



KOUGA MUNICIPALITY

ST FRANCIS BAY GROUNDWATER DEVELOPMENT OF THREE BOREHOLES

CONTRACT NO: 110/2024

MAY 2024

SERVICE PROVIDER		
TELEPHONE / FACSIMILE		
CLOSING DATE	18 June 2024	

ISSUED BY:

Kouga Local Municipality

Physical Address:
33 Da Gama Road
Jeffreys Bay

Postal Address:
P O Box 21
Jeffrey Bay
6330

PREPARED BY:

Zutari (Pty) Ltd

Physical Address:
Lion Roars Office Park
Corner Heugh Rd/3rd Ave, Walmer, Gqeberha

Postal Address:
P O Box 5328
Walmer
6065

KOUGA LOCAL MUNICIPALITY

BID No.: 110/2024

ST FRANCIS BAY GROUNDWATER DEVELOPMENT OF THREE BOREHOLES

GENERAL TENDER INFORMATION

TENDERS INVITED : 17 May 2024

ESTIMATED CIDB CONTRACTOR GRADING : 5CE or higher

CLARIFICATION MEETING : A compulsory virtual clarification meeting to be held on
28 May 2024 at 10h00

VENUE FOR SITE VISIT/CLARIFICATION MEETING : Virtual on-line clarification meeting

CLOSING DATE : 18 June 2024

CLOSING TIME : 12:00:00 PM / 12h00

CLOSING VENUE : Tender Box at the Municipal Office, Room 112
16 Woltemade Street (front) / 21 St. Croix Street (back),
Jeffreys Bay

VALIDITY PERIOD OF TENDER : 90 days

TENDER BOX : The Tender Documents (which includes the Form of Offer and Acceptance) completed in all respects, plus any additional supporting documentation required, must be submitted in a sealed envelope with the name and address of the tenderer, the tender No. and title and the closing date indicated on the envelope. The sealed envelope must be inserted into the appropriate official tender box before closing time. The onus remains with the tenderer to ensure that the tender is placed in the correct tender box.

KOUGA LOCAL MUNICIPALITY

BID No.: 110/2024

ST FRANCIS BAY GROUNDWATER DEVELOPMENT OF THREE BOREHOLES

PARTICULARS OF BIDDER	
Name of Bidder	
Contact Person:	
Postal Address	
Street Address	
Telephone Number	Code: Number:
Cell phone Number	
Facsimile Number	Code: Number:
E-Mail Address	
CSD Supplier Number (National Treasury)	
CIDB CRS Number	
Vat Registration Number	

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TENDER

PART 1 (OF 2): TENDERING PROCEDURES

T1.1 Tender Notice and Invitation to Tender

T1.2 Tender Data

T1.1: TENDER NOTICE AND INVITATION TO TENDER



KOUGA LOCAL MUNICIPALITY (EC108)
DIRECTORATE: WATER AND CIVIL SERVICES
NOTICE NO: 110/2024

ST FRANCIS BAY GROUNDWATER DEVELOPMENT OF THREE BOREHOLES

Suitably qualified, capable, and experienced Contractors are hereby invited to submit tenders for the drilling and equipping of three production boreholes in St Francis Bay and construction of the required reticulation infrastructure. The contract is based on the General Conditions of Contract for Construction Works, 3rd Edition, 2015.

Tenders

An electronic copy of the tender document will be available on E-Tender portal www.etender.gov.za or the municipal website www.kouga.gov.za as from Friday, 17 May 2024. After downloading the tender document from the website each prospective bidder, **MUST** email their contact details to tenders@kouga.gov.za and copied to infrastructuretenders@kouga.gov.za.

A **compulsory virtual clarification session** will be arranged for **Tuesday, 28 May 2024 @ 10:00am**. Prospective bidders can use the very same link below which is direct from this advert, it will link them directly to the meeting.

The link will also be available on the municipal website.

Join Zoom Meeting

<https://kouga-gov-za.zoom.us/j/94915106355?pwd=bGhIL0gzd1VNVExxYXRaRnJRGK2piUT09>

Meeting ID: 949 1510 6355

Passcode: 245332

Please note:

- Telegraphic, telephonic, telex, facsimile, email or late tenders will not be accepted.
- This contract will be evaluated on the 80 (price)
- The specific goals would be for a maximum point of 20 points. To claim for specific goals prospective bidders **MUST** submit proof/required documents.
- **An electronic copy of the completed tender document with returnable documents must be submitted with tender submission saved in a flash drive or CD. Failure to submit AN ORIGINAL HARD COPY AND A COPY ON EITHER USB or CD will deem the bid non-responsive.**
- **An estimated contractor CIDB Grading of 5CE or higher is required.**
- **A minimum functional assessment score of 70% will apply to this contract.**
- A Tax compliance Status pin to be submitted.
- Prospective Service Providers must register on Kouga Municipality's Supplier database as per the registration requirements.
- The National Treasury Central Supplier Database Summary report must be submitted.
- The Council reserves the right to accept any tender and, or part thereof, appoint more than one contractor, and does not bind itself to accept the lowest or any tender. The Council reserves the right to appoint any contractor.
- The validity period for submission must be 90 days from the closing date.
- Tenders that are deposited in the incorrect box or delivered to any other venue will not be considered.

Enquiries relating to this tender must be submitted in writing via e-mail to tenders@kouga.gov.za and copied to jdutoit@kouga.gov.za.

Completed documents in a sealed envelope endorsed: "**NOTICE NO: 110/2024: ST FRANCIS BAY GROUNDWATER DEVELOPMENT OF THREE BOREHOLES**" must be placed in the Tender Box 21 St Croix Street (back entrance) or 16 Woltemade Street (front entrance), Jeffrey's Bay, Room 122 on or before **TUESDAY, 18 JUNE 2024 at 12:00**.

C. DU PLESSIS
MUNICIPAL MANAGER

P.O. Box 21
JEFFREYS BAY
6330

For Placement: The Herald – 17 May 2024
Municipal Website/ Municipal Notice Boards in all offices/areas – 17 May 2024

PART A
INVITATION TO BID

YOU ARE HEREBY INVITED TO BID FOR REQUIREMENTS OF THE (NAME OF MUNICIPALITY/ MUNICIPAL ENTITY)					
BID NUMBER:	110/2024	CLOSING DATE:	18 June 2024	CLOSING TIME:	12h00
DESCRIPTION	ST FRANCIS BAY GROUNDWATER DEVELOPMENT OF THREE BOREHOLES				
THE SUCCESSFUL BIDDER WILL BE REQUIRED TO FILL IN AND SIGN A WRITTEN CONTRACT FORM (MBD7).					

BID RESPONSE DOCUMENTS MAY BE DEPOSITED IN THE BID
BOX SITUATED AT

KOUGA LOCAL MUNICIPALITY, 16 WOLTEMADE STREET, JEFFREYS BAY					
SUPPLIER INFORMATION					
NAME OF BIDDER					
POSTAL ADDRESS					
STREET ADDRESS					
TELEPHONE NUMBER	CODE		NUMBER		
CELLPHONE NUMBER					
FACSIMILE NUMBER	CODE		NUMBER		
E-MAIL ADDRESS					
VAT REGISTRATION NUMBER					
TAX COMPLIANCE STATUS	TCS PIN:		OR	CSD No:	
B-BBEE STATUS LEVEL VERIFICATION CERTIFICATE [TICK APPLICABLE BOX]	☐ Yes ☐ No		B-BBEE STATUS LEVEL SWORN AFFIDAVIT	☐ Yes ☐ No	
[A B-BBEE STATUS LEVEL VERIFICATION CERTIFICATE/ SWORN AFFIDAVIT (FOR EMES & QSEs) MUST BE SUBMITTED IN ORDER TO QUALIFY FOR PREFERENCE POINTS FOR B-BBEE]					
1. ARE YOU THE ACCREDITED REPRESENTATIVE IN SOUTH AFRICA FOR THE GOODS /SERVICES /WORKS OFFERED?	☐ Yes ☐ No [IF YES ENCLOSE PROOF]		2. ARE YOU A FOREIGN BASED SUPPLIER FOR THE GOODS /SERVICES /WORKS OFFERED?	☐ Yes ☐ No [IF YES, ANSWER PART B:3]	
3. TOTAL NUMBER OF ITEMS OFFERED			4. TOTAL BID PRICE	R	
5. SIGNATURE OF BIDDER			6. DATE		
7. CAPACITY UNDER WHICH THIS BID IS SIGNED					
BIDDING PROCEDURE ENQUIRIES MAY BE DIRECTED TO:			TECHNICAL INFORMATION MAY BE DIRECTED TO:		
DEPARTMENT	Supply Chain Management		CONTACT PERSON	Mr Jacques du Toit	
CONTACT PERSON			TELEPHONE NUMBER	042-200-2200	
TELEPHONE NUMBER	042-200-2200		FACSIMILE NUMBER	n/a	
FACSIMILE NUMBER			E-MAIL ADDRESS	infrastructuretenders@kouga.gov.za	
E-MAIL ADDRESS	tenders@kouga.gov.za				

T1.2: TENDER DATA

The conditions of tender are the Standard Conditions of Tender as contained in the CIDB Standard for Uniformity in Engineering and Construction Works Contracts as published in Board Notice 423 of 2019 of 08 August 2019 (see www.cidb.org.za).

The Standard Conditions of Tender make several references to the Tender Data for details that apply specifically to this tender. The Tender Data shall have precedence in the interpretation of any ambiguity or inconsistency between it and the Standard Conditions of Tender.

“Bid” should read “tender”, and vice versa, throughout the document – implying both words have the same meaning.

Each item of data given below is cross-referenced to the clause in the Standard Conditions of Tender to which it mainly applies.

Clause Number	Tender Data
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C.1	General
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C.1.1	Actions
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The Employer is **KOUGA LOCAL MUNICIPALITY**.

C.1.2	Tender Documents
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Add the following:

The following documents form part of this tender:

VOLUME 2: The General Conditions of Contract for Construction Works (Third Edition) 2015 as published by the South African Institution of Civil Engineering. This publication is available, and tenderers must obtain copies at their own cost from the South African Institution of Civil Engineering (SAICE), Private Bag X200, Halfway House 1685, Tel: (011) 805 5947, Fax: (011) 805 5971, e-mail: civilinfo@saice.org.za.

VOLUME 3: The SANS Standard Specifications for Civil Engineering Construction prepared by Standards South Africa (SANS 1200). These publications are obtainable, and tenderers must obtain copies at their own cost from Standards South Africa, Private Bag X191, PRETORIA, 0001.

Volumes 2 and 3 may also be inspected, by appointment, at the offices of the Employer during normal office hours.

The Tender Documents issued by the Employer comprise:

VOLUME 1: The Tender Document (this document), in which are bound:

THE TENDER

Part T1: Tendering Procedures

T1.1 Tender Notice and Invitation to Tender

T1.2 Tender Data

Part T2: Returnable documents

T2.1 List of Returnable Documents

T2.2 Returnable Schedules

THE CONTRACT

Part C1: Agreements and Contract Data

C1.1 Form of Offer and Acceptance

C1.2 Contract Data

C1.3 Form of Performance Guarantee

C1.4 Occupational Health and Safety Agreement

C1.5 Protection of the Environmental Declaration

Part C2: Pricing data

C2.1 Pricing Instructions

C2.2 Bill of Quantities

Part C3: Scope of Work

C3.1 Description of the Works

C3.2 Engineering

C3.3 Procurement

C3.4 Construction

C3.5 Management

C3.6 Health and Safety Specifications

C3.7 Annexures

Part C4 : Site Information

C4.1 General Site Information

VOLUME 4: The following Tender drawings issued with this tender:

Book of Drawings – will be issued in PDF Format by a weblink (Mimecast), before the Tender Clarification Meeting, to all Tenderers who have pre-booked the Bid Document.

C.1.3 Interpretation

C.1.3.1 *Delete the clause and replace with the following:*

These conditions of tender, the tender data and tender schedules which are required for tender evaluation purposes, shall form part of any contract arising from the invitation to tender.

C.1.4 Communication

Delete the first sentence of the clause and replace with the following:

Verbal or any other form of communication, from the Employer, its employees, agents, or advisors during site visits/clarification meetings or at any other time prior to the award of the Contract, will not be regarded as binding on the Employer, unless communicated by the Employer in writing to suppliers by its director: Supply Chain Management or his nominee.

The Employer's Agent, for the purposes of any communication between the Employer and Tenderer is:

Name	:	Zutari (Pty) Ltd
Represented By	:	Johan van der Mescht
Address	:	Lion Roars Office Park, Cnr Heugh Rd/3 rd Ave, Walmer, Gqeberha
Telephone	:	084 581 9964

C.1.5 Cancellation and Re-Invitation of Tenders

Delete the full stop at the end of C.1.5.1 c) and replace with, or

Add the following after C.1.5.1 c):

d) there is a material irregularity in the tender process.

Competitive negotiation procedure

Add the following to C.1.6.2.1:

A competitive negotiation procedure will not be followed.

C.1.6.3 Proposal procedure using the two-stage system

Add the following between C.1.6.3 and C.1.6.3.1:

A two-stage system will not be followed.

Add the following after C.1.6.3.2.2

C.1.6.4 Objections, complaints, queries, and disputes/ Appeals in terms of Section 62 of the Systems Act/ Access to court

C.1.6.4.1 Disputes, objections, complaints, and queries

In terms of Regulations 49 and 50 of the Local Government: Municipal Finance Management Act, 56 of 2003 – Municipal Supply Chain Management Regulations (Board Notice 868 of 2005):

- a) Persons aggrieved by decisions or actions taken by the Kouga Local Municipality in the implementation of its supply chain management system, may lodge within fourteen (14) days of the decision or action, a written objection or complaint or query or dispute against the decision or action.

C.1.6.4.2 Appeals

- a) In terms of Section 62 of the Local Government: Municipal Systems Act, 32 of 2000 a person whose rights are affected by a decision taken by the Municipality, may appeal against that decision by giving written notice of the appeal and reasons to the Municipal Manager within 21 days of the date of the notification of the decision.
- b) An appeal must contain the following:
 - i) Must be in writing
 - ii) It must set out the reasons for the appeal
 - iii) It must state in which way the Appellant's rights were affected by the decision.
 - iv) It must state the remedy sought; and
 - v) It must be accompanied with a copy of the notification advising the person of the decision

C.1.6.4.3 Right to approach the courts and rights in terms of Promotion of Administrative Justice Act, 3 of 2000 and Promotion of Access to Information Act, 2 of 2000

The sub- clauses above do not influence any affected person's rights to approach the High Court at any time or its rights in terms of the Promotion of Administrative Justice Act and Promotion of Access to Information Act.

C.1.6.4.4 All requests referring to sub clauses F.1.6.4.1 and F.1.6.4.2 must be submitted in writing to:

The Municipal Manager, Kouga Local Municipality, PO Box 21, Jeffreys Bay, 6330.

C.1.6.4.5 All requests referring to clause C.1.6.4.2 3 regarding access to information or reasons must be submitted in writing to:

The Municipal Manager, Kouga Local Municipality, PO Box 21, Jeffreys Bay, 6330.

C.1.7 Kouga Local Municipality Supplier Database Registration

Tenderers are required to be registered on the Kouga Local Municipality's Supplier Database as a service provider. Tenderers must register as such upon being requested to do so in writing and within the period contained in such a request, failing which no orders can be raised or payments processed from the resulting contract. In the case of Joint Venture partnerships this requirement will apply individually to each party of the Joint Venture.

Tenderers who wish to register on the Kouga Local Municipality's Supplier Database may collect registration forms from the Supplier Management Unit located within the Supplier Management / Registration Office, 16 Woltemade Road, Jeffreys Bay.

C.1.8 National Treasury Web Based Central Supplier Database (CSD) Registration

Tenderers are required to be registered on the National Treasury Web Based Central Supplier Database (CSD) as a service provider. Tenderers must register as such upon being requested to do so in writing and within the period contained in such a request, failing which no orders can be raised or payments processed from the resulting contract. In the case of Joint Venture partnerships this requirement will apply individually to each party of the Joint Venture.

Tenderers who wish to register on the National Treasury Web Based Central Supplier Database (CSD) may do so via the web address <https://secure.csd.gov.za>.

It is each tenderer's responsibility to keep all the information on the National Treasury Web Based Central Supplier Database (CSD) updated.

C.2 Tenderer's obligations

C.2.1 Eligibility

*Delete the heading **Eligibility** and Replace with **Responsiveness Criteria***

C.2.1.1 *Delete the clause and replace with the following:*

Tenderers must submit a tender offer that complies in all aspects to the conditions as detailed in this document. Only those tenders that comply in all aspects with the tender conditions, specifications, pricing instructions and contract conditions will be declared responsive.

Add the following after C.2.1.2:

C.2.1.2 Only those tender submissions from which it can be established that a clear and unambiguous offer has been made to Employer, by whom the offer has been made and what the offer constitutes, will be declared responsive.

C.2.1.3 Only those tenders that satisfy the following criteria will be declared responsive:

C.2.1.3.1 **Construction Industry Development Board (CIDB) Registration**

Only those tenders submitted by tenderers who are registered, or capable of being registered, with an active status with the CIDB, in a contractor grading designation equal to or higher than a contractor grading designation determined in accordance with the sum tendered, or a value determined in accordance with Regulation 25 (1B) or 25 (7A) of the Construction Industry Development Regulations, for a SB class of construction work, will be declared responsive. Tenderers must obtain such active status upon being requested to do so in writing and within the period contained in such a request, failing which their tenders will be declared non-responsive.

Joint Ventures are eligible to submit tenders provided that:

- a) every member of the joint venture is registered with an active status with the CIDB.
- b) the lead partner has a contractor grading designation of not lower than one level below the required grading designation in the SB class of construction work: and
- c) the combined contractor grading designation calculated in accordance with the Construction Industry Development Regulations is equal to or higher than a contractor grading designation determined in accordance with the sum tendered for a 7SB class of construction work or a value determined in accordance with Regulation 25 (1B) or 25 (7A) of the Construction Industry Development Regulations.
- d) The CIDB grading is extended to Potentially Emerging (PE) Contractors one grade lower ie 6SB PE in the tender value range in terms of Regulation 25.(8).

For alpha-numeric associated with the contractor Grading Designations see Annex G attached.

C.2.1.4.2 **Compliance with requirements of Kouga Local Municipality's SCM Policy and procedures**

Only those tenders that are compliant with the requirements below will be declared responsive:

- a) Full name of entity submitting tender to be provided.
- b) Identification number or company or other registration number to be provided.
- c) Tax reference number to be provided.
- d) VAT registration number to be provided.
- e) A completed **Certificate of Authority for Partnerships/ Joint Ventures/ Consortiums** to be provided authorising the tender to be made and the signatory to sign the tender on the partnership /joint venture/consortium's behalf (applicable schedule to be completed).
- f) A copy of the partnership / joint venture / consortium agreement to be provided.
- g) A completed **Declaration of Interest – State Employees** to be provided and which does not indicate any non-compliance with the legal requirements relating to state employees (applicable schedule to be completed).
- h) A completed **Declaration – Conflict of Interest** and **Declaration of Bidder's past Supply Chain Management Practices** to be provided and which does not indicate any conflict or past practises that renders the tender non-responsive (applicable schedules to be completed).
- i) A completed **Certificate of Independent Bid Determination** to be provided and which does not indicate any non-compliance with the requirements of the schedule (applicable schedule to be completed).
- j) The tenderer (including any of its directors or members), has not been restricted in terms of abuse of the Supply Chain Management Policy.
- k) The tenderer's tax matters with SARS are in order.
- l) The tenderer is not an advisor or consultant contracted with the Employer.

- m) The tenderer is not a person, advisor, corporate entity, or a director of such corporate entity, involved with the bid specification committee.

C.2.1.4.3 Minimum score for functionality compliance

In order to be considered for a contract in terms of this tender, tenderers must achieve the minimum score for functionality as stated below. Verifiable proof of similar Scope of Work contracts successfully completed (i.e. Letter of Appointment and Completion Certificate), must be submitted in the applicable Returnable Schedule.

The description of the functionality criteria and the maximum possible score for each is shown in the table below. The score achieved for functionality will be the sum of the scores achieved, in the evaluation process, for the individual criteria.

CRITERIA	APPLICATION OF THE CRITERIA	WEIGHT
Company Experience Schedule 1H	Demonstrated experience of the tendering entity with respect to <u>comparable projects</u> by completing each row in the Returnable Schedule of work experience in full. 4 x completed projects > R5m 3 x completed projects > R5m 2 x completed projects > R5m 1 x completed projects > R5m	(Max 40 points) 40 points 30 points 20 points 10 points
Key Personnel Schedule P-1	Contracts Manager Built / Civil Environment Qualification: B Eng / BSc / B Tech National Diploma No Qualification (s) or CV attached Relevant Experience: 10+ years 6 – 10 years 3 – 5 years 0 - 2 years	(Max 10 points) 3 points 2 points 0 points 7 points 6 points 3 points 0 points
Key Personnel Schedule P-2	Construction Manager (Site Agent) Built / Civil Environment Qualification: B Eng / BSc / B Tech National Diploma No Qualification (s) or CV attached Relevant Experience: 10+ years 6 – 10 years 3 – 5 years 0 - 2 years	(Max 10 points) 3 points 2 points 0 points 7 points 6 points 2 points 0 points
Key Personnel Schedule P-3	General Foreman Relevant Experience: 10+ years 6 – 10 years 3 – 5 years 0 - 2 years	(Max 10 points) 10 points 8 points 5 points 0 points
Key Personnel Schedule P-4	OH&S Agent (SACPCMP Registered – Proof required) Relevant Experience: 10+ years 6 – 10 years 3 – 5 years 1 - 2 years	(Max 10 points) 5 points 4 points 3 points 1 point
Maximum possible score for Functionality		80 POINTS

The minimum score for functionality is **70%**. Tenderers that fail to achieve the minimum score for functionality will be declared as non-Responsive.

Where the entity tendering is a Joint Venture, the tender must be accompanied by a statement describing exactly what aspects of the work will be undertaken by each party to the joint venture (appended to Schedule 10, Part T2.2: Returnable Schedules).

Where the tenderer intends to sub-contract any of the work components listed above, full details of the intended sub-contractor and portions of work to be undertaken by them shall be provided with the tender. The verifiable experience of the sub-contractor relevant to the component of work to be performed by them will be taken into consideration when allocating scores.

Tenderers shall ensure that all relevant information has been submitted with the tender offer in the prescribed format to ensure optimal scoring of functionality points for each Evaluation Criteria. Failure to provide all information **IN THIS TENDER SUBMISSION** could result in the tenderer not being able to achieve the specified minimum scoring.

C.2.1.4.5 **Compulsory clarification meeting**

Tenderers are required to attend a compulsory clarification meeting and site visit at which they may familiarise themselves with aspects of the proposed work, services or supply and pose questions.

Details of the meeting(s) are stated in the General Tender Information.

Only those tenders submitted by tenderers who have signed the attendance register will be declared responsive.

C.2.1.4.6 **Good standing with Bargaining Council**

Only those tenders submitted by tenderers who are in good standing with the **Bargaining Council for the Civil Engineering Industry (BCCEI)** at the time of the tender award will be declared responsive. Tenderers must attach such proof to the schedule titled **Declaration in Respect of Compliance with Labour Legislation** or obtain such upon being requested to do so in writing and within the period contained in such a request, failing which their tenders will be declared non-responsive. Refer to Schedule 21 of the Returnable Schedules.

C.2.3 **Check documents**

C.2.3 *Delete the clause and replace with the following:*

The Tenderer should check the tender documents on receipt for completeness, missing or duplicated pages, indistinct figures or writing and any obvious errors. The Tenderer must notify the Employer's Agent at once of any such problems identified

C.2.7 **Clarification meeting**

Add the following after the second sentence:

The arrangements for the compulsory site visit/clarification meeting are as stated on the General Tender Information page and in the Responsiveness Criteria (if applicable).

Tenderers should be represented at the site visit/clarification meeting by a person who is suitably qualified and experienced to comprehend the implications of the work involved.

C.2.8 **Seek Clarification**

Add the following after the first sentence:

The tenderer warrants that it has:

- a) inspected the Specifications and read and fully understood the Conditions of Contract.
- b) read and fully understood the whole text of the Specifications and Price Schedule and thoroughly acquainted itself with the nature of the goods proposed and generally of all matters which may influence the Contract.
- c) visited the site(s) where delivery of the proposed works will take place, carefully examined existing conditions, the means of access to the site(s), the conditions under which the delivery is to be made, and acquainted itself with any limitations or restrictions that may be imposed by the Municipal or other Authorities in regard to access and transport of materials, plant and equipment to and from the site(s) and made the necessary provisions for any additional costs involved thereby.

- d) requested the Employer to clarify the requirements contained in the Specifications and Price Schedule, the exact meaning or interpretation of which is not clearly intelligible to the tenderer.
- e) received any notices to the tender documents which have been issued in accordance with the Employer's SCM Policy.

The Employer will therefore not be liable for the payment of any extra costs resulting from any claim submitted by the tenderer arising from any alleged ambiguity or uncertainty contained in the tender document.

C.2.12 **Alternative tender offers**

C.2.12.1 *Add the following to C.2.12.1 at the end of the first sentence:*

If a tenderer wishes to submit an alternative tender offer, he shall do so as a separate offer on a separate set of tender documents. The alternative tender offer shall be submitted in a separate sealed envelope on a separate Form of Offer, both clearly marked "Alternative Tender" in order to distinguish it from the main tender offer.

While it is not necessary to duplicate all parts of the main tender offer, the alternative tender offer shall be supported by the following documents as applicable:

- a) the schedule that compares the alternative(s) offered with the requirements of the issued tender documents
- b) preliminary designs, calculations, drawings and all other pertinent technical information and characteristics must be submitted with the alternative tender offer, in order to enable the Employer to evaluate the efficacy of the alternatives proposed
- c) revised Bills of Quantities, or parts thereof, highlighting the changes made, together with a revised Summary, the total of which has been carried to the Form of Offer
- d) details of any proposed amendments to the Pricing Assumptions

C.2.12.3 *Add the following to C.2.12.1 at the end of the first sentence:*

An alternative of the highest ranked acceptable main tender offer that is priced higher than the main tender offer may be recommended for award, provided that the ranking of the alternative tender offer is higher than the ranking of the next ranked acceptable main tender offer.

The Employer's costs in confirming the acceptability of the alternative offer will be, *inter alia*, taken into account in considering the alternative offer.

The Employer will not be bound to consider alternative tenders and shall have sole discretion in this regard.

In the event that the alternative is accepted, the Contractor shall accept full responsibility that the alternative offer complies in all respects with the Employer's standards and requirements.

C.2.13 **Submitting a tender offer**

Add the following to C.2.13.1 at the end of the first sentence:

C.2.13.1 Where the tendering entity is a joint venture it is recommended that the standard CIDB Joint Venture Agreement be used.

Add the following to C.2.13.3 at the end of the first sentence:

C.2.13.3 Parts of each tender offer communicated on paper shall be submitted as an original, plus 0 (naught) copies.

Add the following to C.2.13.5 at the end of the first sentence:

C.2.13.5 The Employer's address for delivery of tender offers and identification details to be shown on each tender offer package are:

Employer:	Kouga Local Municipality.
Physical address:	16 Woltemade Street, Jeffreys Bay.
Identification details:	Bid Number: 110/2024
	Title of Contract: ST FRANCIS BAY GROUNDWATER DEVELOPMENT OF THREE BOREHOLES

Sealed tenders with the Tenderer's name and address and the endorsement "**BID NO. 110/2024: ST FRANCIS BAY GROUNDWATER DEVELOPMENT OF THREE BOREHOLES**" on the envelope, must be placed in the appropriate official tender box at the abovementioned address.

- Add the following to C.2.13.6:*
- C.2.13.6 A two-envelope procedure will **not** be followed (C.3.5).
- Add the following after C.2.13.9:*
- C.2.13.10 By signing the offer part of C1.1 Form of Offer and Acceptance the tenderer declares that all information provided in the tender submission is true and correct.
- C.2.13.11 The Employer shall not formally issue tender documents in electronic format and shall only issue tender documents in hardcopy. An electronic version of the issued tender documents may be made available to the tenderer, upon written request in terms of this clause, subject to the following:
- electronic copies of the issued tender documents, or parts thereof, will only be provided to tenderers who have been issued with the tender documents as contemplated in C.1.2 in hardcopy.
 - The electronic version shall not be regarded as a substitute for the issued tender documents.
 - The Employer shall not accept tenders submitted in electronic format. Only those tenders that have been completed on the issued hard copy tender document shall be considered, provided that printed Bills of Quantities, in the same format (that is, layout, billed items and quantities) as those issued electronically by the Employer, may be submitted with the tender as stated in C.2.13.2.
 - Where Addenda have been issued which amend the Bills of Quantities, then the printed Bills of Quantities shall take these into account. The pages of the issued Bills of Quantities should not be removed from the tender document.
 - The Employer accepts no responsibility or liability arising from any reliance on or use of the electronic version provided in terms of this clause. Tenderers are alerted to the fact that electronic versions of the tender documents may not reflect any notices or addenda that amend the tender document.
 - Any non-compliance with these provisions, including effecting any unauthorised alterations to the tender documents as contemplated in C.2.11, shall render the tender non-responsive. The Employer reserves the right to take any action against such tenderer allowed in law including, in circumstances where the tender had already been awarded, the right to cancel the contract.
 - In requesting the electronic version of the tender documents or parts thereof, the tenderer is deemed to have read, understood, and accepted all the above conditions.
- C.2.15 **Closing time**
- Add the following to C.2.15.1 after the first sentence:*
- C.2.15.1 The closing time for submission of tender offers is as stated in the Tender Notice and Invitation to Tender.
- C.2.16 **Tender offer validity**
- Add the following to C.2.16.1 after the first sentence:*
- C.2.16.1 The tender offer validity period is **(90 calendar days)**.
- C.2.16.2 *Delete the clause and replace with the following:*
- Tender offers shall be deemed to remain valid until formal acceptance by the Employer of an offer at any time after the expiry date of the original tender offer validity period, unless the Employer is notified in writing of anything to the contrary, including any further conditions, by the tenderer.
- Any further conditions introduced by the tenderer will be considered at the sole discretion of the Employer.
- C.2.17 **Clarification of tender offer after submission**
- Add the following to C.2.17 at the end of the third sentence:*
- A tender will be rejected as non-responsive if the tenderer fails to provide any clarification or supporting documents requested by the Employer within the time for submission stated in the Employer's written request for such clarification or documents.
- C.2.18 **Provide other material**
- Delete the following word in C.2.18.1:*
- C.2.18.1 notarized
- Add the following to C.2.18.1 at the end of the first paragraph:*
- Provide, on written request by the Employer, where the transaction value (tendered amount) inclusive of VAT **exceeds R 10 million:**

- a) audited annual financial statement for the past 3 years, or for the period since establishment if established during the past 3 years, if required by law to prepare annual financial statements for auditing.
- b) a certificate signed by the tenderer certifying that the tenderer has no undisputed commitments for municipal services towards a municipality or other service provider in respect of which payment is overdue for more than 30 days.
- c) particulars of any contracts awarded to the tenderer by an organ of state during the past five years, including particulars of any material non-compliance or dispute concerning the execution of such contract.
- d) a statement indicating whether any portion of the goods or services are expected to be sourced from outside the Republic, and, if so, what portion and whether any portion of payment from the municipality or municipal entity is expected to be transferred out of the Republic.

Each party to a Consortium/Joint Venture shall submit separate certificates/statements in the above regard.

Add the following after C.2.18.2:

- C.2.18.3 Tenderers shall fully cooperate with the Employer's external service provider appointed to perform a due diligence review and risk assessment upon receipt of such written instruction from the Employer.

Failure to fully cooperate could result in a tender being declared as non-responsive.

C.2.18.4 **Compliance with Occupational Health and Safety Act, 85 of 1993**

Tenderers are to note the requirements of the Occupational Health and Safety Act, 85 of 1993 and the Construction Regulations, 2014 issued in terms of Section 43 of the Act. The Tenderer shall be deemed to have read and fully understood the requirements of the above Act and Regulations and to have allowed for all costs in compliance therewith.

In this regard the Tenderer shall submit with his tender or upon request, appended to Schedule 16: Health and Safety Plan in T2.2 : Returnable Schedules, a draft Health and Safety Plan in respect of the Works in sufficient detail to demonstrate the necessary competencies and resources to perform the construction work all in accordance with the Act, Regulations and Health and Safety Specification in Part C3.7 Health and Safety Specifications for the works detailed in Part C3 Scope of works.

C.2.23 **Certificates**

Add the following after the first sentence:

The tenderer is required to submit the following:

C.2.23.1 **Evidence of tax compliance**

Tenderers shall be registered with the South African Revenue Service (SARS) and their tax affairs must be in order and they must be tax compliant. In this regard, it is the responsibility of the Tenderer to submit evidence in the form of a valid Tax Clearance Certificate issued by SARS to the Employer at the Supplier Management Unit located within the Supplier Management / Registration Office, 16 Woltemade Street, Jeffreys Bay, or included with this tender. The tenderer must also provide its Tax Compliance Status PIN number on the **Compulsory Enterprise Questionnaire**

Each party to a Consortium/Joint Venture shall submit a separate Tax Clearance Certificate.

Tenderers are to note that the Employer will not award a contract to a Tenderer whose tax matters are not in order.

C.2.23.2 **Broad-Based Black Economic Empowerment Status Level Documentation**

In order to qualify for preference points, it is the responsibility of the tenderer to submit documentary proof, either as certificates, sworn affidavits or any other requirement prescribed in terms of the B-BBEE Act, of its B-BBEE status level of contribution in accordance with the applicable Codes of good practise as issued by the Department of Trade and Industry, to the Kouga Local Municipality at the Supplier Management Unit located within the Supplier Management / Registration Office, 16 Woltemade Street, Jeffreys Bay or included with the tender submission.

Consortiums/Joint Ventures will qualify for preference points, provided that the **entity** submits the relevant certificate/scorecard in accordance with the applicable codes of good practise. Note that, in the case of

unincorporated entities, a verified consolidated B-BBEE scorecard must be submitted in the form of a certificate with the tender.

Tenderers are further referred to the content of the **Preference Schedule** for the full terms and conditions applicable to the awarding of preference points.

The applicable code for this tender is the **Amended Codes for Measuring Broad-Based Black Economic Empowerment in the Construction Sector)** unless in possession of a valid certificate in terms of the **transitional arrangements contained in these Codes**.

The tenderer shall indicate in Section 4 of the **Preference Schedule** the Level of Contribution in respect of the enterprise status or structure of the tendering entity (the supplier).

Add the follow new clause after C.2.23.2

C.2.24 **Proposed Deviations and Qualifications**

Where the tenderer cannot tender in all respects in accordance with the provisions contained in the tender documents, all deviations therefrom shall be clearly and separately listed in the schedule titled **Proposed Deviations and Qualifications by Tenderer** in T2.2 Returnable Schedules, or in a tenderer's covering letter expressly referenced in this schedule.

The tenderer accepts that the Employer will examine such deviations in terms of clause C3.8.2 and shall not be bound to accept any such deviations or qualifications.

It must be clearly stated by the tenderer whether the sum tendered in the Tender Offer includes for all such deviations or qualifications listed or referred to in the schedule titled **Proposed Deviations and Qualifications by Tenderer** or not.

C.3 The Employer's undertakings

C.3.2 Issue Addenda

Delete the words "three days" from the first sentence and replace with:

"Five working days where possible"

Add the following to C.3.2 at the end of the paragraph:

Notwithstanding any requests for confirmation of receipt of Addenda issued, the tenderer shall be deemed to have received such addenda if the employer can show proof of transmission thereof (or a notice in respect thereof) via electronic mail, facsimile, or registered post.

C3.4 Opening of tender submissions

Add the following to C.3.4.2 at the end of the paragraph:

The location for opening of the tender offers is the Tender Submission Office at the address as stated on the General Tender Information page.

C.3.8 Test for responsiveness

C.3.8.2 Delete par C.3.8.2 (c)

Replace the final sentence of C.3.8.2 with the following:

Reject a non-responsive tender offer, and not allow it to be subsequently made responsive by correction or withdrawal of the material deviation.

Add the following after clause C.3.8.2

C.3.8.3 The Employer reserves the right to accept a tender offer which does not, in the Employer's opinion, materially and/or substantially deviate from the terms, conditions, and specifications of the tender documents.

C.3.9 Arithmetical errors, omissions, and discrepancies

Add the following after clause C.3.9.2

C.3.9.3 In the event of tendered rates or lump sums being declared by the Employer to be unacceptable to it because they are not priced, either excessively low or high, or not in proper balance with other rates or lump sums, the Tenderer may be required to produce evidence and advance arguments in support of the tendered rates or lump sums objected to. If, after submission of such evidence and any further evidence requested, the Employer is still not satisfied with the tendered rates or lump sums objected to, it may request the tenderer to amend these rates and lump sums along the lines indicated by it.

The Tenderer will then have the option to alter and/or amend the rates and lump sums objected to and such other related amounts as are agreed on by the Employer, but this shall be done without altering the tender offer in accordance with this clause.

Should the Tenderer fail to amend his tender in a manner acceptable to and within the time stated by the Employer, the Employer may declare the tender as non-responsive.

C.3.10 Clarification of a tender offer

Delete the clause and replace with the following:

C.3.10 The Employer may, after the closing date, request additional information or clarification from tenderer, in writing on any matter affecting the evaluation of the tender offer or that could give rise to ambiguity in a contract arising from the tender offer.

C.3.11 Evaluation of tender offers

Add the following paragraph below the heading:

The preference point system applicable to this tender is either the 80/20 or 90/10 preference point system and the lowest responsive tender will be used to determine the applicable preference point system.

Annex C
(normative)
Standard Conditions of Tender

Standard Conditions of Tender

C.1 General

C.1.1 Actions

C.1.1.1 The employer and each tenderer submitting a tender offer shall comply with these conditions of tender. In their dealings with each other, they shall discharge their duties and obligations as set out in C.2 and C.3, timeously and with integrity, and behave equitably, honestly and transparently, comply with all legal obligations and not engage in anticompetitive practices.

C.1.1.2 The employer and the tenderer and all their agents and employees involved in the tender process shall avoid conflicts of interest and where a conflict of interest is perceived or known, declare any such conflict of interest, indicating the nature of such conflict. Tenderers shall declare any potential conflict of interest in their tender submissions. Employees, agents and advisors of the employer shall declare any conflict of interest to whoever is responsible for overseeing the procurement process at the start of any deliberations relating to the procurement process or as soon as they become aware of such conflict and abstain from any decisions where such conflict exists or recuse themselves from the procurement process, as appropriate.

