate of Practical Completion when the Works have been completed to the requirements for achieving Practical Completion as set out in the Contract Data.*
  - *When the Works are about to reach the said stage, the Contractor shall, in writing, request a Certificate of Practical Completion and the EA shall within 14 days after receiving such request, issue to the Contractor a written list setting out the work to be completed to justify Practical Completion. Should the EA not issue such a list within the 14 days, Practical Completion shall be taken as achieved on the Due Completion Date; or, if a penalty is imposed in terms of Clause 5.13, on expiry of the 14 days.*
  - *If the Contractor does not request a Certificate of Practical Completion if the Works reach Practical Completion before the Due Completion Date, Practical Completion shall be considered achieved on the Due Completion Date.*
  - *FIGURE 5, p 81 Man. Guide*

NEW CLAUSES IN GCC 2015

- **New Clause 5.14.1 Aspects to be highlighted**
  - The requirements for achieving Practical Completion MUST BE set out in the Contract Data – I.E. WRITTEN INTO THE TENDER DOCUMENT
    - E.g. in a roads contract the requirement for PC: the completion of the road surface, drainage, fencing, road signs and markings, and structures;
    - Finishing of slopes, hydro seeding, borrow pits rehabilitation may follow.
    - HOWEVER, in MAINTENANCE Contracts, ALL of the scope of work should be complete.
  - The Contractor 's REQUEST for a Certificate of Practical Completion MUST BE IN WRITING,
  - The EA has 14 days after receiving such request, to issue to the Contractor a written list setting out the work to be completed to justify Practical Completion.
  - If the EA does not issue a list within the 14 days, PC shall be taken as achieved on the Due Completion Date; and, if a penalty is imposed in terms of Clause 5.13, it stops on expiry of the 14 days.
  - Following after this, a CERTIFICATE of COMPLETION and a FINAL APPROVAL Certificate will be required as the work is done and inspected by the EA and approved.

NEW CLAUSES IN GCC 2015

- **New Clause 6.2.2 Employer's right to terminate in terms of Cl 9.2:**
  - ***Cl 6.2.2: If the Contractor fails to select the security provided, or if the Contractor fails to provide the selected security within the time period stated in Clause 5.3.2, or if the performance guarantee shall differ substantially form the pro forma, it shall legally be deemed that the Contractor has selected a security of ten per cent retention of the value of the Works without limiting the Employer's right to terminate the Contract in terms of Cause 9.2***
  - **The courts see the provision of a security as a fundamental term of the Contract. Failure to provide it can lead to termination.**
  - **Instead of terminating the Contract for failure to select or provide the security, 10% retention of the value of the Works is a remedy.**
  - **The CIDB Standard of Uniformity requires that guarantees should not differ substantially from the pro formae given in the documents.**
  - **If the view is that the retention of 10% risks impeding the Contractor financially, the Employer has the right to terminate the Contract.**

NEW CLAUSES IN GCC 2015

- **New Clause 6.2.2 Employer's right to terminate in terms of Cl 9.2:**
  - ***9.2.1.3.2*** *(Contractor)* ***Has failed, in terms of Clause 5.3.2, to submit documentation in time, or to submit acceptable documentation;***
  - ***… then the Employer may, after giving fourteen (14) days written notice to the Contractor, (with specific reference to this Clause) to remedy the default, terminate the Contract and order the Contractor to vacate the Site and hand it over to the Employer. The Employer may then enter the Site and the Works and expel the Contractor therefrom without thereby affecting the rights and powers conferred in the Employer's or the EA by the Contract…..***

NEW CLAUSES IN GCC 2015

- New Clause 6.2.2 Employer's right to terminate in terms of Cl 9.2:
- Clause 9.2.1.3.3 gives the Employer the right to terminate the Contract if the Contractor fails to commence or suspends the Works
  - *Has failed to commence the Works in terms of Clause5.3 hereof, or has suspended the progress of he Works (other than in terms of Clause 5.11.1) for fourteen (14) consecutive days after receiving from the EA written notice to proceed;*
- - With TWO EXCEPTIONS – Clause 5.11.1.1 and 5.11.1.2:
  - *Where the EA or the Employer has failed in terms of Clause 6.10.4 to*
    - *Deliver a payment certificate. Or*
    - *Make a full payment of the amount certified*

GENERAL CONDITIONS OF CONTRACT FOR CONSTRUCTION WORKS

CHANGES TO CLAUSES IN GCC 2015

- New addition to Clause 6.3.1.2 The EA may omit part of the scope of work provided it is not given to be done by someone else
  - *Omit such work, provided it is not to be carried out by someone else.*
- Figure 6 Variations
- Clause 7.2.1 has been reworded to avoid ambiguity and now reads:

All plant to be supplied shall be manufactured, all workmanship shall be carried out and all materials shall be of the respective kinds specified in the Contract and shall comply with the requirements in the Scope of Work and in the Employer's Agent's instructions. Failing requirements or instructions , the Plant, workmanship and materials of the respective kinds shall be suitable for the purpose intended.

This implies a reasonable standard consistent with the standard of similar work – poor workmanship, unsuitable materials or defects in the work are unacceptable.

