

# CONSTRUCTION CONSULTANT



## AVAILABLE TRAINING COURSES

- **BASIC ROAD CONSTRUCTION PRINCIPLES**  
A 2-day course on sustainable road construction procedures, new technologies and materials
- **ESTIMATION, COSTING AND PRICING**  
A 2-day course for estimating quantities, costing a project and pricing as a contractor
- **ROADS, STORM WATER CONSTRUCTION AND MAINTENANCE**  
A 2-day course on practical road & storm water construction and maintenance
- **ROAD CONSTRUCTION MAINTENANCE AND REHABILITATION**  
A 3-day course covering all aspects of road construction, maintenance and rehabilitation
- **BASIC CONTRACT ADMINISTRATION**  
A 2-day course on the various aspects of the management of a government contract and the administrative procedures required
- **CONSTRUCTION CONTRACTS**  
A 2-day course for understanding and working with General Conditions of Contract (GCC 2010/ GCC2015/ FIDIC)
- **BASIC BUSINESS PRINCIPLES FOR SMMEs**  
A very basic 3-day course for the development of SMME contractors with emphasis on tenders, certificates, specifications, conditions of contract and quality assurance

### BENEFITS INCLUDE:

- Learn from a recognised expert with cross industry experience
- Comprehensive course documentation to use as reference manual
- Participation in an interactive, accelerated learning workshop
- Practical activities to ensure effective application in the workplace
- Understanding the terminology, processes and technologies
- Great refresher for experienced engineers
- An environment for networking and exchanging of ideas
- Certificate of attendance
- CPD accreditation



## ***EXPERT TRAINING SOLUTIONS***

[www.ConstructionConsultant.co.za](http://www.ConstructionConsultant.co.za) | [info@ConstructionConsultant.co.za](mailto:info@ConstructionConsultant.co.za)

# Basic Road Construction Principles

## Course Outline

### SESSION 1: Road Building Fundamentals

1. Role players in Civil Projects in South Africa
2. Preconditions for Road Building
3. Assessments and Valuation
4. Design Criteria
5. Tender Phase & Documentation
6. Contract Basics – from a cidb Best Practice Guide

### SESSION 2: Planning & Programming

1. Phases of a Contract & Administration
2. Establishment and P&G
3. Planning
4. Programming
5. Labour Employment
6. Duties of CE, PSC and CLO

### SESSION 3: New technology and Sustainability

1. What's new out there?
2. Latest materials
3. Latest methods
4. Building more sustainable
5. Sustainable ideas

### SESSION 4: Technical Aspects of Road Building

1. Terminology and Standard Units
2. Types of Materials
3. Basic Material Mechanics
4. Quality Assurance and Testing
5. Modern Technology
6. Effect of Weather on Roads

### SESSION 5: Survey in Construction

1. Basic Surveying Methods
2. Basic Setting Out and Levelling
3. Quantity Surveying
4. Soils Surveying
5. Equipment Used in Surveying

### SESSION 6: The Construction Process – Execution

1. Reading from Plans and Drawings
2. Visual Assessment
3. Clearing and Grubbing
4. Earthworks
5. Layer Works
6. Services
7. Confined Areas
8. Water Handling
9. Subsoil Drains

### SESSION 7: Surfacing of Roads

1. Types of Surfaces
2. Wearing Course
3. Surface Defects
4. Rehabilitation and Reconstruction
5. Pothole Repairs
6. Crack Sealing

### SESSION 8: Operation of Plant and Equipment

1. Small Plant and Tools
2. Earthmoving Equipment
3. Operators & Drivers
4. Safety Specifications

### SESSION 9: Road Furnishing and Ancillary works

1. Road Signs: Types, Specifications and Installation
2. Kerbing and Paving for Sidewalks
3. Minor Concrete Structures
4. Drainage
5. Erosion Protection

### SESSION 10: Finances and Economics

1. Pricing of Tenders and Quotations
2. Productivity and Profit
3. Site Costing

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T.C.D. Eloff  
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In-house options available