*Note: 1) A conflict of interest may arise due to a conflict of roles which might provide an incentive for improper acts in some circumstances. A conflict of interest can create an appearance of impropriety that can undermine confidence in the ability of that person to act properly in his or her position even if no improper acts result.
2) Conflicts of interest in respect of those engaged in the procurement process include direct, indirect or family interests in the tender or outcome of the procurement process and any personal bias, inclination, obligation, allegiance or loyalty which would in any way affect any decisions taken.*

C.1.1.3 The employer shall not seek and a tenderer shall not submit a tender without having a firm intention and the capacity to proceed with the contract.

C.1.2 Tender Documents

The documents issued by the employer for the purpose of a tender offer are listed in the tender data.

C.1.3 Interpretation

C.1.3.1 The tender data and additional requirements contained in the tender schedules that are included in the returnable documents are deemed to be part of these conditions of tender.

C.1.3.2 These conditions of tender, the tender data and tender schedules which are required for tender evaluation purposes, shall form part of any contract arising from the invitation to tender.

C.1.3.3 For the purposes of these conditions of tender, the following definitions apply:

a) **conflict of interest** means any situation in which:

- i) someone in a position of trust has competing professional or personal interests which make it difficult to fulfill his or her duties impartially;
- ii) an individual or tenderer is in a position to exploit a professional or official capacity in some way for their personal or corporate benefit; or
- iii) incompatibility or contradictory interests exist between an employee and the tenderer who employs that employee.

b) **comparative offer** means the price after the factors of a non-firm price and all unconditional discounts it can be utilised to have been taken into consideration;

c) **corrupt practice** means the offering, giving, receiving or soliciting of anything of value to influence the action of the employer or his staff or agents in the tender process;

d) **fraudulent practice** means the misrepresentation of the facts in order to influence the tender process or the award of a contract arising from a tender offer to the detriment of the employer, including collusive practices intended to establish prices at artificial levels;

C.1.4 Communication and employer's agent

Each communication between the employer and a tenderer shall be to or from the employer's agent only, and in a form that can be readily read, copied and recorded. Communications shall be in the English language. The employer shall not take any responsibility for non-receipt of communications from or by a tenderer. The name and contact details of the employer's agent are stated in the tender data.

C.1.5 Cancellation and Re-Invitation of Tenders

C.1.5.1 An employer may, prior to the award of the tender, cancel a tender if-

- a) due to changed circumstances, there is no longer a need for the engineering and construction works specified in the invitation;
- b) funds are no longer available to cover the total envisaged expenditure; or
- c) no acceptable tenders are received.
- d) there is a material irregularity in the tender process.

C.1.5.2 The decision to cancel a tender invitation must be published in the same manner in which the original tender invitation was advertised

C.1.5.3 An employer may only with the prior approval of the relevant treasury cancel a tender invitation for the second time.

C.1.6 Procurement procedures

C.1.6.1 General

Unless otherwise stated in the tender data, a contract will, subject to C.3.13, be concluded with the tenderer who in terms of C.3.11 is the highest ranked or the tenderer scoring the highest number of tender evaluation points, as relevant, based on the tender submissions that are received at the closing time for tenders.

C.1.6.2 Competitive negotiation procedure

C.1.6.2.1 Where the tender data require that the competitive negotiation procedure is to be followed, tenderers shall submit tender offers in response to the proposed contract in the first round of submissions. Notwithstanding the requirements of C.3.4, the employer shall announce only the names of the tenderers who make a submission. The requirements of C.8 relating to the material deviations or qualifications which affect the competitive position of tenderers shall not apply.

C.1.6.2.2 All responsive tenderers or at least a minimum of not less than three responsive tenderers that are highest ranked in terms of the evaluation criteria stated in the tender data shall be invited to enter into competitive negotiations based on the principle of equal treatment, keeping confidential the proposed solutions and associated information.

Notwithstanding the provisions of C.2.17, the employer may request that tenders be clarified, specified and fine-tuned in order to improve a tenderer's competitive position provided that such clarification, specification, fine-tuning or additional information does not alter any fundamental aspects of the offers or impose substantial new requirements which restrict or distort competition or have a discriminatory effect.

C.1.6.2.3 At the conclusion of each round of negotiations, tenderers shall be invited by the employer to revise their tender offer based on the same evaluation criteria, with or without adjusted weightings. Tenderers shall be advised when they are to submit their best and final offer.

C.1.6.2.4 The contract shall be awarded in accordance with the provisions of C.3.11 and C.3.13 after tenderers have been requested to submit their best and final offer.

C.1.6.3 Proposal procedure using the two stage-system

C.1.6.3.1 Option 1

Tenderers shall in the first stage submit technical proposals and, if required, cost parameters around which a contract may be negotiated. The employer shall evaluate each responsive submission in terms of the method of evaluation stated in the tender data, and in the second stage negotiate a contract with the tenderer scoring the highest number of evaluation points and award the contract in terms of these conditions of tender.

C.1.6.3.2 Option 2

C.1.6.3.2.1 Tenderers shall submit in the first stage only technical proposals. The employer shall invite all responsive tenderers to submit tender offers in the second stage, following the issuing of procurement documents.

C.1.6.3.2.2 The employer shall evaluate tenders received during the second stage in terms of the method of evaluation stated in the tender data, and award the contract in terms of these conditions of tender.

C.2 Tenderer's obligations

C.2.1 Eligibility

C.2.1.1 Submit a tender offer only if the tenderer satisfies the criteria stated in the tender data and the tenderer, or any of his principals, is not under any restriction to do business with employer.

C.2.1.2 Notify the employer of any proposed material change in the capabilities or formation of the tendering entity (or both) or any other criteria which formed part of the qualifying requirements used by the employer as the basis in a prior process to invite the tenderer to submit a tender offer and obtain the employer's written approval to do so prior to the closing time for tenders

C.2.2 Cost of tendering

C.2.2.1 Accept that, unless otherwise stated in the tender data, the employer will not compensate the tenderer for any costs incurred in the preparation and submission of a tender offer, including the costs of any testing necessary to demonstrate that aspects of the offer comply with requirements.

C.2.2.2 The cost of the tender documents charged by the employer shall be limited to the actual cost incurred by the employer for printing the documents. Employers must attempt to make available the tender documents on its website so as not to incur any costs pertaining to the printing of the tender documents.

C.2.3 Check documents

Check the tender documents on receipt for completeness and notify the employer of any discrepancy or omission.

C.2.4 Confidentiality and copyright of documents

Treat as confidential all matters arising in connection with the tender. Use and copy the documents issued by the employer only for the purpose of preparing and submitting a tender offer in response to the invitation.

C.2.5 Reference documents

Obtain, as necessary for submitting a tender offer, copies of the latest versions of standards, specifications, conditions of contract and other publications, which are not attached but which are incorporated into the tender documents by reference.

C.2.6 Acknowledge addenda

Acknowledge receipt of addenda to the tender documents, which the employer may issue, and if necessary apply for an extension to the closing time stated in the tender data, in order to take the addenda into account.

C.2.7 Clarification meeting

Attend, where required, a clarification meeting at which tenderers may familiarize themselves with aspects of the proposed work, services or supply and raise questions. Details of the meeting(s) are stated in the tender data.

C.2.8 Seek clarification

Request clarification of the tender documents, if necessary, by notifying the employer at least five (5) working days before the closing time stated in the tender data.

C.2.9 Insurance

Be aware that the extent of insurance to be provided by the employer (if any) might not be for the full cover required in terms of the conditions of contract identified in the contract data. The tenderer is advised to seek qualified advice regarding insurance.

C.2.10 Pricing the tender offer

C.2.10.1 Include in the rates, prices, and the tendered total of the prices (if any) all duties, taxes except Value Added Tax (VAT), and other levies payable by the successful tenderer, such duties, taxes and levies being those applicable fourteen (14) days before the closing time stated in the tender data.

C.2.10.2 Show VAT payable by the employer separately as an addition to the tendered total of the prices.

C.2.10.3 Provide rates and prices that are fixed for the duration of the contract and not subject to adjustment except as provided for in the conditions of contract identified in the contract data.

C.2.10.4 State the rates and prices in Rand unless instructed otherwise in the tender data. The conditions of contract identified in the contract data may provide for part payment in other currencies.

C.2.11 Alterations to documents

Do not make any alterations or additions to the tender documents, except to comply with instructions issued by the employer, or necessary to correct errors made by the tenderer. All signatories to the tender offer shall initial all such alterations.

C.2.12 Alternative tender offers

C.2.12.1 Unless otherwise stated in the tender data, submit alternative tender offers only if a main tender offer, strictly in accordance with all the requirements of the tender documents, is also submitted as well as a schedule that compares the requirements of the tender documents with the alternative requirements that are proposed.

C.2.12.2 Accept that an alternative tender offer must be based only on the criteria stated in the tender data or criteria otherwise acceptable to the employer.

C.2.12.3 An alternative tender offer must only be considered if the main tender offer is the winning tender.

C.2.13 Submitting a tender offer

C.2.13.1 Submit one tender offer only, either as a single tendering entity or as a member in a joint venture to provide the whole of the works identified in the contract data and described in the scope of works, unless stated otherwise in the tender data.

C.2.13.2 Return all returnable documents to the employer after completing them in their entirety, either electronically (if they were issued in electronic format) or by writing legibly in non-erasable ink.

C.2.13.3 Submit the parts of the tender offer communicated on paper as an original plus the number of copies stated in the tender data, with an English translation of any documentation in a language other than English, and the parts communicated electronically in the same format as they were issued by the employer.

C.2.13.4 Sign the original and all copies of the tender offer where required in terms of the tender data. The employer will hold all authorized signatories liable on behalf of the tenderer. Signatories for tenderers proposing to contract as joint ventures shall state which of the signatories is the lead partner whom the employer shall hold liable for the purpose of the tender offer.

C.2.13.5 Seal the original and each copy of the tender offer as separate packages marking the packages as "ORIGINAL" and "COPY". Each package shall state on the outside the employer's address and identification details stated in the tender data, as well as the tenderer's name and contact address.

C.2.13.6 Where a two-envelope system is required in terms of the tender data, place and seal the returnable documents listed in the tender data in an envelope marked "financial proposal" and place the remaining returnable documents in an envelope marked "technical proposal". Each envelope shall state on the outside the employer's address and identification details stated in the tender data, as well as the tenderer's name and contact address.

C.2.13.7 Seal the original tender offer and copy packages together in an outer package that states on the outside only the employer's address and identification details as stated in the tender data.

C.2.13.8 Accept that the employer will not assume any responsibility for the misplacement or premature opening of the tender offer if the outer package is not sealed and marked as stated.

C.2.13.9 Accept that tender offers submitted by facsimile or e-mail will be rejected by the employer, unless stated otherwise in the tender data.

C.2.14 Information and data to be completed in all respects

Accept that tender offers, which do not provide all the data or information requested completely and in the form required, may be regarded by the employer as non-responsive.

C.2.15 Closing time

C.2.15.1 Ensure that the employer receives the tender offer at the address specified in the tender data not later than the closing time stated in the tender data. Accept that proof of posting shall not be accepted as proof of delivery.

C.2.15.2 Accept that, if the employer extends the closing time stated in the tender data for any reason, the requirements of these conditions of tender apply equally to the extended deadline.

C.2.16 Tender offer validity

C.2.16.1 Hold the tender offer(s) valid for acceptance by the employer at any time during the validity period stated in the tender data after the closing time stated in the tender data.

C.2.16.2 If requested by the employer, consider extending the validity period stated in the tender data for an agreed additional period with or without any conditions attached to such extension.

C.2.16.3 Accept that a tender submission that has been submitted to the employer may only be withdrawn or substituted by giving the employer's agent written notice before the closing time for tenders that a tender is to be withdrawn or substituted. If the validity period stated in C.2.16 lapses before the employer evaluating tender, the contractor reserves the right to review the price based on Consumer Price Index (CPI).

C.2.16.4 Where a tender submission is to be substituted, a tenderer must submit a substitute tender in accordance with the requirements of C.2.13 with the packages clearly marked as "SUBSTITUTE".

C.2.17 Clarification of tender offer after submission

Provide clarification of a tender offer in response to a request to do so from the employer during the evaluation of tender offers. This may include providing a breakdown of rates or prices and correction of arithmetical errors by the adjustment of certain rates or item prices (or both). No change in the competitive position of tenderers or substance of the tender offer is sought, offered, or permitted.

Note: Sub-clause C.2.17 does not preclude the negotiation of the final terms of the contract with a preferred tenderer following a competitive selection process, should the Employer elect to do so.

C.2.18 Provide other material

C.2.18.1 Provide, on request by the employer, any other material that has a bearing on the tender offer, the tenderer's commercial position (including notarized joint venture agreements), preferencing arrangements, or samples of materials, considered necessary by the employer for the purpose of a full and fair risk assessment.

Should the tenderer not provide the material, or a satisfactory reason as to why it cannot be provided, by the time for submission stated in the employer's request, the employer may regard the tender offer as non-responsive.

C.2.18.2 Dispose of samples of materials provided for evaluation by the employer, where required.

C.2.19 Inspections, tests and analysis

Provide access during working hours to premises for inspections, tests and analysis as provided for in the tender data.

C.2.20 Submit securities, bonds and policies

If requested, submit for the employer's acceptance before formation of the contract, all securities, bonds, guarantees, policies and certificates of insurance required in terms of the conditions of contract identified in the contract data.

C.2.21 Check final draft

Check the final draft of the contract provided by the employer within the time available for the employer to issue the contract.

C.2.22 Return of other tender documents

If so instructed by the employer, return all retained tender documents within twenty-eight (28) days after the expiry of the validity period stated in the tender data.

C.2.23 Certificates

Include in the tender submission or provide the employer with any certificates as stated in the tender data.

C.3 The employer's undertakings

C.3.1 Respond to requests from the tenderer

C.3.1.1 Unless otherwise stated in the tender Data, respond to a request for clarification received up to five (5) working days before the tender closing time stated in the Tender Data and notify all tenderers who collected tender documents.

C.3.1.2 Consider any request to make a material change in the capabilities or formation of the tendering entity (or both) or any other criteria which formed part of the qualifying requirements used to prequalify a tenderer to submit a tender offer in terms of a previous procurement process and deny any such request if as a consequence:

- a) an individual firm, or a joint venture as a whole, or any individual member of the joint venture fails to meet any of the collective or individual qualifying requirements;
- b) the new partners to a joint venture were not prequalified in the first instance, either as individual firms or as another joint venture; or
- c) in the opinion of the Employer, acceptance of the material change would compromise the outcome of the prequalification process.

C.3.2 Issue Addenda

If necessary, issue addenda that may amend or amplify the tender documents to each tenderer during the period from the date that tender documents are available until three (3) working days before the tender closing time stated in the Tender Data. If, as a result a tenderer applies for an extension to the closing time stated in the Tender Data, the Employer may grant such extension and, shall then notify all tenderers who collected tender documents.

C.3.3 Return late tender offers

Return tender offers received after the closing time stated in the Tender Data, unopened, (unless it is necessary to open a tender submission to obtain a forwarding address), to the tenderer concerned.

C.3.4 Opening of tender submissions

C.3.4.1 Unless the two-envelope system is to be followed, open valid tender submissions in the presence of tenderers' agents who choose to attend at the time and place stated in the tender data. Tender submissions for which acceptable reasons for withdrawal have been submitted will not be opened.

C.3.4.2 Announce at the meeting held immediately after the opening of tender submissions, at a venue indicated in the tender data, the name of each tenderer whose tender offer is opened and, where applicable, the total of his prices, number of points claimed for its BBEE status level and time for completion for the main tender offer only.

C.3.4.3 Make available the record outlined in C.3.4.2 to all interested persons upon request.

C.3.5 Two-envelope system

C.3.5.1 Where stated in the tender data that a two-envelope system is to be followed, open only the technical proposal of valid tenders in the presence of tenderers' agents who choose to attend at the time and place stated in the tender data and announce the name of each tenderer whose technical proposal is opened.

C.3.5.2 Evaluate functionality of the technical proposals offered by tenderers, then advise tenderers who remain in contention for the award of the contract of the time and place when the financial proposals will be opened. Open only the financial proposals of tenderers, who score in the functionality evaluation more than the minimum number of points for functionality stated in the tender data, and announce the score obtained for the technical proposals and the total price and any points claimed on BBEE status level. Return unopened financial proposals to tenderers whose technical proposals failed to achieve the minimum number of points for functionality.

C.3.6 Non-disclosure

Not disclose to tenderers, or to any other person not officially concerned with such processes, information relating to the evaluation and comparison of tender offers, the final evaluation price and recommendations for the award of a contract, until after the award of the contract to the successful tenderer.

C.3.7 Grounds for rejection and disqualification

Determine whether there has been any effort by a tenderer to influence the processing of tender offers and instantly disqualify a tenderer (and his tender offer) if it is established that he engaged in corrupt or fraudulent practices.

C.3.8 Test for responsiveness

C.3.8.1 Determine, after opening and before detailed evaluation, whether each tender offer properly received:

- a) complies with the requirements of these Conditions of Tender,
- b) has been properly and fully completed and signed, and
- c) is responsive to the other requirements of the tender documents.

C.3.8.2 A responsive tender is one that conforms to all the terms, conditions, and specifications of the tender documents without material deviation or qualification. A material deviation or qualification is one which, in the Employer's opinion, would:

- a) detrimentally affect the scope, quality, or performance of the works, services or supply identified in the Scope of Work,
- b) significantly change the Employer's or the tenderer's risks and responsibilities under the contract, or
- c) affect the competitive position of other tenderers presenting responsive tenders, if it were to be rectified.

Reject a non-responsive tender offer, and not allow it to be subsequently made responsive by correction or withdrawal of the non-conforming deviation or reservation.

C.3.9 Arithmetical errors, omissions and discrepancies

C.3.9.1 Check responsive tenders for discrepancies between amounts in words and amounts in figures. Where there is a discrepancy between the amounts in figures and the amount in words, the amount in words shall govern.

C.3.9.2 Check the highest ranked tender or tenderer with the highest number of tender evaluation points after the evaluation of tender offers in accordance with C.3.11 for:

- a) the gross misplacement of the decimal point in any unit rate;
- b) omissions made in completing the pricing schedule or bills of quantities; or
- c) arithmetic errors in:
 - (i) line item totals resulting from the product of a unit rate and a quantity in bills of quantities or schedules of prices; or
 - (ii) the summation of the prices.

C.3.9.3 Notify the tenderer of all errors or omissions that are identified in the tender offer and either confirm the tender offer as tendered or accept the corrected total of prices.

C.3.9.4 Where the tenderer elects to confirm the tender offer as tendered, correct the errors as follows:

- a) If bills of quantities or pricing schedules apply and there is an error in the line item total resulting from the product of the unit rate and the quantity, the line item total shall govern and the rate shall be corrected. Where there is an obviously gross misplacement of the decimal point in the unit rate, the line item total as quoted shall govern, and the unit rate shall be corrected.
- b) Where there is an error in the total of the prices either as a result of other corrections required by this checking process or in the tenderer's addition of prices, the total of the prices shall govern and the tenderer will be asked to revise selected item prices (and their rates if bills of quantities apply) to achieve the tendered total of the prices.

C.3.10 Clarification of a tender offer

Obtain clarification from a tenderer on any matter that could give rise to ambiguity in a contract arising from the tender offer.

C.3.11 Evaluation of tender offers

The Standard Conditions of Tender standardize the procurement processes, methods and procedures from the time that tenders are invited to the time that a contract is awarded. They are generic in nature and are made project specific through choices that are made in developing the Tender Data associated with a specific project.

Conditions of tender are by definition the document that establishes a tenderer's obligations in submitting a tender and the employer's undertakings in soliciting and evaluating tender offers. Such conditions establish the rules from the time a tender is advertised to the time that a contract is awarded and require employers to conduct the process of offer and acceptance in terms of a set of standard procedures. **The CIDB Standard Conditions of Tender are based on a procurement system that satisfies the following system requirements:**

Requirement

Fair

Equitable

Transparent

Competitive

Qualitative interpretation of goal

The process of offer and acceptance is conducted impartially without bias, providing simultaneous and timely access to participating parties to the same information.

Terms and conditions for performing the work do not unfairly prejudice the interests of the parties.

The only grounds for not awarding a contract to a tenderer who satisfies all requirements are restrictions from doing business with the employer, lack of capability or capacity, legal impediments and conflicts of interest.

The system provides for appropriate levels of competition to ensure cost effective and best value outcomes.

The activities associated with evaluating tender offers are as follows:

- a) Open and record tender offers received
- b) Determine whether or not tender offers are complete
- c) Determine whether or not tender offers are responsive
- d) Evaluate tender offers
- e) Determine if there are any grounds for disqualification
- f) Determine acceptability of preferred tenderer
- g) Prepare a tender evaluation report
- h) Confirm the recommendation contained in the tender evaluation report

C.3.11.1 General

The employer must appoint an evaluation panel of not less than three persons conversant with the proposed scope of works to evaluate each responsive tender offer using the tender evaluation methods and associated evaluation criteria and weightings that are specified in the tender data.

C.3.12 Insurance provided by the employer

If requested by the proposed successful tenderer, submit for the tenderer's information the policies and / or certificates of insurance which the conditions of contract identified in the contract data, require the employer to provide.

C.3.13 Acceptance of tender offer

Accept the tender offer; if in the opinion of the employer, it does not present any risk and only if the tenderer:

a) is not under restrictions, or has principals who are under restrictions,

preventing participating in the employer's procurement;

b) can, as necessary and in relation to the proposed contract, demonstrate that he or she possesses the professional and technical qualifications, professional and technical competence, financial resources, equipment and other physical facilities, managerial capability, reliability, experience and reputation, expertise and the personnel, to perform the contract;

c) has the legal capacity to enter into the contract;

d) is not; insolvent, in receivership, under Business Rescue as provided for in chapter 6 of the Companies Act No. 2008, bankrupt or being wound up, has his/her affairs administered by a court or a judicial officer, has suspended his/her business activities or is subject to legal proceedings in respect of any of the foregoing;

e) complies with the legal requirements, if any, stated in the tender data; and

f) is able, in the opinion of the employer, to perform the contract free of conflicts of interest.

C.3.14 Prepare contract documents

C.3.14.1 If necessary, revise documents that shall form part of the contract and that were issued by the employer as part of the tender documents to take account of:

a) addenda issued during the tender period,

b) inclusion of some of the returnable documents and

c) other revisions agreed between the employer and the successful tenderer.

C.3.14.2 Complete the schedule of deviations attached to the form of offer and acceptance, if any.

C.3.15 Complete adjudicator's contract

Unless alternative arrangements have been agreed or otherwise provided for in the contract, arrange for both parties to complete formalities for appointing the selected adjudicator at the same time as the main contract is signed.

C.3.16 Registration of the award

An employer must, within twenty-one (21) working days from the date on which a contractor's offer to perform a construction works contract is accepted in writing by the employer, register and publish the award on the cidb Register of Projects.

C.3.17 Provide copies of the contracts

Provide to the successful tenderer the number of copies stated in the Tender Data of the signed copy of the contract as soon as possible after completion and signing of the form of offer and acceptance.

C.3.18 Provide written reasons for actions taken

Provide upon request written reasons to tenderers for any action that is taken in applying these conditions of tender but withhold information which is not in the public interest to be divulged, which is considered to prejudice the legitimate commercial interests of tenderers or might prejudice fair competition between tenderers.

Annex G
(normative)

Alpha-numerics associated with the Contractor Grading Designations

Table G1: Contractor grading designations and associated parameters, as per Government Notice 357 of 2019 [Notice No.42561], dated 23 May 2019.

Contractor Grading Designation	Tender Value Range designation	Maximum value of contract that a contractor is considered capable of performing (R)
1 (class of construction works)	1	500 000
2 (class of construction works)	2	1 000 000
3 (class of construction works)	3	3 000 000
4 (class of construction works)	4	6 000 000
5 (class of construction works)	5	10 500 000
6 (class of construction works)	6	20 000 000
7 (class of construction works)	7	60 000 000
8 (class of construction works)	8	200 000 000
9 (class of construction works)	9	No Limit

TENDER

PART 2 (OF 2): RETURNABLE DOCUMENTS

T2.1 **List of Returnable Documents**

T2.2 **Returnable Documents**

T2.1: LIST OF RETURNABLE DOCUMENTS

The original completed tender document (refer clauses 3.2 and 4.13 of the Tender Data), excluding Drawings, shall be returned with all the required information supplied, duly completed in non-erasable ink in all aspects.

The following documents and schedules are to be completed and returned, as they constitute the tender. Whilst many of the returnables are required for the purpose of evaluating the tenders, some will form part of the subsequent contract, as they form the basis of the tender offer. For this reason, it is very important that tenderers submit, return, complete and sign **all the information, documents and schedules, as requested.**

1. RETURNABLE SCHEDULES REQUIRED FOR TENDER EVALUATION PURPOSES (Included hereafter for completion)

- 1A Status of Concern Submitting Tender
- 1B Authority for Signatory
- 1C Certificate of Attendance at Clarification Meeting
- 1D Declaration of Interest in Tender of Persons in Service of the State
- 1E Compulsory Enterprise Questionnaire
- 1F Declaration of Tenderer's Past Supply Chain Management Practises
- 1G Form MBD6: Preference Points Claim Form in Terms of the Preferential Procurement Regulations 2001
- 1H Schedule of Work Satisfactorily carried out by the Tenderer for Private Clients or Organs of State
- 1I Schedule of Contracts Awarded to Tenderer by Organs of State
- 1J Company Information Required for Tenders greater than R 5 million
- 1K Certificate of Independent Bid Determination
- 1L Proposed Amendments
- 1M Proof or Registration and good standing with the Civil Engineering Bargaining Council (BCCEI)
- 1N Proof or Registration and good standing with the Construction Industry Development Board (CIDB)
- 1O Proof of Registration with the Supplier Database
- 1P Available personnel for this project:
Details of Experience and Qualifications for Contracts Manager, Construction Manager, General Foreman and OH&S Agent

2. RETURNABLE DOCUMENTS REQUIRED FOR TENDER EVALUATION PURPOSES (To be attached with submission)

- 2A Original Valid Tax Clearance Certificate
- 2B Municipal Billing Clearance Certificate
- 2C B-BBEE Status Level Certificates / Consolidated Scorecard

3. RETURNABLE SCHEDULES THAT WILL BE INCORPORATED INTO THE CONTRACT (included hereafter for completion)

- 3A Record of Addenda to Tender Documents
- 3B Personnel Schedule
- 3C Declaration Concerning Fulfilment of the Construction Regulations
- 3D Schedule of Construction Equipment
- 3E Schedule of Proposed Subcontractors

4. OTHER SCHEDULES AND DOCUMENTS THAT WILL BE INCORPORATED INTO THE CONTRACT (included hereafter for completion)

- C1.1 Form of Offer and Acceptance
- C1.2 Contract Data
- C2.2 Bill of Quantities

1A: STATUS OF CONCERN SUBMITTING TENDER
--

1. General

State whether the tenderer is a company, a closed corporation, a partnership, a sole practitioner or a joint venture:

(Mark the appropriate option below)

Public Company	
Private Company	
Closed Corporation	
Partnership	
Sole Proprietary	
Joint Venture	
Co-operative	

2. Information to be provided (Attached to the tender)

If the Tendering Entity is a:		Documentation to be submitted with the tender
1	Closed Corporation, incorporated under the Close Corporation Act, 1984, Act 69 of 1984	CIPRO CK1 or CK2 (Copies of the founding statement) and list of members
2	Private Company incorporated with share capital, under the companies Act, 1973, Act 61 of 1973 (Including Companies incorporated under Art 53 (b))	Copies of: a) CIPRO CM 1 – Certificate of Incorporation b) CIPRO CM 29 – Contents of Register of Directors, Auditors and Officers c) CIPRO CM 39 – Notice of Change of Directors for private companies d) Shareholders Certificates of all Members of the Company.
3	Private Company incorporated with share capital, under the companies Act, 1973, Act 61 of 1973 in which any, or all, shares are held by another Closed Corporation or company with, or without, share capital	Copies of documents referred to in 1 and/or 2 above in respect of all such Closed Corporations and/or Companies.
4	Public Company incorporated with share capital, under the companies Act, 1973, Act 61 of 1973 (Including Companies incorporated under Art 21)	A signed statement by the Company's Secretary confirming that the Company is a Public Company. Copy of CM 29
5	Sole Proprietary or a Partnership	Certified Copy of the Identity Document of: a) Such Sole Proprietary, or b) Each of the Partners in the Partnership Copy of the Partnership agreement

If the Tendering Entity is a:		Documentation to be submitted with the tender
6	Co-operative	CIPRO CR 2 – Copies of Company registration document. (The percentage of work to be done by each partner must clearly be indicated on Form RDB 1 (or RDB 2 as applicable) of the tender document: MBD 6.1 Preference Points Claim Form in terms of the Preferential Procurement Regulations 2001).
7	Joint Venture	All the documents (as described above) as applicable to each partner in the JV as well as a copy of the Joint Venture agreement. (The percentage of work to be done by each partner of the joint venture must clearly be indicated in the Joint Venture Agreement).

Note:

- (i) If the shares are held in trust provide a copy of the Deed of Trust (only the front page and pages listing the trustees and beneficiaries are required) as well as the Letter of Authority as issued by the Master of the Supreme Court, wherein trustees have been duly appointed and authorised, must be provided.
- (ii) Include a copy of the Certificate of Change of Name (CM 9) if applicable. No. CM 9: name change certificate will be accepted as proof alone, for registration.

3. Bidders Must Register for VAT or be Registered for VAT Purposes in Terms of the Value-Added Tax Act, (Act No. 89 of 1991)

(Make an X in the appropriate space below)

Yes

☐

No

☐

REGISTRATION NO:

1B: AUTHORITY FOR SIGNATORY

Indicate the status of the tenderer by ticking the appropriate box hereunder. The tenderer must complete the certificate set out below for the relevant category.

A Company	B Partnership	C Joint Venture / Consortium	D Sole Proprietor	E Close Corporation

A Certificate for Company

I,, chairperson of the board of directors of hereby confirm that by resolution of the board (copy attached) taken on 20....., * Mr / Ms acting in the capacity of and who will sign as follows: be, and is hereby authorized to sign the tender and all documents and correspondences in connection with this tender as well as any contract resulting from it on behalf of the company.

As witnesses:

1. Chairman:
2. Date:

NAME	CAPACITY	SIGNATURE

Note:

* Delete which is not applicable.

This resolution must be signed by all the Directors / Members / Partners of the Bidding Enterprise.

Should the number of Directors / Members / Partners exceed the space available above, additional names and signatures must be supplied on a separate page.

B Certificate for Partnership

We, the undersigned, being the key partners in the business trading as, hereby authorize * Mr / Ms, acting in the capacity of, and who will sign as follows: be, and is hereby authorized to sign the tender and all documents and correspondences in connection with this tender as well as any contract resulting from it on behalf of the company.

NAME	ADDRESS	SIGNATURE	DATE

Note:

* Delete which is not applicable.

This resolution must be signed by all the Directors / Members / Partners of the Bidding Enterprise.

Should the number of Directors / Members / Partners exceed the space available above, additional names and signatures must be supplied on a separate page.

C Certificate for Joint Venture or Consortia

We, the undersigned, are submitting this tender offer in a * Joint Venture / Consortium and hereby authorise * Mr / Ms, acting in the capacity of lead partner, and who will sign as follows: be, and is hereby authorized to sign the tender and all documents and correspondences in connection with this tender as well as any contract resulting from it on behalf of the company.

This authorisation is evidenced by the attached power of attorney signed by legally authorised signatories of all partners to the * Joint Venture / Consortium.

NAME OF FIRM	ADDRESS	% OF CONTRACT VALUE	AUTHORISING SIGNATURE, NAME AND CAPACITY
(Lead Partner):			

Note:

* Delete which is not applicable.

This resolution must be signed by all the Members / Partners of the Bidding Enterprise.

Should the number of Members / Partners exceed the space available above, additional names and signatures must be supplied on a separate page.

D Certificate for Sole Proprietor

I,, hereby confirm that I am the sole owner of the business trading as

As witnesses:

- | | | | |
|----|-------|------------|-------|
| 1. | | Signature: | |
| 2. | | Date: | |

E. Certificate for Close Corporation

We, the undersigned, being the key members in the business trading as

hereby authorize * Mr / Mrs, acting in the capacity of, to sign all documents in connection with this tender and any contract resulting from it on our behalf.

NAME	ADDRESS	SIGNATURE	DATE

Note:

* Delete which is not applicable.

This resolution must be signed by all the Directors / Members / Partners of the Bidding Enterprise.

Should the number of Directors / Members / Partners exceed the space available above, additional names and signatures must be supplied on a separate page.

1C: CERTIFICATE OF ATTENDANCE AT CLARIFICATION MEETING

This is to certify that

..... (Tenderer)

of

.....

..... (address)

was represented by the person(s) named below at the compulsory meeting held for all tenderers at

..... (location) on

..... (date), starting at (time).

We acknowledge that the purpose of the meeting was to acquaint ourselves with the site of the works and / or matters incidental to doing the work specified in the tender documents in order for us to take account of everything necessary when compiling our rates and prices included in the tender.

Particulars of person(s) attending the meeting on behalf of **the tenderer**:

Name Signature

Capacity

Name Signature

Capacity

Attendance of the above persons at the meeting is confirmed by the **Employer's Representative**, namely:

Name Signature

Capacity Date & Time

1D: DECLARATION OF INTEREST IN TENDER OF PERSONS IN SERVICE OF THE STATE

1. Where the tenderer is a natural person, state / declare whether the tenderer or an employee is in the service of the state, or has been in the service of the state during the past twelve months.

YES / NO (INDICATE)

If so, state particulars:

.....

If so and where applicable, state the date of resignation:

.....

2. Where the tenderer is not a natural person, state / declare whether any of its directors, managers, principal shareholders or stakeholders is in the service of the state, or have been in the service of the state during the past twelve months.

YES / NO (INDICATE)

If so, state particulars:

.....

3. State / declare whether a spouse, child or parent of the tenderer or any of its directors, managers, shareholders or stakeholders referred to in subparagraph 2 is in the service of the state, or have been in the service of the state during the past twelve months.

YES / NO (INDICATE)

If so, state particulars:

.....

4. State / declare whether the tenderer or any of its directors, managers, shareholders, stakeholders or employees referred to in subparagraph 2 is a person who is an advisor or consultant contracted with the municipality or municipal entity.

YES / NO (INDICATE)

If so, state particulars:

.....

5. State / declare whether the tenderer or any of its directors, managers, shareholders or stakeholders referred to in subparagraph 2 is involved in another entity for this particular tender.

YES / NO (INDICATE)

If so, state particulars:

.....

I, the undersigned, warrant that I am duly authorised to do so on behalf of the enterprise and confirm that the contents of this schedule are, to my personal knowledge and best belief, both true and correct.

Signed

Date

Name

Position

Tenderer

1E: COMPULSORY ENTERPRISE QUESTIONNAIRE

The following particulars must be furnished. In the case of a joint venture, **separate** enterprise questionnaires in respect of each partner must be completed and submitted.

SECTION 1: NAME OF ENTERPRISE:

SECTION 2: VAT REGISTRATION NUMBER, IF ANY

SECTION 3: CIDB REGISTRATION NUMBER, IF ANY:

SECTION 4: PARTICULARS OF SOLE PROPRIETORS AND PARTNERS IN PARTNERSHIPS

Name*	Identity Number*	Personal Income Tax Number*

*Complete only if sole proprietor or partnership and attach separate page if more than 3 partners

SECTION 5: PARTICULARS OF COMPANIES AND CLOSE CORPORATIONS

Company registration number

Close corporation number

Tax reference number

SECTION 6: RECORD OF SERVICE OF THE STATE

Indicate by marking the relevant boxes with a cross, if any sole proprietor, partner in a partnership or director, manager, principal shareholder or stakeholder in a company or close corporation is currently or has been within the last 12 months in the service of any of the following:

- | | |
|--|---|
| ☐ a member of any municipal council | ☐ an employee of Parliament or a provincial legislature |
| ☐ a member of any provincial legislature | |
| ☐ a member of the National Assembly or the National Council of Province | ☐ a member of an accounting authority of any national or provincial public entity |
| ☐ a member of the board of directors of any municipal entity | ☐ an employee of any provincial department, national or provincial public entity or constitutional institution within the meaning of the Public Finance Management Act, 1999 (Act 1 of 1999) |
| ☐ an official of any municipality or municipal entity | |

If any of the above boxes are marked, disclose the following: (insert separate page if necessary)

Name of Sole Proprietor, Partner, Director, Manager, Principal Shareholder or Stakeholder	Name of Institution, Public Office, Board or Organ of State and Position held	Status of Service (tick appropriate column)	
		Current	Within last 12 months

*Insert separate page if necessary

SECTION 7: RECORD OF SPOUSES, CHILDREN AND PARENTS IN THE SERVICE OF THE STATE

Indicate by marking the relevant boxes with a cross, if any spouse, child or parent of a sole proprietor, partner in a partnership or director, manager, principal shareholder or stakeholder in a company or close corporation is currently or has been within the last 12 months been in the service of any of the following:

- | | |
|--|---|
| ☐ a member of any municipal council | ☐ an employee of Parliament or a provincial legislature |
| ☐ a member of any provincial legislature | ☐ a member of an accounting authority of any national or provincial public entity |
| ☐ a member of the National Assembly or the National Council of Province | ☐ an employee of any provincial department, national or provincial public entity or constitutional institution within the meaning of the Public Finance Management Act, 1999 (Act 1 of 1999) |
| ☐ a member of the board of directors of any municipal entity | |
| ☐ an official of any municipality or municipal entity | |

Name of Spouse, Child or Parent	Name of Institution, Public Office, Board or Organ of State and Position held	Status of Service (tick appropriate column)	
		Current	Within last 12 months

*Insert separate page if necessary

The undersigned, who warrants that he/she is duly authorised to do so on behalf of the enterprise:

- (i) authorizes the Employer to obtain a tax clearance certificate from the South African Revenue Services that my / our tax matters are in order;
- (ii) confirms that neither the name of the enterprise or the name of any partner, manager, director or other person, who wholly or partly exercises, or may exercise, control over the enterprise appears on the Register of Tender Defaulters established in terms of the Prevention and Combating of Corrupt Activities Act of 2004;
- (iii) confirms that no partner, member, director or other person, who wholly or partly exercises, or may exercise, control over the enterprise appears, has within the last five years been convicted of fraud or corruption;
- (iv) confirms that I / we are not associated, linked or involved with any other tendering entities submitting tender offers and have no other relationship with any of the tenderers or those responsible for compiling the scope of work that could cause or be interpreted as a conflict of interest;
- (v) confirms that the contents of this questionnaire are within my personal knowledge and are to the best of my belief both true and correct.