CHANGES TO CLAUSES GCC 2015

- **EXCEPTED RISKS Clause 8.3**

EXCEPTED RISKS, or "EXCUSED RISKS" are the Employer's risks for anything in connection with loss or damage to the Works, Plant or materials on Site caused by:

- **External influences such as war, invasion, etc.**
- **Internal influences like insurrection, mutiny, strikes, riots, etc.**
- **Natural events like famine, meteorites, pressure waves, ionising, etc.**
- ***Note that events like floods, earthquakes, landslides, wind, lightning and negligence by third parties are not included because such risks are insurable.***
- ***Use of the Works by the Employer or his designs, specifications and instructions.***

- **Clause 8.6.1.4 Ground lateral support removal – Contractor to insure-**

CHANGES TO CLAUSES GCC 2015

- **EXCEPTED RISKS Clause 8.3**
- ***Clause 8.3.1.1 War, invasion, act of foreign enemies, hostilities or warlike operations (whether war is declared or not) ~~or civil war~~ or imposition of economic sanctions between governments, or*** **(Red words added)**
- ***Clause 8.3.1.2 Insurrection, rebellion, revolution, acts of terrorism or civil war,*** **Red words added in GCC 2015**
- ***Clause 8.3.1.4 Strike, riot, commotion, disorder, violent demonstrations, sabotage, or any form of civil disturbance (whether lawful or not) which is not attributed to any action or inaction of the employees of the Contractor or his Subcontractors.*** **This clause wholly replaces the SASRIA clause in GCC 2010.**
- ***Clause 8.3.1.5 The confiscation, commandeering, nationalisation, requisition or destruction of or damage to property by an order of government, or any public or local authority.*** **Added in GCC 2015**

CHANGES TO CLAUSES GCC 2015

- EXCEPTED RISKS Clause 8.3
- *Clause 8.3.1.6 Disconnection of electricity supply not covered by the agreement with the supply authority.* Added in GCC 2015
- *Clause 8.3.1.7 Epidemic famine or plague.* Added in GCC 2015
- *Clause 8.3.2 If, in carrying out the Works, any of the excepted risks, other than pertaining to the damage or physical loss referred to in Clause 8.2.2.2, causes the Contractor to suffer delay to Practical Completion and/or brings about proven additional costs, the Contractor shall be entitled to make a claim in accordance with Clause 10.1* Added in GCC 2015
- *Clause 8.6.1.4 If ground support insurance is stipulated in the Contract Data, or the Contractor's design or method of construction for carrying out the works…*

CHANGES CLAUSES IN GCC 2015

The Employer has the right to TERMINATE the Contract in the following circumstances:

Clause 9.2.1.3.2 If the Contractor fails to submit Documentation

- *Has failed, in terms of Clause 5.3.2, to submit documentation in time, or to submit acceptable documentation*

The Contractor has the right to TERMINATE the Contract in the following circumstances and changes in wording have been made in GCC 2015:

- Clause 9.3.1.1 wording *" Persists in.. Repudiating the Contract." has* changed to Cl 9.3.1.1 in GCC 2015: *"Has repudiated the Contract."*
- Clause 9.3.1.1.2 wording "*Failing to pay the Contractor…" has* changed to Clause 9.3.1.2 in GCC 2015: *"Has failed to pay the Contractor…"*
- Clause 9.3.1.1.3 wording *"Interfering with or obstructing the issue of any certificate, for 14 days after receipt of written notice …" has* changed to Clause 9.3.1.3 in GCC 2015: *"as interfered with or obstructed the issue of any certificate…"* and the 14 days notice has been omitted.

CHANGES CLAUSES IN GCC 2015

The Contractor has the right to TERMINATE the Contract, contd.

- Other minor changes have been made where:
  - Clause 9.3.1.4 changed from Cl 9.3.1.2 in GCC 2010
  - Clause 9.3.1.5 changed from Cl 9.3.1.3 in GCC 2010
- Clause 9.3.1 ends with new section added:
  - *The Contractor may, after giving fourteen (14) days written notice to the Employer (with specific reference to this Clause) to remedy the default, terminate the Contract.*
- Other minor changes have been made as follows:
- Clause 10.1.2 changed reference to 1.1.1.14 from 5.5.1 in GCC 2010
- Clause 10.1.5 changed reference to 3.2.2 from 3.1.2 in GCC 2010

Engineer/Contractor Relationship – Defense Mode or Opportunity?