### WHO SHOULD ATTEND

- > CONTRACTORS
- > CONSULTING ENGINEERS
- > CLIENTS
- > JUNIOR TO SENIOR ENGINEERS
- > TECHNICIANS
- > TECHNOLOGISTS

### PARTICULARS

- > 2 DAY COURSE
- > 2 CPD POINTS
- > COURSES QUOTED AS PER CLIENT'S NEEDS
- > COURSE DATES TO BE BOOKED AND CONFIRMED THROUGH CONSTRUCTION CONSULTANT OFFICE



# Estimating, Costing and Pricing for Construction Projects



## WHO SHOULD ATTEND

- > CONTRACTORS
- > CONSULTING ENGINEERS
- > CLIENTS
- > JUNIOR TO SENIOR ENGINEERS
- > TECHNICIANS
- > TECHNOLOGISTS

## PARTICULARS

- > 2 DAY COURSE
- > 2 CPD POINTS
- > COURSE DATES TO BE BOOKED AND CONFIRMED THROUGH CONSTRUCTION CONSULTANT OFFICE

## Course Outline

### SESSION 1: Introduction

1. What - Defining estimate, cost and price
2. Why - Importance of estimating, costing and pricing
3. Where - Uses of estimating, costing and pricing
4. When - Competitive bidding in action
5. Definitions

### SESSION 2: Contextual Framework

1. Role-players (include activity)
2. Standards and uniformity
3. Procurement and tendering
4. Types and forms of contracts
5. Pricing and contracting strategies
6. Specifications and quality requirements
7. The programme
8. Available software

### SESSION 3: General Principles

1. Establishment and P&G
2. Securities and insurances
3. Escalation
4. Pricing data and standard units
5. Schedule of quantities (BOQ) (definitions activity)

### SESSION 4: Measurement

1. Field investigation
2. Units of measurement
3. Rules of measurement
4. Coding, numbering and the preparation of the SoQ (include activity)

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### SESSION 5: Quantity Estimating

1. Level of skills required
2. Types of estimating
3. Accuracy of the estimation
4. Resource requirement
5. Using the Schedule of Quantities
6. Dayworks
7. Common pitfalls
8. Practical estimation (include activity)

### SESSION 6: Client Costing

1. Change management
2. Accuracy of costing
3. Fixed and variable costs
4. Direct and indirect costs
5. Hidden costs and contingencies
6. Practical costing (include activity)

### Session 7: Tenderer Pricing

1. Site visits and Investigation
2. Keeping records and collecting information
3. Production determination
4. Profits and mark-up
5. Time calculation VS client requirement
6. Practical pricing (include activity)

### Session 8: Contract completion

1. Recording of information
2. Cash flow
3. S-Curves
4. Cost management

In-house options available



# Roads, Stormwater Construction and Maintenance

## Course Outline

### SESSION 1: Introduction to Roads

1. A brief history of road building
2. Preconditions for road building and maintenance
3. List of TRH, TMH and UTG documents
4. Glossary and abbreviations

### SESSION 2: Roads Fundamentals

1. Role players in civil projects in South Africa
2. Design process and considerations

### SESSION 3: Types of Plant and Equipment

1. Small plant and tools
2. Construction Equipment

### SESSION 4: Technical aspects of materials & roads

1. Terminology and standard units
2. Types of materials for construction and maintenance
3. Safety aspects of materials
4. Basic material mechanics
5. Quality assurance and testing
6. Effect of weather on roads

### SESSION 5: The construction process

1. Reading from plans and drawings
2. Visual assessment
3. Clearing and grubbing
4. Earthworks
5. Layer works
6. Services
7. Confined & restricted areas
8. Water handling

### SESSION 6: Road management

1. Asset management
2. The Laffer curve
3. PMS
4. Maintenance types

### SESSION 7: Surfacing of Roads

1. General
2. Surface seals
3. Other surface types
4. Reseal

### SESSION 8: Distress Identification and Repairs

1. Distress types
2. Cracks
3. Crack sealing
4. Potholes and patches
5. Deformation
6. Rigid defects
7. Surface enrichment treatments
8. Shoulder maintenance
9. Summary

### SESSION 10: Drainage & Maintenance of Storm water structures

1. Storm water Design
2. Storm water Maintenance
3. Hydraulic Structures
4. Erosion Protection
5. Subsoil Drains
6. Drainage Maintenance Summary