I, the undersigned, warrant that I am duly authorised to do so on behalf of the enterprise and confirm that the contents of this schedule are, to my personal knowledge and best belief, both true and correct.

Signed

Date

Name

Position

Enterprise name

1F: DECLARATION OF TENDERER'S PAST SUPPLY CHAIN MANAGEMENT PRACTISES

1. This form serves as a declaration to be used by the Employer in ensuring that when goods and services are being procured, all reasonable steps are taken to combat the abuse of the supply chain management system.
2. The tender of any Tenderer may be rejected if that Tenderer, or any of its directors have:
 - a) abused the Municipality's / Municipal entity's supply chain management system or been guilty of any improper conduct in relation to such system;
 - b) been convicted for fraud or corruption during the past five years;
 - c) wilfully neglected, reneged on or failed to comply with any government, Municipal or other public sector contract during the past five years; or
 - d) been listed in the Register for Tender Defaulters in terms of Section 29 of the Prevention and Combating of Corrupt Activities Act, 2004 (Act 12 of 2004).
3. In order to give effect to the above, this form and the questionnaire must be completed in full and signed. Failure to comply will result in the tender being declared non-responsive.

ITEM	QUESTION	RESPONSE	
4.1	Is the Tenderer or any of its directors listed on the National Treasurer's database as a company or persons prohibited from doing business with the public sector? (Companies for persons who are listed on this database were informed in writing of this restriction by the National Treasury after the <i>audi alteram partem</i> rule was applied) The Database of Restricted Suppliers now resides on the National Treasury's website(www.treasury.gov.za)	Yes	No
	If so, furnish particulars:		
4.2	Is the Tenderer or any of its directors listed on the Register for Tender Defaulters in terms of Section 29 of the Prevention and Combating of Corrupt Activities Act, 2004 (Act 12 of 2004)? (To access this Register enter the National Treasury's website, www.treasury.gov.za, click on the icon "Register for Tender Defaulters" or submit your written request for a hard copy of the Register to facsimile number 012-326-5445)	Yes	No
	If so, furnish particulars:		

ITEM	QUESTION	RESPONSE	
4.3	Was the Tenderer or any of its directors convicted by a court of law (including a court of law outside the Republic of South Africa) for fraud or corruption during the past five years?	Yes	No
	If so, furnish particulars:		
4.4	Was any contract between the Tenderer and the Municipality / Municipal entity or any other organ of state terminated during the past five years on account of failure to perform on or comply with the contract?	Yes	No
	If so, furnish particulars:		
4.5	Does the tenderer or any of its directors owe any Municipal rates and taxes or Municipal charges to the Municipality/Municipal entity, or to any other Municipality/Municipal entity, that is in arrears for more than three months?	Yes	No
	If so, furnish particulars:		

I, the undersigned, warrant that I am duly authorised to do so on behalf of the enterprise and confirm that the contents of this schedule are, to my personal knowledge and best belief, both true and correct.

Signed

Date

Name

Position

Tenderer

**1G: FORM MDB 6.1 – PREFERENCE POINTS CLAIM FORM IN TERMS OF THE PREFERENTIAL
PROCUREMENT REGULATIONS 2023**

This preference form must form part of all tenders invited. It contains general information and serves as a claim form for preference points for specific goals.

NB: BEFORE COMPLETING THIS FORM, TENDERERS MUST STUDY THE GENERAL CONDITIONS, DEFINITIONS AND DIRECTIVES APPLICABLE IN RESPECT OF THE TENDER AND PREFERENTIAL PROCUREMENT REGULATIONS, 2023

1. GENERAL CONDITIONS

1.1 The following preference point systems are applicable to invitations to tender:

- the 80/20 system for requirements with a Rand value of up to R50 000 000 (all applicable taxes included); and
- the 90/10 system for requirements with a Rand value above R50 000 000 (all applicable taxes included).

1.2 To be completed by the organ of state

(delete whichever is not applicable for this tender).

- a) The applicable preference point system for this tender is the 80/20 preference point system.
- b) Either the 90/10 or 80/20 preference point system will be applicable in this tender. The lowest/highest acceptable tender will be used to determine the accurate system once tenders are received.
- c) Either the 90/10 or 80/20 preference point system will be applicable in this tender. The lowest/highest acceptable tender will be used to determine the accurate system once tenders are received.

B-BBEE Status Level of Contributor	Number of Points for Preference (80/20)	Number of Points for Preference (90/10)
1	10	5
2	8	4
3	6	3
4	4	2
5	3	1
6	2	1
7	2	1
8	2	1
Non-compliant contributor	0	0

1.3 Points for this tender (even in the case of a tender for income-generating contracts) shall be awarded for:

- (a) Price; and
- (b) Specific Goals.

1.4 To be completed by the organ of state:

The maximum points for this tender are allocated as follows:

	POINTS
PRICE	80
SPECIFIC GOALS	20
Total points for Price and SPECIFIC GOALS	100

SPECIFIC GOALS

No	Specific Goals Categories	Max points allocation	Evaluation Indicators
1	B-BBE Status Level Contributor	10	As for B-BBEE points allocation table above.
2	The promotion of enterprises located in a specific province for work to be done or services to be rendered in that province.	10	10 Points= Located within the boundaries of the Kouga Local Municipality 6 Points- Located within the boundaries of Sarah Baartman District Municipality 4 Points- Located within the boundaries of the Eastern Cape 1 Point- Outside of the boundaries of the Eastern Cape

1.5 Failure on the part of a tenderer to submit proof or documentation required in terms of this tender to claim points for specific goals with the tender, will be interpreted to mean that preference points for specific goals are not claimed.

1.6 The organ of state reserves the right to require of a tenderer, either before a tender is adjudicated or at any time subsequently, to substantiate any claim in regard to preferences, in any manner required by the organ of state.

2. DEFINITIONS

- (a) **“tender”** means a written offer in the form determined by an organ of state in response to an invitation to provide goods or services through price quotations, competitive tendering process or any other method envisaged in legislation;
- (b) **“price”** means an amount of money tendered for goods or services, and includes all applicable taxes less all unconditional discounts;
- (c) **“rand value”** means the total estimated value of a contract in Rand, calculated at the time of bid invitation, and includes all applicable taxes;
- (d) **“tender for income-generating contracts”** means a written offer in the form determined by an organ of state in response to an invitation for the origination of income-generating contracts through any method envisaged in legislation that will result in a legal agreement between the organ of state and a third party that produces revenue for the organ of state, and includes, but is not limited to, leasing and disposal of assets and concession contracts, excluding direct sales and disposal of assets through public auctions; and
- (e) **“the Act”** means the Preferential Procurement Policy Framework Act, 2000 (Act No. 5 of 2000).

3. FORMULAE FOR PROCUREMENT OF GOODS AND SERVICES

3.1. POINTS AWARDED FOR PRICE

3.1.1 THE 80/20 OR 90/10 PREFERENCE POINT SYSTEMS

A maximum of 80 or 90 points is allocated for price on the following basis:

$$\begin{array}{ccc} \mathbf{80/20} & \mathbf{or} & \mathbf{90/10} \\ \mathbf{Ps = 80 \left(1 - \frac{Pt - P_{min}}{P_{min}} \right)} & \mathbf{or} & \mathbf{Ps = 90 \left(1 - \frac{Pt - P_{min}}{P_{min}} \right)} \end{array}$$

Where

Ps = Points scored for price of tender under consideration

Pt = Price of tender under consideration

Pmin = Price of lowest acceptable tender

3.2. FORMULAE FOR DISPOSAL OR LEASING OF STATE ASSETS AND INCOME GENERATING PROCUREMENT

3.2.1. POINTS AWARDED FOR PRICE

A maximum of 80 or 90 points is allocated for price on the following basis:

$$\begin{array}{ccc} \mathbf{80/20} & \mathbf{or} & \mathbf{90/10} \\ \mathbf{Ps = 80 \left(1 + \frac{Pt - P_{max}}{P_{max}} \right)} & \mathbf{or} & \mathbf{Ps = 90 \left(1 + \frac{Pt - P_{max}}{P_{max}} \right)} \end{array}$$

Where

Ps = Points scored for price of tender under consideration

Pt = Price of tender under consideration

Pmax = Price of highest acceptable tender

4. POINTS AWARDED FOR SPECIFIC GOALS

4.1. In terms of Regulation 4(2); 5(2); 6(2) and 7(2) of the Preferential Procurement Regulations, preference points must be awarded for specific goals stated in the tender. For the purposes of this tender the tenderer will be allocated points based on the goals stated in table 1 below as may be supported by proof/ documentation stated in the conditions of this tender:

4.2. In cases where organs of state intend to use Regulation 3(2) of the Regulations, which states that, if it is unclear whether the 80/20 or 90/10 preference point system applies, an organ of state must, in the tender documents, stipulate in the case of—

(a) an invitation for tender for income-generating contracts, that either the 80/20 or 90/10 preference point system will apply and that the highest acceptable tender will be used to determine the applicable preference point system; or

(b) any other invitation for tender, that either the 80/20 or 90/10 preference point system

will apply and that the lowest acceptable tender will be used to determine the applicable preference point system, then the organ of state must indicate the points allocated for specific goals for both the 90/10 and 80/20 preference point system.

able 1: Specific goals for the tender and points claimed are indicated per the table below.

(Note to organs of state: Where either the 90/10 or 80/20 preference point system is applicable, corresponding points must also be indicated as such.

Note to tenderers: The tenderer must indicate how they claim points for each preference point system.)

The specific goals allocated points in terms of this tender	Number of points allocated (90/10 system) (To be completed by the organ of state)	Number of points allocated (80/20 system) (To be completed by the organ of state)	Number of points claimed (90/10 system) (To be completed by the tenderer)	Number of points claimed (80/20 system) (To be completed by the tenderer)

DECLARATION WITH REGARD TO COMPANY/FIRM

4.3. Name of company/firm.....

4.4. Company registration number:

4.5. TYPE OF COMPANY/ FIRM

- ☐ Partnership/Joint Venture / Consortium
- ☐ One-person business/sole propriety
- ☐ Close corporation
- ☐ Public Company
- ☐ Personal Liability Company
- ☐ (Pty) Limited
- ☐ Non-Profit Company
- ☐ State Owned Company

[TICK APPLICABLE BOX]

4.6. I, the undersigned, who is duly authorised to do so on behalf of the company/firm, certify that the points claimed, based on the specific goals as advised in the tender, qualifies the company/ firm for the preference(s) shown and I acknowledge that:

- i) The information furnished is true and correct;
- ii) The preference points claimed are in accordance with the General Conditions as indicated in paragraph 1 of this form;
- iii) In the event of a contract being awarded as a result of points claimed as shown in paragraphs 1.4 and 4.2, the contractor may be required to furnish documentary proof to the satisfaction of the organ of state that the claims are correct;
- iv) If the specific goals have been claimed or obtained on a fraudulent basis or any of the conditions of contract have not been fulfilled, the organ of state may, in addition to any other remedy it may have –
 - (a) disqualify the person from the tendering process;
 - (b) recover costs, losses or damages it has incurred or suffered as a result of that person's conduct;
 - (c) cancel the contract and claim any damages which it has suffered as a result of having to make less favourable arrangements due to such cancellation;
 - (d) recommend that the tenderer or contractor, its shareholders and directors, or only the shareholders and directors who acted on a fraudulent basis, be restricted from obtaining business from any organ of state for a period not exceeding 10 years, after the *audi alteram partem* (hear the other side) rule has been applied; and
 - (e) forward the matter for criminal prosecution, if deemed necessary.

6.

1H: SCHEDULE OF WORK SATISFACTORILY CARRIED OUT BY THE TENDERER FOR PRIVATE CLIENTS OR ORGANS OF STATE <i>(Organs of State include any Local, Provincial or National Government Authority)</i>

The following is a statement of similar work successfully executed by myself/ourselves:

Employer, Contact Person and Telephone Number	Description of Contract	Value of Work Inclusive of VAT (Rand)	Date Completed (State current if not yet complete)

I, the undersigned, warrant that I am duly authorised to do so on behalf of the enterprise and confirm that the contents of this schedule are, to my personal knowledge and best belief, both true and correct.

Signed

Date

Name

Position

Tenderer

11: SCHEDULE OF CONTRACTS AWARDED TO THE TENDERER BY ORGANS OF THE STATE

(Organs of State include any Local, Provincial or National Government Authority)

In terms of Clause 21(d)(iii) of the Supply Chain Management Policy, the tenderer shall list hereunder, particulars of contracts awarded to him by any Organ of State, during the past 5 years. **Any material non-compliance or dispute concerning the execution of any of these contracts must be mentioned.**

Include only those contracts where the tenderer identified in the signature block below was directly contracted by the Employer. Tenderers must not include services provided in terms of a sub-contract agreement. Where contracts were awarded in the name of a joint venture and the tenderer formed part of that joint venture, indicate in the column entitled "Title of the contract for the service" that the contract was in joint venture and provide the name of the joint venture that contracted with the employer. In the column for the value of the contract for the service, record the value of the portion of the contract performed (or to be performed) by the tender.

Organ of state, i.e. national or provincial department, public entity, municipality or municipal entity	Title of contract for the service	Value of Work Inclusive of VAT (Rand)	Date Completed (State current if not yet complete)

Any material non-compliance or dispute concerning the execution of any of these contracts?	Yes	No
If so, furnish particulars:		

I, the undersigned, warrant that I am duly authorised to do so on behalf of the enterprise and confirm that the contents of this schedule are, to my personal knowledge and best belief, both true and correct.

Signed

Date

Name

Position

Tenderer

1J: COMPANY INFORMATION REQUIRED FOR TENDERS GREATER THAN R 5 MILLION

1. Is the tenderer is required by law to prepare audited annual financial statements? YES / NO
2. If so, provide audited annual financial statements:
- for the past three years; or
 - since their establishment if established during the past three years.

Indicate whether these have been included in the tender. YES / NO

3. If answer for Question No.1 is NO, does the tenderer have annual financial statements? YES / NO
4. If so, provide audited annual financial statements:
- for the past three years; or
 - since their establishment if established during the past three years.

Indicate whether the annual financial statements have been included in the tender. YES / NO

5. If answer for Question No.1 is NO, the tenderer shall attach to this form a letter from the tenderer's bank; in which the bank declares how the tenderer conducts its account. The contents of the bank's letter must state the credit rating that it accords to the tenderer for the business envisaged by this tender. The minimum acceptable credit rating applicable to tenderers for this tender is a C credit rating. The value of the bank rating must be calculated and checked with R2.5 million. Failure to provide the required letter with the tender submission may render the tenderer's offer unresponsive in terms of Clause 5.8 of the tender condition.

Indicate whether a credit rating letter from the bank has been included in the tender. YES / NO

6. Does the tenderer have any undisputed commitments for Municipal services towards a municipality or other service provider in respect of which payment is overdue for more than 30 days?
- YES / NO

If so, state particulars:

.....

.....

.....

7. Has any contracts been awarded to the tenderer by an organ of state during the past five years?

YES / NO

If so, state particulars:

.....

.....

.....

8. Has there been any material non-compliance or dispute concerning the execution of such contract?

YES / NO

If so, state particulars:

.....

.....

.....

9. Is any portion of the goods or services expected to be sourced out from outside the Republic?

YES / NO

If so, state what portion and whether any portion of payment from the Municipality is expected to be transferred out of the Republic.

.....

.....

.....

.....

I, the undersigned, warrant that I am duly authorised to do so on behalf of the enterprise and confirm that the contents of this schedule are, to my personal knowledge and best belief, both true and correct.

Signed

Date

Name

Position

Tenderer

1K: CERTIFICATE OF INDEPENDENT BID DETERMINATION

I, the undersigned, in submitting the accompanying bid:

.....
(Bid Number and Description)

in response to the invitation for the bid made by:

.....
(Name of Municipality / Municipal Entity)

do hereby make the following statements that I certify to be true and complete in every respect:

I certify, on behalf of that:
(Name of Bidder)

1. I have read and I understand the contents of this Certificate;
2. I understand that the accompanying bid will be disqualified if this Certificate is found not to be true and complete in every respect;
3. I am authorized by the bidder to sign this Certificate, and to submit the accompanying bid, on behalf of the bidder;
4. Each person whose signature appears on the accompanying bid has been authorized by the bidder to determine the terms of, and to sign, the bid, on behalf of the bidder;
5. For the purposes of this Certificate and the accompanying bid, I understand that the word "competitor" shall include any individual or organization, other than the bidder, whether or not affiliated with the bidder, who:
 - (a) has been requested to submit a bid in response to this bid invitation;
 - (b) could potentially submit a bid in response to this bid invitation, based on their qualifications, abilities or experience; and
 - (c) provides the same goods and services as the bidder and/or is in the same line of business as the bidder
6. The bidder has arrived at the accompanying bid independently from, and without consultation, communication, agreement or arrangement with any competitor. However communication between partners in a joint venture or consortium* will not be construed as collusive bidding.
7. In particular, without limiting the generality of paragraphs 6 above, there has been no consultation, communication, agreement or arrangement with any competitor regarding:
 - (a) prices;
 - (b) geographical area where product or service will be rendered (market allocation)
 - (c) methods, factors or formulas used to calculate prices;
 - (d) the intention or decision to submit or not to submit, a bid;
 - (e) the submission of a bid which does not meet the specifications and conditions of the bid; or
 - (f) bidding with the intention not to win the bid.
8. In addition, there have been no consultations, communications, agreements or arrangements with any competitor regarding the quality, quantity, specifications and conditions or delivery particulars of the products or services to which this bid invitation relates.

*** Joint Venture or Consortium means an association of persons for the purpose of combining their expertise,**

property, capital, efforts, skill and knowledge in an activity for the execution of a contract.

9. The terms of the accompanying bid have not been, and will not be, disclosed by the bidder, directly or indirectly, to any competitor, prior to the date and time of the official bid opening or of the awarding of the contract.
10. I am aware that, in addition and without prejudice to any other remedy provided to combat any restrictive practices related to bids and contracts, bids that are suspicious will be reported to the Competition Commission for investigation and possible imposition of administrative penalties in terms of section 59 of the Competition Act No 89 of 1998 and or may be reported to the National Prosecuting Authority (NPA) for criminal investigation and or may be restricted from conducting business with the public sector for a period not exceeding ten (10) years in terms of the Prevention and Combating of Corrupt Activities Act No 12 of 2004 or any other applicable legislation.

Signed

Date

Name

Position

Tenderer

1L: PROPOSED AMENDMENTS

The Tenderer should record any deviations or qualifications he may wish to make to the tender documents in this Returnable Schedule. Alternatively, a tenderer may state such deviations and qualifications in **a covering letter to his tender and reference such letter in this schedule.**

The Tenderer's attention is drawn to Clause 3.8 of the Standard Conditions of Tender referenced in the Tender Data regarding the Employer's handling of material deviations and qualifications.

Page Number	Clause / Item	Proposal

I, the undersigned, warrant that I am duly authorised to do so on behalf of the enterprise and confirm that the contents of this schedule are, to my personal knowledge and best belief, both true and correct.

Signed Date

Name Position

Tenderer

Tenderers must attach to this page, proof of registration and good standing with the Bargaining Council. (In the case of Joint Ventures, proof must be provided for each partner).

Tenderers must attach to this page, proof of registration and good standing with the CIDB. (In the case of Joint Ventures, proof must be provided for each partner).

All existing and prospective service providers/creditors to the Kouga Municipality's supplier database should note that registration with the electronic Central Suppliers Database (CSD www.csd.gov.za for self-registering), developed by National Treasury, is a requirement.

Prospective tenderers are to attach the ***Certificate of Registration with CSD*** to this page.

1P :	DETAILS OF EXPERIENCE AND QUALIFICATIONS FOR CONTRACTS MANAGER, CONSTRUCTION MANAGER (SITE AGENT), GENERAL FOREMAN AND OH&S AGENT
-------------	--

Tenderers shall set out in the Schedules hereunder details of the Experience and Qualifications for the Contract Manager, the Construction Manager (Site Agent), General Foreman and the OHS Safety Officer Experience in work of a similar nature to that for which their Tender is submitted.

The tenderer is reminded that the information provided with this Schedule shall be used in terms of Clauses F.2.1.4.3 in Part T.1.2 Tender Data to confirm the tendering entity's eligibility to tender, and the responsiveness of the Tender submitted. The tenderer is therefore required to supply detailed information relating to previous projects, and projects to date, to clearly illustrate that the tendering entity meets key staff experience requirements stipulated in Clause F.2.1.4.3.

Note: Only the information provided on this Schedule, or attached hereto, will be considered. Failure to complete this Schedule may result in the tender being non-responsive.

RETURNABLE SCHEDULE P-1 CONTRACTS MANAGER	NAME & SURNAME : YEARS ACCRUED RELEVANT EXPERIENCE : QUALIFICATIONS :				
CONTRACT & CLIENT	NATURE OF WORK	POSITION HELD	VALUE OF WORK R(m)	DATE COMPLETED	EMPLOYER AND CONSULTING ENGINEER (NAME, TEL No. AND FAX No.)

NOTE : Attached CV and Proof of Qualifications as per Tender's Obligations clause C2.1.4.3, in order to score ANY Functionality Points.

Also add this person to the Company's Organogram structure.

Number of sheets appended by the tenderer to this Schedule (If nil, enter NIL).

RETURNABLE SCHEDULE P-2 CONSTRUCTION MANAGER (SITE AGENT)	NAME & SURNAME :				
	YEARS ACCRUED RELEVANT EXPERIENCE :				
	QUALIFICATIONS :				
CONTRACT & CLIENT	NATURE OF WORK	POSITION HELD	VALUE OF WORK R(m)	DATE COMPLETED	EMPLOYER AND CONSULTING ENGINEER (NAME, TEL No. AND FAX No.)

NOTE : Attached CV and Proof of Qualifications as per Tender's Obligations clause C2.1.4.3, in order to score ANY Functionality Points.

Also add this person to the Company's Organogram structure.

Number of sheets appended by the tenderer to this Schedule (If nil, enter NIL).

RETURNABLE SCHEDULE P-3 GENERAL FOREMAN	NAME & SURNAME : YEARS ACCRUED RELEVANT EXPERIENCE : QUALIFICATIONS :				
CONTRACT & CLIENT	NATURE OF WORK	POSITION HELD	VALUE OF WORK R(m)	DATE COMPLETED	EMPLOYER AND CONSULTING ENGINEER (NAME, TEL No. AND FAX No.)

NOTE : Attached CV and Proof of Qualifications as per Tender's Obligations clause C2.1.4.3, in order to score ANY Functionality Points.

Also add this person to the Company's Organogram structure.

Number of sheets appended by the tenderer to this Schedule (If nil, enter NIL).

RETURNABLE SCHEDULE P-4 OHS SAFETY OFFICER	NAME & SURNAME : YEARS ACCRUED EXPERIENCE AS OHS SAFETY OFFICER : QUALIFICATIONS : SACPMP REGISTRATION NO :				
CONTRACT & CLIENT	NATURE OF WORK	POSITION HELD	VALUE OF WORK R(m)	DATE COMPLETED	EMPLOYER AND CONSULTING ENGINEER (NAME, TEL No. AND FAX No.)

NOTE : Attached CV and Proof of Qualifications as per Tender's Obligations clause C2.1.4.3, in order to score ANY Functionality Points.

Also add this person to the Company's Organogram structure.

2A: ORIGINAL VALID TAX CLEARANCE CERTIFICATE

In terms of Clause 43 of the Municipal Supply Chain Management Policy, tenderers must ensure that they are up-to-date with their payments of taxes.

It is a condition of bid that the taxes of the successful bidder must be in order, or that satisfactory arrangements have been made with South African Revenue Service (SARS) to meet the bidder's tax obligations.

The tenderer must attach to this page an **original(s)** of a **valid** Tax Clearance Certificate(s) and the Tax compliance Status pin must be submitted.

Note:

1. In order to meet this requirement bidders are required to complete in full the form TCC 001 "Application for a Tax Clearance Certificate" and submit it to any SARS branch office nationally. The Tax Clearance Certificate Requirements are also applicable to foreign bidders / individuals who wish to submit bids.
2. SARS will then furnish the bidder with a Tax Clearance Certificate that will be valid for a period of 1 (one) year from the date of approval.
3. The original Tax Clearance Certificate must be submitted together with the bid. Failure to submit the original and valid Tax Clearance Certificate will result in the invalidation of the bid. Certified copies of the Tax Clearance Certificate will not be acceptable.
4. In bids where Consortia / Joint Ventures / Sub-contractors are involved, each party must submit a separate Tax Clearance Certificate.
5. Copies of the TCC 001 "Application for a Tax Clearance Certificate" form are available from any SARS branch office nationally or on the website www.sars.gov.za
6. Applications for the Tax Clearance Certificates may also be made via eFiling. In order to use this provision, taxpayers will need to register with SARS as eFilers through the website www.sars.gov.za

2B: MUNICIPAL BILLING CLEARANCE CERTIFICATE
--

In terms of Clause 38 of the Municipal Supply Chain Management Policy, tenderers must ensure that they are up-to-date with their payments of municipal accounts.

The tenderer shall attach to this page a Municipal Billing Clearance Certificate, which provides proof that his payment of Municipal accounts is up-to-date.

These certificates are obtainable from:

Kouga Local Municipality
33 Da Gama Road
Jeffreys Bay.

Should the tenderer not be based in the Kouga Local Municipality, he shall submit a Municipal Billing Clearance Certificate issued by the municipality in which he is based.

2C: B-BBEE STATUS LEVEL CERTIFICATES / CONSOLIDATED B-BBEE SCORECARD

Bidders who qualify as EMEs in terms of the B-BBEE Act shall submit and attach to this page a certificate issued by an Accounting Officer as contemplated in the CCA or a Verification Agency accredited by SANAS or a Registered Auditor. Registered auditors do not need to meet the prerequisite for IRBA's approval for the purpose of conducting verification and issuing EMEs with B-BBEE Status Level Certificates.

Bidders other than EMEs shall submit and attach to this page their original and valid B-BBEE status level verification certificate or a certified copy thereof, substantiating their B-BBEE rating issued by a Registered Auditor approved by IRBA or a Verification Agency accredited by SANAS.

A trust, consortium or joint venture acting as a legal entity shall submit and attach to this page their B-BBEE status level certificate.

A trust, consortium or joint venture acting as an unincorporated entity shall submit and attach to this page their consolidated B-BBEE scorecard as if they were a group structure and such a consolidated B-BBEE scorecard shall be prepared for every separate bid.

Tertiary institutions and public entities shall submit and attach to this page their B-BBEE status level certificates in terms of the specialized scorecard contained in the B-BBEE Codes of Good Practice.

All EME / B-BBEE certificates must reflect the B-BBEE status level of the bidder and must be certified.

3A: RECORD OF ADDENDA TO TENDER DOCUMENTS
--

We confirm that the following communications received from the Procuring Department before the submission of this tender offer, amending the tender documents, have been taken into account in this tender offer:

Addendum Number	Date	Title or Details
1		
2		
3		
4		
5		
6		
7		
8		
9		
10		

Attach additional pages if more space is required.

I, the undersigned, warrant that I am duly authorised to do so on behalf of the enterprise and confirm that the contents of this schedule are, to my personal knowledge and best belief, both true and correct.

Signed

Date

Name

Position

Tenderer

3B: PERSONNEL SCHEDULE

The tenderer shall insert the number of personnel he proposes to employ on this tender/Contract:

JOB DESCRIPTION	NON-LOCAL (Key Personnel) (Permanently employed by Contractor)	LOCAL			
		Women	Men	Youth	SMME
Contract Manager**					
Site Agent**					
Quantity Surveyor					
Surveyors					
General Foreman					
Foremen					
Operators					
Bricklayers					
Carpenters					
Mechanics					
Electricians					
Watchmen					
Gang Bosses					
Pipe Layers					
Labourers					
* Other					
Total					

* To be filled in / completed by tenderer.

The CV's of the Contracts Manager and Site Agent must be attached, in which they highlight their previous experience. The Company Profile of the proposed Sub Contractor is also to be submitted.

I, the undersigned, warrant that I am duly authorised to do so on behalf of the enterprise and confirm that the contents of this schedule are, to my personal knowledge and best belief, both true and correct.

Signed

Date

Name

Position

Tenderer

3C: DECLARATION CONCERNING FULFILMENT OF THE CONSTRUCTION REGULATIONS

In terms of Regulation 4(3) of the Construction Regulations (2014), hereinafter referred to as the Regulations, promulgated on 7 February 2014 in terms of Section 43 of the Occupational Health and Safety Act, 1993 (Act No 85 of 1993), the Employer shall not appoint a Contractor to perform construction work unless the Contractor can satisfy the Employer that his/her firm has the necessary competencies and resources to carry out the work safely and has allowed adequately in his/her tender for the due fulfilment of all the applicable requirements of the Act and the Regulations.

Tenderers shall answer the questions below:

1. I confirm that I am fully conversant with the Regulations and that my company has (or will acquire / procure) the necessary competencies and resources to timeously, safely and successfully comply with all of the requirements of the Regulations.

(Tick)	
Yes	
No	

2. Indicate which approach shall be employed to achieve compliance with the Regulations.

(Tick)	
Own resources, competent in terms of the Regulations (refer to 3 below)	
Own resources, still to be hired and/or trained (until competency is achieved)	
Specialist subcontract resources (competent) - Specify:	

3. Provide details of proposed key persons, competent in terms of the Regulations, who will form part of the Contract team as specified in the Regulations (CVs to be attached):

.....
.....
.....
.....

4. Provide details of proposed training (if any) that will be undergone:

.....

.....

.....

.....

.....

5. List potential key risks identified and measures for addressing risks:

.....

.....

.....

.....

.....

6. I have fully included in my tendered rates and prices (in the appropriate payment items provided in the Bill of Quantities) for all resources, actions, training and any other costs required for the due fulfilment of the Regulations for the duration of the construction and defects repair period

(Tick)	
Yes	
No	

SIGNATURE OF PERSON(S) AUTHORISED TO SIGN THIS TENDER:

1. ID NO:
(Name in Print):

2. ID NO:
(Name in Print):

3D: SCHEDULE OF CONSTRUCTION EQUIPMENT

The following are lists of major items of relevant equipment that I/we **presently** own or lease and will have available for this contract or will acquire or hire for this contract if my/our tender is accepted.

- (a) Details of major equipment that is owned by and immediately available for use on this Contract should my / our tender be accepted.

Quantity	Description, Size, Capacity, etc.

- (b) Details of major equipment that will be **hired in**, or acquired, for use on the Contract should my / our tender be accepted.

Quantity	Description, Size, Capacity, etc.

Attach additional pages if more space is required.

I, the undersigned, warrant that I am duly authorised to do so on behalf of the enterprise and confirm that the contents of this schedule are, to my personal knowledge and best belief, both true and correct.

Signed

Date

Name

Position

Tenderer

3E: SCHEDULE OF PROPOSED SUBCONTRACTORS

We notify you that it is our intention to employ the following Subcontractors to work on this Contract.

If we are awarded a Contract we agree that this notification does not change the requirement for us to submit the names of proposed Subcontractors in accordance with requirements in the Contract for such appointments. If there are no such requirements in the Contract, then your written acceptance of this list shall be binding between us.

Name and Address of Proposed Subcontractor	Nature and Extent of Work	Previous Experience with Subcontractor

I, the undersigned, warrant that I am duly authorised to do so on behalf of the enterprise and confirm that the contents of this schedule are, to my personal knowledge and best belief, both true and correct.

Signed

Date

Name

Position

Tenderer

CONTRACT

PART 1 (OF 4): AGREEMENT AND CONTRACT DATA

C1.1	Form of Offer and Acceptance
C1.2	Contract Data
C1.3	Form of Guarantee
C1.4	Health and Safety Agreement
C1.5	Disclosure Statement
C1.6	Adjudication Board Member Agreement

C1.1: FORM OF OFFER AND ACCEPTANCE

(Agreement)

1. OFFER

The Employer, identified in the Acceptance signature block, has solicited offers to enter into a contract in respect of the following Works:

ST FRANCIS BAY GROUNDWATER DEVELOPMENT OF THREE BOREHOLES

The Tenderer, identified in the Offer signature block below, has examined the documents listed in the Tender Data and Addenda thereto as listed in the Tender Schedules, and by submitting this Offer has accepted the Conditions of Tender.

By the representative of the Tenderer, deemed to be duly authorised, signing this part of this Form of Offer and Acceptance, the Tenderer offers to perform all of the obligations and liabilities of the Contractor under the Contract including compliance with all its terms and conditions according to their true intent and meaning for an amount to be determined in accordance with the Conditions of Contract identified in the Contract Data.

THE OFFERED TOTAL OF THE PRICES INCLUSIVE OF VALUE-ADDED TAX IS:

.....
.....
.....

..... Rand (in words); R (in figures)

This Offer may be accepted by the Employer by signing the Acceptance part of this Form of Offer and Acceptance and returning one copy of this document to the Tenderer before the end of the period of validity stated in the Tender Data, whereupon the Tenderer becomes the party named as the Contractor in terms of the Conditions of Contract identified in the Contract Data.

For the **Tenderer**:

.....
Signature

.....
Name

.....
Capacity

Name and Address of Organisation:

.....

.....

.....

.....

.....

Signature and Name of Witness:

.....

Signature

.....

Name

Date:

2. ACCEPTANCE

By signing this part of this Form of Offer and Acceptance, the Employer identified below accepts the Tenderer's Offer. In consideration thereof, the Employer shall pay the Contractor the amount due in accordance with the Conditions of Contract identified in the Contract Data. Acceptance of the Tenderer's Offer shall form an agreement between the Employer and the Tenderer upon the terms and conditions contained in this Agreement and in the Contract that is the subject of this Agreement.

The terms of the contract are contained in

Part C1: Agreements and Contract Data (which includes this Agreement)

Part C2: Pricing Data

Part C3: Scope of Work

Part C4: Site Information

and drawings and documents or parts thereof, which may be incorporated by reference into the above listed Parts.

Deviations from and amendments to the documents listed in the Tender Data and any Addenda thereto listed in the Tender Schedules as well as any changes to the terms of the Offer agreed by the Tenderer and the Employer during this process of offer and acceptance, are contained in the Schedule of Deviations attached to and forming part of this Agreement. No amendments to or deviations from said documents are valid unless contained in this Schedule, which must be duly signed by the authorised representative(s) of both parties.

The tenderer shall within two weeks after receiving a completed copy of this Agreement, including the Schedule of Deviation (if any), contact the Employer's agent (whose details are given in the Contract Data) to arrange the delivery of any bonds, guarantees, proof of insurance and any other documentation to be provided in terms of the Conditions of Contract identified in the Contract Data at, or just after, the date this Agreement comes into effect. Failure to fulfil any of the obligations in accordance with those terms shall constitute a repudiation of this Agreement.

Notwithstanding anything contained herein, this Agreement comes into effect on the date when the Tenderer receives one fully completed original copy of this document, including the Schedule of Deviations (if any). Unless the Tenderer (now Contractor) within five (5) days of the date of such receipt notifies the Employer in writing of any reason why he cannot accept the contents of this Agreement, this Agreement shall constitute a binding contract between the parties.

For the **Employer**:

.....
Signature
.....
Name
.....
Capacity

Name and Address of Organisation:

.....
.....
.....
.....

Signature and Name of Witness:

.....
Signature
.....
Name

Date:

3. SCHEDULE OF DEVIATIONS

Notes:

- 1. The extent of deviations from the tender documents issued by the Employer prior to the tender closing date is limited to those permitted in terms of the Conditions of Tender.
- 2. A Tenderer's covering letter shall not be included in the final contract document. Should any matter in such letter, which constitutes a deviation as aforesaid, become the subject of agreements reached during the process, of offer and acceptance, the outcome of such agreement shall be recorded here.
- 3. Any other matter arising from the process of offer and acceptance, either as a confirmation, clarification or change to the tender documents, and which it is agreed by the Parties becomes an obligation of the contract, shall also be recorded here.
- 4. Any change or addition to the tender documents arising from the above agreements and recorded here, shall also be incorporated into the final draft of the Contract.

1.

Subject:

Details:

2.

Subject:

Details:

3.

Subject:

Details:

4.

Subject:

Details:

5.

Subject:

Details:

6.

Subject:

Details:

7.

Subject:

Details:

By the duly authorised representatives signing this Schedule of Deviations, the Employer and the Tenderer agree to and accept the foregoing Schedule of Deviations as the only deviations from and amendments to the documents listed in the Tender Data and Addenda thereto as listed in the Tender Schedules, as well as any confirmation, clarification or changes to the terms of the offer agreed by the Tenderer and the Employer during this process of offer and acceptance.

It is expressly agreed that no other matter whether in writing, oral communication or implied during the period between the issue of the tender documents and the receipt by the Tenderer of a completed signed copy of this Agreement shall have any meaning or effect in the contract between the parties arising from this Agreement.

For the Tenderer:

.....

Signature

.....

Name

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Capacity

Name and Address of Organisation

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Witness Signature

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Witness Name

.....

Date

For the Employer:

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Name and Address of Organisation

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4. CONFIRMATION OR RECEIPT

The Tenderer, (now Contractor), identified on the Offer part of this Agreement, hereby confirms receipt from the Employer, identified in the Acceptance part of this Agreement, of one fully completed original copy of this Agreement, including the Schedule of Deviations (if any) today:

the (day)

of (month)

20 (year)

at (place)

For the **Contractor**:

.....
Signature

.....
Name

.....
Capacity

Signature and Name of Witness:

.....
Signature

.....
Name

C1.2: CONTRACT DATA

The General Conditions of Contract for Construction Works, Third Edition, (2015) published by the South African Institution of Civil Engineering, Private Bag X200, Halfway House, 1685, are applicable to this Contract and are obtainable from www.saice.org.za.

Copies of these Conditions of Contract may be obtained on the tenderer's own cost from the SAICE.
(Tel: 011 – 055 947).