- The word "Contractor" is too often misconstrued in terms of the ability of the contracting organisation
- The Contractor is also a Professional – quite often more experienced in the particular construction works than the Consultant's staff
- Consultant's supervisory staff must realise this and not be intimidated into hiding behind barriers built out of Specifications and Conditions of Contract
- Develop a professional relationship on site and above all take the opportunity to learn from those more experienced than you
- Listen and learn
- This develops mutual respect
- Avoid the "Us" and "Them" situation (unless you are really good at determining a Contractor's claims)

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Commencement of the Contract

Procedural Matters to be Attended to (for GCC 2015):

- Employer issues signed Form of Offer and Acceptance;
- Commencement Date – the date that the Agreement, made in terms of the Form of Offer and Acceptance, comes into effect (Clause 1.1.1.5)
- Tenderer arranges for delivery of bonds, guarantees, proof of insurances within the period(s) stated in the Contract Data after receiving completed copy of the Agreement;
- Ensure that statutory requirements of the OHS Act have been complied with, and the Safety File is approved.
- Contractor to commence the Works upon receipt of Engineer's instruction to do so (Clause 5.3.1)

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Commencement of the Contract

- Procedural Matters to be Attended To (for GCC 2010/15):
  - Employer's Agent nominates the 'EA's Representative' and confirms his powers and authority (Clause 3.2);
  - Employer, upon EA's instruction to Contractor to commence the Works, gives the Contractor the right of access to the Site;
  - Contractor delivers programme to the EA as a requirement under Clauses 5.6.1 and 5.6.3; EA's approval of programme to be given within 7 days or reasons for requiring amendment. If no action by the EA programme deemed to be approved;
  - Contractor's authorised agent or representative to be approved of in writing by the EA

(Clause 4.2.12)

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Model Letters (Chapter 16)

- Essential to use language and phraseology in letters that match the language of the Contract;
- Quote relevant clauses from the Conditions of Contract and the Specification as appropriate;
- Be aware of time constraints in the Contract relating to claims and payments;
- Be prepared to clarify and resolve any ambiguities;
- Ensure that letters are adequately and correctly referenced.

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Model Letters

Employer's Agent's initial letter to Contractor on Commencement of Contract

To Contractor

Acting on the authority of the Employer, confirmed in his letter dated 25 March 2015, you will be granted the right of access to the Site with the Employer's instruction to commence the Works pursuant to Clause 5.4.1.

Pursuant to Clause 6.2.1 you are required to deliver to the Employer's Agent, as part of the documentation required before commencement of the Works, your Performance Guarantee (as identified in the Contract Data).

Pursuant to Clause 3.2.1 you are hereby notified that the Employer's Agent's Representative shall be Mr. Joe Bloggs.

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Model Letters

To Contractor (Cont'd)

Further notification shall be sent to you in due course confirming the nature and extent of the authority delegated to Mr. Bloggs pursuant to Clause 3.2.4.

You are required in terms of Clause 5.6.1 to deliver to the Employer's Agent, prior to the commencement of the Works, for his approval, your programme of work.

The Engineer

Model Letters

To Contractor: Notice of the Delegated Authority of the Engineer's Representative

We hereby inform you that Mr. Joe Bloggs, acting as the Employer's Agent's Representative, is given delegated authority to act *[generally in respect of the Contract]* specifically in respect of the undernoted particular clauses of the Conditions of Contract:

1. Clause 4.2 – Work to be to Employer's Agent's Instructions
2. Clause ??
3. Clause ??

This delegated authority is given pursuant to Clause 3.2.4 of the Conditions of Contract.

The Engineer

Procedural Matters to be Attended To:
– Completion date, extensions of time and penalties;
– First inspection to identify outstanding works;
– Inspection for Practical Completion [Not a concept in FIDIC I];
– Issue of Certificate of Practical Completion – GCC 2015 Clause 5.14.1
– Works deemed to be completed and clock stops running as far as penalties are concerned (Clause 5.13.1);
– Completion of outstanding works listed in the Certificate of Practical Completion;
– Issue of the Certificate of Completion – Employer takes over the Site; Defects Liability Period commences; Surety is released; Insurance cover ceases; first 50% of Retention Money is released;
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• Procedural Matters to be Attended To:
– Final measurement;
– Agreement of Variations;
– Agreement or otherwise on claims;
– Final inspections;
– Issue of Final Approval Certificate on expiration of the Defects Liability Period;
– Issue of Final Payment certificate;
– Resolution of disputes – arbitration/litigation;
– Final Account and release of the final portion of Retention Money.
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Slide 165

CT1 Edit from this slide onward

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Cooksey, Tony, 2016/08/01

Function of the Engineer

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Function of the Engineer

- **To administer the Contract as Agent of the Employer**
- **[GCC 2015 Cl. 3.2.1].**
- **Many clauses in the Conditions of Contract dealing with the Engineer's responsibilities during the following stages:**
  - **On acceptance of the Tender;**
  - **At commencement of the Works;**
  - **During the course of construction;**
  - **On completion of the works;**
  - **Before and following the Expiry of the Defects Liability Period.**
- **[*Refer to previous GCC 2004 pages 61 and 62 where 92 sub-clauses are listed in which the Engineer's functions and duties are outlined]*;**

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Some Practical Aspects of the Engineer's Function (Chapter 14)

- Client (Employer) liaison
  - Attending to Site visits and inspections by the Employer's personnel;
  - Regular and accurate reporting of the technical and financial aspects of the Contract through monthly and quarterly reports;
- Appointment of Site Staff

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Some Practical Aspects of the Employer's Agent's Function

- Briefing of the EA's Representative (RE)
  - Extent of delegated authority to be confirmed to the RE and to the Contractor;
  - Needs for the RE to liaise with the design office with regard to any design changes or design related queries;
  - Agree measurement and payment procedures to be applied;
  - Provide adequate background information relating to design philosophy and pre-award negotiations;
- Contract Administration throughout the entire Contract period, as described in detail in the course notes;

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Some Practical Aspects of the Engineer's Function (Cont'd)

- Site Inspections at least once a month and attendance at monthly Site Meetings;
- General administration of the Engineer's business and cost Control of the Engineer's budget relative to the fee earned and payable to the Consultant;
- Duties as required on completion of the Contract and finalisation of all documentation to be prepared by the Contractor and the Engineer for presentation to the Employer – Record drawings; Contract records to be retained by the Employer; Operating and Maintenance Manuals; Final Contract Report summarising the salient points of the project and commenting on the performance of the Contractor.