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In-house options available



### WHO SHOULD ATTEND

- > CONTRACTORS
- > SUB CONTRACTORS
- > CONSULTING ENGINEERS
- > CLIENTS
- > JUNIOR TO SENIOR ENGINEERS
- > TECHNICIANS
- > TECHNOLOGISTS

### PARTICULARS

- > 2 DAY COURSE (or 3 Days on request)
- > 2 CPD POINTS (or 3 CPD)
- > COURSES QUOTED AS PER CLIENT'S NEEDS
- > COURSE DATES TO BE BOOKED AND CONFIRMED THROUGH CONSTRUCTION CONSULTANT OFFICE



# Basic Contract Administration



## WHO SHOULD ATTEND

- > CONTRACTORS
- > CONSULTING ENGINEERS
- > CLIENTS
- > JUNIOR ENGINEERS
- > NEW COMERS TO THE INDUSTRY
- > TECHNICIANS
- > TECHNOLOGISTS

## PARTICULARS

- > 2 DAY COURSE
- > 2 CPD POINTS
- > COURSES QUOTED AS PER CLIENT'S NEEDS
- > COURSE DATES TO BE BOOKED AND CONFIRMED THROUGH CONSTRUCTION CONSULTANT OFFICE

## Course Outline

### SESSION 1: Introduction

1. Project Cycle
2. Administration and Filing
3. Terminology

### SESSION 2: Role Players

1. Role Players in Engineering
2. Client
3. Engineer / Consultant
4. Contractor
5. Project Manager
6. Subcontractor
7. Project Steering Committee
8. Community Liaison Officer
9. SAICE, CESA, CIDB

### SESSION 3: Procurement & Tendering

1. What is Tender and Procurement?
2. Procurement Process
3. Work Ethics
4. Tender Deviations
5. Tender Evaluation
6. Construction Contract
7. Procurement Documentation
8. Standard Specifications
9. Summary of Procurement
10. Reading from Plans and Drawings
11. Site Inspection

### SESSION 4: Specifications & Standards

1. Standards in Procurement
2. Standards in Forms of Contract
3. Selecting an Appropriate Form of Contract
4. Pricing and Contracting Strategies
5. Design Standards
6. Standard Specifications for Construction

### SESSION 5: Overview of GCC 2010/2015

1. GCC 2010
2. GCC 2015\
3. Or FIDIC

### SESSION 5: Quantity Estimating

1. Contract Commencement
2. Establishment and Preliminary & General (P&G)
3. Planning
4. Programming

5. Labour Employment
6. Local Resources
7. Community Participation
8. Plant
9. Guarantee and Insurance
10. Site Instructions
11. Monthly Payment Certificate
12. Variations Order
13. Delays
14. Contractor's Claims
15. Site Meetings and Minutes
16. Environmental Reports
17. Site Documents

### SESSION 6: Health, Safety & Security

1. Safety & Applicable Act
2. Policy & Procedures
3. Talking about Safety in the Workplace
4. Security
5. Control of Tools, Plant and Materials
6. Traffic Management
7. Accident and Incident Reporting
8. Environmental Impact

### Session 7: Quality Assurance

1. Quality Control
2. Material Performance
3. Laboratory Testing
4. Materials
5. Instruments
6. Quantity Survey Formulas

### Session 8: Completion of the Project

1. Practical Completion
2. Certificate of Completion
3. Late Completion
4. Defects Liability Period
5. Final Approval

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In-house options available



# Construction Contracts

The latest general condition of Contracts for Construction works from SAICE GCC 2015

CPD accredited: 2 CPD pts



## Course Outline

### SESSION 1: Relevant Procedures and Approaches

1. The Construction Contract
2. Standards and Uniformity
3. Standards in Forms of Contract
4. FIDIC
5. ECC: Engineering and Construction Contract
6. JBCC: Joint Building Contracts Committee
7. Selecting an appropriate Form of Contract
8. GCC as a Form of Contract
9. Key Role Players

### SESSION 2: Introduction to GCC 2015

1. Evolution of the GCC
2. Objectives of GCC 2015
3. Relevance of GCC 2015
4. Structure of GCC 2015
5. What's new?

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### SESSION 3: Understanding GCC 2015