PART 1: DATA PROVIDED BY THE EMPLOYER

The following contract specific data, referring to the General Conditions of Contract for Construction Works, Third Edition, 2015, are applicable to this Contract:

Clause	Description / Wording
1.1.1.13	The Defects Liability Period is 12 months, measured from the date of the Certificate of Completion.
1.1.1.14	The time for achieving Practical Completion is 6 months , calculated from the Commencement Date.
1.1.1.15	The Employer is the Kouga Local Municipality.
1.1.1.16	The Employer's Agent is represented by an employee duly authorised thereto in writing.
1.1.1.26	The Pricing Strategy is: Re-measurable Contract
1.2.1.2	The Employer's address for receipt of communications is: 33 Da Gama Road Jeffreys Bay Postal Address: P O Box 21 Jeffrey Bay 6330 Telephone: 042 200 2200 Email: infrastructuretenders@kouga.gov.za
1.2.1.2	The Employer's Agent's address for receipt of communications and notices is: Zutari (Pty) Ltd Lion Roars Office Park Corner Heugh Road & 3rd Avenue Walmer Gqeberha 6070 Telephone: 041 503 3900 Email: johan.vandermescht@zutari.com

Clause	Description / Wording
3.2.3	The Employer's Agent shall obtain specific approval from the Employer before executing any of his functions or duties according to the following Clauses of the General Condition of Contract: 1. New Clause 3.2.3.1 "For expenditure on the Contract to exceed the Contract Sum"; 2. Existing Clauses: 3.3.1 - Nomination of person as Employer's Agent's Representative. 5.7.2 - Work at night as well as by day 5.8 – Non-working times 5.12 - Granting of extension of time excluding Clause 5.12.2.2 (Abnormal climatic conditions) 5.13 - Reduction of penalty for delay. 5.14.2 - The issue of a Certificate of Practical Completion. 5.14.4 - The issue of a Certificate of Completion. 5.16.1 - The issue of a Final Approval Certificate. 6.3 – Variation Orders which may exceed R 20 000 6.6 - Instruction to expend on Provisional and Prime Cost Sums 6.11 - Adjustment of General Items & Approval of Claims 8.2.2.2 - Order to repair and make good damage arising from any "excepted" risk.
3.2.4	The Employer's Agent has been appointed as Agent on this contract, in terms of Clause 5 of the Construction Regulations, 2014 as promulgated in terms of Section 43 of the Occupational Health and Safety Act, 1993. The duly appointed H&S Officials has been appointed as Client Agents on this contract, in terms of Clause 5 of the Construction Regulations, 2014 as promulgated in terms of Section 43 of the Occupational Health and Safety Act, 1993. The Principal Contractor shall perform a preliminary assessment of the project generated H&S plan and submit such to the employers agent for legal compliance reassessment & verification / approval prior to any works commencing. The duly appointed H&S Officials will be responsible for further monitoring and the auditing of the approved H&S plan for legal compliance.
4.3.1	<u>Add the following</u> to the clause: "For conventional construction works the Basic Conditions of Employment Act of 1997 (Act No 75 of 1997) shall apply and the minimum employment conditions which will apply shall be guided by the latest Sectorial Determination: Civil Employers Agenting Sector published from time to time. Basic Conditions of Employment Act of 1997 (Act No 75 of 1997) as per Government Notice R63 of 25 January 2002, shall apply to works described in the Scope of Work as being labour intensive and which are undertaken by unskilled or semi-skilled workers." "The Contractor shall comply with the Occupational Health and Safety Specification prepared by the Employer in terms of the Construction Regulations, 2014 promulgated in terms of Section 43 of the Occupational Health and Safety Act (Act No. 85 of 1993). Without limiting the Contractor's obligations in terms of the Contract, the Contractor shall before commencement of the Works or any part thereof, be in the possession of an approved Health and Safety Plan."

Clause	Description / Wording
4.3	Add the following at the end of Clause 4.3: "4.3.3 The Employer and the Contractor hereby agree, in terms of the provisions of Section 37(2) of the Occupational Health and Safety Amendment Act, 1993 (Act 85 of 1993), hereinafter referred to as 'the Act', that the following arrangements and procedures shall apply between them to ensure compliance by the Contractor with the provisions of the Act: (i) The Contractor undertakes to acquaint the appropriate officials and employees of the Contractor with all relevant provisions of the Act and the Regulations promulgated in terms of the Act. (ii) The Contractor undertakes that all relevant duties, obligations and prohibitions imposed in terms of the Act and Regulations on the Contractor will be fully complied with. The Contractor accepts sole liability for such due compliance with the relevant duties, obligations and prohibitions imposed by the Act and Regulations and expressly absolves the Employer from himself being obliged to comply with any of the aforesaid duties, obligations and prohibitions, with the exception of such duties, obligations and prohibitions expressly assigned to the Employer in terms of the Act and its associated Regulations. (iii) The Contractor agrees that any duly authorised officials of the Employer shall be entitled, although not obliged, to take such steps as may be necessary to monitor that the Contractor has conformed to his undertakings as described in paragraphs (i) and (ii) above, which steps may include, but will not be limited to, the right to inspect any appropriate site or premises occupied by the Contractor, or any appropriate records or safety plans held by the Contractor. (iv) The Contractor shall be obliged to report forthwith to the Employer and Employer's Agent any investigation, complaint or criminal charge which may arise as a consequence of the provisions of the Act and Regulations, pursuant to work performed in terms of this Contract, and shall, on written demand, provide full details in writing, to the Employer and Employer's Agent, of such investigation, complaint or criminal charge. 4.3.4 The Contractor shall furthermore, in compliance with Constructional Regulations 2014 to the Act: (i) Acquaint himself with the requirements of the Employer's health and safety specification as laid down in regulation 5(1)(b) of the Construction Regulation 2014, and prepare a suitably and sufficiently documented health and safety plan as contemplated in regulation 7(1)(b) of the Construction Regulation 2014 for approval by the Employer or his assigned agent. The Contractor's health and safety plan and risk assessment shall be submitted to the Employer for approval within fourteen (14) days after the Commencement Date and shall be implemented and maintained from the Commencement of the Works. (ii) The Employer, or his assigned agent, reserves the right to conduct periodic audits, as contemplated in the Construction Regulations 2014, to ensure that the Contractor is compliant in respect of his obligations. Failure by the Contractor to comply with the requirements of these Regulations shall entitle the Employer's Agent, at the request of the Employer or his agent, to suspend all or any part of the Works, with no recourse whatsoever by the Contractor for any damages incurred as a result of such suspension, until such time that the Employer or his agents are satisfied that the issues in which the Contractor has been in default have been rectified."
5.3.1	The documentation required before the commencement of the Works is: (i) Health and Safety Plan (Refer Clause 4.3) The Contractor shall deliver his health and safety plan, complete with Risk Assessment, in terms of Regulation 5(1) of the Construction Regulations (2014).

Clause	Description / Wording
	(ii) Initial Programme (Refer Clause 5.6) The Contractor shall deliver his Initial Programme of carrying out the Works. (iii) Security (Refer Clause 6.2) The Contractor shall submit a Performance Guarantee from an Insurance Company or Bank to be jointly and severally bound with the Contractor, in accordance with the provisions of the Form of Guarantee, in a sum equal to ten per cent (10%) of the Contract Sum. The wording of the Guarantee shall be identical to the pro-forma provided under Clause C1.3: Form of Guarantee of the Contract Data. (iv) Insurance (Refer Clause 8.6) The Contractor shall submit a "Letter of Confirmation" from the approved Insurance Company certifying that: - that the applicable Contractor complies in full with all the requirements and stipulations of Clause 8.6 of the Conditions of Contract, as amended in the Contract Data and, - the Insurance Company will immediately notify the Employers Agent of any changes or amendments to the policy / policies and, - the Insurance Company will immediately notify the Employers Agent of any non-payment or default relating to the premiums and or policy / policies and, - the Insurance Company will immediately notify the Employers Agent should any of the applicable insurances expire or be cancelled before the issue of the "Certificate of Completion" or the "Final Approval Certificate", as the case may be."
5.3.2	The documentation shall be submitted within 14 days from the Commencement Date.
5.3.3	Add the following to Clause 5.3.3 after the last sentence: "The Contractor shall not commence working until they have an approved project specific health and safety plan in terms of the Occupational Health and Safety Act 1993: Construction Regulations 2014 and complied with the initial requirements thereof."
5.4.1	Between the wording "... Site," and "the location" In the third line, add the following: "subject to the Contractor having an approved project specific health and safety plan in terms of the Occupational Health and Safety Act 1993: Construction Regulations 2014 and complied with the initial requirements thereof,"
5.4.2	Access to and possession of Site shall not be exclusive to the Contractor but as set out in the Scope of Work and Site Information.
5.6.1	The Contractor shall deliver his Works programme within fourteen (14) days after the Commencement Date.
5.8.1	Delete the words "between sunset and sunrise" in the first line and replace with "outside normal working hours". Non-working days are Saturdays and Sundays. Special non-working days are all applicable gazetted public holidays, election day of the local government elections and national elections (when applicable) and the year-end break. For the purposes of this Contract the year-end break shall be as declared by SAFCEC. The work done by the contractor should be done at hours of the day so as not to influence the normal

Clause	Description / Wording
	operation of the existing infrastructure in any manner.
5.8.3	Add the following new Clause: “5.8.3 The additional cost of supervision and monitoring by the Employers Agent or his representatives, outside non-working times, in accordance with Clause 5.8.1 shall be for the Contractor's account.”
5.12.2.2	Add the following to Clause 5.12.2.2: The time period specified as the time for completion includes allowances for delays and days on which it is expected that work, on the critical path items of the Works, would be prevented due to normal weather conditions such as wind, rainfall or the subsequent waterlogged condition. Based on average weather conditions of wind, rain and sunshine the allowances are actual and consequential delays shall be as follows: • 3 working days per month for the months of May to October • 2 working days per month for the months of November to April If the Contractor has been prevented by these weather conditions from working on the critical path items of the works, then he must notify the Employer's Agent in writing. The submission shall be made within five calendar days of the resumption of work. The Employer's Agent shall upon considering all the relevant factors determine the extension of time to be granted on the basis that an extension of time to the contract will only be granted if the total number of days upon which work on the critical items was prevented, exceeds the total number of days calculated in terms of the above allowance and considering the official contract period as a whole. The tendered sums of the appropriate time-related items shall be increased to take account of the extensions of time granted.
5.12.2.4	In the event of any disruption which is entirely beyond the Contractor's control, the only compensation will be under the rates tendered for under items 1.2.8 through to 1.2.11.
5.12.3	Delete the entire subclause 5.12.3.
5.12.5	<u>Add the following</u> to Clause 5.12 5.12.5 Critical Path Provision A delay in so far as extension of time is concerned, will be regarded as a delay only if, on a claim by the Contractor in accordance with the General Conditions of Contract, the Employer's Agent rules that all progress on an item or items of work on the critical path of the approved programme for the execution of the Works by the Contractor, has been brought to a halt. Delays on normal working days only, based on a working week, of five normal working days, will be taken in account for the extension of time.
5.13.1	The penalty for failing to complete the Works is R 5 000 per day.
5.14.1	The requirements for Practical Completion are that the Works reach a state of readiness, fit for the intended purpose and occupation without danger or undue inconvenience to the Employer.
5.14.2	Issue of Certificate of Practical Completion. Replace "the Employer's Agent" in the second line with the following:

Clause	Description / Wording
	", the Contractor shall notify the Employer's Agent, who shall inspect the works and the Employer's Agent"
5.14.4	Add the following to Clause 5.14.4: "The work listed in terms of Clause 5.14.2 shall however be completed within 21 days from the date of issue of the Certificate of Practical Completion. Should the Contractor fail to complete all the work so listed within the stated period of 21 days, the date of issue of the Certificate of Practical Completion shall be amended and extended in respect of the outstanding work by the amount of additional time taken by the Contractor to complete all such work."
5.14.5.5	Delete the contents of Clause 5.14.5.5 and replace with: "Insurance of the Works shall continue until the expiration of the Defects Liability Period, in terms of the new Clause 8.6 contained in this Contract Data".
5.16.3	The latent defect period is 10 years.
6.2.1	Replace the wording "as selected" in Clause 6.2.1 with "as stated". The security to be provided by the Contractor shall be: • a Performance Guarantee of ten per cent (10%) of the Contract Sum, plus • Retention Money amounting to five per cent (5%) of the Contract Price. Retention monies due shall be subjected to Clauses 6.10.1.3 and 6.10.3. The Performance Guarantee shall be from an approved Insurance Company or Bank to be jointly and severally bound with the Contractor, in accordance with the provisions of the Performance Guarantee. A Retention Money Guarantee is permitted. The wording of the Performance Guarantee shall be identical to the pro-forma provided under Clause C1.3: Performance Guarantee of the Contract Data The time to deliver the Performance Guarantee is within fourteen (14) days after the Commencement Date.
6.2.2	Replace the entire contents of Clause 6.2.2 with the following: "If the Contractor fails in his obligations to provide the stated security within the period stated in Clause 5.3.2, or if the Performance Guarantee shall differ from the pro-forma provided under Clause C1.3: Performance Guarantee of the Contract Data, the Employer may terminate the Contract in terms of Clause 9.2."
6.2.3	Replace the entire contents of Clause 6.2.3 with the following: "The Contractor shall ensure that the Performance Guarantee remains valid and enforceable until the issue of the Certificate of Completion."
6.5.1.2.3	The percentage allowance shall be seven percent (7%).
6.8.2	Contract Price adjustment will not be applicable to this contract.
6.8.3	Price adjustments for variations in the costs of special materials are <u>not</u> allowed.

Clause	Description / Wording
6.10.1	In subclause 6.10.1 delete "monthly".
6.10.1.5	The percentage advance on materials on site not yet built into the Permanent Works is 80%.
6.10.3	Replace the entire contents of Clause 6.10.3 with the following: "Payment of the amounts referred to in Clauses 6.10.1.1, 6.10.1.2, 6.10.1.3 and 6.10.1.4 shall be subject to a retention by the Employer of an amount (called the "retention money"), being the percentage retention stated in the Contract Data, of the said amounts due to the Contractor, until the retention money reaches the "Limit of retention money" stated in the Contract Data." The percentage retention shall be ten per cent (10%) and the "Limit of retention money" shall be five per cent (5%) of the Contract Price, excluding Value Added Tax.
6.10.4	Replace the wordings "within 7 days" and "within 28 days" in Clause 6.10.4 with the wording "within 5 working days: and "within 30 days".
6.10.6.2	Replace the contents of Clause 6.10.6.2 with the following: "No interest shall be payable to the Contractor upon any moneys retained or overdue in terms of the Contract."
6.11.1	Delete this clause.
7.8	The Defects Liability Period shall be twelve (12) months, measured from the date of Certificate of Completion.
7.2.1	Add the following at the end of Clause 7.2.1: "Unless otherwise directed in writing by the Employers Agent, all materials for the Permanent Works shall be new and unused."
7.8.2.2	In sub-subclause 7.8.2.2 add the following: ", subject to such work being done on a written instruction by the Employer's Agent."

Clause	Description / Wording
8.6 8.6.1	<u>Delete Clause 8.6. and replace with the following:</u> Notwithstanding the provisions contained in the General Conditions of Contract regarding insurance, and without limiting the obligations, liabilities and responsibilities of the Contractor in any way whatsoever and on the understanding that the Contractor is not relieved from his obligations towards the Employer regarding the provision (by the Contractor) of any other insurances, the Contractor shall effect and maintain for the duration of the Contract until the expiry of the Defects Liability Period, including initial transit to the Contract site ⇒ Contract Works Insurance (including SASRIA Insurance) and ⇒ Public Liability (Third Party) Insurance both in the joint names of the Employer and the Contractor (including all Sub-Contractors whether nominated or otherwise), and those on whose behalf the Employer has authority to arrange insurance. The Contractor shall pay for all deductibles incurred as a result of claims made under the Contract. The Policy will be subject to the normal Terms, Exceptions and Conditions applicable to such insurance and will provide the following cover: <u>Section 1 – The Contract Works</u> (a) The Contract Works to be undertaken in terms of the Insured Contract, including all temporary works erected or in the course of erection and all materials for incorporation therein. “Temporary Works” shall mean all constructional aids, equipment or structures (not being part of the permanent works) used or intended for use on the Insured Contract and which (i) do not comprise mobile plant, (ii) the Insured does not intend to remove from the Contract Site on completion of the Contract, and/or (iii) have no residual value at the completion of the Contract (other than scrap value) solely due to their specialized nature, to the extent that the value has been included in the Contract price. (b) Surrounding property (as defined in the Policy) not included in nor forming part of the property insured under Item 1 above. <u>Section 2 – Contract Liability</u> Indemnity against the insured parties legal liability in the event of accidental death of or injury to third party persons and/or accidental loss of or damage to third party property arising directly from the execution of the contract. THE SUMS INSURED/LIMIT OF LIABILITY Section 1 – CONTRACT WORKS (a) Property insured under Section 1(a) The Contract Works The Agreed and Accepted Contract Value (subject to a maximum of R100M) in respect of any one Contract plus a maximum of 25% escalation, unless the Insurers' agreement to amend these limits is obtained in writing. (b) Property insured under Section 1(b) Surrounding Property R2,500,000 each and every loss

Clause	Description / Wording																												
	SECTION 2 - CONTRACT LIABILITY Limit of Indemnity R10 000 000 (Ten Million Rand) for any one occurrence or series of occurrences arising out of one event. EXCLUDED CONTRACTS The following Contracts are specifically excluded from the “blanket” cover arranged by the Employer, and insurance cover will not be arranged by the Employer. The Employer shall arrange with the Insurer for specific insurance cover for these contracts, and shall confirm such arrangement and all specific Terms & Conditions of such policy with the Contractor in writing. 1. Any Contract with a Contract Price at award of over R100,000,000 2. Any Contract with a construction period at award exceeding 24 months 3. Any Contract with a Maintenance or Defects Liability Period exceeding 12 months 4. Any Contract involving 4.1 Underground Mine or Colliery Working' 4.2 Tunnelling 4.3 Foul Berthing 4.4 Stevedoring Work 4.5 “Wet” work at or about or connected with dams, docks, harbours, piers, breakwaters or otherwise involving construction in water THE DEDUCTIBLES The first amount payable by the Insured in respect of each and every occurrence giving rise to a claim under the Policy shall be as follows: (A) <u>STANDARD BUILDING CONTRACTS</u> <table><tr><th rowspan="2"></th><th rowspan="2">Description</th><th colspan="2">Existing</th><th colspan="2">Renewal</th></tr><tr><th>Gross rate</th><th>Excess</th><th>Gross rate</th><th>Excess</th></tr><tr><td>A1</td><td>Contract Value up to R10M</td><td>0.205%</td><td>R 10,000</td><td>0.205%</td><td>R 10,000</td></tr><tr><td>2</td><td>Contract Value above R10M up to R25M</td><td>0.255%</td><td>R15,000</td><td>0.255%</td><td>R15,000</td></tr><tr><td>3</td><td>Contract Value above R25M</td><td>0.255%</td><td>R25,000</td><td>0.255%</td><td>R25,000</td></tr></table>		Description	Existing		Renewal		Gross rate	Excess	Gross rate	Excess	A1	Contract Value up to R10M	0.205%	R 10,000	0.205%	R 10,000	2	Contract Value above R10M up to R25M	0.255%	R15,000	0.255%	R15,000	3	Contract Value above R25M	0.255%	R25,000	0.255%	R25,000
	Description			Existing		Renewal																							
		Gross rate	Excess	Gross rate	Excess																								
A1	Contract Value up to R10M	0.205%	R 10,000	0.205%	R 10,000																								
2	Contract Value above R10M up to R25M	0.255%	R15,000	0.255%	R15,000																								
3	Contract Value above R25M	0.255%	R25,000	0.255%	R25,000																								

Clause	Description / Wording					
	(B) <u>CIVIL & ALL OTHER CONTRACTS</u>					
		Description	Existing		Renewal	
			Gross rate	Excess	Gross rate	Excess
	B1	Contract Value up to R1M Canals/water channels & bridges	0.350%	0.25% of claim minimum R10 000 R35,000	0.350%	R 10,000
	2	Contract Value above R1M up to R5M Canals/water channels & bridges	0.350%	0.25% of claim minimum R20 000 R35,000	0.350%	0.25% of claim minimum R15,000 Minimum R35,000
	3	Contract Value above R5M Canals/water channels & bridges	0.350%	0.25% of claim minimum R50 000 R50,000	0.350%	0.25% of claim minimum R50,000
	(C) <u>LIABILITY RISKS</u>					
	Liability limit: R10,000,000					
		Description	Existing		Renewal	
			Gross rate	Excess	Gross rate	Excess
	All Contracts	0.10%	R25,000 in respect of loss or damage caused by Fire and damage to Underground Services. R20,000 in respect of all other losses.	0.15%	R25,000 in respect of loss or damage caused by Fire and damage to Underground Services. R10,000 in respect of all other losses.	
(D) <u>SASRIA</u>						
Rate : 1.00%						

Clause	Description / Wording
8.6.2	The Contractor will pay all premiums in connection with the insurance effected by the Contractor.
8.6.3	In the event of any occurrence which is likely to give rise to a claim under the insurance arranged by the Contractor, the Contractor or sub-Contractor shall (a) in addition to any statutory requirement or other requirements contained in the Conditions of Contract, immediately notify the Employer's Insurance Brokers by telephone or in writing giving the circumstances, nature and an estimate of the loss or damage; (b) complete a Claims Advice Form available from the Insurance Brokers to whom the form shall be returned without delay – a copy shall be sent to the Employer's Agent; (c) negotiate the settlement of claims with the Insurers through the Employer's Insurance Brokers, subject to the settlement being approved by the Employer. The Employer and Insurers shall have the right to make all and any enquiries, either on the site or elsewhere, as to the cause and results of any such occurrence and the Contractor shall give full facilities for carrying out such enquiries.
8.6.4	Any amount which becomes payable as a result of a claim by the Contractor under the insurance effected by the Contractor shall be paid net of the deductibles to the Employer, who shall pay the said amount to the Contractor upon rectification, repair or reinstatement of the loss or damage, but this provision shall not in any way affect the Contractor's obligations, liabilities and responsibilities in terms of the Contract.
8.6.5	Submission of a Tender shall be deemed as acceptance by the Contractor that he is satisfied with the scope of the insurances effected by the Employer.
8.6.6	The Contractor and/or Sub-Contractor shall provide, as a minimum, the following: (a) Proof of registration with the Department of Labour as an employer, in terms of the Compensation for Occupational Injuries and Diseases Act 1993, as amended (b) Common Law Liability Insurance for the duration of the Contract Period and with a minimum Limit of Indemnity of not less than R1 000 000 for any one accident; (c) Insurance on an All Risks basis for construction plant, equipment and other things (except those intended to incorporation into the works) brought onto the site to the full value of such construction plant, equipment and other things; (d) Motor Vehicle Liability Insurance, comprising a minimum of Balance of Third Party motor risks, including Passenger Liability, subject to a minimum limit of R2,5 million; (e) Where the Contract involves manufacturing and/or fabrication of the works or part thereof at premises other than the site, the Contractor shall satisfy the employer that all materials and equipment for incorporation in the works are adequately insured during manufacture and/or fabrication. In the event of the Employer having an insurable interest in such works during manufacture or fabrication, then such interest shall be noted by endorsement to the Contractor's Policies of Insurance. (f) Imported equipment or component parts or materials to be supplied in terms of this Contract which require any process of assembly or finishing in South Africa prior to delivery to the site are to be insured by the Contractor up to the commencement of transit to site of the assembled or finished equipment, component parts or materials, unless special arrangements are made with the Employer.

Clause	Description / Wording
8.6.7	These insurances shall be maintained in force for the duration of the Contract, including any Defects Liability Period and in respect of Sub-Contractors, the Contractor shall be deemed to have complied with the provisions of the requirements relating to insurance by ensuring that the Sub-Contractors have affected such insurance.
8.6.8	The Contractor may affect, at his own cost, any insurance additional to that affected by the Employer which he deems necessary in his own interests. The Employer reserves the right to call for full information regarding such insurances.
8.6.9	The insurances to be provided by the Contractor and Sub-Contractor shall be affected with Insurers and on terms approved by the Employer (which approval shall not be unreasonably withheld) and the Contractor shall, if required by the employer, produce to the employer the Policy or Policies of insurance and the receipts for payment of the current premiums.
8.6.10	If the Contractor fails to effect and keep in force the insurances referred to, then the employer may effect and keep in force any such insurance and pay such premium or premiums as may be necessary for that purpose and, from time to time, deduct the amount paid by the Employer from any monies due or which may become due to the Contractor or recover same as a debt from the Contractor.
8.6.11	Where the Contractor is responsible for the appointment of Sub-Contractors, then the Contractor shall (a) ensure that potential and appointed Sub-Contractors are aware of the whole content of this Special Conditions of Contract Clause; and (b) Ensure the compliance of Sub-Contractors with this Special Conditions of Contract clause, where applicable. The Contractor warrants that he shall give all notices and shall observe all the Terms and Conditions and requirements of all insurances applicable to this Contract.
9.1.4	Replace the contents of Clause 9.1.4 with the following: “Up to the time of termination of the Contract by either party in terms of this Clause, or until the Contractor gives notice in terms of this Clause to terminate the Contract and the Contractor is precluded from exercising his right to terminate the Contract because the Employer agrees to bear any resultant additional costs provided for in Clause 9.1.2.2 hereof, the Contractor: a) will be entitled to an extension of calendar time for working days lost as may be approved by the Employer’s Agent, and b) will be reimbursed the cost of delays per working day, where the number of working days will be determined pro rata the effect the delays have on the progress of the work as agreed with the Employer’s Agent. Payment in full and final settlement will be made at the rates tendered for the payment items specially provided in the Bill of Quantities Where the circumstances described in Clauses 9.1.1 and 9.1.2 are applicable only to a certain portion of the contract, the Employer’s Agent will decide after consulting the Contractor, to what extent the contract as a whole is affected and whether or not a claim in terms of this Clause can be submitted. No payment will be made in terms of this Clause after the expiry of the Due Completion Date.
10.3.2	Dispute resolution shall be by amicable settlement.
10.5.1	Dispute resolution shall be by ad-hoc adjudication.

Clause	Description / Wording
10.5.3	The number of Adjudication Board Members to be appointed is one (1).
10.7.1	The determination of disputes which are unresolved in terms of Clause 10.5.3 shall be by arbitration.
10.11	Add the following additional clause: “Details to be confidential The Contractor shall treat the details of the Works comprised in this Contract as private and confidential (save in so far as may be necessary for the purposes hereof) and shall not publish or disclose the same or any particulars thereof in any trade or technical paper elsewhere without the prior written consent of the Employer’s Agent.”

PART 2: DATA PROVIDED BY THE CONTRACTOR

Clause	Description / Wording
1.1.1.9	The Contractor is:
1.2.1.2	The Contractor's address for receipt of communications and notices is: Address (Postal): Address (Physical): Telephone Number (Work): Telephone Number (After Hours): Facsimile Number: Electronic Mail Address (E-mail):

C1.3: FORM OF GUARANTEE

PRO FORMA
PERFORMANCE GUARANTEE

GUARANTOR DETAILS AND DEFINITIONS

“Guarantor” means:

Physical address:

“Employer” means:

“Contractor” means:

“Employers Agent” means:

“Works” means:

“Site” means:

“Contract” means: The Agreement made in terms of the Form of Offer and Acceptance and such amendments or additions to the Contract as may be agreed in writing between the parties.

“Contract Sum” means: The accepted amount inclusive of tax of R

Amount in words:

“Guaranteed Sum” means: The maximum aggregate amount of R

Amount in words:

“Expiry Date”: This Performance Guarantee shall remain in full force and effect **until the issue of the Certificate of Completion of the Works** in terms of the Contract. (Refer Clause 2 hereunder).

CONTRACT DETAILS

Employers Agent issues: Interim Payment Certificates, Final Payment Certificate and the Certificate of Completion of the Works as defined in the Contract.

PERFORMANCE GUARANTEE

1. The Guarantor’s liability shall be limited to the amount of the Guaranteed Sum.

2. The Guarantor's period of liability shall be from and including the date of issue of this Performance Guarantee and up to and including the date of issue by the Employers Agent of the **Certificate of Completion of the Works** or the date of payment in full of the Guaranteed Sum, whichever occurs first unless the Guarantor is advised in writing by the Employer of his intention to institute claims, and the particulars thereof, in which event this guarantee shall remain in full force and effect until all such claims have been paid or liquidated. The Employers Agent and / or the Employer shall inform the Guarantor in writing of the date on which the Certificate of Completion of the Works has been issued.
3. The Guarantor hereby acknowledges that:
 - 3.1 any reference in this Performance Guarantee to the Contract is made for the purpose of convenience and shall not be construed as any intention whatsoever to create an accessory obligation or any intention whatsoever to create a suretyship;
 - 3.2 its obligation under this Performance Guarantee is restricted to the payment of money.
4. Subject to the Guarantor's maximum liability referred to in 1, the Guarantor hereby undertakes to pay the Employer the sum certified upon receipt of the documents identified in 4.1 to 4.3:
 - 4.1 A copy of a first written demand issued by the Employer to the Contractor stating that payment of a sum certified by the Employers Agent in an Interim or Final Payment Certificate has not been made in term of the Contract and failing such payment within (7) seven calendar days, the Employer intends to call upon the Guarantor to make payment in terms of 4.2;
 - 4.2 A first written demand issued by the Employer to the Guarantor at the Guarantor's physical address with a copy to the Contractor stating that a period of seven (7) days has elapsed since the first written demand in terms of 4.1 and the sum certified has still not been paid;
 - 4.3 A copy of the aforesaid payment certificate which entitles the Employer to receive payment in terms of the Contract of the sum certified in 4.
5. Subject to the Guarantor's maximum liability referred to in 1, the Guarantor undertakes to pay to the Employer the Guaranteed Sum or the full outstanding balance upon receipt of a first written demand from the Employer to the Guarantor at the Guarantor's physical address calling up this Performance Guarantee, such demand stating that:
 - 5.1 the Contract has been terminated due to the Contractor's default and that this Performance Guarantee is called up in terms of 5; or
 - 5.2 a provisional or final sequestration or liquidation court order has been granted against the Contractor and that the Performance Guarantee is called up in terms of 5; and
 - 5.3 the aforesaid written demand is accompanied by a copy of the notice of termination and / or the provisional / final sequestration and / or the provisional liquidation court order.
6. It is recorded that the aggregate amount of payments required to be made by the Guarantor in terms of 4 and 5 shall not exceed the Guarantor's maximum liability in terms of 1.
7. Where the Guarantor has made payment in terms of 5, the Employer shall upon the date of issue of the **Final Payment Certificate** submit an **expense account** to the Guarantor showing how all monies received in terms of this Performance Guarantee have been expended and shall refund to the Guarantor any resulting surplus. All monies refunded to the Guarantor in terms of this Performance Guarantee shall bear zero percent (0%) interest.
8. Payment by the Guarantor in terms of 4 or 5 shall be made within seven (7) calendar days upon receipt of the first written demand to the Guarantor.

- 9. Payment by the Guarantor in terms of 5 will only be made against the return of the original Performance Guarantee by the Employer.
- 10. The Employer shall have the absolute right to arrange his affairs with the Contractor in any manner which the Employer may deem fit and the Guarantor shall not have the right to claim his release from this Performance Guarantee on account of any conduct alleged to be prejudicial to the Guarantor.
- 11. The Guarantor chooses the physical address as stated above for the service of all notices for all purposes in connection herewith.
- 12. This Performance Guarantee is neither negotiable nor transferable and shall expire in terms of 2, where after no claims will be considered by the Guarantor. The original of this Guarantee shall be returned to the Guarantor after it has expired.
- 13. This Performance Guarantee, with the required demand notices in terms of 4 or 5, shall be regarded as a liquid document for the purposes of obtaining a court order.
- 14. Where this Performance Guarantee is issued in the Republic of South Africa the Guarantor hereby consents in terms of Section 45 of the Magistrate's Courts Act No 32 of 1944, as amended, to the jurisdiction of the Magistrate's Court of any district having jurisdiction in terms of Section 28 of the said Act, notwithstanding that the amount of the claim may exceed the jurisdiction of the Magistrate's Court.

Signed at

Date

Guarantor's signatory (1)

Capacity

Guarantor's signatory (2)

Capacity

Witness signatory (1)

Witness signatory (2)

C1.4: HEALTH AND SAFETY AGREEMENT

ARTICLE OF AGREEMENT IN TERMS OF SECTION 37(2) OF THE OCCUPATIONAL SAFETY ACT (1993)

BETWEEN

THE KOUGA LOCAL MUNICIPALITY
(Hereinafter referred to as the "EMPLOYER")

AND

.....
.....
.....

Herein represented by in his/her capacity as
....., duly authorised by virtue of a resolution dated
....., attached hereto as Annexure A, of the said
(Herein after referred to as the "CONTRACTOR")

WHEREAS the CONTRACTOR is the mandatory of the EMPLOYER as contemplated in an agreement in respect of:

.....
.....
.....

Contract number:

AND WHEREAS section 37 of the Occupational Health and Safety Act, 1993 (Act 85 of 1993, hereinafter referred to as the "ACT"), imposes certain powers and duties upon the EMPLOYER.

AND WHEREAS the parties have agreed to enter into an agreement in terms of section 37(2) of the ACT.

NOW THEREFORE the parties agree as follows:

- (a) The CONTRACTOR undertakes to acquaint the appropriate officials and employees of the CONTRACTOR with all relevant provisions of the ACT and the regulations promulgated in terms thereof.
- (b) The CONTRACTOR undertakes that all relevant duties, obligations and prohibitions imposed in terms of the ACT and Regulations will be fully complied with. Provided that should the EMPLOYER prescribe certain arrangements and procedures, that same shall be observed and adhered to by the CONTRACTOR, his officials and employees. The CONTRACTOR shall bear the onus of acquainting himself/herself/itself with such arrangements and procedures.
- (c) The CONTRACTOR hereby accepts sole liability for such due compliance with the relevant duties, obligations, prohibitions, arrangements and procedure, if any, imposed by the ACT and Regulations and the EMPLOYER expressly absolves the EMPLOYER from itself being obliged to comply with any of the aforesaid duties, obligations, prohibitions, arrangements and procedure as the case may be.

- (d) The CONTRACTOR agrees that any duly authorised officials of the EMPLOYER shall be entitled, although not obliged, to take such steps as may be necessary to ensure that the CONTRACTOR has complied with the undertakings as more fully set out in paragraphs (a) and (b) above, which steps may include, but shall not be limited to, the right to inspect any appropriate site or premises occupied by the CONTRACTOR, or to inspect any appropriate records held by the CONTRACTOR or to take such steps it may deem necessary to remedy the default of the CONTRACTOR at the cost of the CONTRACTOR.
- (e) The CONTRACTOR shall be obliged to report forthwith to the EMPLOYER any investigations, complaint or criminal charge which may arise as a consequence of the provisions of the ACT and Regulations, pursuant to work performed in terms of this agreement, and shall, on written demand, provide full details in writing of such an investigation, complaint or criminal charge as the case may be.

Signature(s) of authorised agents:

.....

Name(s) (in block letters):

.....

Capacity of authorized agents:

.....

for and on behalf of the Contractor:

.....
.....
.....
(Name and address of organization)

Witness:

.....
(Full name in block letters as well as signature)

.....
(Signature)

Date:

for and on behalf of the Employer:

Signature of authorized agent:

Name of authorized agent:

Capacity of authorized agent:

for the Employer:

KOUGA LOCAL MUNICIPALITY
P O Box 21
Jeffreys Bay
6330

Witness:

.....
(Full name in block letters as well as signature)

.....
(Signature)

Date:

C1.5: DISCLOSURE STATEMENT

**PRO FORMA
DISCLOSURE STATEMENT**

Date:

Contract:
(Name)

Contractor:
(Name)

Employer:
(Name)

Employers Agent:
(Name)

Dear Sirs

I am willing and available to serve as (ad-hoc / standing) Adjudication Board Member in the above-mentioned Contract.

In accordance with the General Conditions of Contract for Construction Works Adjudication Board Rules relating to the disclosure statements by selected or nominated persons to the adjudication, I hereby state that:

- I shall act with complete impartiality and know of nothing at this time, which could affect my impartiality.
- I have had no previous involvement in this project.
- I do not have any financial interest in this project.
- I am not currently employed by the Contractor, Employer or Employers Agent.
- I do not have any financial connections with the Contractor, Employer or Employers Agent.
- I do not have or have not had a personal relationship with any authoritative member of the Contractor, Employer or the Employers Agent which could affect my impartiality.
- I undertake to immediately disclose to the parties any changes in the above position which could affect my impartiality or be perceived to affect same.

Should there be any deviation from the foregoing statements, details shall be given.

I further declare that I am experienced in the work which is carried out under the Contract and in interpreting the contract documentation.

Name in full:

Signature:

C1.6: ADJUDICATION BOARD MEMBER AGREEMENT

**PRO FORMA
ADJUDICATION BOARD MEMBER AGREEMENT**

This Agreement is entered into between:

Adjudication Board Member:

Name:

Physical Address:

Postal Address:

E-mail Address:

Facsimile Number:

Telephone Number:

Mobile Number:

Contractor:

Name:

Physical Address:

Postal Address:

E-mail Address:

Facsimile Number:

Telephone Number:

Mobile Number:

Employer:

Name:

Physical Address:

Postal Address:

E-mail Address:

Facsimile Number:

Telephone Number:

Mobile Number:

The Contractor and the Employer will hereinafter be collectively referred to as the Parties.

The Parties entered into a Contract for

..... (Name of project) which provides that a dispute under or in connection with the General Conditions of Contract for Construction Works, Second Edition 2015 (GCC), must be referred to **ad-hoc / standing adjudication**.

The undersigned natural person has been appointed to serve as Adjudication Board Member and together with the undersigned Parties agree as follows:

- 1. The Adjudication Board Member accepts to perform his duties in accordance with the terms of the Contract, the General Conditions of Contract for Construction Works Adjudication Board Rules and this Agreement.
- 2. The Adjudicator undertakes to remain independent and impartial of the Contractor, Employer and Employers Agent for the duration of the Adjudication Board proceedings.
- 3. The Adjudication Board Member agrees to serve for the duration of the Adjudication Board proceedings.
- 4. The parties may at any time, without cause and with immediate effect, jointly terminate this Agreement.
- 5. Unless the Parties agree, the Adjudication Board Member shall not act as arbitrator or representative of either Party in any subsequent proceedings between the Parties under the Contract. No Party may call the Adjudication Board Member as a witness in any such subsequent proceedings.
- 6. The standing Adjudication Board's duties shall end upon the Adjudication Board Member(s) receiving notice from the Parties of their joint decision to disband the Adjudication Board.
- 7. The Adjudication Board Member shall be paid in respect of time spent upon or in connection with the adjudication including time spent travelling:
 - a. A monthly retainer of (amount) for (number) of months, and/or
 - b. A daily fee of (amount) based on a (number) hour day, and/or
 - c. An hourly fee of (amount), and/or
 - d. A non-recurrent appointment fee of (amount) which shall be accounted for in the final sums payable
- 8. The Adjudication Board Member's expense incurred in adjudication work shall be reimbursed at cost.