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Site Meeting Minutes

- Minutes of Site Meetings – agenda or ammunition?
  - An essential component of sound contract administration;
  - Minutes must record the agreed proceedings;
  - Should be properly and formally written up;
  - Should be quickly distributed;
  - Should be formally confirmed and signed (after agreed corrections).

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Site Meeting Attendees

The Employer
The Contractor
The Engineer
The Environmental Protection Officer
The Safety Agent

Other Stakeholders
Community Representatives
Service Authorities
Subcontractor(s)
Other Contractors
Others

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Site Meeting Minutes

Establish the following early in the Contract:

- Schedule of meetings;
- Attendees;
- Who will produce the minutes;
- Distribution list;
- Nature of reports to be available prior to the meeting;

- Standard headings for sections of the minutes:
  - Attendance;
  - Contract data;
  - Previous minutes;
  - Administrative matters;
  - Programme and progress;
  - Technical matters (including materials and workmanship);

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Site Meeting Minutes - Headings

- Health and safety;
- Environmental matters;
- Measurement, Certificates and Payments;
- Variations;
- Claims;
- Disputes;
- Information required by or from:
  - Employer;
  - Engineer;
  - Contractor;
- Authorities, Landowners and Public Organisations;

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Site Meeting Minutes

- Minutes may record details with respect to any claim, request, ruling, notice, decision or such like…..
- That record will not constitute a claim, request, ruling, notice, decision or such like in compliance with any provision of the Contract;
- All such matters must be dealt with by formal correspondence;

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Site Meeting Minutes

- Write minutes assuming they will be read by someone remote to the Contract in 12 months time or even later;
- Important to record for minute items:
  - What is the issue?
  - Why is the issue there?
  - WHAT has been resolved and WHERE does the ACTION lie?
  - CLOSE OUT the issue in subsequent minutes;
  - He who writes the minutes controls the day.
  - Signed Minutes – Are NOT contractual; provide evidential value only.

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Site Meeting Minutes

- Minutes reflect a 'snapshot' of the status of the Contract at a particular point in time;
- As such, even though a formally signed record, they cannot be considered as becoming a 'contractual document'. The facts reflected in the minutes may change significantly after the minutes have been prepared. The minutes are purely a record of events;
- Thus, whereas the minutes will have some EVIDENTIAL value when taken into consideration while reviewing claims, or in the event of dispute resolution procedures, they will NOT be taken as being CONTRACTUALLY BINDING upon the parties.

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WORKSHOP!

- Questions
  - What Conditions of Contract have generally been dealt with in detail in this course?
  - Which Conditions of Contract are not recommended for your type of work?
  - Name 4 key items to be addressed in the Conditions of Contract.
  - What does *'animus contrahendi'* mean?

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WORKSHOP (Cont'd)

- What is the difference between a 'natural' and a 'juristic' person?
- In a contract from when must performance by the Contractor be possible?
- Can one party to the Contract introduce an amendment?
- If not how is an amendment introduced?
- When does a civil engineering contract come into being?

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WORKSHOP (Cont'd)

- Who are the parties to a Civil Engineering contract?
- Is there a contract between the Contractor and the Engineer?
- What do we call a contract in which the parties have corresponding rights and obligations?
- List 4 of the contractual powers of the Employer and the Contractor under a civil engineering contract.

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WORKSHOP (Cont'd)

- List 3 'Employer's Risks and 3 'Contractor's Risks' as contained in the course notes.
- What are the significant documents produced by the CIDB regarding tender document structure?
- What does the 'contra proferentem' rule deal with?

182

Avoiding Disputes

- Some points from a symposium held by the American Society of Civil Engineers
- Better management techniques
  - Utilize appropriate management techniques
    - Relationships are enhanced
    - Costs are reduced
    - Quality is maintained
  - Reach agreement on objectives
  - Define roles
  - Maintain communication
  - Clear definition of responsibilities and authority
  - Avoid interference and delays

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Avoiding Disputes

- Better Contract Specifications
  - Undertake constructability review of documents before Tender (panel of experts)
    - Accurate description of existing conditions
    - Restrictions to access
    - Utility availability
    - Adequacy of space for contractor's work area
    - Adequate disposal areas, unless it is the contractor's option

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Avoiding Disputes

- Better Contract Specifications
  - Sequencing of work and relationship to other work
  - Availability of materials
  - Contract administration language
  - Quality assurance and quality control
  - Claims prevention – identify risks associated with inconsistencies in:
    - Specifications
    - Drawings