- Clause 1: General
- Clause 2: Basis of Contract
- Clause 3: Employers Agent
- Clause 4: Contractor's General Obligations
- Clause 5: Time and related matters
- Clause 6: Payment and related matters
- Clause 7: Quality and related matters
- Clause 8: Risks and related matters
- Clause 9: Termination of contract
- Clause 10: Claims and disputes

### SESSION 4: Supplementary Documents, Summary & Close

In-house options available



### WHO SHOULD ATTEND

- > CONTRACTORS
- > PROJECT MANAGERS
- > CONSULTING ENGINEERS
- > CLIENTS
- > JUNIOR TO SENIOR ENGINEERS
- > LEGAL REPRESENTATIVES
- > GOVERNMENT OFFICIALS
- TECHNICIANS
- TECHNOLOGISTS

### PARTICULARS

- > 2 DAY COURSE
- > 2 CPD POINTS
- > COURSES QUOTED AS PER CLIENT'S NEEDS
- > COURSE DATES TO BE BOOKED AND CONFIRMED THROUGH CONSTRUCTION CONSULTANT OFFICE



# Basic Business Principles for SMMEs



## WHO SHOULD ATTEND

- SMME CONTRACTORS AND SUB- CONTRACTORS

## PARTICULARS

- 3 DAY COURSE
- COURSES QUOTED AS PER CLIENT'S NEEDS
- COURSE DATES TO BE BOOKED AND CONFIRMED THROUGH CONSTRUCTION CONSULTANT OFFICE
- ON-SITE TRAINING AVAILABLE

## Course Outline

### SESSION 1: Introduction to Construction

1. Fundamentals of the industry
2. Major role players in civil projects
3. Second level role players

### SESSION 2: Basic skills and Requirements

1. Business skills
2. Administration and filing
3. Business ethics
4. Standard units
5. Basic Mathematical Concepts
6. Reading from Plans and Drawings
7. Good Business practice checklist

### SESSION 3: Tendering and Procurement processes

1. The Procurement Process
2. Tender Document
3. Pricing of Tenders and Quotations

### SESSION 4: Basic Forms of Contract

1. The Construction Contract
2. Standards in forms of Contract
3. Overview of GCC/FIDIC

### SESSION 5: Contractual Requirements

1. Responsibilities, Risks and Requirements
2. Securities and Insurances
3. Resources Management

### SESSION 6: Programming and Time Management

1. Planning
2. Programming

### Session 7: Survey Concepts

1. Survey Concepts
2. Basic Setting Out and Levelling

### Session 8: Specifications

1. Standard Specifications for Construction
2. COLTO

### Session 9: Safety

1. Safety Procedures
2. Traffic Management
3. Accident and Incident Reporting

### Session 10: Contract Administration

1. Contract Administration
2. Establishment and Preliminary & General (P&G)
3. Labour Employment
4. Site Instructions
5. Site Meetings and Documents

### Session 11: Certificates and Finances

1. Monthly Payment Certificate
2. Variations Order
3. Productivity and Profit
4. Site Costing

### Session 12: Summary and Close

In-house options available



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# ABOUT YOUR FACILITATOR



Theuns Eloff graduated with a B.Ing Degree (Civil) from the Rand Afrikaans University (University of Johannesburg) and started his Engineering career at Raubex Construction as a Civil Contractor where he was involved in the construction, maintenance and rehabilitation of various National and Provincial roads. He then joined Patula Construction where he spent 9 years gaining experience in all fields of the business, working on major earthworks, dams, open canals, water reticulation, rehabilitation, construction and resurfacing, projects across the country.

He resigned as Contracts Director and Shareholder in the company to start Construction Consultant in 2007. The main purpose of Construction Consultant is to help develop the SMME bracket of the industry and facilitate quality work in the Civil Engineering sector. He has since been involved as Projects/Contracts Manager for a number of clients, both governmental and private.

Theuns has been utilised by organisations such as SAICE, Candidate Academy, EHI and ABC etc. as presenter and facilitator for various courses throughout Southern Africa. Since 2009, Theuns has presented more than 400 courses to more than 7000 delegates

## CIVIL ENGINEERING CONSTRUCTION CONSULTANT

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## EXPERT TRAINING SOLUTIONS

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