Upon submission of an invoice for fees and expenses to the Parties, the **(Contractor / Employer) *** shall pay the full amount within 28 days of receipt of the invoice and shall be reimbursed by the other party by half the amount so that fees and expenses are borne equally by the Parties. Late payment of such invoice shall attract interest at prime plus 3% points compounded monthly at a prime rate charged by the Adjudication Board Member's bank.

This Agreement is entered into by:

Contractor's signature:
Contractor's name:
Place:
Date:

Employer's signature:
Employer's name:
Place:
Date:

Adjudication Board Member's signature:
Adjudication Board Member's name:
Place:
Date:

*** Delete the inapplicable party**

CONTRACT

PART 2 (OF 4): PRICING DATA

- C2.1 Pricing Instructions
- C2.2 Bill of Quantities
- C2.3 Summary Page for Bill of Quantities

C2.1: PRICING INSTRUCTIONS

C2.1.1 PREAMBLE TO THE BILL OF QUANTITIES

- C2.1.1.1 The method of measurement published by the South African Bureau of Standards in Clause 8 of the Standardized Specifications for Civil Employers Agenting Construction is applicable, subject to the variations and amendments contained in the section "Applicable SABS 1200 Standardized Specifications".
- C2.1.1.2 Descriptions in the Bill of Quantities are abbreviated and comply generally with those in the Standardized Specifications. Clause 8 of each Standardized Specification, read together with the relevant clauses of the Scope of Work, set out what ancillary or associated activities are included in the rates for the operations specified. Should any requirements of the measurement and payment clause of the applicable Standardized Specification, or the Scope of Work, conflict with the terms of the Bill, the requirements of the Standardized or Scope of Work, as applicable, shall prevail.
- C2.1.1.3 The reference clauses in a specification in which further information regarding the bill item can be obtained appear under the "Reference Clause" or "Payment Refers" column in the Bill. The reference clauses indicated are not necessarily the only sources of information in respect of schedule/billed items. Further information and set specifications may be found elsewhere in the contract documents. Standardized Specifications are identified by the letter or letters which follow SABS in the SABS 1200 series of specifications, e.g. G for SABS 1200 G.
- C2.1.1.4 Work reserved for Labour Intensive construction methods will be numbered with a prefix "LI" in the Bill to distinguish them from the conventional construction works. Such work shall be constructed using local labour who is temporarily employed in terms of the Scope of Work.
- C2.1.1.5 Unless otherwise stated, items are measured nett in accordance with the Drawings, and no allowance is made for waste. The Bill has to be completed in black non-erasable ink and the tenderer is referred to the Conditions of Tender as well as the Tender Data with regard to the correction of errors.
- C2.1.1.6 The quantities set out in the Bill of Quantities are the estimated quantities of the work. The tenderers attention is directed to Clause 6.7 of the Conditions of Contract and the Contractor will be required to determine the actual and final quantities of the Works to be executed and the Contractor shall undertake whatever quantities may be directed by the Employers Agent from time to time. The Contract Price for the completed contract shall be computed from the actual quantities of work done, valued at the relevant unit rates and prices.
- C2.1.1.7 The prices and rates to be inserted in the Bill of Quantities are to be the full inclusive prices for the work described under the several items. Such prices and rates shall cover all costs and expenses that may be required in and for the execution of the work described, and shall cover the cost of all general risks, liabilities, and obligations set forth or implied in the documents on which the tender is based, as well as overhead charges and profit. Reasonable prices shall be inserted as these will be used as a basis for assessment of payment for additional work that may have to be carried out.
- C2.1.1.8 A price or rate is to be entered against each item in the Bill of Quantities, whether the quantities are stated or not. An item against which no price / rate is entered will be considered to be covered by the other prices or rates in the Bill.

- C2.1.1.9 Except where rates only are required, the tenderer shall insert all amounts to be included in his total tendered price in the "Amount" column and show the corresponding total tendered price.
- C2.1.1.10 All prices or rates inserted in the Bill of Quantities shall be EXCLUDING VAT. Provision has been made on the Summary Page of the Bill of Quantities, for the addition of VAT.
- C2.1.1.11 Arithmetical errors of responsive tenders shall be corrected in the manner specified under the Conditions of Tender as well as the Tender Data. **(Refer also CIDB Practice Note No. 2 dated February 2008)**
- C2.1.1.12 The units of measurement described in the Bill of Quantities are metric units. Abbreviations used in the Bill of Quantities are as follows:
- | | |
|--|----------------------------|
| mm = Millimetre | h = hour |
| m = Metre | kg = kilogram |
| km = kilometre | t = ton (1 000kg) |
| m ² = square metre | No = Number |
| m ² .pass = square metre-pass | Sum = Lump Sum |
| ha = hectare | MN = MegaNewton |
| m ³ = cubic metre | MN.m = MegaNewton-metre |
| m ³ .km = cubic metre-kilometre | PC Sum = Prime Cost Sum |
| ℓ = Litre | Prov Sum = Provisional Sum |
| kℓ = kilolitre | Lab.month = Labourer.Month |
| MPa = Mega Pascal | % = per cent (percentage) |
| Mℓ = Mega litre | kW = kilowatt |
- C2.1.1.13 The quantities set out in the Bill are the estimated quantities of the Works but the Contractor will be required to undertake whatever quantities as may be directed by the Employers Agent from time to time. The Contract Price for the completed Contract shall be computed from the actual quantities of work done, valued at the relevant unit rates and prices.
- C2.1.1.14 An item against which no price / rate is entered or where a word or phrase such as "included" or "provided elsewhere" will be accepted as a rate of nil (R 0,00) having been entered against such items and covered by the other prices or rates in the Bill. Any work executed to which such a payment item applies, shall be measured under the appropriate items in the Priced Bill and valued at a rate of nil (R 0,00). The rate of nil shall be valid irrespective of any change in the quantities during the execution of the Contract.

NOTE: CORRECTION OF ENTRIES MADE BY TENDERER

Any entry made by the tenderer in the Bill of Quantities, forms, etc., which the tenderer desires to change, shall not be erased or painted out. A line shall be drawn through the incorrect entry and the correct entry shall be written above in black ink and the full signature of the Tenderer shall be placed next to the correction.

C2.2: BILL OF QUANTITIES

REFER TO APPENDIX C

C2.3 SUMMARY OF THE BILL OF QUANTITIES

SECTION 1: PRELIMINARY AND GENERAL	R	.
SECTION 2: SITE CLEARANCE	R	.
SECTION 3: PIPELINES	R	.
SECTION 4: BOREHOLE KIOSKS	R	.
SECTION 5: MECHANICAL	R	.
SECTION 6: ELECTRICAL WORKS	R	.
SECTION 7: BOREHOLE 1, 2 & 3	<u>R</u>	.
NET TOTAL OF TENDER	R	.
ADD 15% VALUE ADDED TAX	<u>R</u>	.
AMOUNT CARRIED TO FORM OF OFFER AND ACCEPTANCE	<u>R</u>	.

Notes:

1. Contract Price is not subject to Contract Price Adjustment (Clause 6.8.2 of the Conditions of Contract).
2. The undersigned, who warrants that he / she is duly authorised to do so on behalf of the enterprise, confirms that the contents of this schedule are within my personal knowledge and are to the best of my belief both true and correct.

Signed

Date

Name

Position

Tenderer

CONTRACT

PART 3 (OF 4): SCOPE OF WORK

C3.1 Description of the Works

C3.2 Engineering

C3.3 Procurement

C3.4 Construction

C3.5 Management

C3.1: DESCRIPTION OF THE WORKS

STATUS

In the event of any discrepancy between the Scope of Work and any part of the SABS 1200 Standardized Specifications, the Bill of Quantities or the Drawings, the Scope of Work shall take precedence and prevail in the Contract.

C3.1.1 EMPLOYER'S OBJECTIVES

The objective of the Employer (Kouga Local Municipality) is to drill and equip new production boreholes and install the required bulk water supply infrastructure in St Francis Bay.

C3.1.2 OVERVIEW OF THE WORKS

This contract forms part of the Kouga Local Municipality's ongoing drought relief initiatives where the intention is to reduce the dependency on existing surface water sources.

C3.1.3 EXTENT OF THE WORKS

The works will take place within the general St Francis Bay area.

The Scope of this Contract includes:

- (a) Drilling of three production boreholes (as per the specifications provided elsewhere in this document).
- (b) Site Clearance
 - Clear and grub $\pm 21,500 \text{ m}^2$ along route of bulk water pipeline, including removal of vegetation.
 - Clear and grub $\pm 300 \text{ m}^2$ at borehole kiosk sites, including removal of vegetation.
 - Stripping of topsoil up to 150 mm and stockpiling for later rehabilitation of disturbed areas, $\pm 1,250 \text{ m}^3$.
- (c) Bulk Water Reticulation
 - Construction (excavation, bedding, testing, and backfilling) of $\pm 4,300 \text{ m}$ of 110 mm and 160 diameter uPVC Class 12 pipes, including fittings, valves, and concrete thrust blocks.
- (d) Borehole Kiosks
 - Construction of 3 x borehole kiosks
 - Construction of $\pm 98 \text{ m}$ of Clear Vu "invisible" fencing, including 3m wide sliding gates at each of the borehole sites.
- (e) Mechanical and Electrical installations
 - The mechanical and electrical equipping of 3 x production boreholes, including centrifugal submersible pumps, pipework, fittings, valves, and associated electrical switchgear.

This description of the Works is not necessarily complete. The above list shall not limit the work to be carried out under this Contract.

C3.1.4 LOCATION OF THE WORKS

The area of works is situated in the town of St Francis Bay in the Eastern Cape Province. The Contractor must note that no additional payment will be made for the construction of temporary access roads to the construction sites, borrow-areas or to the spoil sites, except for payment made under payment item 8.3.2.2 of SANS 1200 A.

The Contractor shall clear any spillage caused by his activities on or near any roads, by whatever means necessary, within 24 hours after such spillage has occurred. No additional payment will be made for the clearance of spillage and all related costs will be deemed to be covered under the relevant items.

C3.1.5 TEMPORARY WORKS

Normal temporary work such as supports for formwork and shoring of trenches, etc. will be required to facilitate construction.

The Contractor shall be responsible for designing and providing any temporary works required. Such temporary works shall be removed upon completion of the Works and the site of such temporary works re-instated to a pristine condition acceptable to the Environmental requirements.

C3.1.6 EXISTING SERVICES

The Contractor shall ensure that the position of all existing services affected by the works have been verified before construction works commences. The Contractor shall take all necessary steps to ascertain the location of existing services before commencing any portion of the Works and shall exercise the greatest care when working in the vicinity of such services.

Should it be necessary to lower or relocate a service, the Contractor will be required to make the necessary arrangements with the relevant service provider and to inform the engineer accordingly.

C3.1.7 PROVIDING ACCESS TO PRIVATE PROPERTIES, BUILDING AND FACILITIES

Access to properties, buildings and businesses must be provided by the Contractor at all times during the course of the contract. The Contractor shall provide suitable provision for pedestrians and vehicles to maintain such access. Such temporary access shall be in the form of portable bridges, temporary backfill or other approved means and shall always allow for the safe passage of vehicles, pedestrians, and goods. The Contractor shall be responsible for maintaining such crossings and removing the same when they are no longer required.

The full extent of all areas in which plant and personnel are operating shall be at all times be clearly demarked and barricaded to prevent access by members of the public.

C3.1.8 ACCOMMODATION OF TRAFFIC

The Contractor should note that no existing roads or traffic lanes may be closed to traffic without prior written permission of the Engineer and the approval of the KLM and or the Municipal Traffic Engineer's office.

Every effort shall be made by the Contractor to keep disruption of existing traffic and pedestrian movements to the absolute minimum during construction. Where existing roads are used, they shall be protected from damage by construction traffic and repaired where instructed by the Engineer.

The safety and convenience of the travelling public is to be considered of utmost importance and every effort must be made to ensure that all temporary road signs, cones, flagmen and speed controls are maintained and effective, and that courtesy is extended to the public at all times.

It is important that the traffic accommodation requirements described in these specifications are adhered to and that all installations meet with the approval of the relevant traffic authority.

Work, including the erection and removal of traffic control facilities, shall be executed between sunrise and sunset on Monday to Saturday, inclusive. Occupation of existing traffic lanes will only be allowed during daylight hours on normal working days, which are defined as Monday to Saturday, inclusive.

The travelling public has the right of way on public roads, and the Contractor shall make use of approved methods to control the movement of his equipment and vehicles so as not to constitute a hazard on public roads.

Failure to maintain road signs, warning signs or flicker lights, and the like, in good condition shall constitute ample reason for the Engineer to bring the works to a stop until the road signs, etc., have been repaired / reinstated to his

satisfaction.

The Contractor may not commence construction activities before adequate provision has been made to accommodate traffic in accordance with the requirements of these specifications and Chapter 13 of Volume 2 of the South African Road Traffic Signs Manual (SARTSM).

The Contractor shall submit proposals in connection with all signs and accommodation of traffic to the Engineer for approval.

C3.2: ENGINEERING

C3.2.1 DESIGN SERVICES AND ACTIVITY MATRIX

Works designed by, per design stage:

Concept, feasibility and overall process	Employer's Agent
Basic engineering and detail layout to tender stage	Employer's Agent
Final design to approved for construction stage	Employer's Agent
Temporary works	Contractor
Preparation of as-built drawings & GIS information	Contractor/Employer's Agent

C3.2.2 DESIGN PROCEDURES

The Contractor shall take all statutory requirements, as well as the Site-Specific Health and Safety Specification and Basic Risk Assessment (refer to particular specification PA) into consideration when designing the Temporary Works.

C3.2.3 DRAWINGS

The drawings are listed under **Appendix B**, which are bound at the back of the document.

C3.3: PROCUREMENT

C3.3.1 PREFERENTIAL PROCUREMENT

C3.3.1.1 Requirements

Refer to Clause C.2.23.2 of the Tender Data and Form 1G: Form MBD 6: Preference Points Claim form in terms of the Preferential Procurement Regulations 2011 (80/20 version) of the Tender Data.

C3.3.1.2 Resources Standards pertaining to targeted procurement

Tenders will be evaluated in terms of the Employer's Procurement Points system. The criteria for allocation of procurement points are stated in Clauses C.3.11 of the Tender Data.

C3.3.2 SUBCONTRACTING

C3.3.2.1 Scope of mandatory subcontract works

The Contractor shall note that the Employer is committed to local Emerging Enterprise development and this forms part of this.

The sub-contracting of work is required for all CIDB-related projects in the following ranges:

- a) For any project < R 2.5M the Bidder may sub-contract what might be feasible
- b) R 2.5M >, but < R 5M requires Bidder to sub-contract 5% of the value of the project
- c) R 5M>, but < R 10M requires Bidder to sub-contract 10% of the value of the project
- d) R 10M >, but < R 15M requires Bidder to sub-contract 15% of the value of the project
- e) R 15 M>, but < R20 requires Bidder to sub-contract 20% of the value of the project
- f) R 20 M >, but < R 25M requires Bidder to sub-contract 25% of the value of the project
- g) R 30 > requires Bidder to sub-contract 30% of the value of the project to EMEs QSE. The feasible work packages for subcontracting must be identified by the Project Manager or appointed PSP prior to advertisement.

IV. The sub-contracting value will be based on the estimated value of the project either determined by the director or project manager. Where the successful bidder's price falls within any other range, the sub-contracting range included in the Bid Document will be applied.

V. The municipality may include sub-contracting for any other none CIDB related project as may be requested by the Director of the Department to promote local development.

VI. Community Based Suppliers or service providers/ward-based suppliers or service providers must be considered for subcontracting by the main contractor. The first preference for subcontracting must be given to community or ward-based suppliers of that particular ward where the project is taking place. If the required skill or expertise is not available from the ward / area where the project is taking place, the main contractor is permitted to accept service providers or suppliers within the KLM jurisdiction. Those service provider or suppliers would then contract directly with the main contractor.

It is the Employer's intention for the Contractor to enter in a subcontract with a local Emerging Enterprise/s, where twenty five percent (25%) of the work shall be subcontracted in accordance with the subcontracting procedures referred to in this scope of work who are registered with the CIDB with a Contractor Grading Designation of 1-3 in an appropriate class of construction work.

C3.3.2.2 Preferred subcontractors / suppliers

Local Emerging Enterprises registered on the Kouga Local Municipality Database and/or nominated by the municipality.

C3.3.2.3 Subcontracting procedures

All matters pertaining to subcontractors and the work executed by them shall be dealt with directly between the Employer's Agent and the Contractor in the context of all subcontract work being an integral part of the Works for which the Contractor is responsible.

Subcontractors shall comply in full to all aspects of the Contract.

The Employer's Agent will not liaise directly with any subcontractors nor will he issue instructions concerning the subcontract works directly to any subcontractor.

The Contractor shall remain responsible for providing the subcontracted portion of the works as if the work had not been subcontracted.

Subcontractors shall comply in full, to all aspects of the Contract.

C3.3.2.4 Attendance on subcontractors

The Contractor shall guide, assist, advise and mentor the local EE subcontractor/s and guidance on how to establish and determine rates.

The Contractor shall be responsible for ensuring that the prospective local EE subcontractor/s fully comprehend the:

- Implications of the liabilities and responsibilities inherent in the contract into which the tenderer entered.
- Implications of the tendered rates.
- Scope and extent of the Works.
- Proper procedures for the submission of a tender.
- Procedures and basis on which tenders will be evaluated and awarded.

The Contractor shall closely manage, mentor, supervise, guide and assist the EE in all aspects of management, planning, execution and the completion of work.

The above shall include inter alia, but is not limited to, the following:

- (i) Planning and programming of the Works.
- (ii) The sourcing, ordering, purchasing, hiring all the necessary Construction Equipment, Materials, tools and accidentals necessary and required for the successful execution and completion of the Permanent as well as the Temporary Works.
- (iii) Labour relations and employment.
- (iv) Monthly measurements, costing and invoicing.
- (v) General safety, occupational health and safety matters.
- (vi) Functions of civil engineering infrastructure, structures, services and systems.
- (vii) Interpreting and understanding the contract.
- (viii) Construction and maintenance methods and procedures.
- (ix) Communication.
- (x) Cash-flow control, submitting invoices and payment certificates.
- (xi) Planning, programming, scheduling, critical path control and acceleration.
- (xii) Maintenance planning.
- (xiii) Material procurement and control.
- (xiv) Risk limitation and management.
- (xv) Quality assurance and procedures.
- (xvi) Compliances with all applicable laws, regulations, statutory provisions and agreements.
- (xvii) General Conditions of Contract and Contract Data.
- (xviii) Contractual claims, if situations arise that entitle a contractor to claims in terms of the Conditions of Contract.
- (xix) Profit and loss.

(xx) Replacement and running costs of Construction Equipment.

The extent and level of management, mentorship, supervision, guidance and assistance to be provided by the Contractor shall be in commensuration with the expertise of the relevant EE and should be so directed as to enable the EE to achieve the successful execution and completion of the respective works.

C3.3.3 SANCTIONS

In the event that the Tenderer fails to substantiate that any failure to achieve the Contract Participation Goal (CPG) outcomes was due to quantitative under runs, the elimination of items, or any other reasons beyond the Contractor's control which may be acceptable to the Employer, the Contractor shall be liable to pay to the Employer a financial penalty calculated in the following manner:

$$P = 0,50 \times \frac{(D-D_0)}{(100)} \times N_A$$

Where D = tendered Contractor participation goal percentage.

D₀ = the Contract Participation Goal, which the Employer's Representative based on the credits passed, certifies as being achieved upon completion of the contract.

N_A = Net Amount of the Tender

P = Rand value of penalty payable.

The penalties will be calculated with each certificate, based on the information provided under the monitoring indicated in clause C3.3.4 below.

C3.3.4 MONITORING / REPORTING

The reporting requirements below will be adhered to.

CPG attainment will be monitored on a monthly basis, and for this the Contractor will supply the relevant information at a time set by the Employer's Agent.

C3.3.4.1 The Contractor shall submit all the documentation required in terms of details of his plan to achieve CPG, compliance with the contract and C3.3.4.2 timeously and, together with his programme of activities, a schedule which indicates clearly the expected commencement and completion dates of work and services to be performed by all the targeted enterprises engaged on the contract for the purpose of securing credits towards the contract participation goal. This schedule shall be updated by the Contractor whenever a change in date occurs.

C3.3.4.2 The Contractor shall prepare and attach to his claim for payment, in a form approved by the Employer, the following:

a) a brief report which describes the commercially useful functions performed by the targeted enterprises in the performance of the contract, both over the interim period and on a cumulative basis;

b) a schedule reflecting the estimated total value of the contracts, the cumulative value of the contracts and the value of supplies provided or work and services performed (or both) over the period for which payment is claimed in respect of each and every targeted enterprise performing commercially useful functions;

C3.3.4.3 Should random inspections conducted by the Employer's Agent on targeted enterprise activities indicate that such enterprises are not performing in accordance with the requirements of this part,

the Contractor shall provide, in addition to the requirements of C3.3.4.2, separate weekly resource returns and any other relevant information in respect of such targeted enterprises in a format approved by the Employer's Agent.

C3.3.4.4 The Employer's Agent shall certify the value of the credits counted towards the contract participation goal whenever a claim for payment is issued to the employer and shall notify the Contractor of this amount.

C3.3.4.5 The Contractor shall, upon completion of each individual targeted enterprise's contract, issue a completion certificate and certify the amount paid to such targeted enterprises. He shall submit the certificates, counter-certified by the relevant targeted enterprise, to the Employer's Agent for record-keeping purposes. The Contractor shall furnish reasons to the Employer whenever it is not possible to obtain such counter certification.

C3.3.5 CONTRACTOR'S OBLIGATIONS TO SUBCONTRACTED EEs

(1) Dispute Avoidance and Resolution Procedures

The Contractor shall at all times

- (a) apply the terms and conditions of the subcontract fairly and justly, taking due cognisance of the level of sophistication and experience of the EE subcontractor concerned.
- (b) closely monitor all EE subcontracts and issue reasonable warnings when any contravention of the terms of the subcontract has occurred or appears likely to occur. The Contractor shall give EEs reasonable opportunity to avoid or make good any such contravention.

When taking any disciplinary actions or imposing any penalties provided for in the subcontract, the Contractor shall explain fully that such actions are in accordance with the conditions of subcontract.

Should any dispute arise between the Contractor and an EE, such dispute shall be resolved in accordance with the provisions of the subcontract.

Should an EE subcontractor be terminated, the Contractor shall replace such subcontractor with a local EE subcontractor listed on the KLM database.

(2) Quality of Work and Performance of EE subcontractors

If, in the opinion of the Employer's Agent, an EE Subcontractor fails to comply with any of the criteria listed below, he/she shall issue a written warning to the Contractor stating all the areas of non-compliance.

- (a) Acceptable standard of work as set out in the subcontract specifications.
- (b) Progress in accordance with the time constraints in the subcontract.
- (c) Site safety.

The circumstances that may warrant the issue of a written warning are, however, not limited to those listed above.

A copy of the letter of warning shall be forwarded to the Employer.

C3.3.6 ISSUING OF COMPLETION CERTIFICATE

The Contractor shall, within 7 days of the completion of each subcontract completed in accordance with the provisions of this specification, issue free of charge to the EE a Certificate of Completion co-signed by the Employer's Agent and a senior representative of the Contractor who has been duly authorised to do so.

C3.3.7 MEASUREMENT AND PAYMENT

No direct payment will be made for the cost of dealing with EE's. Payment will be deemed to be covered by the rates and sums tendered and paid for the various items of work included under the contract.

C3.4: CONSTRUCTION

C3.4.1 WORKS SPECIFICATION

C3.4.1.1 Applicable SANS standards

The applicable SABS 1200 Standardised Specifications for Civil Engineering Construction read in conjunction with the SABS 0120 Code of Practise for use with standardised specifications for Civil Engineering Construction and Contract Documents will apply until such time as the SANS standards for civil engineering are finalised.

C3.4.1.2 Other standards

Not applicable.

C3.4.1.3 Applicable national and international standards

For the purpose of this Contract the latest issues of the following Standardized Specifications for Civil Engineering Construction, applicable at the date of the tender advertisement shall apply:

SANS 1200 A	-	General
SANS 1200 C	-	Site Clearance
SANS 1200 DB	-	Earthworks (Pipe trenches)
SANS 1200 DM	-	Subgrade
SANS 1200 GA	-	Concrete (Small Works)
SANS 1200 L	-	Medium-Pressure Pipelines
SANS 1200 LB	-	Bedding (Pipes)
SANS 1200 LK	-	Valve Installations
SANS 1200 ME	-	Subbase

Notes to tenderer:

1. Should any variation and/or addition conflict with the requirements of the standardized specification, the variation or addition will prevail.
2. The term "project specifications" appearing in any of the SANS1200 standardised specifications must be replaced with the term "scope of work".
3. The General Conditions of Contract applicable to this contract are the "Conditions of Contract for Construction Works (3rd Edition) 2015" published by the South African Institute of Civil Engineering, together with the Special Conditions of Contract form part of the contract.
4. The terms "Schedule of Quantities", (used throughout the Standard Specifications) and "Bill of Quantities", (used in all other documents forming part of this contract), and "Pricing Schedule" are synonymous.

The variations and additions to the specifications are listed in C3.4.11.

In addition, the following Particular Specifications for work not covered by the SABS 1200 Standardized Specifications are also bound in the Scope of Work.

C3.4.1.4 Particular/Generic Specifications

The particular and/or generic specifications listed below are applicable to this contract. These specifications are also bound into this document.

DS
PD

Drilling Specification
Health and Safety Specification

C3.4.1.5 Certification by recognised bodies

Not applicable

C3.4.1.6 Agreement certificates

Not applicable.

C3.4.2 PLANT AND MATERIALS

C3.4.2.1 Plant and materials supplied by the employer

The Employer will not supply any plant or materials on this contract. The Contractor shall provide all plant and materials.

C3.4.2.2 Materials, samples and shop drawings

Materials or work, which does not conform to the approved samples submitted in terms of Clause 7.4 of the Conditions of Contract, will be rejected. The Employer's Agent reserves the right to submit samples to tests to ensure that the material represented by the sample meets the specification requirements.

The costs of any such test conducted by or on behalf of the Employer's Agent, the results of which indicate that the samples provided by the Contractor do not conform to the requirements of the Contract, shall, in accordance with the provisions of Clause 7.1 of the Conditions of Contract, be for the Contractor's account.

C3.4.3 CONSTRUCTION EQUIPMENT

C3.4.3.1 Requirements for equipment

All construction plant and equipment used on this contract shall be in good working order, well maintained, of adequate size and fit for purpose. No plant or equipment that leaks oil, fuel or hydraulic fluids may be used on site.

Any plant or equipment that, in the opinion of the Employer's Agent, is not of adequate size or fit for use shall be removed from the site and replaced with acceptable plant and equipment, all at the Contractor's cost.

C3.4.3.2 Equipment provided by the Employer

The Employer shall not supply any equipment.

C3.4.4 EXISTING SERVICES

The Contractor shall familiarize himself with all existing services and liaise with all relevant authorities for the location and detection of existing services. The Contractor shall also use all necessary means to locate and expose services without damage to such services. The Contractor shall protect any services which are visible or can be reasonably expected to be in certain positions. If the Employer's Agent rules that the Contractor has negligently damaged services, the Contractor shall pay the amount certified by the Employer's Agent to the Employer. The Employer's Agent ruling shall be final.

If the Employer's Agent rules that the damage was not due to the Contractor's negligence, the Employer shall pay for the repair of the services so damaged. The responsibility shall remain with the Contractor to establish the position of existing services prior to commencing any excavation.

C3.4.5 SITE ESTABLISHMENT

C3.4.5.1 Location of site camp and materials storage area

The Contractor shall establish his Site camp and materials storage area at a mutually acceptable location. Written confirmation of the owner's permission to occupy the chosen location shall also be issued to the Employer's Agent if it falls outside the bounds of the site.

The site of the camp must be kept clean and tidy, and on completion of the works the Contractor shall remove all temporary offices, sheds, etc. and shall reinstate the area to the Employer's Agent and/or the owner's satisfaction.

The Employer shall not provide any services to the site during construction.

C3.4.5.2 Water Supply

The Contractor shall make his own arrangements regarding the supply of water.

The Contractor shall, at his own expense, be responsible for obtaining and distributing all water as may be required for the purposes of executing the Contract, including water for both construction purposes and domestic use as well as for making all arrangements in connection therewith. The Contractor shall further, at his own expense, be responsible for providing all necessities for procuring, storing, transporting and applying water required for the execution of the Contract, including but not limited to all piping, valves, tanks, pumps, meters and other plant and equipment, as well as for all work and superintendence associated therewith.

The Contractor shall make himself thoroughly acquainted with the regulations relating to the use of water and shall take adequate measures to prevent the wastage of water.

The sources of all water utilised for the purposes of the Contract shall be subject to the prior approval of the Employer's Agent, which approval shall not be unreasonably withheld. The Contractor shall comply with all prevailing legislation in respect of drawing water from natural and other sources and shall, when required by the Employer's Agent, produce proof of such compliance.

The distribution of water shall be carried out by the Contractor strictly in accordance with the applicable laws and regulations. All water provided by the Contractor for construction purposes shall be clean, free from undesirable concentrations of deleterious salts and other materials and shall comply with any further relevant specifications of the Contract.

The Contractor shall, whenever reasonably required by the Employer's Agent, produce test results demonstrating such compliance. Water provided by the Contractor for human consumption shall be healthy and potable to the satisfaction of the health authorities in the area of the Site.

The Employer accepts no responsibility for the shortage of water due to any cause whatsoever or for the additional costs incurred by the Contractor as a result of such shortage.

The Contractor shall take note that no separate or direct payment of any kind whatsoever will be made for any cost incurred to obtain, distribute, consume and use water or for the provision of a water supply point or for the cost of water drawn. Payment for the aforementioned shall be deemed to be covered by the rates and prices tendered and paid for the various items of work included under the Contract.

C3.4.5.3 Power / Electricity Supply

The Contractor shall make his own arrangements with the Electricity Department for a supply of electricity if required and shall pay establishment and consumption costs at the tariffs ruling at the time.

The Contractor shall, at his own expense, be responsible for obtaining and distributing all electricity as he may require for the purposes of executing the Contract, including electricity for both construction purposes and domestic use as well as for making all arrangements in connection therewith.

The distribution of electricity shall be carried out by the Contractor strictly in accordance with the applicable laws and regulations. No separate payment will be made to the Contractor for the obtainment, distribution and consumption of electricity, the costs of which will be deemed to be in the Contractor's tendered rates and prices.

C3.4.5.4 Sanitary facilities

The Contractor shall, at his own expense, be responsible for safely and hygienically dealing with and disposing of all human excrement and similar matter generated on the Site during the course of the Contract, all to the satisfaction of the responsible health authorities in the area of the Site as well as the Employer's Agent.

All such excrement shall be removed from the Site and shall not be disposed of by the Contractor on the Site. The Contractor shall further comply with any other requirements in this regard as may be stated in the Contract.

The Contractor shall further, as a minimum, supply and maintain chemical toilets for use by his workmen. The number of toilets shall be based on one toilet per fifteen personnel on site.

Under no circumstances will the Contractor's staff be allowed to use any other toilet facilities in and around the Site.

C3.4.5.5 Accommodation of employees

The Contractor shall make his own arrangements for the accommodation of his employees. Where field accommodation is required, the Contractor shall comply fully with the wishes of the various landowners, as in their agreement with the Employer, to the satisfaction of both land owner and Employer.

C3.4.6 SITE USAGE

Access to site shall be limited to the Contractor and his personnel. The Contractor shall be responsible to control unauthorized entry to the site and shall inform the Employer's Agent of any breach of such rules. The site shall be managed and used for its intended purpose. The Contractor is required to keep a visitors log, and ensure full compliance with site safety standards.

C3.4.7 PERMITS AND WAY LEAVES

The Employer's Agent is responsible for obtaining all necessary permits and way leaves from all relevant authorities.

C3.4.8 FACILITIES PROVIDED BY THE CONTRACTOR

C3.4.8.1 Office for the Employer's Agent

A separate office for the Employer's Agent is not required. The Contractor shall provide a table or desk and chair in his own office for use by the Employer's Agent.

Site meetings will be held in the Contractor's office or any other agreed upon venue, which must be big enough and have sufficient seating for this purpose.

C3.4.8.2 Sanitary facilities

No latrines are available and therefore the Contractor shall supply portable chemical toilets for use by his workmen. The number of toilets shall be based on one toilet per fifteen personnel on site. Under no circumstances will the Contractor's staff be allowed to use private or public toilet facilities.

The Contractor shall provide water and soap for his staff to be able to wash with at each site of the Works. The wastewater shall be disposed of off-site.

C3.4.8.3 Security on site

The Contractor shall make provision for security on site against theft and robbery, as his sole responsibility. The cost for providing adequate security, as and when required, must be borne by the Contractor.

C3.4.9 FEATURES REQUIRING SPECIAL ATTENTION

C3.4.9.1 Site maintenance

During progress of the work and upon completion thereof, the Site of the Works shall be kept and left in a clean and orderly condition. The Contractor shall store materials and equipment for which he is responsible in an orderly manner and shall keep the Site free from debris and obstructions.

C3.4.9.2 Access to properties (where relevant)

The Contractor shall organise the work to cause the least possible inconvenience to the public and to the property owners adjacent to or affected by the work, and except as hereunder provided, shall at all times provide and allow pedestrian and vehicular access to properties within or adjoining or affected by the area in which he is working. In this respect the Contractor's attention is drawn to Clause 8.1.1 of the Conditions of Contract.

Where applicable and if as a result of restricted road reserve widths and the nature of the work, the construction of bypasses is not feasible, construction shall be carried out under traffic conditions to provide access to erven and properties.

Notwithstanding the above, the Contractor may, with the prior approval of the Employer's Agent (which approval shall not be unreasonably withheld), make arrangements with and obtain the acceptance of the occupiers of erven and properties to close off part of a street, road, footpath or entrance temporarily, provided that the Contractor duly notifies the occupiers of the intended closure and its probable duration, and reopens the route as punctually as possible. Where possible, such streets, roads, footpaths and entrances shall be made safe and reopened to traffic overnight. Such closure shall not absolve the Contractor from his obligations under the Contract to provide access at all times. Barricades, traffic signs, drums and other safety measures appropriate to the circumstances shall be provided by the Contractor to suit the specific conditions.

C3.4.9.3 Monthly statements and payment certificates

The statement to be submitted by the Contractor in terms of Clause 6.10 of the Conditions of Contract shall be prepared by the Contractor at his own cost, strictly in accordance with the standard payment certificate prescribed by the Employer's Agent, in digital electronic computer format. The Contractor shall, together with a copy of the digital electronic computer file of the statement, submit two (2) A4 size paper copies of the statement.

For the purposes of the Employer's Agent payment certificate, the Contractor shall subsequently be responsible, at his own cost, for making such adjustments to his statement as may be required by the Employer's Agent for the purposes of accurately reflecting the actual quantities and amounts which the Employer's Agent deems to be due and payable to the Contractor in the payment certificate.

The Contractor shall, at his own cost, make the said adjustments to the statement and return it to the Employer's Agent within three (3) normal working days from the date on which the Employer's Agent communicated to the Contractor the adjustments required. The Contractor shall submit to the Employer's Agent five (5) sets of A4 size paper copies of such adjusted statement, together with a copy of the electronic digital computer file thereof.

Any delay by the Contractor in making the said adjustments and submitting to the Employer's Agent the requisite copies of the adjusted statement for the purposes of the Employer's Agent payment certificate will be added to the times allowed to the Employer's Agent in terms of Clause 6.10.4 of the Conditions of Contract to submit the signed payment certificate to the Employer and the Contractor. Any such delay will also be added to the period in which the Employer is required to make payment to the Contractor.

C3.4.9.4 Notices, signs, barricades and advertisements

All notices, signs and barricades, as well as advertisements, may be used only if approved by the Employer's Agent. The Contractor shall be responsible for their supply, erection, maintenance and ultimate removal and shall make provision for this in his tendered rates.

The Employer's Agent shall have the right to instruct the Contractor to move any sign, notice or advertisement to another position, or to remove it from the Site of the Works if in his opinion it is unsatisfactory, inconvenient or dangerous.

C3.4.9.5 Workmanship and quality control

The Employer, the Contractor and the Employer's Agent shall operate and maintain their own individual contract administration and quality assurance systems.

The Contractor shall implement his own Quality Assurance plan for executing the works for compliance with the aforementioned standards and specifications.

The onus to produce work that conforms in quality and accuracy of detail to the requirements of the Specifications and Drawings rests with the Contractor, and the Contractor shall, at his own expense, institute a quality control system and provide suitably qualified and experienced engineers, foremen, surveyors, materials technicians, other technicians and technical staff, together with all transport, instruments and equipment to ensure adequate supervision and positive control of the Works at all times.

The cost of supervision and process control, including testing and mix designs carried out by the Contractor, will be deemed to be included in the rates tendered for the related items of work.

The Contractor's attention is drawn to the provisions of the various Standardized Specifications regarding the minimum frequency of testing required. The Contractor shall, at his own discretion, increase this frequency where necessary to ensure adequate control.

On completion and submission of every part of the work to the Employer's Agent for examination and measurement, the Contractor shall furnish the Employer's Agent with the results of the relevant tests, mix designs, measurements and levels to demonstrate the achievement of compliance with the Specifications.

i. Contractor to engage services of an independent laboratory.

Notwithstanding the requirements of the Specifications pertaining to testing and quality control, the Contractor shall engage the services of an approved independent laboratory to undertake all testing of materials, the results of which are specified in, or may reasonably be inferred from, the Contract. These results will be taken into consideration by the Employer's Agent in deciding whether the quality of materials utilised and workmanship achieved by the Contractor comply with the requirements of the Specifications. The foregoing shall apply irrespective of whether the specifications indicate that the said testing is to be carried out by the Employer's Agent or by the Contractor.

The Contractor shall be responsible for arranging with the independent testing laboratory for the timeous carrying out of all such testing specified in the Contract, at not less than the frequencies and in the manner specified. The Contractor shall promptly provide the Employer's Agent with copies of the results of all such testing carried out by the independent laboratory.