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Avoiding Disputes

Where Disagreement can give rise to Disputes

Disputes usually arise over:

- Lack of performance, e.g. late or non-delivery from the employer, consultants or contractors
- Imperfect Performance, e.g. unacceptable or partial completion
- Interpretation of expected of Contract due to ambiguity, vagueness, misrepresentation or mistake in the contract.
- Repudiation of the contract

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Where Disagreement can give rise to Disputes

Specification Deficiencies

- Conflict between Sections
- Conflict between Specifications and Drawings
- Complicated grammatical construction
- Information located in a hard to find or illogical portion of the document
- Lack of specific information
- Specifying unattainable results
- Ambiguous or unclear Specifications
- Superfluous information
- Inappropriate or overuse of codes of practice etc.

SARF

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There are traditional methods for resolving disputes which have been used for many centuries

Modern society demands we use more sophisticated methods

Modern society uses more conventional methods
for resolving disputes

Everybody has a right to use the courts (as long as they can afford it)

Courts are formal, expensive, time consuming and just a bit scary (even for lawyers)

So what are the alternatives to going to court?

Forms of Dispute Resolution

- Litigation
- Arbitration
- Adjudication
- Mediation
- Conciliation
- Amicable Settlement

SARF
better roads

Forms of Dispute Resolution

- Litigation - Court process, legal representation
- Arbitration - Short process or comprehensive process
- Adjudication - Short process, only documentary evidence
- Mediation or Conciliation Mediator proposes a solution based on parties' interests to find "middle ground"

Forms of Dispute Resolution Comparisons

- Litigation - Considered most expensive and longest
- Arbitration - Considered less expensive and faster
- Adjudication - Considered less expensive and faster
- Mediation - Considered less expensive and faster
- Amicable Settlement – Considered of similar cost and time

FEATURES OF ADR's

- Arbitration
- Adjudication
- Mediation

Comparison of the ADR procedures prescribed in the Contract Suites: GCC 2015

- Parties may at any time without prejudice to any other proceedings, agree to settle any dispute amicably with the help of an impartial third party, called the Neutral.
- Amicable settlement may include any procedure as agreed by the parties, (probably as recommended by the Neutral.)
- Guidelines for the Amicable Settlement Procedure are provided in the GCC 2015 Management Guide book.
- All disputes which fail to be amicably settled should be taken to arbitration or litigation, as provided for in the contract.

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Comparison of the ADR procedures prescribed in the Contract Suites: FIDIC

- Disputes are to be first referred to a Dispute Adjudication Board (single person or three person board) for settlement. If no notice of dissatisfaction is received it becomes final and binding.
- If dissatisfied, a party notifies the other and amicable settlement is attempted.
- If there is still no agreement, proceed to international arbitration by three arbitrators under ICC rules, unless otherwise agreed by the parties

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Discussion from the Floor

- Particular problems encountered?
- Provisions of the Contract on which the claim was founded or the action taken?
- Manner in which dealt with?
- Outcome?

197

Claims – Burden (or Onus) of Proof

- In contract law – a party who makes a claim must prove on a balance of probabilities his entitlement to the relief which he claims;
- 'Balance of probabilities' – a question of whether the claimant's version is more likely than not to be true. If the defending party's version is the more probable, or if there is no balance either way, the claimant will fail in his claim;
- To establish his entitlement, the claimant must first discharge the burden of proving that the terms of the contract are such that on the alleged facts his claim is justified;

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Claims – Burden (or Onus) of Proof (Cont'd)

- It is important that the contractor's claim is well presented with clear demonstration of the contractual and commercial validity of the claim.
- This is very often not the case and the Engineer is put into a position of either trying to 'interpret' the claim, or seeking further information from the contractor or rejecting the claim (and all of this with pressure being brought to bear by a demanding Employer or an anxious Contractor).

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Claims

- In preparing and examining claims it is essential to be concerned with what the contract documents say and what they provide for – not with what it is thought they should have said or what must have been intended;
- It is easy to read into a document what one expects to see or what one instinctively feels should be;
- Examine each and every sentence or phrase in a claim and ensure that, as far as is possible, the intended meaning of the sentence or phrase is understood. This will assist in preparing the appropriate response;
- Remember – IT'S ALL IN THE WORDS!!

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Claims - Origins

- Claims typically arise from the following:
  - Documentation
    - Form of contract (GCC; FIDIC; etc);
    - Qualified acceptance;
    - Letter of intent;
    - Contract/Policy (Contract must be construed upon the terms therein; an Employer's policy cannot of itself amend the contract – e.g. limitation of the Engineer's authority);
    - Errors, discrepancies and ambiguities;
    - Inadequate definition in the documents for the evaluation.

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Claims – Origins (Cont'd)

- Execution of the work
  - Contractor to satisfy himself during the tender preparation – sufficiency of tender;
  - Basic data provided and adverse (unforeseeable) physical conditions encountered;
  - To the satisfaction of the Engineer – largely dependent upon the degree of complexity of the works involved and related specifications;
  - Timeous delivery by the Engineer of drawings and instructions required for the construction of the Works;
  - Nominated sub-contracts;
  - Defects – real or perceived by the Engineer?

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Claims – Origins (Cont'd)

- Payment provisions
  - Valuation of contract work – disagreement over monthly measurement. Who does what? Who is right? Resolution of items on the 'variance schedule'
  - Valuation of variations
    - Change in the scope of works?
    - Applicable rates in the BoQ?
    - New rates required?
    - Works undertaken pending agreement on rates – paid how?
  - Set-off
    - Employer's claims against Contractor – sum due to Employer is deducted from sums otherwise due to the Contractor. Fair valuation?
  - Ownership of materials
    - Proof of ownership;
    - Understand the principles of 'materials on site' and the matter of legal ownership thereof.

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Claims – Origins (Cont'd)

- Concerning Time
  - Delays (general);
  - Delays arising out of errors in design;
  - Acceleration – at who's cost ('constructive acceleration');
  - Ask the question – does the clause in the Conditions of Contract for extension of time make provision for payment of any compensation (FIDIC – 'Exceptionally Adverse Climatic Conditions')?

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Claims – Procedural Matters

- Initial time period for the Contractor's notification of the intention to submit a claim – 28 days after the circumstances, event, act or omission has arisen or occurred;
- Identify particulars of the circumstances, event, act or omission giving rise to the claim;
- Quote the provisions of the Contract on which the claim is founded;
- Identify the EoT sought, if any claimed, and the basis of calculation thereof;
- Identify the amount of money, if any claimed, and the basis of calculation thereof;
- If compliance with the above not possible then the Engineer is to be notified and alternative due process to be followed thereafter.

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Claims – Evaluation

- Proposed content of document for Engineer's evaluation of a Contractor's claim.
  - Introduction – summary overview of the nature of the claim and what it seeks to achieve;
  - Background – chronological sequence of events as recorded by the Engineer;
  - Procedural requirements
    - Examination of the notice served by the Contractor (valid in terms of the Contract?);
    - Prescribed time limitations complied with?
  - Contractual basis of the claim – relevant clauses relied upon;
  - Contractual validity of the claim – principles correct?
  - Analysis of the claim – technical matters; extension of time;
  - Analysis of claim – time-related charges and direct costs;
  - Summary/Conclusions;
  - Engineer's decision or determination.

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Model Letters

To Engineer: Claim letter
25 July 2017

We refer to the snowfall that occurred across the site on 27 June 2017 and, pursuant to Clause 10.1 of the Conditions of Contract, submit herewith our claim for an extension of time for the completion of the Works together with our claim for payment of additional time-related General items.

The particulars of the circumstance giving rise to the claim are as follows: ??????????????????????????

Pursuant to Clause 5.12.2.2 we considerer the above circumstance to be abnormal climatic conditions for which we are entitled to an extension of time of 3 days, being 1 day for the day on which snow was experienced together with a further 2 days for the consequential effects thereof.

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Model Letters

To Engineer: Claim letter (Cont'd)

On the day of the snowfall no work at all was possible across the entire site. Full details of the consequential effects of the following 2 days are attached as Annexure 1.

In addition to the above we consider ourselves to be entitled to payment for additional time-related General items pursuant to Clause 5.12.3 of the Conditions of Contract. Our calculation of the cost of the appropriate time-related General items is attached as Annexure 2.

Luv and kisses

The Contractor
cc: The Employer

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Model Letters

To Contractor: Response to Claim letter **22 August 2017**

We refer to your letter dated 25 July 2017 incorporating your claim for an extension of the time for completion of the Works and for the payment of additional time-related General items resulting from the snowfall of 27 June 2017.

We confirm that, pursuant to Clause 3.2.2 of the Conditions of Contract, we have consulted with you and with the Employer in an attempt to reach agreement over this matter.

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Model Letters

To Contractor: Response to Claim letter (Cont'd)

Such agreement has not been reached and we therefore attach our ruling on the claim pursuant to Clause 10.1.5 of the Conditions of Contract.

Whereas the amount of R???? has been allowed for time-related General items, this amount shall be included to your credit on the next payment certificate.

Boos and hisses,

The Engineer
cc: The Employer

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Claims – Typical Case Studies

- Changes in legislation – Election Day 1 March 2006 – Clause 4.3.1 GCC 2015, Cl 6.8.4, GCC 2015.
- Extraordinary holiday 2 May 2008 resulting from Human Rights Day and Good Friday both falling on 21 March 2008;
- Clause 5.12.2.2, (GCC 2015) - Abnormal climatic conditions (FIDIC 2 Cl 8.5 (c) exceptionally adverse climatic conditions – judgment parameters?);
- Clause 5.4.1 GCC 2015; FIDIC 2 Clause 2.1 Delay in granting right of access to the site or areas of the site.