For the purposes of this clause, an "independent laboratory" shall mean an "approved laboratory" (as defined in subclause PSA 7.2) which is not under the management or control of the Contractor and in which the Contractor has no financial interest, nor which has any control or financial interest in the Contractor.

ii. Additional testing required by the Employer's Agent

In addition to the provisions of subclause C3.4.9.5 (i): Contractor to engage services of an independent laboratory, the Employer's Agent shall be entitled at times during the Contract to require that the Contractor arrange with the independent laboratory to carry out any such tests, additional to those described in subclause C3.4.9.5 (i), at such times and at such locations in the Works as the Employer's Agent shall prescribe. The Contractor shall promptly and without delay arrange with the independent laboratory for carrying out all such additional testing as required by the Employer's Agent, and copies of the test results shall be promptly submitted to the Employer's Agent.

iii. Costs of testing

(a) Tests in terms of subclause C3.4.9.5 (i)

The costs of all testing carried out by the independent laboratory in accordance with the requirements of subclause C3.4.9.5 (i), above shall be borne by the Contractor and shall be deemed to be included in the tendered rates and prices for the respective items of work as listed in the Bill of Quantities and which require testing in terms of the Specifications. No separate payments will be made by the Employer to the Contractor in respect of any testing carried out in terms of subclause C3.4.9.5 (i).

Where, as a result of the consistency of the materials varying or as a result of failure to meet the required specifications for the work, it becomes necessary to carry out additional tests (e.g. re-tests on rectified work and/or replacement materials), the costs of such additional testing shall be for the Contractor's account.

(b) Additional tests required by the Employer's Agent

The costs of any additional tests required by the Employer's Agent in terms of subclause C3.4.9.5 (i) Additional testing required by the Employer's Agent, shall be reimbursed to the Contractor against substitution of the Provisional Sum allowed therefore in the Bill of Quantities; provided always that the costs of any such additional tests ordered by the Employer's Agent, the results of which indicate that the quality of the materials utilised and/or the standard of workmanship achieved are/is not in accordance with the specifications, shall not be reimbursable to the Contractor.

C3.4.9.6 Public Safety

The Contractor shall at all times ensure that his operations do not endanger any member of the public.

As the area is adjacent to a residential area the Contractor shall take special precautions to prevent public access to any danger areas on the Works, e.g. by temporary barricades and/or fencing.

C3.4.9.7 Sand and Dust Control

The Contractor shall, for the duration of the contract, take appropriate measures to control the dust and soil movement which may arise due to his operations.

C3.4.9.8 Employment of local labour

It is the intention that this Contract should make maximum use of the local labour force that is presently under-employed. To this end the Contractor shall limit the utilisation on the Contract of non-local employees to that of key personnel only and to employ and train local labour to the extent necessary for the execution and completion of this Contract.

The Contractor shall fill in the form entitled Key Personnel in the Forms to be completed by the Tenderer. The data stated on the above-mentioned form will be strictly monitored during the Contract period and any deviations therefrom shall be subject to the prior approval of the Employer's Agent, which approval shall not be unreasonably withheld.

C3.4.10 EXTENSION OF TIME DUE TO ABNORMAL RAINFALL

A claim for extension of time in respect of delays suffered by the Contractor in consequence of abnormal wet climatic conditions will be considered by the Employer's Agent in terms of Clause 5.12 of the Conditions of Contract and in accordance with provisions set out hereunder.

For the purposes of extension of time, a delay caused by abnormal wet climatic conditions will be regarded as a delay only if, in the opinion of the Employer's Agent, all progress on an item or items of work on the critical path of the Contractor's working programme as approved in terms of Clause 5.6 of the Conditions of Contract has been brought to a halt.

Unless it is customary to carry out the work, in respect of which a delay was suffered, by rotary shifts or by day and by night, only delays to critical path items experienced as a result of wet climatic conditions during normal working hours (as defined in Clause 5.8 of the Conditions of Contract) will be taken into account for extension of time. This will apply notwithstanding the fact that a delay may have occurred on a portion of the Works on the critical path due to wet climatic conditions, which work was being executed outside the said normal hours with the permission of the Employer's Agent, granted in terms of Clause 5.8 of the Conditions of Contract.

The Contractor shall make due allowance within his programme submitted in terms of Clause 5.6 of the Conditions of Contract, for the total delay to work items on the critical path resulting from normal wet climatic conditions. The specified allowances for this Contract are defined in Clauses 24-26 of the Contract Data.

Extension of time, if granted by the Employer's Agent, will be determined as the aggregate number of normal working hours for which all progress on the item or items on the critical path was brought to a halt as a result of wet climatic conditions, less the number of normal working days specified in Clause 5.12 of the Contract Data.

In determining the revised Due Completion Date of the Contract, the Employer's Agent shall add the equivalent number of normal working days delay determined in accordance with this Clause and all intervening normal non-working days to the prevailing Due Completion Date.

C3.4.11 VARIATIONS AND ADDITIONS TO SABS 1200 STANDARDIZED SPECIFICATIONS AND PARTICULAR SPECIFICATIONS

The following variations and additions to the SABS 1200 Standardized Specifications referred to shall apply to this Contract (full specifications added below):

- PSA - GENERAL
- PSC - SITE CLEARANCE
- PSDB - EARTHWORKS (PIPE TRENCHES)
- PSGA – CONCRETE (SMALL WORKS)
- PSL - MEDIUM PRESSURE PIPELINES
- PSLB - BEDDING (PIPES)
- PSLK - VALVE INSTALLATIONS. (SPEC LK)
- PSME - SUBBASE

The prefix "PS" indicates an amendment to SABS 1200. The prefix "PSA" indicates an amendment to SABS 1200 A, "PSDB" to SABS 1200 DB and so on. The letters and numbers following these prefixes respectively indicate the relevant Standardized Specification and clause numbers in SABS 1200 to which the variation or addition thereto applies.

An asterisk (*) placed next to a PS Subclause number denotes the inclusion of an additional Subclause for which no equivalent appears in SABS 1200.

The term "project specifications" appearing in any of the SABS 1200 Standardized specifications must be replaced with the term "Scope of Work".

Further to the above it should be noted that where in a specific Standardized Specification reference is made to a Subclause in another Standardized Specification, any amendment or addition to the Subclause referred to, as provided for in the Specification, shall apply. The aforementioned shall also apply with respect to Clauses referred to in a Particular Specification.

PSA GENERAL

PSA 1 SCOPE

Replace the contents of Clause 1.1, including the notes, with the following:

“1.1 This specification covers requirements, principles and responsibilities of a general nature which are generally applicable to civil engineering construction and building works contracts, as well as the requirements for the Contractor’s establishment on the Site.”

PSA 2 INTERPRETATIONS

PSA 2.3 DEFINITIONS

In the opening phrase, insert the words: “the definitions given in the Conditions of Contract and” between the words “specification” and “the following”.

a) General

Add the following definitions:

“General Conditions and Conditions of Contract. The General Conditions of Contract specified for use with this Contract as amended in the Contract Data.

Specified As specified in the Standardized Specifications, the Drawings or the Scope of Work. “Specifications” shall have the corresponding meaning.”

c) Measurement and payment

Replace the definitions for “Fixed charge”, “Time-related charge” and “Value-related charge” with the following:

“Fixed charge. A charge that is not subject to adjustment on account of variations in the value of the Contract Price or the time allowed in the Contract for the completion of the work.

Time-related charge. A charge, the amount of which varies in accordance with the Time for Completion of the Works, adjusted in accordance with the provisions of the Contract.

Value-related charge. A charge, the amount of which varies pro rata with the final value of the measured work executed and valued in accordance with the provisions of the Contract.”

PSA 2.4 ABBREVIATIONS

a) Abbreviations relating to standard documents

Add the following abbreviation:

“CKS: SABS Co-ordinating Specification.”

PSA 3 MATERIALS

PSA 3.1 QUALITY

Where applicable, materials shall bear an official standardization mark.

Add the following:

"Where proprietary materials are specified it is to indicate the quality or type of materials or articles required, and where the terms "or similar approved" or "or approved equivalent" are used in connection with proprietary materials or articles, it is to be understood that the approval shall be at the sole discretion of the Employer's Agent."

"PSA 3.3* ORDERING OF MATERIALS

The quantities set out in the Bill of Quantities have been carefully determined from calculations based on data available at the time of its compilation, but are to be considered as approximate quantities only. Before ordering materials of any kind the Contractor shall be solely responsible for determining, from the Drawings issued or approved by the Employer's Agent for construction purposes, the actual quantities of materials required for the execution of the Works. No liability or responsibility whatsoever shall be attached to the Employer or the Employer's Agent in respect of materials ordered by the Contractor except when ordered in accordance with the Drawings issued or approved by the Employer's Agent for construction purposes."

PSA 4 PLANT

PSA 4.1 SILENCING OF PLANT

Replace the contents of Clause 4.1 with the following:

"The Contractor's attention is drawn to the applicable regulations pertaining to noise and hearing conservation, framed under the Occupational Health and Safety Act (Act No. 85 of 1993) as amended.

The Contractor shall at all times and at its own cost, be responsible for implementing all necessary steps to ensure full compliance with such regulations, including but not restricted to the provision and use of suitable and effective silencing devices for pneumatic tools and other Plant which would otherwise cause a noise level in excess of that specified in the said regulations.

Where appropriate, the Contractor shall further, by means of temporary barriers, effectively isolate the source of such noise in order to comply with the said regulations."

PSA 4.2 CONTRACTOR'S OFFICES, STORES AND SERVICES

Add the following new paragraph before the existing paragraph in Clause 4.2:

"The Contractor's buildings, sheds and other facilities erected or utilised on the Site for the purposes of the Contract shall be fenced off and shall contain all offices, stores, workshops, testing laboratories, toilet facilities, etc. as may be required by the Contractor. The facilities shall always be kept in a neat and orderly condition.

No personnel may reside on the Site. Only night-watchmen may be on the Site after hours."

Delete "and first-aid services" in the second paragraph of Clause 4.2 and add the following:

"The Contractor shall provide on the Site and in close proximity to the actual locations where the work is being executed, one toilet per 15 workmen, which toilets shall be effectively screened from public view and their use enforced. Such toilets shall be relocated from time to time as the location of the work being executed changes, so as to ensure that easy access to the toilets is maintained.

The Contractor shall, where applicable, make all necessary arrangements and pay for the removal of night soil."

PSA 5 CONSTRUCTION

PSA 5.1 SURVEY

PSA 5.1.1 Setting out of the Works

The installed benchmarks shown on the Drawings shall be used by the Contractor for setting out the works.

Add the following paragraph:

"The Contractor shall be required to check and verify, prior to commencement of any construction work, all benchmarks and boundary reference pegs, as shown and detailed on the Drawings. Reference and benchmark pegs disturbed and/or removed during the construction period shall be replaced by a Professional Land Surveyor and the Contractor shall bear the cost of such replacement. Payment to check and verify the reference and benchmark pegs will be made in terms of PSA 8.8.5."

PSA 5.1.2 Preservation and replacement of survey beacons and pegs subject to the Land Survey Act

Delete from the second sentence "Before the commencement . . . "to" . . . apparently in their correct positions" and replace with the following:

"Immediately on taking over the site, the Contractor, in consultation and liaison with the Employer's Agent, shall search for all pegs and the Contractor shall compile a list of pegs that are apparently in their correct position."

Replace the third sentence of Clause 5.1.2 with the following:

"At completion of the Contract, the Contractor shall expose and mark all pegs that were listed at the commencement of the construction as being in order and the Contractor shall arrange with a registered Land Surveyor the replacement of pegs that have become disturbed or damaged. The Contractor shall, as a precedent to the issue of the Certificate of Completion, provide to the Employer's Agent, a certificate from the Registered Land Surveyor, certifying that all the pegs listed at the commencement of construction in accordance with the provisions of this Clause, have been checked and that those found to have been disturbed, damaged or destroyed have been replaced in their correct positions, all in accordance with the provisions of the said Act.

The costs of replacement and certification as aforesaid shall be entirely for the Contractor's account, provided always that the Contractor shall not be held liable for the cost of replacement of pegs which:

- (a) cannot reasonably be re-established in their original positions by reason of the finished dimensions of the Permanent Works ; and
- (b) the Contractor can prove beyond reasonable doubt and to the satisfaction of the Employer's Agent, were disturbed, damaged or destroyed by others beyond its control, and
- (c) were in close proximity to the work and which would unavoidably be removed, subject to the Employer's Agent approval being given to remove such pegs."

PSA 5.2 WATCHING, BARRICADING AND LIGHTING AND TRAFFIC CROSSINGS

Add the following:

"The Contractor shall comply in all aspects with the requirements of the Occupational Health and Safety Act (Act 85 of 1993), refer also PSA 5.7, PSA 5.9 and PSA 5.10."

PSA 5.3 PROTECTION OF STRUCTURES

Replace: "Machinery and Occupational Safety Act, 1983, (Act No. 6 of 1983)" with: "Occupational Health and Safety Act, 1993 (Act No. 85 of 1993), as amended," and insert the following after "(Act No. 27 of 1956)": "as amended".

PSA 5.4 PROTECTION OF OVERHEAD AND UNDERGROUND SERVICES

Replace the heading and the contents of Clause 5.4 with the following:

"PSA 5.4 LOCATION AND PROTECTION OF EXISTING SERVICES

PSA 5.4.1 Location of existing services

Before commencing with any work in an area, the Contractor shall ascertain the presence and actual position of all services which can reasonably be expected by an experienced and competent Contractor to be present on, under, over or within the Site.

Without in any way limiting its liability in terms of the Conditions of Contract in relation to damage to property and interference with services, the Contractor shall, in collaboration with the Employer's Agent, obtain the most up-to-date plans as are available, showing the positions of services existing in the area where it intends to work.

Neither the Employer nor the Employer's Agent offer any warranty as to the accuracy or completeness of such plans and because services can often not be reliably located from plans, the Contractor shall ascertain the actual location of services depicted on such plans by means of careful inspection of the Site. No excavation may commence until the position of the service at the crossing point has been marked out and verified by an official of the responsible authority.

Thereafter, the Contractor shall, by the use of appropriate methodologies, carefully expose the services at such positions as are agreed to by the Employer's Agent, for the purposes of verifying the exact location and position of the services. Where the exposure of existing services involves excavation to expose underground services, the requirements of Clauses 4.4 and 5.1.2.2 of SABS 1200 D (as amended) shall also apply.

The aforesaid procedure shall also be followed in respect of services not shown on the plans but which may reasonably be anticipated by an experienced Contractor to be present or potentially present on the Site.

All services, the positions of which have been determined as aforesaid at critical points, shall henceforth be designated as "Known Services" and their positions shall be indicated by the Contractor on a separate set of Drawings, a copy of which shall be furnished to the Employer's Agent without delay.

As soon as any service which has not been identified and located as described above is encountered on, under, over or within the Site, it shall henceforth be deemed to be a "Known Service" and the aforesaid provisions pertaining to locating, verifying and recording its position on the balance of the Site shall apply. The Contractor shall notify the Employer's Agent immediately should any such service be encountered or discovered on the Site.

Whilst it is in possession of the Site, the Contractor shall be liable for all loss of or damage as may occur to:

- (a) Known Services, anywhere along the entire lengths of their routes, as may reasonably be deduced from the actual locations at which their positions were verified as aforesaid, due cognisance being taken of such deviations in line and level which may reasonably be anticipated; and
- (b) any other service which ought reasonably to have been a Known Service in accordance with the provisions of this Clause;

as well as for consequential damage, whether caused directly by the Contractor's operations or by the lack of proper protection; provided always that the Contractor will not be held liable in respect of damages occurring to services not being Known Services.

No separate payment will be made to the Contractor in respect of any costs incurred in preparing and submitting to the Employer's Agent, the Drawings as aforesaid and these costs shall be deemed included in the Contractor's other tendered rates and prices included in the Contract.

Payment to the Contractor's in respect of exposing services at the positions agreed by the Employer's Agent and as described above will be made under the payment items (if any) as may be provided therefore in the respective sections of the Specifications pertaining to the type of work involved.

PSA 5.4.2 Protection during construction

The Contractor shall take all reasonable precautions and arrange its operations in such a manner as to prevent damage occurring to all known services during the period which the Contractor has occupation and/or possession of the Site.

Services left exposed shall be suitably protected from damage and in such a manner as will eliminate any danger arising there from to the public and/or workmen, all in accordance with the requirements of the prevailing legislation and related regulations.

PSA 5.4.3 Alterations and repairs to existing services

Unless the contrary is clearly specified in the Contract or ordered by the Employer's Agent, the Contractor shall not carry out alterations to existing services. When any such alterations become necessary, the Contractor shall promptly inform the Employer's Agent, who will either make arrangements for such work to be executed by the owner of the service, or instruct the Contractor to make such arrangements himself.

Should damage occur to any existing services, the Contractor shall immediately inform the Employer's Agent, or when this is not possible, the relevant authority, and obtain instructions as to who should carry out repairs. In urgent cases, the Contractor shall take appropriate steps to minimise damage to and interruption of the service.

No repairs of telecommunication cables or electric power lines and cables shall be attempted by the Contractor, unless approved by the Employer's Agent.

The Employer will accept no liability for damages due to a delay in having alterations or repairs effected by the respective service owners. The Contractor shall provide all reasonable opportunity, access and assistance to persons carrying out alterations or repairs of existing services."

PSA 5.7 SAFETY

Replace the contents of subclause 5.7 with the following:

"Pursuant to the provisions of the Conditions of Contract, and without in any way limiting the Contractor's obligations there under, the Contractor shall at his own expense (except only where specific provision (if any) is made in the Contract for the reimbursement to the Contractor in respect of particular items), provide the following:

- (a) Provide to its Employees on the site of the works, all safety materials, clothing and equipment necessary to ensure full compliance with the provisions of the Occupational Health and Safety Act (Act No 85 of 1993) and associated Regulations as amended (hereinafter referred to as the Act) at all times, and shall institute appropriate and effective measures to ensure the proper usage of such safety materials, clothing and equipment at all times; and
- (b) Provide, install and maintain all barricades, safety signage and other measures to ensure the safety of workmen and all persons in, on and around the site, as well as the general public; and
- (c) Implement on the site of the works, such procedures and systems and keep all records as may be required to ensure compliance with the requirements of the Act at all times; and
- (d) Implement all necessary measures so as to ensure compliance with the Act by all subcontractors engaged by the Contractor and their employees engaged on the works; and
- (e) Full compliance with all other requirements pertaining to safety as may be specified in the Contract.

The Employer shall in terms of the Regulations make such inspections on the site, as they shall deem appropriate, for the purpose of verifying the Contractor's compliance with the requirements of the Act. For this purpose, the Contractor shall grant full access to the site of all parts of the site and shall co-operate fully in such inspections and shall make available for inspection all such documents and records as the Employer's representative may reasonably require.

Where any such investigations reveal, or where it comes to the Employer's attention that the Contractor is in any way in breach of the requirements of the Act or is failing to comply with the provisions of this clause, the Employer's Agent shall, in accordance with the provisions of Clause 5.11.2 of the Conditions of Contract, be entitled to suspend progress on the works or any part thereof until such time as the Contractor has demonstrated to the satisfaction of the Employer, that such breach has been rectified.

The Contractor shall have no grounds for a claim against the Employer for extension of time and/or additional costs if the progress on the works or any part thereof is suspended by the Employer's Agent in terms of this clause, and the Contractor shall remain fully liable in respect of the payment of penalties for late completion in accordance with the provisions of Clause 5.13 of the Conditions of Contract should the Contractor fail to complete the Works on or before the specified due completion date in consequence of the suspension.

Persistent and repeated breach by the Contractor of the requirements of the Act and/or this clause shall constitute grounds for the Employer's Agent to act in terms of Clause 9.2 of the Conditions of Contract and for the Employer to terminate the Contract in accordance with the further provisions of the said Clause 9.2."

"PSA 5.9* MAINTAINING SERVICES IN USE

The Contractor shall take note that he shall not cut off any service in use without the prior approval of the Employer's Agent.

Failure on the part of the Contractor to comply with any of the above provisions will constitute sufficient reason for the Employer's Agent to stop the works until the situation has been remedied, or should he deem it necessary, arrange for the situation to be remedied at the Contractor's cost.

No direct payment will be made for the cost of maintaining services in use. Payment will be deemed to be covered by the rates and sums tendered and paid for the various items of work included under the Contract."

"PSA 5.10* DEALING WITH AND ACCOMMODATING TRAFFIC

The Contractor shall take note that the existing roads and tracks within and to the Sites, shall remain operational throughout the contract period. To this end the Contractor shall provide and maintain all temporary fences, security, barriers, kerb ramps, signs, markings, flagmen, drums, lighting, personnel and all other incidentals necessary to ensure safe and easy passage of all traffic.

Temporary traffic signs etc. as well as all necessary markings shall be erected and maintained by the Contractor and the number and layout of the traffic signs shall comply with the Site Manual entitled "Safety at Roadworks in Urban Areas", as published by the Department of Transport.

Traffic signs shall have a yellow background with either a red / black border.

No direct payment will be made for the cost of dealing with and accommodating traffic. Payment will be deemed to be covered by the rates and sums tendered and paid for the various items of work included under the contract. Further, the provision of PSA 5.2 shall apply."

"PSA 5.11* SITE MEETINGS

The Contractor or its authorised agent will be required to attend regular site meetings, which shall normally be held once a month on dates and at times determined by the Employer's Agent, but in any case whenever reasonably required by the Employer's Agent. Unless otherwise indicated in the Contract or instructed by the Employer's Agent, such meetings shall be held at the Contractor's offices on the Site. At such monthly meetings, matters such as general progress on the Works, quality of work, problems, claims, payments, and safety etc., shall be discussed, but not matters concerning the day-to-day running of the Contract.

"PSA 5.12* PROVIDING ACCESS TO ERVEN AND PROPERTIES

Access to erven and properties along the route of trenches and roads shall be provided by the Contractor at all times. To this end suitable crossings shall be constructed where required.

Temporary crossings shall be in the form of portable bridges, temporary backfill or other approved means and shall be capable of permitting the safe passage of all vehicles and pedestrians. The Contractor shall also be responsible for maintaining crossings and for removing same when they are no longer required.

If as a result of restricted road reserve widths and the nature of the Works the construction of bypasses is not feasible, construction shall be carried out under traffic in order to provide access to the properties.

The Contractor may, with the approval of the Employer's Agent, arrange with the occupiers of the affected properties to temporarily close off a portion of a road, footpath entrance, property access road or other access, provided that the Contractor shall give due notice of the intended closure and its probable duration to the occupiers and shall as punctually as possible re-open the route at the prescribed time. Where possible, roads shall be made safe and re-opened to traffic overnight. Any such closure shall be an arrangement between the Contractor and the occupiers and shall not absolve the Contractor from his obligations under the Contract to provide access at all times. Barricades, traffic signs and drums shall be provided by the Contractor to suit the specific conditions.

No direct payment will be made for the cost of providing access. Payment will be deemed to be covered by the rates and sums tendered and paid for the various items of work included under the Contract."

"PSA 5.14* PROTECTION OF LIVESTOCK

From the time of the occupancy of the Site until the date of the Completion Certificate the Contractor shall take all measures necessary for the protection and control of livestock on the sections of the properties affected by his operations. He shall provide gates in existing fences cut by him for the purpose of access and control, and where necessary, to store materials and plant and the Contractor shall ensure that all gates are kept closed during such time as they are not actually in use by his traffic.

Where the Contractor cannot make alternative arrangements, the Contractor shall erect temporary fencing where necessary to protect livestock exposed to straying through his operations. The fencing shall be maintained in good order during construction operations and on completion of the work it shall be removed from the Site and all surfaces restored to the satisfaction of the property owner.

Payment for the protection of livestock, including the erection of temporary fences and gates where required, shall be deemed to be covered by the rates and sums tendered and paid for the various items of work included under the Contract.

Claims by property owners for loss of or injury to livestock due to negligence on the part of the Contractor, shall be settled by the Contractor."

"PSA 5.15* ENVIRONMENTAL MANAGEMENT PLAN, RECORD OF DECISION AND SPECIFICATIONS

The Contractor shall be required to comply with the Environmental Management Plan (EMP), Record of Decision (ROD) and Specifications during the Contract period.

Non-compliance with the specifications, ROD and EMP, in any way whatsoever, will be adequate reason for suspension of the Works.

The Contractor shall at all times be responsible for full compliance with the specifications, ROD and EMP and no extension of time will be considered for delays due to non-compliance with the abovementioned.

No direct payment will be made for the cost of complying with the EMP or disruption experienced in attending to the aforementioned. Payment shall be deemed to be covered by the rates and sums tendered and paid for the various items of work included under the Contract."

"PSA 5.16* ATTENDANCE ON EE's

The Contractor shall closely manage and supervise all EE's and shall manage, guide and assist each EE in all aspects of management, execution and completion of his subcontract. This shall typically include assistance with planning his works, sourcing and ordering of materials, labour relations, monthly measurements and invoicing procedures, etc. The extent and level of such management, guidance and assistance, to be provided by the Contractor shall be commensurate with the expertise of relevant EE and shall be directed at enabling the EE's to achieve the successful execution and completion of the subcontract.

No direct payment will be made for the cost of attendance on EE's. Payment will be deemed to be covered by the rates and sums tendered and paid for the various items of work included under the contract."

PSA 6 TOLERANCES

"PSA 6.4* USE OF TOLERANCES

No guarantee is given that the full specified tolerances will be available independently of each other, and the Contractor is cautioned that the liberal or full use of any one or more of the tolerances may deprive him of the full or any use of tolerances relating to other aspects of the work.

Except where the contrary is specified, or when clearly not applicable, all quantities for measurement and payment shall be determined from the 'authorized' dimensions. These are specified dimensions or those shown on the Drawings or, if changed, as finally prescribed by the Employer's Agent, without any allowance for the specified tolerances. Except if otherwise specified, all measurements for determining quantities for payment will be based on the 'authorized' dimensions.

If the work is constructed in accordance with the 'authorised' dimensions plus or minus the tolerances allowed, the calculation of quantities will be based on the 'authorised' dimensions, regardless of the actual dimensions to which the work has been constructed.

When the work is not constructed in accordance with the 'authorised' dimensions plus or minus the tolerances allowed, the Employer's Agent may nevertheless, at his sole discretion, accept the work for payment. In such cases no payment shall be made for quantities of work or material in excess of those calculated for the 'authorised' dimensions, and where the actual dimensions are less than the 'authorised' dimensions minus the tolerance allowed, quantities for payment shall be calculated based on the actual dimensions as constructed."

PSA 7 TESTING

PSA 7.1 PRINCIPLES

PSA 7.1.2 Standard of Finished Work Not to Specification

Insert the words "or checks by an approved laboratory ..." after the words "Where the Employer's Agent checks ..." in the first line of Clause 7.1.2.

PSA 7.2 APPROVED LABORATORIES

Replace the contents of Clause 7.2 with the following:

"Unless otherwise specified in the relevant specification or elsewhere in the Scope of Work, the following shall be deemed to be approved laboratories in which design work, or testing required in terms of a specification for the purposes of acceptance by the Employer's Agent of the quality of materials used and/or workmanship achieved, may be carried out:

- (a) any testing laboratory certified by the South African National Accreditation Systems (SANAS) in respect of the nature and type of testing to be undertaken for the purposes of the Contract;
- (b) any testing laboratory owned, managed or operated by the Employer or the Employer's Agent;
- (c) any testing laboratory established and operated on the Site by or on behalf of the Employer or the Employer's Agent;
- (d) any testing laboratory designated by the Employer's Agent."

PSA 8 MEASUREMENT AND PAYMENT

PSA 8.1 MEASUREMENT

PSA 8.1.1 Method of measurement, all sections of the Schedule

Delete the words "and South West Africa".

PSA 8.1.2 Preliminary and General item or section

PSA 8.1.2.1 Contents

Replace the contents of item (c) with the following:

"The 'duration of construction' applicable to a time-related item shall be the tendered contract period for the total works assignment, plus as applicable, the Civil Engineering Industry Holiday (Dec / Jan) and all gazetted public holidays for the Civil Engineering Industry."

PSA 8.1.2.2 Tendered sums

Replace the contents of this Subclause with the following:

"Except only where specific provision is made in the Specifications and/or the Bill of Quantities for separate compensation for any of these items, the Contractor's tendered sums under items PSA 8.3 and PSA 8.4 shall collectively cover all charges for:

- risks, costs and obligations in terms of the Conditions of Contract and of this standardized specification; and
- head-office and site overheads and supervision; and
- profit and financing costs; and
- expenses of a general nature not specifically related to any item or items of the permanent or temporary work; and
- providing such facilities on site as may be required by the Contractor for the proper performance of the Contract and for its personnel, including, but without limitation, providing offices, storage facilities, workshops, ablutions, services such as water, electricity, sewage and rubbish disposal, access roads and all other facilities required, as well as for the maintenance and removal on completion of the works of these facilities and cleaning-up of the site of the Contractor's establishment and reinstatement to not less than its original condition, and
- providing the facilities for the Employer's Agent and his staff as specified in the Contract and their removal from the site on completion of the Contract.
- Completion of monthly reporting/monitoring of Emerging Enterprise Subcontract."

PSA 8.2 PAYMENT

PSA 8.2.2 Time-related items

Replace the contents of Clause 8.2.2 with the following:

"Subject to the provisions of sub clauses 8.2.3 and 8.2.4, payment under item 8.4.1 (time-related item) will be made monthly in equal amounts, calculated by dividing the sum tendered for the item by the tendered Contract period in months, provided always that the total of the monthly amounts so paid for the item is not out of proportion to the value of the progress of the Works as a whole.

Should the Employer's Agent grant an extension of time for the completion of the total works, the Contractor will be entitled to an increase in the sums tendered for time-related items, which increase shall be in the same proportion to the original tendered sums, as the extension of time is to the duration of construction as defined in PSA 8.1.2.1. The Contractor shall however note that the aforementioned will not apply to extensions of time granted in terms of PSA 8.4.6.

Payment of such increased sums will be taken to be as full compensation for all additional preliminary and general costs, either time-related costs or fixed costs that result from the circumstances pertaining to the extension of time granted."

The payment to the Contractor for Time-Related Items shall be adjusted in accordance with the following formula in the event of the Contract being extended by means of a Variation Order:

Sum of Tendered amounts for Time Related Items x $\frac{\text{Extension of Time authorised by Variation Order}}{\text{Tender Contract period}}$

For the purposes of applying this formula "Extension of Time" will exclude the Contractor's December / January close-down period, if applicable.

The abovementioned adjustment of the payment for Time-Related Items shall be made in the completion Payment Certificate and shall be the only payment for additional Time-Related costs irrespective of the actual period required to complete the Contract including its authorised extensions.

In the case of fixed price contracts, the amount by which the Time-Related Items is adjusted shall not be subject to the Contract Price Adjustment formula.

In the case of contracts subject to Contract Price Adjustment the amount by which the time-related items are adjusted shall be subject to the Contract Price Adjustment formula."

PSA 8.3.1 & Contractual requirements
8.4.1

Add the following:

"The sum tendered shall cover all initial costs incurred in complying with the requirements of the Conditions of Contract and include for the cost of providing and maintaining the special risks insurance stipulated in the Conditions of Contract, if applicable."

PSA 8.3.2.1 Facilities for Employer's Agent

Replace the contents of this Clause with the following:

"(a) One Contract Nameboard Unit: Sum

The facilities provided shall comply with the applicable requirements of SABS 1200 AB and PSAB."

PSA 8.3.2.2 Facilities for Contractor

Notwithstanding the detail breakdown of items provided (items a to j), a single sum shall be tendered to cover all these items under the heading of "Facilities for Contractor".

PSA 8.4.1 Contractual requirements..... Unit: Sum

Add the following:

"The sum shall further cover all the time-related establishment costs and be the full compensation to the Contractor for:

- (i) The maintenance of his whole organisation as established for this Contract.
- (ii) The maintenance of all insurances, indemnities and guarantees required in terms of the Conditions of Contract, where applicable.
- (iii) Compliance with all general conditions and requirements which are not specifically measured elsewhere for payment in these Contract Documents.

Payment shall be made monthly in compliance with the method laid down in PSA 8.2.2.

The Contractor will not be paid Time-Related Preliminary and General Charges for any special Non-Working Days, as stipulated in the Conditions of Contract, which shall be deemed to have been allowed for in his rates.

The sum shall also include, where applicable, for the cost of providing and maintaining the special risks insurance stipulated in the Conditions of Contract."

PSA 8.4.2.1 Facilities for Employer's Agent

Replace the contents of this Clause with the following:

- "(a) Two Contract Nameboard Unit: Sum
- (b) Survey labourers Unit: Labourer Month

The facilities provided shall comply with the applicable requirements of SABS 1200 AB and PSAB.

Payment for the provision of survey labourers will be made pro-rata the period the labourers are provided."

PSA 8.4.2.2 Facilities for Contractor

Notwithstanding the detail breakdown of items provided (items a to j), a single sum shall be tendered to cover all these items under the heading of "Facilities for Contractor".

PSA 8.4.2.3 Replace the words "periods stated" in the second line of this Clause with the following:

"duration of construction as defined in PSA 8.1.2.1".

"PSA 8.4.6* Compensation in terms of Subclause 5.12.2.4 and Clause 9.1.4 of the Conditions of Contract for delays incurred:

- (a) PlantUnit: Sum per working day
- (b) LabourUnit: Sum per working day
- (c) Supervision.....Unit: Sum per working day
- (d) Other services, facilities etc. not covered by
 (a), (b) and (c)Unit: Sum per working day

The sum tendered for each item shall cover the full and final standing cost per day of delaying the specified resource or facility and no additional compensation shall apply, notwithstanding any provisions to the contrary in the contract documents, or in respect of any extension of time granted in relation to the circumstances described in Subclauses 5.12.2.4, 9.1.1 and 9.1.2 of the Conditions of Contract.

For the purposes of calculating the total delay, a working week shall be held to consist of five working days and a working day 9 hours.

Payment for the partial standing of any of the scheduled resources for a day or part thereof, or the standing of a complete resource for a part day, will be made pro-rata in proportion to an appropriate factor assessed by the Employer's Agent.

The amount by which compensation for delays is adjusted shall be subject to the contract price adjustment formula as defined in the Conditions of Contract.

This payment item shall only apply to delays which in the opinion of the Employer's Agent are due to the circumstances described in Subclauses 5.12.2.4, 9.1.1 and 9.1.2 of the Conditions of Contract. No Payment will be made for any salary related or other internally caused strikes. The cost of delays incurred for all other circumstances shall be treated as provided for in the Conditions of Contract.

The provision of this Clause shall in no way prejudice the right of either the Employer or the Contractor to determine the Contract in terms of the provisions of Clause 9 of the Conditions of Contract.

The Contractor shall take note that no payment will be considered for any additional cost incurred in protecting his plant and site establishment, as well as for costs incurred in respect of damage to constructional plant and equipment."

PSA 8.5 SUMS STATED PROVISIONALLY BY THE EMPLOYER'S AGENT

Replace the contents of Clause 8.5 with the following:

"PSA 8.5.1 Works Executed by the Contractor..... Unit: Prov Sum

The Contractor will be reimbursed in substitution of the Provisional Sums (if any) allowed in the Bill of Quantities for work to be executed by the Contractor, in the amounts determined in accordance with the provisions of Clause 6.6 of the Conditions of Contract.

PSA 8.5.2 Works Executed and performed by the Selected Subcontractors in Consultation with the Employer

- (a) Work to be executed and performed by the Selected Subcontractor in Consultation with the Employer.....Unit: Prov Sum
- (b) Overheads, charges and profit on item (a) above.....Unit: % or Sum

Sub-items (a) and (b) will be provided in the Bill of Quantities for each different Selected Subcontract included in the Contract.

The Contractor shall be reimbursed under sub-item (a), in substitution of the respective Provisional Sums (if any) allowed in the Bill of Quantities, the amounts actually paid or payable by the Contractor to the respective Selected Subcontractors, in accordance with the provisions of Clauses 4.4.3 and 6.6 of the Conditions of Contract.

The Contractor shall be paid under sub-item (b), either:

- (a) where the unit of measurement for sub-item (b) was specified as being a percentage, the respective percentage, as stated by the Contractor in its Tender, of the amount certified by the Employer's Agent for payment under the related sub-item (a), all in accordance with the provisions of Clause 6.6.1.2.1 of the Conditions of Contract: or
- (b) where the unit of measurement for sub-item (b) was specified as being a Lump Sum, an amount which is in the same proportion to the amount certified for payment under sub-item (a) and the tendered Lump Sum is to the amount of the Provisional Sum stated under sub-item (a);

provided always that where the Contractor has failed for any reason, to insert a percentage or Sum (as applicable) for sub-item (b) in its tender, or where no provision was made in the Tender Documents for tenderers to make any such entry, the Contractor will, in accordance with the provisions of Sub-clause 6.6.1.2.2, be paid an amount equal to SEVEN AND ONE HALF PERCENT (7½%) of the amount actually certified by the Employer's Agent for payment under sub-item (a).

The percentage or sum (as applicable) paid under sub-item (b) as aforesaid, shall be deemed to include for full and final compensation to the Contractor for all costs as may be incurred and all charges and profits associated with the engagement, supervision, administration and management of the Nominated Subcontractor and in fulfilling its obligations under the contract as the principal Contractor."

Replace Clause 8.6 with the following:

"PSA 8.6 PRIME COST ITEMS

PSA 8.6.1 Prime Cost Sums

- (a) Description of Item to which Prime Cost Sum Applies..... Unit: PC Sum

(b) Charge Required by Contractor on Sub-item (a) above..... Unit: %

Sub-items (a) and (b) will be provided in the Bill of Quantities for each different item to which a Prime Cost Sum applies.

The Contractor shall be reimbursed under sub-item(s) (a) in substitution of the respective Prime Cost Sums included in the Contract, the actual price(s) paid or payable by him in respect of the goods, materials or services supplied, but excluding any charges for the Contractor's labour, profit, carriage, establishment or other charges related to such goods, services or materials.

The Contractor shall be paid under sub-item (b), the respective percentage, as stated by the Contractor in its Tender, of the amount certified by the Employer's Agent for payment under the related sub-item (a). The percentages tendered by the Contractor for each respective sub-item (b) included in the Bill of Quantities shall be deemed to in full and final compensation to the Contractor in respect of any charge by the Contractor for labour, carriage profit, establishment and for any other charges related to the goods, services or materials supplied under the related sub-item (a).

If the Contractor shall have omitted within its Tender to insert a tendered percentage under sub-item (b), or tendered a zero percentage, the Contractor's tendered rate for sub-item (b) shall be deemed to be zero and the Contractor shall not be entitled to any payment under sub-item (b)."