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Claims – Typical Case Studies

- Changes in design delaying manufacturing of pipe specials etc – GCC 2015 Clauses 5.9.2, 5.9.4, 5.9.6; FIDIC2 Clause 1.9
- Determination or agreement by the Parties to modify the Contract by Variation Order or Contract Instruction; Clause 6.3 GCC 2015, FIDIC Clause 13.3 for change in
  - Increase or decrease in quantities
  - Change in character or quality of work
  - Change in levels, lines, position or dimensions
  - Additional Work of any kind
  - Change the sequence of work
  - Omit work but not for others to complete

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Claims – Typical Case Studies

Hydro Holdings v Minister of Public Works 1972 (2) SA 78 (T)

The Court granted a contractor under a building contract an interdict restraining the owner (Employer) from allowing another contractor onto the building site to do work which was included in the original contract but which was later eliminated by a Variation Order.

Fairly straightforward when applied during the course of a contract.

But if work is omitted and given to another contractor after the completion of the original contract this may be a genuine change of intention by the Employer. Difficult questions regarding the onus of proof will arise in the event of a dispute under these circumstances.

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Claims – Typical Example

- WASTE TRANSFER STATION
- Contract for construction and installation of 2 new weighbridges at transfer station;
- Conditions of Contract – GCC 2004;
- Civil engineering drawings issued to Contractor at 'site handover meeting';
- During course of construction the Contractor noted that the new storm water system design required revision and requested updated drawings;
- Contractor has indicated that there will be a request for an EoT as work was delayed due to the Engineer's failure to provide the updated information timeously.

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Claims – Typical Example

- **WASTE TRANSFER STATION (Cont'd)**

- **NOTED THAT:**
- **The Contractor is under pressure due to a 2 week delay caused by his non-compliance with health and safety issues;**
- **It is likely that the Employer will look to the consultant for the recovery of any costs incurred as a result of the delay in the supply of information;**
- **The penalty for delay is R1500/day;**
- **Anticipated that the Contractor will probably be looking to claim 2 to 3 days EoT.**

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Claims – Typical Example

- **TRANSFER STATION (Cont'd)**

- ***QUESTIONS:***
- ***What is the time limit for the Contractor to submit his claim for an EoT for the late supply of information?***
- ***Is a statement by the Contractor at a site meeting that he is going to submit a claim good enough to enable him to 'make any time limits'?***
- ***What role does the programme play? Surely the Contractor would need to show that the supply of information was on his critical path?***
- ***The Contractor has been asked for his programme, but only an earlier one, which was quite unrealistic and which he was asked to correct, prevails, despite reminders.***

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Claims – Typical Example

- WASTE TRANSFER STATION (Cont'd)
- *What is the time limit for the Contractor to submit his claim for an EoT for the late supply of information?*
- *Is a statement by the Contractor at a site meeting that he is going to submit a claim good enough to enable him to 'make any time limits'?*
- Clause 5.12– EoT for the completion of the Works – Contractor required to follow the process in Clause 10.1 [Claims Procedure]
- Clause 10.1 prescribes 'Claims Procedure':
  - Clause 10.1.1.1 – *the Contractor shall, within 28 days after the circumstance, event, act or omission giving rise to the claim has arisen or occurred, deliver to the Employer's Agent a written claim referring to this Clause…..*
  - Clause 10.1.1.2 – *If, by reason of the nature and circumstances of the claim, the Contractor cannot reasonably comply with any or all of the provisions of Clause 10.1.1.1 within the said period of 28 days, he shall*
  - Clause 10.1.1.2.1 – *……notify the EA in writing of his intention to make a claim and comply with …..Clause 10.1.1.1 as he reasonably can.*
- Clause 10.1 & its sub-clauses deal with the delivery of notices for claims – not provided that any notice may be served as minutes of a Site Meeting.

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Claims – Typical Example

- WASTE TRANSFER STATION (Cont'd)
- *What role does the programme play? Surely the Contractor would need to show that the supply of information was on his critical path?*
- Clause 5.6 deals with the order in which the Works are to be carried out and the programme of construction. Approval by the Engineer of the programme shall not relieve the Contractor of his responsibilities under the Contract.
- No requirement for the Contractor to show that the supply of information was 'on his critical path'. That would imply that all drawing issues could affect the critical path. Contractor requires drawings to plan the Works and the appropriate resources and order materials to suit the proposed order in which the Works are to be carried out.
- Refer also to Clause 5.9 – Instructions and Drawings.

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Claims – General Discussion

- Queries from the floor
- Claims procedure flow chart (recommended for guidance)
- Figure 7: GCC 2015 Claims Flow Chart
- Addendum FIDIC Claims Timelines Protocol

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Case Study No. 1

- Project – Engineering services related to roads, drainage and sewerage for a new township
- Background – The consulting engineers were appointed by a public sector department to handle the design work and contract administration relating to the engineering services for a new township. At tender stage, the consultants recommended against the lowest tenderer (who was deemed to be unprofessional and incompetent, with a bad reputation for over-claiming) but he was nevertheless awarded the contract by the client body.

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Case Study No. 1 (Cont'd)

- During the construction stage, the consulting engineer reported unfavourably on the contractor's performance, and even recommended termination of the contract at one stage, but this advice was ignored by the client at that time. Subsequently, however, it became necessary to do this and the consultants also resigned from the project in frustration.
- Problem – When the project was continued with a new consultant and new contractor, it was found that the first contractor had been overpaid some R350 000 due to incorrect certification by the original consultant (which he blamed on the resident engineer appointed by him) and also that there were numerous shortcomings in the original design and construction work, relating to inadequate road works, storm water outlets and sewer outfalls, and these had to be corrected at considerable expense.

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Case Study No. 1 (Cont'd)

- The client sued the first consultant for approximately R1 500 000 on the grounds of his liability for over-certification, faulty design and incompetent supervision and contract administration. The Professional Indemnity Insurers recognised that there was a validity in the claim (although the consultant persisted in his views that the contractor was mainly responsible) and settled with the client body for R750 000.
- The attendant legal and technical costs were in addition about R250 000, of which the consultant contributed only R5 000 by way of his excess.

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Case Study No. 1 (Cont'd)

- Lessons to be learnt
- This case underlines the importance of thorough and, if necessary, additional contract supervision, particularly where the contractor is suspected of lack of competence or is known to be inclined to over-claim on interim certificates and extras.

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Case Study No. 1 (Cont'd)

- While inadequate designs can never be excused, over-certification of payment to a contractor can also cause many additional problems and cannot be blamed on the site staff when things go wrong. It is the consulting engineer who certifies payment to the contractor, it is his responsibility to ensure that the contract work has been properly done and measured and that payments to the contractor represent correctly the amount of work completed in accordance with the contract.

- Over-certification is a constant source of danger, especially with incompetent or financially unstable contractors.

[Excerpt from 'Collected Case Studies' 1997/1998 – GLENRAND MIB]

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Case Study No. 2

- Project – A 1.25 km long Medium Voltage (220 000 volts) power line supplying power to a township.

- Background – A consulting engineer was appointed by a rural municipality to upgrade the electrical infrastructure in an established township. The work included provision of a new medium voltage power line to supply power to the township, over a distance of approximately 1.25 km. The power line route followed an existing road to the township, which was flanked by a Telkom line on one side and a low voltage power line on the other. At design stage the new power line was positioned next to the low voltage line, but at construction stage was repositioned to be alongside the Telkom line. This proved to be too close, necessitating the relocation of the new power line to the opposite side of the road, at an extra cost of R390 000.

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Case Study No. 2

- Problem – The consulting engineer, in planning and designing the new power line, elected to position it alongside the existing low voltage power line, on the opposite side of the road from the Telkom line, and the tender documentation reflected this information. The construction of the new line in this position required safety precautions in proximity to the existing line. This is usually achieved by pushing the poles of the existing line over at a 45 degree angle using a small bulldozer to maintain adequate safety clearance while installing the new line. The installation would also require periodic shutdowns of the existing line, with consequent disruption and inconvenience to the township residents. When funds became available, a contract was let with a time period of 6 months, after which the funds would be withdrawn.

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Case Study No. 2

- At commencement of the contract the contractor suggested the new power line be repositioned to the other side of the road, i.e. alongside the Telkom line. This would avoid the need to push over the poles of the existing low voltage line, which were wooden and old and liable to break when pushed over. Moreover, the disruption and inconvenience to residents resulting from shutdowns would be averted, as well as risk of delays to the programme. The contractor undertook to liaise with Telkom to obtain their permission to install the new power line alongside the Telkom line, and duly advised that they (Telkom) had agreed to the arrangement. The consultant agreed to the change and repositioned the new power line.

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Case Study No. 2

- When the construction was complete Telkom approached the municipality, indicating the new power line was too close to the Telkom line and did not comply with the OHS Act. The consulting engineer endeavoured to get a relaxation of these requirements from Telkom, but was unsuccessful. The problem arose from interpretation of clearances between new works and existing conductors and poles, given in tables under provisions of the Act, being either 900mm or 3m respectively. It became evident that the engineer had not interpreted the tables correctly. Telkom furthermore indicated that a minimum clearance of 3m was required in terms of the Telecommunications Act and pointed out that no plans had been submitted to them for approval, neither had there been a formal application made for the arrangement to be approved, which would result in an agreement between Telkom and the municipality.

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Case Study No. 2

- There being no practical alternative, the new power line was repositioned back to the other side of the road. The consulting engineer obtained quotations and drew up a contract for the work to be done by another contractor. The work was done at a cost of R390 000 (excl. VAT) for which the consulting engineer was held liable.

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Case Study No. 2

- Lessons to be learnt
- It is common practice in agreements between consulting engineers and their clients that the consulting engineer shall undertake the necessary liaisons with relevant authorities and bodies who have the power of sanction, and this includes obtaining the required approvals of plans or proposals pertinent to the project, in terms of procedures laid down by the authority concerned. Failure to do so can expose the consulting engineer to risks which will be detrimental to the execution of the project. If these duties are not required of him, this should be stated in the agreement with his client.

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Case Study No. 2

- Notwithstanding acknowledgement by the consulting engineer of his obligations regarding authority approvals, it can be dangerous to delegate this to the contractor, for it does not absolve the consulting engineer of his obligations, nor his responsibility for any consequences that may arise from not complying fully with procedures laid down for planning approvals, or compliance with relevant regulations.

[Excerpt from 'Collected Case Studies' 2008/2009 – GLENRAND MIB]

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Thankyou for listening and participating!
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