Note:

1. Only payments for successful test will be made under the Prime Cost Sum provided in the Bill of Quantities for "additional acceptance control testing by the Employer's Agent".
2. The Contractor is responsible for the cost of process control testing. Payment in terms of the above will only be made for acceptance control testing ordered by the Employer's Agent.

“PSA 8.7 DAYWORK

Add the following:

"To ensure that the plant is achieving a reasonable output of work, the Employer's Agent personnel will randomly monitor and measure work produced. Poor performance of any item of plant will be noted by the Employer's Agent and certain reductions in payment may be applied.

Furthermore, should the performance of a machine be poor, or persistently break down, the Employer's Agent may order that it be replaced, all at the cost of the Contractor."

PSA 8.8 TEMPORARY WORKS

PSA 8.8.4 Existing services

Replace the heading of paragraph (c) with the following:

“(c) Excavate by hand in soft material to expose existing services.....Unit: m³

Add the following:

"The rate tendered for (c) shall further cover the cost of backfilling the excavation with excavated material compacted to 90% of modified AASHTO maximum density, loading, transporting and disposing of surplus material as directed, keeping the excavation safe, dealing with water, protecting the exposed services, and any other operation necessary to complete the work.

No distinction will be made between the various types of services to be exposed, or the depths to which excavations are taken.

Excavation in excess of that authorised will not be measured for payment."

"PSA 8.8.6 Dealing with water Unit: Sum

The sum shall cover the cost for the provision, operation, maintaining and removal of all plant and materials required to deal with any water anywhere on site as required in terms of Sub clause 5.1.3 of SABS 1200 D and Sub clause 5.1.2 of SABS 1200 DB. No additional payment will be made for "Special water hazards".

The sum shall cover the cost of providing the necessary plant or materials, or both, fully erected and operative on the Site, the cost of operating and maintaining pumps, well points, sheeting, close timbering, and other equipment, as applicable, for 24 Hours a day, 7 days a week, throughout the period during which the facilities are required, and the cost of removing such goods and restoring the Site to its original condition on completion of that part of the project for which the temporary works were erected.

Two equal payments will be made, one with the first and the other with the last payment certificate.

"PSA 8.8.7* Compliance with the occupational health and safety act (Act 85 of 1993) and all relevant and applicable regulations, especially the construction regulations, 2014 as promulgated on 7 February 2014 under section 43 of the occupational health and safety act (Act 85 of 1993), as amended from time to time, for the duration of the contract

- (a) Contractor Unit: Sum
- (b) Subcontractors (own) Unit: Sum

The tendered sums shall include full compensation to the Contractor for compliance with all the requirements of the OHS Act and the Construction Regulations 2014 at all times, as described in the Scope of Work and Employer's health and safety specification (Refer Particular Specification PB). The successful tenderer shall provide the Employer's Agent with a complete breakdown of this tendered sum, if so required.

The Contractor shall note that all obligations contained in the Act, Regulations and Employers health and safety specification shall be included in this item. No additional claims will be considered; neither will an extension of time be considered for delays due to non-compliance with the Contractor's health and safety plan.

The sums will be paid to the Contractor in equal monthly amounts."

"PSA 8.9* Installation of Benchmarks by Registered Surveyor Unit: No

The number tendered shall include full compensation for the installation of benchmarks to mSL, by a registered surveyor as required by the Employer's Agent, during construction and shall include the protection during construction and marking the benchmark on completion of the Works.

NOTE: The cost to set out the Works in terms of 5.1.1 and PSA 5.1.1 shall be deemed to be covered by the sums tendered for other obligations under Subclauses 8.3.3 and 8.4.5."

"PSA 8.10* Sanctions Unit: Prov Sum

The provisional sum shall cover any sanction or bonus due as specified in subclause C3.3.3. The provisional sum shall be expended in accordance with Clause 6.6 of the Conditions of Contract."

PSC SITE CLEARANCE

PSC 3 MATERIALS

PSC 3.1 DISPOSAL OF MATERIAL

Add the following:

"Material obtained from clearing and grubbing, including builder's rubble, and other unwanted debris, shall be disposed of at spoil sites obtained by the Contractor.

All transport costs shall be included in the rates tendered for site clearance."

PSC 5 CONSTRUCTION

PSC 5.1 AREAS TO BE CLEARED AND GRUBBED

Add the following:

"Notwithstanding the above, the Employer's Agent may, where particular areas are scarcely vegetated, order that the clearing and grubbing operation be totally or partially omitted, in which case no payment will be made under this section.

Payment will then only be made for excavation included under the relevant earthworks section."

PSC 5.5 RECLEARING OF VEGETATION

Add the following:

"Except if otherwise agreed, where areas have to be re-cleared on the written instruction of the Employer's Agent, such re-clearing shall be carried out at the Contractor's own cost and the Contractor is advised therefore, not to clear areas at such an early stage that re-clearing may become necessary."

PSC 5.6 CONSERVATION OF TOPSOIL

Add the following:

"Conservation of topsoil, together with grass, roots and chipped mulch shall be applicable. Stockpiling of topsoil will be allowed on Site in specific locations indicated by the Employer's Agent. Topsoil shall not be stockpiled higher than 2,0m. Care shall be exercised to prevent the compaction of topsoil in any way especially by vehicles travelling over such material."

PSC 8 MEASUREMENT AND PAYMENT

PSC 8.1 BASIC PRINCIPLES

Add the following:

"The thickness of the layer that will unavoidably be stripped during clearing of vegetation will be taken as 100 mm. This implies that levels used in earthworks quantity calculations will be 100 mm lower than the original levels excluding stripping of topsoil to stockpile where applicable."

Add the following:

"Levels to be used for earthworks quantity calculations will be surveyed once the clearing operation has been completed."

PSC 8.2 SCHEDULED ITEMS

PSC 8.2.1 Clear and grub

Replace the first line with the following:

"The area designated by the Employer's Agent to be cleared and grubbed will be measured in square metre to the nearest metre or"

Delete "(except where 8.2.9 is applicable)" in the seventh line of this clause,

Add the following:

"The tendered rate shall also cover the cost of loading, transporting and disposing of vegetation, builder's rubble, and other unwanted debris encountered in road reserves or along service routes at the designated spoil site described in the Scope of Works."

"PSC 8.2.5 Take down and re-erect existing fences.....Unit: m

Add the following to subclause 8.2.5

"The rate shall further cover the cost to reinstate the fences to their original status, as well as for all new material in so doing"

"PSC 8.2.10 Remove topsoil to nominal depth of 150 mm, stockpile and maintain Unit: m³

Replace the heading and contents of subclause 8.2.10 with the following:

The rate shall cover the cost of removing the topsoil where ordered, together with such vegetation and small roots as may occur within the specified depth, for loading, transporting to designated area on site, for stockpiling, for maintaining and wetting (dust control) the stockpile for the full duration of the Contract.

Add the following clauses:

"PSC 8.2.11* Final finishing and cleaning up of site..... Unit: Sum

The tendered sum shall include full compensation for the clearing, disposal of material, finishing, tidying and all other work required to finish and clean up the Site of the works and affected areas by removing excess earth, stones, boulders, debris and other waste material, by clearing stormwater inlets and outlets and pipe barrels, by clearing the surfacing of all dirt, mud and foreign material, and by neatly finishing off all junctions, intersections and kerbing.

All material resulting from the finishing operations shall be disposed of to a spoil site furnished by the Contractor.

The tendered rate shall make provision for the reinstatement of existing driveways to their original condition where these have been affected by the works, as these items will not be measured and paid for separately.

PSDB EARTHWORKS (PIPE TRENCHES)

PSDB 3 MATERIALS

PSDB 3.1 CLASSES OF EXCAVATION

Delete the contents of Clause 3.1 and replace with the following:

"The classification shall be as described in PSD 3.1".

PSDB 3.5 BACKFILL MATERIAL

Replace the contents of Subclause (b) and add Subclauses (c) and (d) as follows :

"In areas subject to road traffic loads which shall be held to extend 2,5m either side of the road centre line, as well as beneath concrete lined channels, backfill shall comply with the requirements of PSME 3.2.2

Add the following paragraphs to subclause 3.5:

"(c) Cement-stabilised backfilling

Backfilling shall, where directed by the Employer's Agent, be stabilised with 5% cement. The aggregate shall consist of approved soil or gravel containing stones not bigger than 38 mm and with a plasticity index not exceeding 10.

The soil or gravel shall be mixed with 5% cement and shall be compacted in layers of 100 mm thick to 90% of modified AASHTO density.

(d) Soilcrete backfilling

The aggregate for soilcrete shall be mixed with 5% cement and shall consist of approved soil or gravel containing stones not bigger than 38 mm and with a plasticity index not exceeding 10.

The soil or gravel shall be mixed in a concrete mixer with the cement and enough water to acquire a consistency that allows the mixture to be placed with vibrators to fill all voids between the pipe and the sides of the trench. Shuttering shall be used where necessary."

PSDB 3.7 SELECTION

Replace the words "if he so wishes" in the first line of the second paragraph with the words "at his own cost".

Add the following to subclause 3.7:

"Notwithstanding anything to the contrary stated in this subclause the Contractor shall, where so ordered, selectively stockpile topsoil, material complying with 3.5, as well as road materials for re-use in terms of 5.9."

PSDB 5 CONSTRUCTION

PSDB 5.2 MINIMUM BASE WIDTHS

Notwithstanding the provisions of this Subclause, the minimum base widths for the various trenches shall be as shown on the Drawings.

PSDB 5.4 EXCAVATION

Add the following:

"Except where otherwise specified, trenches shall be of such a depth that the minimum cover over the pipes shall be 700mm, except at road-crossings, where the minimum cover shall be 1 000 mm. No trench may be left open over the period 16 December to 8 January inclusive.

Where trenches have to be excavated under this Contract adjacent to live services / other services laid under other contracts, it may be necessary to shore trenches to prevent damage to the live services / other services. It will be the responsibility of the Contractor to ensure that services constructed under other contracts of live services are not damaged by his operations during the Contract.”

PSDB 5.6 BACKFILL

PSDB 5.6.1 General

Replace the first sentence with the following:

“Backfilling of pipe trenches may only commence after the pipe has been laid, firmly bedded in the specified cradle, the blanket placed and compacted as specified and after the pipe has been tested in terms of Clause 7 of SABS 1200 L.”

PSDB 5.6.2 Material for backfilling

Replace the last paragraph of this Clause “In areas.....backfill” with the following:

“The material for backfilling in areas subject to road traffic loads shall comply with PSDB 3.5.”

PSDB 5.6.3 Disposal of soft excavation material

Replace the words “unless otherwise required in the project specification.” at the end of this Subclause with:

“or to spoil in accordance with the requirements of PSD 5.2.2.3 and Subclause 5.2.2.3 of SABS 1200 D, as instructed by the Employer’s Agent.”

PSDB 5.6.6 Completion of backfilling

Add the following:

“If in the opinion of the Employer’s Agent insufficient progress is being made with the backfilling of trenches, the Employer’s Agent will be entitled to order that no further excavation takes place until the backfilling operation has caught up.”

PSDB 5.7 COMPACTION

PSDB 5.7.1 Areas not subject to Traffic Loads

Add the following sentence:

“All non-cohesive material shall be compacted to 100% of modified AASHTO maximum density.”

Replace the heading and contents of subclause 5.7.2 with the following:

PSDB 5.7.2 Areas Subject to Traffic Loads and beneath concrete lined walkways, cyclepaths and stormwater channels:

In areas subject to traffic loads and beneath concrete lined walkways, cyclepaths and stormwater channels, trenches shall be backfilled from the top of the bedding to the extent scheduled below in layers of thickness not exceeding 150mm after compaction, and the material shall be compacted to 95% of modified AASHTO maximum density.

TRENCH DESCRIPTION	EXTENT OF BACKFILL
Trenches beneath roadways to be constructed under the contract	Up to designated level of underside of layerworks
Trenches beneath concrete lined walkways, cyclepaths and stormwater channels	Up to designated level of underside of concrete lining

PSDB 8 MEASUREMENT AND PAYMENT

PSDB 8.1.1 Replace “along the route of the pipeline” in the third line of SANS 1200 DB Clause 8.1.1 with “as specified in PSDB 5.6.3”.

Replace the contents of subclause 8.2.4 with the following:
"No separate items will be measured for shoring. Refer to Item PSD 5.1.1.2 in this regard."

“PSDB 8.2.5* If payment in terms of PSA 8.8.4 has been made to expose an existing service and the excavation involved falls within a proposed trench, the quantity measured for trench excavation shall be reduced accordingly.”

PSDB 8.3 SCHEDULED ITEMS

PSDB 8.3.2 Excavation

(a) Excavate in all materials for trenches, backfill, compact and dispose of surplus material Unit: m or m³

Replace the first sentence with the following:

“Items will be provided for various trench widths as specified and detailed on the Drawings and various depths in increments as specified in the Bill of Quantities.”

Add the following sentence:

“The Contractor will be responsible for disposing of all surplus material and no additional payment will be made for overhaul, disposal fees or any other related costs.”

Add the following to Clause (a):

“The rate tendered shall also cover the cost of complying with PSDB 3.5, as well as the cost of any disruption or delay in complying with PSDB 5.4 and PSL 5.1.4.

Delete Clause 8.3.2 (b)(1) as well as any reference to intermediate excavation in Clause (b). For the purpose of measurement and payment, excavation other than hard rock excavation will not be separately classified (refer PSDB 3.1).

Add the following new sub-items in 8.3.2 (b):

“(3) Hand excavation where ordered Unit: m³

The rate tendered shall cover the additional cost, extra over that provided for under 8.3.2(a), for carrying out, where ordered by the Employer’s Agent and up to a depth of 1,0-meter, trench excavation by hand as well as for any inconveniences related to the continuation with machines across and over hand-excavated trenches.

The volume shall be computed from the dimensions specified, shown on the Drawings or ordered by the Employer’s Agent.

Normal handwork required to clean and trim the sides and bottoms or mechanically excavated trenches will not qualify for payment in terms of this clause.

(4) Hand backfilling machine excavated trenches where ordered Unit: m³

The rate tendered shall cover the additional cost, extra over that provided for under 8.3.2(a) to, except for compaction which shall be carried out by machine, hand backfill machine excavated trenches where ordered by the Employer’s Agent.

The volume shall be computed from the dimensions specified, shown on the Drawings or ordered by the Employer’s Agent.

(5) Selective stockpiling of topsoil where ordered..... Unit: m³

The rate tendered shall cover the additional cost, extra over that provided for under 8.3.2 (a), to selectively stockpile topsoil where ordered by the Employer's Agent, including of off-loading, forming and maintaining the stockpile for as long as is required, reloading and transporting within the applicable freehaul distance from the stockpile.

The volume shall be computed from the dimensions ordered by the Employer's Agent."

(6) Disposing of spoil material on a site provided by the Contractor..... Unit: m³

The unit of measurement shall be the cubic metre, measured in accordance with Subclause 8.2 of SABS 1200D, of surplus and/or unsuitable material disposed of, on the instruction of the Employer's Agent, at a spoil site or spoil sites provided by the Contractor.

The tendered rate shall include full compensation for the additional cost of providing a spoil site or other means of disposing of surplus spoil material, for transporting the material regardless of the distance involved, for acceptance charges for such material and for all other incidental costs to dispose of the spoil material.

(7) Backfill stabilised with 5% cement where directed by the Employer's Agent Unit : m³

The unit of measurement shall be the cubic metre of backfill material, measured in place after compaction according to the authorised dimensions, which was stabilised on the Employer Agent instructions in accordance with Subclause PSDB 3.5(c).

The tendered rate shall include full compensation for supplying the cement and for selecting, mixing, backfilling and compacting the stabilised material to 90% of modified AASHTO density."

(8) Soilcrete backfill where directed by the Employer's Agent..... Unit : m³

The unit of measurement shall be the cubic metre of soilcrete placed on the Employer's Agent instructions in accordance with Subclause PSDB 3.5(d), measured in place according to the authorised dimensions.

The tendered rate shall include full compensation for supplying the cement and for selecting, mixing and placing the soilcrete as well as for the cost of shuttering if required."

PSDB 8.3.3 Excavation ancillaries:

PSDB 8.3.3.1 Deficiency in backfill material

Add the following to subclause 8.3.3.1(c):

The rate shall also include for compaction of sub base quality backfill as per PSDB 3.5

Replace the heading and contents of this Clause with the following:

PSDB 8.3.3.3 Compaction in road crossings Unit : m³

"This item shall only apply to the compaction of materials in areas subject to road traffic loads as defined in PSDB 3.5.

The volume will be computed from the length of trench falling within the defined area, the width as shown on the Drawings and the depth from the top of the bedding to the designated level of the underside of the required selected layer, finished verge level etc. as scheduled on the Drawings. The rate tendered shall cover the cost of the additional compactive effort as specified.

Payment for this work will be additional to that covered by 8.3.2(a)."

PSDB 8.3.6 Finishing

PSDB 8.3.6.1 Reinstatement road surfaces

Replace from “a) Gravel on shoulders....” Through to “....Etcetera's.....Unit: m²” with the following:

- “(a) Backfilling using Trenchfill Unit : m³
- (b) Hot asphalt type IVA (min thickness 40mm) Unit : m²
- (c) Gravel Shoulders Unit : m²
- (d) Concrete Driveways and Walkways (min thickness 100mm)..... Unit : m²
- (e) Grass verges and Lawns Unit : m²

For item (a) the volume will be computed from the length of trench as applicable and the width determined from the applicable side allowances specified in 8.2.3, and the depth from road surface to top of selected fill blanket. Payment for this item will be additional to that for excavation covered by 8.3.2.

For items (b) to (e) the area will be computed from the length of paved trench surface as applicable and the width determined from the applicable side allowances specified in 8.2.3.

The rates shall further cover the cost of temporary accommodation of traffic (including the signs and bypasses), arranging for safety of the public, excavation (including breaking up, removal and disposal of surplus material) and the subsequent reinstatement as specified in 5.9, and shall include the cost of delays and the cost of any risk of having to repair damage as specified in 5.10.”

PSDM EARTHWORKS (ROADS, SUBGRADE)

PSDM 2 INTERPRETATIONS

PSDM 2.3 DEFINITIONS AND ABBREVIATIONS

Notwithstanding the definition of roadbed given under Clause 2.2 of SABS 1200 M, all in-situ surfaces requiring compaction as indicated on the drawings, shall be classified as roadbed.

PSDM 3 MATERIALS

PSDM 3.1 CLASSIFICATION FOR EXCAVATION PURPOSES

Notwithstanding the provisions of this Clause, the excavation of material will, for purposes of measurement and payment, be classified as specified in PSD 3.1.2.

PSDM 3.2.2 Fill

Notwithstanding the requirements of this Clause, material from commercial sources or borrow pits located by the Contractor, to be used in the fill, shall comply with the requirements of Clause 3.2.3 and PSDM 3.2.3.

PSDM 3.2.3 Selected layer

Replace the contents of this Clause with the following:

"The following requirements shall apply in respect of the selected layer:

- a) Maximum particle size: 60% of compacted layer thickness
- b) Unstabilised selected layer
 - (i) Upper selected layer

Minimum CBR at 93% of modified AASHTO density: 15

Maximum PI: 12 (the Engineer has the right to alter this requirement to 3 x the grading modulus + 10)

Note:

The requirements for the upper selected layer also apply where only one selected layer is specified.

- (ii) Lower selected layer

Minimum CBR at 93% of modified AASHTO density: 7

Maximum PI: 12 (the Engineer has the right to alter this requirement to 3 x the grading modulus + 10)

PSDM 3.3 SELECTION

Notwithstanding the provisions of this Clause, the Contractor shall note that the excavation from the cutting shall be utilized for the construction of the lower layers of fills.

PSDM 5 CONSTRUCTION

PSDM 5.1.2 Accommodation of traffic

The requirements of Clauses PSA 5.10 and PSD 5.1.6 shall apply regarding the control and temporary accommodation of traffic.

PSDM 5.2.2.2 Dimensions of cuts

Delete "suitable material7" in the fifth line and replace with "material complying with 3.2.3 and PSDM 3.2.3."

Add after "drawings" in the second line of this subclause "which shall include for channels and sidewalks within the road reserve".

PSDM 5.2.2.3 Use of material

Add after "borrow pits" in the second line of subclause (d): "or commercial sources."

Add the following after subclause (d):

"(e) Commercial sources

The provisions of subclause PSD 5.2.2.5 of SABS 1200 D as amended shall apply."

PSDM 5.2.2.5 Disposal of surplus or unsuitable material

Add after "directed" in the second line of this Clause "(refer PSD 5.2.2.3)".

PSDM 5.2.3 Treatment of roadbed

PSDM 5.2.3.2 Removal of unsuitable ground

Replace the second sentence of paragraph (a) with the following:

"The excavated spaces shall then be backfilled with approved imported material compacted to the required density."

Add the following sentence to paragraph (b):

"Unsuitable excavated material will be paid for as cut to spoil."

PSDM 5.2.3.3 Treatment of roadbed

Add the following to Clause (a):

"The depth of compaction shall be 150mm."

Add the following paragraphs:

"(c) Three-pass roller compaction

Any portion of the roadbed that is shown on the Drawings or is specified or is directed by the Engineer to be given three-pass roller compaction because of its inadequate natural density, shall be prepared by shaping where necessary and compacting with a roller, complying with the requirements specified below.

Compaction shall comprise three complete coverages by the wheels of the specified roller over every portion of the area that is being compacted. While it is not the intention that the Contractor should apply water to the roadbed for this type of compaction, and while no rigid moisture control will be exercised during compaction, the Contractor shall nevertheless satisfy the Engineer that everything is being done to take full advantage of favourable soil moisture conditions during the rainy season, and that such compaction is as far as possible carried out when the roadbed is neither excessively dry nor excessively wet.

The Engineer has the authority to decide when conditions are favourable for compaction and where such compaction is to be carried out at any particular time, and he has the right to instruct the Contractor to water the roadbed at the Contractor's expense when, in the opinion of the Engineer, the Contractor failed, neglected or refused to comply with these requirements.

The rollers to be used for roller-pass compaction shall conform to the following requirements:

Grid roller: The grid roller shall have a mass of not less than 13,5 t when ballasted, shall be loaded to this mass if required, and shall be moved at a speed of not less than 12 km/h.

Vibratory roller: The vibratory roller shall be capable of exerting a combined static and dynamic force of not less than 120 kN/m width for every metre of loose-layer thickness at an operating frequency not exceeding 25 Hz and shall move at a speed not exceeding 4 km/h."

PSDM 5.2.4 Fill

PSDM 5.2.4.3 Finishing

Notwithstanding the provisions of this Clause the requirements of PSDM 5.2.9 shall as applicable apply to the finishing off of verges.

PSDM 5.2.5 Selected layer

Replace the contents of this Clause with the following:

"Except with regard to density, the requirements of Clause 5.2.4 shall apply. The degree of compaction shall be:

Upper selected / Selected	:	93% of modified AASHTO maximum density.
Lower selected	:	93% of modified AASHTO maximum density."

PSDM 5.2.8. Transport

Replace the contents of this subclause with the following:

"The provisions of Subclause PSD 5.2.5 of SABS 1200 D, as amended, shall apply."

"PSDM 5.2.9* Trimming and grading of verges

During the initial earthworks the verge width shall be cut or filled to approximately the final level and shall be kept trimmed and tidy during construction of the works. After completion of the road layers, including the premix surface, and after construction of the necessary kerbs, including the satisfactory backfilling behind the kerb, the verge shall be finished off to the lines and levels shown on the drawings or as specified.

The verge material shall consist of that material which would normally be occurring at that position or depth when in cut and shall not be contaminated by foreign materials such as bricks, basecourse material, horticulturally inferior materials from trench excavation, etc. Verges in fill conditions are to consist of the material as specified for the fills and similarly not be contaminated with foreign materials.

Over those sections of verge where grass is to be planted in which case the Contractor shall load, transport and spread as ordered by the Engineer. In the case of topsoil provided and imported by the Contractor the quality of the topsoil shall be approved of by the Engineer beforehand.

The Contractor shall be responsible for taking the necessary precautions and measures to control the dust nuisance which may arise due to his operations on the verge, whether from the natural ground surface or topsoil layer, until the verge is accepted by the Engineer."

"PSDM 5.2.10* Dimension and Level Control and Process Control

The Contractor shall submit to the Engineer records of dimension and level control and/or process control prior to requesting the Engineer to carry out any routine tests and/or inspections.

A sample form can be obtained from the Engineer."

"PSDM 5.2.11* Requesting of Tests

Tests and Inspections of the works will only be carried out by the Engineer once the appropriate test/inspection request forms have been fully completed. Test/inspection request forms can be obtained from the Engineer."

PSDM 6 TOLERANCES

"PSDM 6.5* DIMENSION AND LEVEL CONTROL

The requirements of PSM 6.4 shall apply."

PSDM 7 TESTING

PSDM 7.3 ROUTINE INSPECTION AND TESTING

Replace Table 2 and the contents of Clause 7.3.2 with the following:

"The dry density requirements for a particular lot of selected layer or wearing course shall be deemed to be satisfied if the average density and the results of individual tests meet the requirements specified in Table 2 below. Refer to Clause PSD 7.2 for the requirements for fill.

TABLE 2 - DENSITIES

1	2	3	4	5
Layer	Specified density (% of modified AASHTO density)	Number of tests per lot	Average density %	Minimum density for any single test, %
Upper selected	93	3 and 4 5 6	93,1 93,4 93,6	89,4 89,2 89,0
Lower selected layer or pioneer layer	93	3 and 4 5 6	93,1 93,4 93,6	89,4 89,2 89,0

"PSDM 7.4* INSPECTION AND TESTING BY ENGINEER

The requirements of PSM 7.3 shall apply."

PSDM 8 MEASUREMENT AND PAYMENT

PSDM 8.1 BASIC PRINCIPLES

Add the following:

"The requirements of PSM 8.2 shall apply. The Contractor shall further make provision in the various rates for the construction of the roadbed, fill and selected layer for the cost of his own process control testing and the cost of complying with PSDM 6.5 and PSDM 7.4."

PSDM 8.2 COMPUTATION OF QUANTITIES

Replace subclauses 8.2.1 through to 8.2.3 (inclusive) with the following:

"PSDM 8.2.1 The provisions of subclause 8.2.1 of SABS 1200 D shall apply.

PSDM 8.2.2 The provisions of subclause 8.2.2 of SABS 1200 D shall apply.

PSDM 8.2.3 The provisions of subclause 8.2.2 of SABS 1200 D shall apply."

PSDM 8.2.5 Verifying quantities

Replace the first sentence with the following:

"Before any earthworks are commenced but after completion of any site preparation, the Engineer will, upon a written request from the Contractor, provide cross-sections for the purpose of measurement of earthworks quantities."

PSDM 8.3 SCHEDULED ITEMS

PSDM 8.3.3 Treatment of roadbed

(a) Roadbed preparation and compaction of material to

Add the following:

"The unit of measurement shall be the cubic metre of material re-compacted as specified and the volume shall be determined from levelled cross-sections on which are superimposed the levels to which the roadbed is to be constructed. When material is imported to make up the required volume, such material will be paid for as cut or borrow to fill as relevant."

Note :

No additional payment will be made for difficult work or hand operations in confined areas."

Add the following to Clause 8.3.3(a) :

"(4) Minimum of 93% of modified AASHTO maximum density Unit : m³

Add the following paragraph to the end of Clause 8.3.3(a):

"The unit of measurement shall be the cubic metre of material re-compacted as specified and the volume shall be determined from levelled cross-sections on which are superimposed the levels to which the roadbed is to be constructed. When material is imported to make up the required volume, such material will be paid for as cut or borrow to fill as relevant.

Note :

No additional payment will be made for difficult work or hand operations in confined areas."

Replace the heading of subclause (b) with the following:

"(b) In-place treatment of road-bed in hard rock material by"

Add the following:

"(c) Three-pass roller compaction:

(i) Grid roller Unit: m²

(ii) Vibratory roller Unit: m²

The units of measurement shall be the square metre of roadbed compacted as specified in subclause PSDM 5.2.3.3(c) for the areas designated by the Engineer.

The tendered rates shall include full compensation for shaping the areas, providing the rollers and compacting the roadbed by means of three roller passes over the entire area."

PSDM 8.3.4 Cut to fill, borrow to fill

Replace the contents of this Clause with the following:

“(a) Cut to fill compacted to 93% of modified AASHTO maximum density Unit : m³

The rate tendered shall cover the cost of excavating from the site as if in soft material, transporting, preparing, processing, shaping, watering, mixing, compacting to percentage of modified AASHTO maximum density specified, trimming and testing the fill.

(b) Borrow to fill from commercial or off site sources located by the Contractor compacted to 93% of modified AASHTO maximum density Unit : m³

The rate tendered shall cover the cost of acquiring the material from commercial or off site sources located by the Contractor, any excavation and selection required, loading, transporting to the point of use irrespective of distance, temporary stockpiling if necessary, placing, watering, compacting to percentage of modified AASHTO maximum density specified, trimming and testing the fill.

No additional payment will be made for difficult work or hand operations in confined areas.

Replace the heading and contents of Clause 8.3.5 with the following:

“PSDM 8.3.5 Selected layers

(a) Selected layers using material cut from the site and compacted to:

i) 93% of modified AASHTO maximum density Unit : m³

ii) 95% of modified AASHTO maximum density Unit : m³

The rate tendered shall cover the cost of excavating as if in soft material, selecting, loading, transporting, placing, watering, compacting to percentage of modified AASHTO maximum density specified, trimming and testing the selected layer.

(b) Selected layers using material from commercial or off site sources located by the Contractor, compacted to:

i) 93% of modified AASHTO maximum density Unit : m³

ii) 95% of modified AASHTO maximum density Unit : m³

The rate tendered shall cover the cost of acquiring the material from commercial or off site sources located by the Contractor, any excavation and selection required, loading, transporting to the point of use irrespective of distance, temporary stockpiling if necessary, placing, watering, compacting to percentage of modified AASHTO maximum density specified, trimming and testing the selected layer.

Note :

No additional payment will be made for difficult work or hand operations in confined areas.”

PSDM 8.3.6 Extra over items 8.3.4, 8.3.5 and 8.3.16 for excavating and breaking down material in"

Replace the words "items 8.3.4 and 8.3.5" with the words "items 8.3.4, 8.3.5 and 8.3.16".

PSDM 8.3.7 Cut to spoil or stockpile from

Delete paragraph (b). In terms of PSDM 3.1 intermediate excavation will not be separately measured for payment.

Add the following:

"Separate items will be scheduled for cut to spoil and cut to stockpile. The rate tendered shall further cover the cost of complying with the requirements of Clause 5.2.3.2 irrespective of the depth or extent of the material ordered to be removed, or whether the order to remove unsuitable material is given after the completion of any initial cut operation.

The tendered rate shall further, in the case of cut to spoil, include full compensation for transporting the material regardless of the distance involved and for all other incidental cost to dispose of the spoil material. (Refer also PSD 5.2.2.3, PSD 5.2.5 and PSDM 8.3.12)."

PSDM 8.3.11 Extra over 8.3.2, 8.3.4, 8.3.5 or 8.3.7 for temporary stockpiling of material

Add the following:

The temporary stockpiling of material from commercial sources or borrow pits located by the Contractor will not be measured for payment."

PSDM 8.3.12 Overhaul

Delete this item as no overhaul will be paid on material for the purposes of this Contract and all the costs for transporting material shall be included in the applicable tendered rates and amounts.

PSDM 8.3.13* Surface finishes

"(a) Topsoiling Unit: m²

Measurement shall be the surface area of the topsoiling reinstated in accordance with the requirements of PSDM 5.2.9. The rate tendered shall cover the cost of all things necessary to reinstate the topsoil as specified, including the acquisition of material to make up for material lost due to weather or other reasons."

(b) Grassing or other vegetation cover..... Unit: m²

The rate shall cover the costs of finishing off areas to be landscaped. The rate tendered shall cover the cost of all things necessary to reinstate proposed landscaped areas as specified."

Add the following new subclauses:

"(c)* Trim, shape and roll verge..... Unit: m²

Measurement shall be the surface area of the verge prepared in accordance with the requirements of PSDM 5.2.9. The rate tendered shall cover the cost of all things necessary to finish off the verge as specified, including the incorporation of material to make up for material lost due to weather or other reasons. (Cut and fill to bring verge to level payment under 8.3.4)."

(d)* Finishing of Cut and Fill slopes, medians and interchange areas..... Unit: m²

The rate shall cover the costs of finishing of cut and fill slopes, in terms of subclause 5.2.4.3 of SABS 1200 D."

PSDM 8.3.17* Variations in the number of roller passes (applicable to sub-sub item 8.3.3(c)):

(a) Vibratory rollers Unit: m²-pass

(b) Oscillatory rollers..... Unit: m²-pass

- (c) Grid rollers Unit: m²-pass
- (d) Tamping rollers Unit: m²-pass
- (e) Impact rollers Unit: m²-pass
- (f) Pneumatic-tyred rollers Unit: m²-pass

The unit of measurement shall be the square-metre coverage, and shall be computed by multiplying the number of square metres to which the changed pass efforts apply by the increased or decreased number of roller passes.

Where a change in the compaction effort is requested, the Contractor will be compensated at the tendered rates for the above items in respect of the increased number of square-metre roller passes of each type of roller required over and above that specified in the relevant standard effort. His compensation will be decreased simultaneously, at the applicable rates, by the number of square-metre roller passes of each type of roller which is either decreased or completely left out.

The tendered rate for each additional square metre-pass ordered by the Engineer over and above the specified number of passes, shall include full compensation for all supervision, labour, plant, equipment, fuel, materials, work and incidentals necessary for completing the work. The same rates shall be accepted by the Contractor during computation of a decrease in his compensation where the number of roller passes for each specific type of roller is decreased."

"PSDM 8.3.18* Reinforcement of soils..... Unit: m²

The tendered rates shall include full compensation for providing all labour, materials and equipment required to carry out the work, for all preparatory work, for installing the reinforcement scheduled in a workmanlike manner. Refer to PSDM 3.2.5."

PSGA **CONCRETE (SMALL WORKS)**

PSGA 3 **MATERIALS**

PSGA 3.2.1 Applicable Specifications

Add the following to this Subclause:

“Notwithstanding the contents of this Subclause, where reference is made in this specification or the standard specifications to any cement specification, it shall be replaced with the following specification, SANS EN 197-1-Cement-Part 1: Composition, specifications and conformity criteria for common cements.

On this Contract cement grade CEM I 42,5N shall be used.”

PSGA 3.8 **CURING COMPOUND**

Curing compound shall be white pigmented natural resin based liquid curing compound complying with ASTM C 309 Type 2 Class B.”

PSGA 4 **PLANT**

PSGA 4.4.2 Finish

The finish to all exposed concrete shall be smooth and that to buried or backfilled surfaces, rough.

PSGA 5 **CONSTRUCTION**

PSGA 5.4 **Concrete**

PSGA 5.4.1 Quality

PSGA 5.4.1.5 Strength Concrete

Add the following:

“The Contractor shall, when requesting approval of a mix design, submit the constituent proportions of the proposed mix together with the results of compressive strength tests carried out. Reliable test records made from the same materials and mix proportions will, without prejudicing the requirements of this subclause, be accepted as a basis for approving a mix design”.

PSGA 5.4.2 Batching

Notwithstanding the requirements of this subclause, the method of batching shall be subject to approval. If volume batching is allowed only full standard 50kg bags of cement may be used to make up a batch.

PSGA 5.4.3 Mixing

Add the following:

“All site mix concrete shall be mixed in a rotary type mixer and the minimum size of mixer that may be used shall have the capacity to mix a batch comprising one standard 50kg bag of cement”. (SANS ENV 197 CEM 1 42.5 Black bag.)

PSGA 5.4.6	<u>Compaction</u> Replace “or (if approved).....forking” in the first sentence of subclause 5.4.6.3 with “using approved vibrators”.
PSGA 5.4.7	<u>Curing and Protection</u> Notwithstanding the requirements of this subclause, all cast insitu concrete shall be cured in accordance with the requirements of this subclause using a white pigmented natural resin based liquid curing compound complying with ASTM C 309-74, except where the surface to be cured is to receive further concrete, in which case curing shall be carried out in accordance with one of the methods described in subclause (a) and (b).
PSGA 7	TESTS
PSGA 7.1	Facilities and Frequency of Sampling
PSGA 7.1.2	<u>Frequency and Sampling</u> Notwithstanding the requirements of this subclause the Contractor shall take note that he is responsible for taking an adequate number of tests to ensure that the concrete being used complies with the Specification. The Engineer’s Representative will only carry out such check testing as he requires.
PSGA 8	MEASUREMENT AND PAYMENT Delete the contents of this Clause. Measurement and Payment would be done in accordance with the Standard Preambles.

PSL MEDIUM PRESSURE PIPELINES

PSL 1 SCOPE

PSL 1.1 Add the following:

“This specification shall also cover the installation of the cross-connection and pipework inside the tower.”

PSL 2 INTERPRETATIONS

“PSL 2.1.3* Drawings

Wherever the aforementioned drawings are referred to, the appropriate of the details shown on the Employer's Agent Drawings shall apply.”

PSL 2.4 ABBREVIATIONS

Add the following:

“HDPE: High Density Polyethylene.”

PSL 3 MATERIALS

PSL 3.3 CI PIPES, FITTINGS AND SPECIALS

Add the following:

“CI fittings and specials for use with uPVC pipes shall be class 16.”

“PSL 3.7.3* uPVC pipes

uPVC pipes and fittings shall be provided with spigot and socket rubber ring joints and shall be manufactured to standards acceptable to the Employer's Agent. Solvent welded fabricated fittings will not be acceptable.”

PSL 3.8.3 Flanges and accessories

Add to Subclause 3.8.3:

“The insertion piece shall be such as to cover the full face of the flange (i.e. the O/D). Drilling shall conform to SABS 1123/1600/3.

PSL 3.8.4 Loose flanges

Bolts and nuts shall comply with SABS 135.

PSL 3.9.1 CI pipes and specials

Notwithstanding the provisions of this subclause, all CI pipes, fittings and specials shall be coated internally and externally using “Rillsan”. The coating shall be 250 – 300 microns thick and shall be applied by an approved applicator.

PSL 3.9.2 Steel pipes

Notwithstanding the provisions of this Sub-Clause, all steel pipes and specials to be installed shall be heavy duty hot dipped galvanized complying with the requirements of SABS ISO 1461 and shall **not** be passivated.

After the galvanizing process, all steel pipes and specials shall be cleaned, scrubbed and washed down firstly with a suitable solvent and then with clean water. Immediately thereafter, the pipes and specials shall be internally and externally coated as scheduled below, all in accordance with the manufacturer's instructions.

Coat	Product	DFT (µm)		
		Min	Nominal	Max
1	Holding Primer Sigmacover or approved equivalent	45	50	75
2	Sigma TCN 300 (Brown) or approved equivalent	125	150	175
3	Sigma TCN 300 (Black) or approved equivalent	125	150	175
Total DFT		295	350	425

All coats shall be in contrasting colours and no DFT reading may be less than nor more than the minimum and maximum values specified. The overall average DFT shall not be less than the nominal DFT specified.

Application shall be by airless or conventional pressure pot spray systems and thinners shall be used strictly in accordance with the manufacturer's instructions. All critical areas like edges and welds shall be given an extra stripe coat.

Note:

The drilling patterns for flanges shall be SABS 1123/NP1600/3 and all pipes, specials and fittings shall be supplied complete with all necessary stainless steel bolts, washers and nuts as well as appropriate insertion pieces applicable to diameter and material.

All stainless steel items shall be Grade 316 material.

Fabrication of austenitic stainless steels shall comply with the recommendations in "The Stainless Steel User Manual" issued by Columbus Stainless. Compliance with publications from equivalent authorities will be acceptable.

Stainless steel fabricators shall use permanently dedicated storage and fabrication areas and shall use machines, tools and handling equipment which are suited and permanently dedicated to this type of material.

Fabrications shall be pickled and passivated over their full surface to achieve an even colour. If grinding is required before pickling, the final grinding shall be done with a fine disc in order to remove coarse grinding marks.

PSL 3.9.6 Corrosive soil

All buried flanged joints, together with their bolts, shall be protected by means of "Denso" paste and then wrapped to give a covering of at least three layers of "Denso" impregnated tape, or other means of inhibiting corrosion approved of by the Employer's Agent. Denso tape must be carefully moulded over the paste and fitting in order to expel all voids.

"PSL 3.9.7* Corrosion protection for valves and Hydrants

All gate valves and hydrants shall be fusion-bonded epoxy coated internally and externally to SABS 1217 or DIN 30677".

PSL 3.10 VALVES

Notwithstanding the provisions of this Subclause, the following shall apply with respect to the various valves specified on the drawings and scheduled:

PSL 3.10.1* Gate Valves

Gate valves shall comply with the following:

Gate valves shall be AVK Series 43/60 or approved equivalent gate valves which conform to the requirements of SABS 664 and shall be of the resilient seal type. All valves shall have a working pressure rating of at least 16 Bar and shall be clockwise opening with non-rising spindle and cap top unless otherwise specified. The wedge shall be fully encapsulated with NBR rubber internally and externally. The wedge nut shall be of the "fixed nut" concept allowing no movement and manufactured from dezincification resistant high tensile navy brass. The primary seal for stern sealing shall be a NBR rubber hydraulic U seal (Manchette type) and the secondary seal shall consist of at least two NBR O rings inside and two outside of a Nylon Bush. The body of the valve shall further bear the SABS mark, trade name, as well as the size and class of valve.

PSL 3.11.1 Bricks

All bricks shall comply with SABS 227 and shall be NFX burnt clay masonry units free of stones, cracks and other defects. The bricks shall be obtained from an approved manufacturer and samples of the bricks shall be submitted to the Employer's Agent for approval.

PSL 3.11.6 Surface boxes

Delete the contents of this sub-clause and replace by:

"For non-trafficked areas, surface boxes are to be the thermoplastic type."

PSL5 CONSTRUCTION

PSL 5.1.1 Add the following:

"uPVC pipes shall be laid, cut and jointed strictly in accordance with the manufacturer's instructions. A pipeline shall further be laid continuously; the leaving of gaps for fittings will not be permitted."

PSL 5.1.4 Depths and cover

Replace the contents of subclause 5.1.4.1 with the following:

Unless otherwise shown on the drawings or instructed by the Employer's Agent, cover to pipes shall be as follows:

During construction:

Where construction traffic is liable to cross over pipes, they shall be laid so that there is not less than 0,75m of cover over the pipe. Road crossings shall be constructed after the construction of the road layers has reached the stage where 0,75m cover is available.

Pipes beneath Verges and Open Spaces:

The tops of pipes beneath verges shall be not less than 0,75m and not more than 1,25m below the final verge level.

Supply Connection:

The tops of pipes shall not be less than 450mm and not more than 600mm below the final road surface.

Pipes beneath existing roadways:

The tops of pipes beneath a road shall not be less than 1m and not more than 1,25m below the road level.

"PSL 5.1.4.6* The top of the spindle of a gate valve shall not be less than 75mm nor more than 600mm below the level at which the top of the valve box is to be set. To ensure the aforementioned, valve spindle extension pieces shall be fitted by the Contractor."

PSL 5.3 SETTING OF VALVES, SPECIALS AND FITTINGS

Add to Clause 5.3:

“The hydrant shall be bolted to the tee such that the outlet is in line with the pipeline. Valves shall be positioned opposite the erf splay peg at intersections.”

“PSL 5.11* KOUGA LOCAL MUNICIPALITY WATER MAINS

The Contractor shall not operate any valve on the Kouga Local Municipality (KLM) water mains. When a section of the existing network is required to be isolated, the Contractor shall request the KLM Water Division to close the necessary valves. Any work on an existing main shall also only be carried out with the knowledge of the KLM Water Division, and if required, under the supervision.”

“PSL 5.12* SUBSEQUENT MAINTENANCE

Should leaks develop during the maintenance period or any defects need attention, these will be rectified by the Municipality (KLM) at the Contractor’s expense, including the cost of retesting and subsequent sterilisation.”

PSL 5.13* MARKERS FOR VALVES AND FIRE HYDRANTS

An appropriate marker shall be placed by the Contractor at the position of each valve, fire hydrant and on pipes (bends and pipeline lengths exceeding on bulk pipelines at 80m intervals).

The markers shall be manufactured and installed in accordance with the details shown on the drawings.”

PSL 6 TOLERANCES

PSL 6.2 CONTROL POINTS

Add the following:

“Valves shall be located as indicated on the plan layout opposite the boundary peg of the erf, and to within a longitudinal tolerance of 100mm.”

PSL 6.3 ALIGNMENT (PLAN & LEVEL)

Add to the last sentence:

“, provided this does not result in a reversal of the grade of the pipeline.”

PSL 7 TESTING

PSL 7.1 GENERAL

Notwithstanding the provisions of this subclause, the Contractor shall take note that an official of the Municipality’s Water Division shall witness each successful leakage test carried out. Visits to the site of this official to witness a test will be charged at a rate determined by the Water Engineer per visit after the initial visit, which monies shall be payable by the Contractor.

PSL 7.3.1 Test pressure and time of test

Add to sub-clause 7.3.1.1:

“The Contractor’s test equipment shall be connected directly to the flange of a hydrant tee – not through the hydrant’s screwed outlet – or through a specially adapted end cap or a short, discardable pipe. Alterations may have to be

made to the Contractor's test equipment to allow the placing of a Water Division's "in-line" check pressure gauge. If necessary, this will be requested by the Employer's Agent prior to the start of a leakage test.

With reference to subclause 7.3.1.2 the maximum working pressure shall be the pressure rating of the pipe.

Replace the last line of Clause 7.3.1.3 "less than these points" with the following:

"less than 1,25 nor more than 1,5 times the specified maximum working pressure."

Delete Subclauses 7.3.1.3 and 7.3.1.4

Add to sub-clause 7.3.1.5:

"Water used by the Contractor to fill the reticulation and during testing shall be water drawn from the Municipal mains and transported in a clean container. A metered connection may be installed by the Water Division upon the request of the Contractor and upon the payment of the prescribed fee. The bleeding off of air trapped within the reticulation shall only be carried out via the hydrants, erf connections or at the prescribed connection points to the existing reticulation by:

- (1) a bleeder system fitted to the end caps, or
- (2) a bleeder system fitted to a short length, say 500mm, of a pipe included at the end of the new reticulation.

PSL 7.3.3 Permissible Leakage Rates

"When testing reticulations made up of different types of pipes, the arithmetical sum of the respective calculated leakage rates for the various pipe types, diameters and lengths shall be taken as the maximum allowable leakage. Alternatively, the Contractor may request that each section be tested separately in which case the additional tests, witnessing and connecting fees shall be at his expense."

"PSL 7.3.4* Witnessing of a Successful Leakage Test by an Official of the Water Division

The Contractor shall take note that the Employer's Agent Representative is required to ensure that an Official of the Water Division (KLM) witnesses a successful leakage test of the whole new reticulation being put forward for acceptance. Visits to site of this official to witness the test after the initial visit will be charged at a rate determined by the Municipality.

This amount shall be payable directly to the Municipality by the Contractor prior to each subsequent visit.

"PSL 7.3.5* Removal of Test Equipment

Upon the successful completion of the leakage test the new reticulation will be deemed to be Municipal property and the Contractor shall not carry out any work on the pipes apart from the disconnection of his pump, the completion of the backfilling to the pipeline and construction of the hydrant and valve chambers and connecting in the new reticulation as soon as possible and the Contractor shall supply such materials, pipes and specials as detailed by the Employer's Agent. The completion of backfill at the connection points and the surface restoration / reinstatement shall be carried out by the Contractor."

"PSL 7.5* DEFECTS LIABILITY PERIOD

Should leaks or defects develop during the Defects Liability Period they shall be rectified by the Municipality at the Contractor's expense. This will include the cost of re-testing and subsequent sterilization. During the Defects Liability Period the Municipality may carry out further pressure tests on the whole or part of the new reticulation and any necessary remedial work shall be carried out at the Contractor's expense."

PSL 8 MEASUREMENT AND PAYMENT

PSL 8.1 GENERAL

Replace the second sentence of this subclause with the following:

“No payment will be made for depths of excavation in excess of those specified unless ordered in writing by the Employer’s Agent.”

Amend the heading of subclause 8.2.1 as follows:

“PSL 8.2.1 Collect, lay, joint, bed and test pipes complete with couplings and including disinfections
Unit: m”

Add the following:

“Couplings shall be held to include compression couplings required to join lengths of HDPE pipeline.

The rate tendered shall further cover the cost of the work provided for under 8.2.4, and with respect to testing, the supply and installation of all equipment, fittings and specials required, as well as the cost of water drawn (Refer PS 6.1). The measured quantity of pipe length will not, except for the payment of materials on site, be measured for payment until the length under consideration has been accepted in terms of subclause 7.3, PSL 7.3.1 and PSL 7.3.3. Refer also PS 8.3.”

Amend the heading of subclause 8.2.2 as follows:

“PSL 8.2.2 Extra over 8.2.1 for the supplying, laying, jointing, bedding and testing of specials complete with Couplings Unit: No

Add the following:

“The rate tendered shall also as applicable cover the cost of the provision of corrosion protection as specified in PSL 3.9.1, PSL 3.9.6 and PSL 3.9.7.”

PSL 8.2.3 Extra over 8.2.1 for the supplying, fixing and bedding of valves Unit: No

Add the following:

“The rate tendered shall also as applicable cover the cost of the provision of corrosion protection as specified in PSL 3.9.1, PSL 3.9.6 and PSL 3.9.7”.

Replace the heading and contents of subclause 8.2.13 with the following:

“PSL 8.2.13 Chambers

a) Valve Chambers, etc. Unit: No

Valve chambers, etc., will be measured as complete units for which separate items will be scheduled for each type of chamber of overall depth not exceeding 1,5m from soffit of roof to floor level complete as detailed on the Drawings.

The tendered rate shall cover all materials, plant and labour necessary for the complete construction of the chambers, including ladders, doors, manhole covers and frames, handrails, the lifting davit as well as the compaction of the bottom of the chamber excavation to 90% of modified AASHTO maximum density as well as for building in of the pipes through the wall, for frames and concrete pedestals, as and when required.

b) Extra over for chambers of depth exceeding 1,5m Unit: No

Additional depths of chambers in excess of 1,5m will be measured in increments of 0,5m depth for each type of chamber.

The rate tendered shall cover the cost of the complete construction of each extra 0,5m additional depth as well as for additional step irons, brickwork and uPVC pipe as required.”

“PSL 8.2.16* Supply and install valve and hydrant markers..... Unit: No

The rate tendered shall cover the cost of the supply of the markers complying with the details shown on the drawings, as well as the cost of all labour and equipment required to install the markers as specified in PSL 5.13, or as directed.”

“PSL 8.2.17* Connection to Existing Mains..... Unit: No

An item will be allowed in the Schedule of Quantities for the connection to existing mains by the Contractor after acceptance of the reticulation.

The rate tendered shall cover the cost of isolating the main, cutting into the main, connect fitting, dewatering the excavation, taking steps to prevent the ingress of ground, stones and other material into the main, as well as for making good any damage to the existing main.

The excavation to expose the main, the supply, laying, bedding, coupling up and testing of valves and specials used in the connection, as well as the provision of bedding, will be measured for payment under the appropriate items provided for this in the schedule.”

PSLB BEDDING (PIPES)

PSLB 2.3 DEFINITIONS

Flexible pipe

Add the following:

“uPVC pipes shall be classified as flexible pipes.”

PSLB 3 MATERIALS

PSLB 3.1 SELECTED GRANULAR MATERIAL

Replace the contents of Clause 3.1 with the following:

“Selected granular material shall be an aggregate, sand or granular material, all being a non-cohesive material that is free of vegetation, the grading analysis of which shows 100% passing a 9,5 mm sieve and not more than 5% passing a 0.075mm sieve and has a compactability factor not exceeding 0,4.”

PSLB 3.3 BEDDING

Add the following:

“For the purposes of this clause uPVC pipes shall be classified as flexible pipes.”

PSLB 3.4.1 Suitable material available from trench excavation

Replace the words “(but is not required)” in the fifth line with the words “(at his own cost).”

“PSLB 3.5* BEDDING IN WATERLOGGED CONDITIONS

Where ordered by the Employer’s Agent a bedding cradle of the specified thickness, comprising of 6,7mm concrete stone complying with SABS 1083, shall be used in waterlogged conditions.”

PSLB 5 CONSTRUCTION

PSLB 5.1.1.2 Bottom

Add the following:

“Where expansive clay is encountered in the trench bottom, the selected fill blanket shall comprise of selected granular material.”

PSLB 5.2 PLACING AND COMPACTING OF RIGID PIPES

Stormwater pipes shall be bedded as specified for rigid pipes unless otherwise indicated on the drawings or ordered by the Employer’s Agent.

PSLB 5.3 PLACING AND COMPACTING OF FLEXIBLE PIPES

Notwithstanding the provisions of this subclause, the bedding for flexible pipes shall be constructed to the dimensions shown on the Drawings and by using the bedding material specified (refer also PSLB 5.1.2).

PSLB 8 MEASUREMENT AND PAYMENT

PSLB 8.1.3 Volume of bedding materials

Notwithstanding the provisions of this subclause, the volume of bedding will be computed from the dimensions shown on the Drawings.

Replace the last sentence with the following:

“No allowance will be made for bulking of material or any additional volume of bedding material required due to over break or any other cause.

Further, the volume of bedding displaced by the pipeline will not be measured for payment.”

PSLB 8.1.5 Disposal of displaced material

Replace the contents of this Clause with the following:

“Material displaced by the pipeline and by imported material from sources other than trench excavation, shall be disposed of at an approved site furnished by the Contractor. No haulage shall be payable for such material.”

PSLB 8.2.2.3 From commercial sources

(c)* 6,7 mm concrete stone to SABS 1083 Unit: m³

Add the following to the end of this Clause:

“Commercial sources shall include off-site sources located by the Contractor.”

PSLB 8.2.4 Encasing of pipes in concrete Unit: m³

The item volume for concrete encasement to the pipes will be computed from the dimensions of the concrete as given on the drawings.

The concrete shall be 20 MPa concrete with 19mm stone. The rate shall cover the cost of dealing with any excavation (in all material including disposal of surplus) that is additional to that measured under the item for pipe trench excavation, the cost of encasing the pipe in concrete including the cost of formwork (if any), etc., and the cost of formwork to form flexible joints at each pipe collar or joint.

“PSLB 8.2.6* Supply and install geofrabric material (Kaytech A2 or similar approved) Unit: m²

The unit of measurement shall be the square metre, measured in accordance with Subclause 8.2.4 of SABS 1200 DK.

PSLK VALVE INSTALLATIONS. (SPEC LK)

PSLK 3 MATERIALS

PSLK 3.1 GENERAL

The applicable detail sheets found in Part C3.2 of this tender document are to be filled in for all the relevant valves.

PSLK 3.2 AIR VALVES

Air valves shall be as detailed on the drawings or similar approved. Each air valve shall be fitted with a flanged resilient seal gate valve with handwheel. All air valves shall have a PN 16 pressure rating and shall be flanged and drilled in accordance with the relevant tables of SANS 1123.

PSLK 3.3 GATE VALVES

PSLK 3.3.1 General

The resilient seal gate valves supplied under this Contract shall be constructed in accordance with SABS 664 for CI waterworks gate valves, be double flanged, anticlockwise closing, with non-rising spindle type fitted with hand wheels. The direction of closing must be shown clearly on the valve. The valve shall be drop-tight when tested in accordance with BS 5163.

The design of the stuffing box shall be such that the rubber or neoprene "O" rings can be replaced while the valve is in service without having to remove the valve dome. Gate valves shall be "AVK" or similar approved.

The valves shall be capable of being operated manually under maximum unbalanced operating conditions.

PSLK 3.3.2 Operating condition – Resilient seal gate valves

The resilient seal gate valves will be used as isolating valves on the air valve installations.

PSLK 3.4 Protection against corrosion. (Subclause 3.14)

The isolating and non-return valves shall be internally and externally epoxy painted in accordance with SPEC HP and PSHP.

PSLK 8 MEASUREMENT AND PAYMENT

PSLK 8.1 VALVES - SUPPLY AND INSTALL

PSLK 8.1.1 General

Measurement and payment for equipment to be supplied and delivered to Site shall be in accordance with Subclauses 8.1(c) and 8.2.1. The tendered rates shall include for all items specified in Subclause 8.2.2.

PSLK 8.1.2 Installation, site testing and commissioning

The installation of the valves will be measured by number.

The tendered rates shall cover the costs of handling, installing, site testing and commissioning of the valve together with the cost of any cutting, turning, and jointing of pipes required to locate the valves, as well as for the construction of the valve pedestal block, other supports, plant and labour.

No separate payment will be made for the repairs to paintwork in the event of damage to the valves.

The tendered rates shall cover the cost of supply and delivery to Site of all the necessary bolts, nuts and jointing material and the storing of the valves in an approved manner.

PSME SUBBASE

PSME 1 SCOPE

Add the following:

"All the requirements as specified for the construction of subbase shall, except where otherwise stated or ordered, apply to the stabilization of the in- situ material as new subbase."

PSME 3 MATERIALS

PSME 3.2 PHYSICAL PROPERTIES

PSME 3.2.1 Subbase material

Replace the contents of paragraph (a) with the following:

"(a) The maximum particle dimension of the gravel shall not exceed 63 mm."

Replace the contents of paragraph (d) and (e) with the following:

"(d) The CBR at specified density shall be 45 for unstabilised as well as for stabilised material prior to stabilisation or as directed by the Engineer.

The UCS at 7 days of each cement-stabilized material shall at 100% modified AASHTO maximum density be as follows:

- For C3 cemented natural gravel : 1,50 MPa minimum and 3,00 MPa maximum
- For C4 cemented natural gravel : 0,75 MPa minimum and 1,50 MPa maximum"

(e) The ITS (Indirect Tensile Strength) for cement-stabilised material shall at 100% modified AASHTO maximum density be as follows:

- For C3 cemented natural gravel : 250 kPa minimum
- For C4 cemented natural gravel : 200 kPa minimum"

PSME 3.3.1 General

Add the following to this subclause:

"Where reference is made in this specification or the Standard Specifications to the cement specifications, e.g. SABS 471: Portland cement and rapid hardening Portland cement, it shall be replaced with the new specification:

SABS ENV 197-1: Cement-composition, specifications and conformity criteria.

Part 1: Common cements.

Furthermore, where reference is made in this specification or the Standard Specifications to different cement types, the following new names shall be used as a guide but must be confirmed by the Engineer.

Cement Grade	Cement Type	Approximate old product name	New Alpha	New Blue Circle	New NPC	New PPC	New Slagment
52.5	CEM I	Rapid hardening	Rapid Hard	Duracast	Eagle Super		-
42.5R	CEM I	Rapid hardening	-	-	-		-
42.5	CEM I	OPC*	Portland Cement	Duratech	-	OPC	-
	CEM I	LASRC	-	-	-	LASRC	-

Cement Grade	Cement Type	Approximate product name	old	New Alpha	New Blue Circle	New NPC	New PPC	New Slagment
	CEM II A-S	PC15SL		-	-	Eagle Plus	-	-
	CEM II B-S	RH30SL			-	Eagle Plus	-	-
32.5R	-	-		-	-	-	-	-
32.5	CEM II A-V	PC15FA	All – purpose cement	-	-	-	Surebuild	-
	CEM II A-W	PC15FA	-	-	-	-	Surebuild	-
	CEM II A-L	-	All purpose cement	-	-	-	Surebuild	-
	CEM II B-V OR W	PC25FA/PFAC*	-	Structcrete	-	-	Surecrete	-
	CEM II B-V OR W	PC25FA/PFAC*	-	Duracrete	-	-	Surecrete	-
	CEM III A	PBFC	-	BFC	Eagle Pro	-	-	PBFG
	CEM III A	RHSL	-	-	-	-	-	RHSL
22.5	MC 22.5X	PFAC***	Multi-purpose cement	Durabuild	-	-	-	-
	MC 22.5X	PFAC***	-	Buildcrete	-	-	-	-
12.5	MC 12.5	Walcrete	Mortar cement	Walcrete	-	-	Masonry	-
	MC 12.5	Mortacem	-	-	-	-	-	-

PSME 5 CONSTRUCTION

PSME 5.1 PRECAUTIONS

Add the following to this subclause:

“No stabilization shall be carried out during falling temperatures when the ambient air temperature falls below 7°C or during rising temperatures when the ambient air temperature is below 3°C.

The surface temperature of a compacted stabilized layer shall not be allowed to fall below 1°C during the first three (3) days after stabilization. The Contractor shall be responsible for taking the necessary measures in this connection, and especially to refrain from stabilizing when such temperatures become probable.

When a sudden unforeseen temperature drop to a level below this limit occurs, the stabilized layer shall be covered with the material required for the next layer to be constructed.

All stabilized layers damaged by frost or by the formation of ice in the layer shall be removed and replaced by the Contractor at his own expense.

The Contractor shall make allowance for these requirements in his construction programme, and no claims in this connection will be considered.”

The Contractor shall at all times supply all workers exposed to chemical stabilizing agents with approved protective

apparel, eyewear and masks, and no person without such apparel, eyewear and masks shall be permitted to work with or be exposed to the chemical agents. Precautionary measure shall also be taken to ensure that any livestock and the public will not be exposed to the chemical agents blown by the wind or under similar circumstances”

PSME 5.2 EXCAVATION

PSME 5.2.2 Borrow pits

Insert the words "designated by the Engineer and" between the words "pits" and "established" in the first line.

PSME 5.4.1 Placing

The compacted thickness of the subbase for the various areas shall be that shown on the drawings.

PSME 5.4.4 Compaction

Notwithstanding the requirements of Clause 5.4.4.2 the subbase shall be compacted to 96% of modified AASHTO maximum density, as the case may be.

PSME 6 TOLERANCES

PSME 6.1 DIMENSIONS, LEVELS, ETC.

PSME 6.1.1 General

Add the following to subclause 6.1.1:

“For layers, constructed of subbase quality material, on which the bituminous surface will be placed, the tolerance for dimensions and level shall be as set out in SABS 1200 MF Subclauses 6.1.2 to 6.1.6 inclusive.”

PSME 6.3 STABILIZATION

Add the following:

“The coefficient of variation shall not exceed 0,3 (30%) for mixing in place and 0,2 (20%) for plant mixed material, calculated as follows :

$$\frac{S_n}{X_n} \times 100$$

Where:

Xn is the average and

Sn is the standard deviation of stabilizing content per lot”

"PSME 6.4* DIMENSION AND LEVEL CONTROL

The requirements of PSM 6.4 shall apply."

PSME 7 TESTING

PSME 7.3.3 Strength tests for stabilized material

Amend the contents of this clause to read as follows:

“The Contractor shall carry out tests on the stabilized material at the frequency specified in 7.2.1 and 7.2.2 and check

that the material complies with PSME 3.2.1 (d) and (e).

PSME 8 MEASUREMENT AND PAYMENT

PSME 8.1 BASIC PRINCIPLES

Insert a semicolon in the first line of paragraph (b) after the words "will be paid for once only" and delete the rest of the paragraph.

Add the following to clause (d):

"A commercial source shall be held to include any off-site sources or borrow pits located by the Contractor. Further that no additional payment will be made for the temporary stockpiling of material from commercial sources, class of excavation, method of processing (except stabilizing), or for overhaul."

Add the following new clause after (d):

"(e)* The requirements of PSM 8.2 shall apply. The Contractor shall further make provision in the rates tendered for the construction of the subbase, for the cost of his own process control testing and the cost of complying with PSME 6.4."

PSME 8.3 SCHEDULED ITEMS

Replace the heading and contents of Clause 8.3.2 with the following:

"8.3.2 Construct subbase using material from stockpile..... Unit: m³

The rate tendered shall cover the cost of basic selection, loading from stockpiles, transporting, spreading, watering, compacting, final grading, complying with the tolerances, and testing.

No additional payment will be made for difficult work or hand operations in confined areas."

Replace the heading clause 8.3.3 with the following:

"PSME 8.3.3 Construct the subbase course/shoulders/gravel wearing course with material from commercial sources"
Unit: m³

Add the following paragraph:

"No additional payment will be made for difficult work or hand operations in confined areas."

PSME 8.3.9 Overhaul (haul exceeding 2 km):

Replace the contents with the following:

"No haul will be paid."

PARTICULAR SPECIFICATIONS

The following particular specifications are included:

- **DS: Drilling Specification**
- **PA: Health & Safety Specifications**

PARTICULAR SPECIFICATION: DS

DS DRILLING SPECIFICATION

DS1 APPLICATION AND STATUS

These Project Specifications describe the *Borehole Drilling and Drilling -& Groundwater Related Works* to be executed by the Contractor under the Contract and set out the requirements for the Works as well as the minimum standards to be achieved by the Contractor.

These Project Specifications (hereinafter referred to as the "Drilling Specifications") are the only specifications applicable to (1) the drilling of the prescribed boreholes in this Contract and (2) the execution of drilling -& groundwater related works specified in this Contract.

Should there exist any discrepancy, conflict, or inconsistency between any part of the Drilling Specifications and any part of the Bill of Quantities, the provisions of the Drilling Specifications shall take precedence and prevail in the Contract.

DS2 INTERPRETATION

Wherever reference is made within the Drilling Specifications to the "Hydrogeological Consultant", or the "Hydrogeologist", or the "Consultant", it shall be deemed to mean the "Employer's Agent" as defined in the Conditions of Contract.

Wherever reference is made within the Drilling Specifications to the "Implementing Agent", or the "Kouga Local Municipality", or the "KLM", or any party not being the "Employer", or the "Contractor", or the "Engineer", or the "Hydrogeological Consultant" or the "Consultant", it shall be deemed to mean the "Employer".

DS3 PURPOSE AND SCOPE

The Contract is for the drilling of boreholes, the test pumping of boreholes, the rehabilitation of boreholes, the equipping of boreholes, the protection of boreholes, the hydrogeological services associated with boreholes and groundwater, and any other drilling -& groundwater related works for the Kouga Local Municipality, and all Works (hereinafter collectively referred to as "drilling services") associated therewith in accordance with:

- (1) The information provided to the Bidder as per the relevant sections of this document.
- (2) any further details/instructions as may be ordered by the Employer or the Employer's Agent.

The drilling services are required for a period of three months (90 days) from the date of award and no specific quantity of work has been identified. The Contract is based on a Schedule of Rates with payment to be made on the basis of measured quantities and the bidded rates.

The drilling services to be executed by the Contractor will be as decided by the Employer in consultation with the Employer's Agent, as provided for in the Conditions of Contract.

DS4 APPROACH AND RESPONSIBILITY

This component of the project is served jointly by the Employer's Agent and the Contractor. It is therefore expected of these parties to function as a team within the framework of their individual briefs as set out in their respective contract agreements with the Employer.

In general, it is required that the drilling services be approached with due diligence and care on the part of the Contractor. Specifically, it is required that the drilling services be approached in a cost-effective manner to achieve the Employer's objectives.

The Contractor will function under the direct supervision of the Employer's Agent. This by no means implies that the Contractor is absolved from any responsibility. All drilling services will, therefore, be approached through communication and discussion between the Employer's Agent and the Contractor with a view to developing the most suitable and mutually acceptable finished deliverable or asset serving the best interests of the project.

The fact that the Contractor is also appointed for the skills which he can offer the project and is often able to provide, from experience, practical approaches and solutions to specific problems must be recognised and accepted by the Employer's Agent. Failure by the Contractor to timeously render advice and input where required will be regarded as a dereliction of duty. This responsibility extends to informing the Employer's Agent of serious reservations regarding any aspect of the work, prior and during the work.

In essence, the final responsibility for the drilling services and all actions and activities leading up thereto shall be carried jointly by the Employer's Agent and the Contractor in the following manner: The Employer's Agent is responsible for determining the scope of Works, conceptualizing designs, and issuing written instructions to the Contractor in relation to the Works. The Contractor is ultimately responsible for the final design, -methodology, -delivery, -execution, -construction, remedy of defects, and -completion of the Works in all aspects. The Contractor shall communicate his intent in relation to his responsibilities above to the Employer's Agent for approval prior to commencing any portion of the Works. Any such approval shall not relieve the Contractor from his responsibilities and the Contractor shall remain the sole responsible party to achieve the Employer's objectives as intended by the Works, in relation to the manner of his responsibility set out above.

The Contractor will also be required to maintain the aesthetic appearance of the site during drilling services, including keeping the sites neat, tidy, and free of litter. The Contractor must ensure that safety standards are met and that the work sites are kept free, as far as is possible, from vehicular and pedestrian traffic and from interested bystanders and onlookers not involved with the project.

DS5 WORKMANSHIP AND PERFORMANCE

The standard of workmanship of the Contractor will be subject to close scrutiny by the Employer's Agent. Many aspects thereof are of a subjective nature and not readily quantifiable. Every attempt must, therefore, be made to render this beyond possible criticism.

Judgment of the performance of the Contractor in the execution of assigned work is similarly of a subjective nature. Although it cannot be expected of the Contractor to complete specified drilling services (e.g., a specified number of boreholes, or a specified number of chambers) in a given time period, it is reasonable to expect that "favourable progress" be made based on the site conditions, the expected geology of the work area, and the nature of the Works Segment. What is regarded as favourable progress shall be agreed to between the Employer's Agent and the Contractor prior to the start of the Works.

Performance being related to efficiency and efficiency in turn being a function of, amongst other factors, the number of mechanical equipment breakdowns suffered by the Contractor, it will be in the best interests of the Contractor to set aside time for the routine preventative maintenance of equipment. If the Contractor is inclined to work a 6 or 7-day week, it is preferred that maintenance activities be scheduled for the weekends. Such schedule must be communicated to the Employer's Agent. This party may insist that the Contractor does not start with any drilling services over a weekend. Although work-in-progress maybe completed, the Contractor shall under no circumstances vacate a site before the Employer's Agent has inspected the completed works and sanctioned the move/continuation to/of the remaining works of the Works segment.

If the Contractor fails to carry out any portions of the drilling services which are required to be carried out in the presence of the Employer's Agent or the Employer's Agent's Representative, which results in the unproductive use of the consultant's time and resources, and this failure is as a direct consequence of the Contractor's poor management or poor communication or poor maintenance / breakdown of equipment, the Contractor shall be liable to the Employer and incur a penalty on his payment certificate. This penalty shall

be for the recuperation of the cost of the consultant incurred by the Employer for the unproductive use of the consultant's time and resources. The cost incurred may be due to, but not limited to, unproductive time, travelling and accommodation.

DS6 DRILLING TECHNIQUES

Drilling techniques to be employed for each drilling site will be dependent on site-specific circumstances such as the expected geology and artesian conditions for each site.

The drilling techniques expected to be applied include:

- 1) Rotary Air Percussion.
- 2) Reverse Circulation.
- 3) Odex.
- 4) Mud Rotary.
- 5) Symmetrix.

The Contractor is expected to be capable of performing all the drilling techniques listed above. The drilling techniques to be employed for each site will be discussed and agreed to between the Employer's Agent and the Contractor prior to the commencement of drilling.

DS7 PLANT AND MATERIALS

(a) General

The Contractor shall furnish all plant, associated equipment, staff, materials, fuel, chemicals, and other incidentals required (hereinafter collectively referred to as "*Plant & Materials*") to complete the work in this Contract. It will be the responsibility of the Contractor to arrive on site with all Plant & Materials required to complete the issued Works Segments without interruption.

The capacity of all Plant & Materials made available by the Contractor shall be sufficient to cope with the work as specified in the Works. It must be in good working order and shall be maintained in good condition for the duration of the project. The Employer's Agent will have the right to inspect the Plant and Materials to be used prior to the commencement of the Works. If the Employer's Agent considers that the Plant and Materials in use on the site of the works is in any way inefficient or inadequate in capacity or quality, he shall have the right to call upon the Contractor to put such Plant and Materials in order within seven days or, alternatively, to remove such Plant and Materials and replace it with other Plant and Materials which he considers necessary to meet the requirements of the Works.

Plant and Materials brought onto the site may not be removed therefrom without the written permission of the Employer's Agent.

In the event of breach by the Contractor of the requirements above, the Employer's Agent reserves the right to recommend to the Employer to terminate the Contract in accordance with the Conditions of Contract.

(b) Drilling Rigs Specification

Depending on the Works Segment and the agreement reached between the Contractor and the Employer's Agent, the Contractor shall be required to furnish any of the following classes of drill rigs:

- Class 1 drill rig with pullback of at least 11 tons with 21 bar 900cfm compressor.
- Class 2 drill rig with pullback of at least 11 tons with 24 bar 900cfm compressor.
- Class 3 drill rig with pullback of at least 18 tons with 24 bar 900 cfm compressor.
- Class 4 drill rig with pullback of at least 25 tons with 24 bar 900 cfm compressor.
- Class 5 drill rig with pullback of at least 30 tons with 24 bar 1000 cfm compressor.

Depending on the Works Segment and the agreement reached between the Contractor and the Employer's Agent, the Contractor shall also be required to furnish any of the following additional plant separately:

- 24 bar 1000 cfm compressor.
- 30 bar 1000 cfm compressor.
- 70 bar booster.

Included in the plant above shall be all other associated equipment necessary to achieve the requirements as set out in the Works. This includes, but is not limited to, overshot sleeves (drill collars) for borehole straightness, stabiliser rods, air/foam pumping systems, etc.

(C) Materials

All materials to be used on the project shall be new and meet project specifications.

Second-hand material such as steel casing recovered from an earlier borehole can be used provided that it has been refurbished to an acceptable condition and approved by the Employer's Agent as provided for in Clause DS4.

The Employer's Agent has the right to reject, with motivation, any material (including casing) which is deemed inappropriate, substandard, or otherwise unsuitable for the project.

DS8 BOREHOLE CONSTRUCTION

a) General

The extremely diverse nature of subsurface conditions, sometimes over very short distances, renders it virtually impossible to address this aspect in great or specific detail. This factor also rules out standardisation in this regard. It is possible, however, to address certain basic borehole construction practices which will contribute to final acceptance of the successfully finished asset.

In some instances, boreholes may be drilled for exploration and/or resource monitoring purposes. Under normal circumstances, the pre-drilling of a 165 mm diameter exploration borehole is drilled, and the borehole is reamed to larger diameters for construction purposes. In leached/cavernous carbonate rock areas drilling normally commences with larger diameters, to limit reaming of boreholes and allow for telescope borehole construction.

Conceptual borehole design options need to be discussed with the Employer's Agent. The decision as to which of these designs or any other suitable and appropriate conceptual design to use will be made by the Employer's Agent.

The Contractor shall not use drilling media which might in any way compromise the integrity of the aquifer and/or the yield of the boreholes. The Contractor must provide suitable and adequate tanks in which to mix and hold all drilling fluid.

Boreholes shall be straight and vertical, and this aspect shall be judged according to the criteria set out in this specification. In order to maintain the straightness of a borehole, the Employer's Agent may insist that the Contractor employ at least an overshot sleeve (drill collar) fitted to the pneumatic DTH hammer. Further precautions to ensure this aspect might include the use of a stabiliser rod immediately behind the bit/hammer/overshot combination.

At the start of the Works Segment the gauge diameter of the button drill bits to be employed with the drilling technique must conform closely to their manufactured gauge and must also possess all of their tungsten carbide buttons. The Employer's Agent will discuss with the Contractor the retirement of a bit due to excessive wear or damage incurred during the course of the Work Segment.

The boreholes shall further be fit for purpose on completion and comply with the requirements set out in the issued Works Segments. Artesian boreholes shall not leak on completion. Defects and latent defects shall be remedied by the Contractor, who shall re-mobilise and remedy the defects at the Contractor's own cost.

b) Drilling Diameter

Unless otherwise instructed by the Employer's Agent, the following drilling diameters will apply to the various drilling techniques:

- i. Rotary Percussion Drilling:
 - o 152 mm (6");
 - o 165 mm (6,5");
 - o 203 mm (8");
 - o 254 mm (10");
 - o 305 mm (12").
- ii. Odex Drilling:
 - o 194 mm OD;
 - o 219 mm OD;
 - o 273 mm OD.
- iii. Mud Rotary Drilling:
 - o 152 mm (6");
 - o 165 mm (6,5");
 - o 203 mm (8");
 - o 254 mm (10");
 - o 305 mm (12").
- iv. Symmetrix Drilling:
 - o 152 mm (6");
 - o 165 mm (6,5");
 - o 203 mm (8");
 - o 254 mm (10");
 - o 305 mm (12").

Any alternatives to the drilling diameters specified in the Drilling Specifications must be accepted by the Hydrogeological Consultant.

The minimum final cased diameter of a successful community water supply borehole shall not be less than 152 mm nominal.

The contractor will be remunerated for drilling per linear metre of depth at the rate bidded for each relevant drilling diameter employed as set out in the Schedule of Rates.

(b) Steel Casing

This applies particularly to steel casing, which shall be:

- 1) of the seam-welded type,
- 2) round,
- 3) straight,
- 4) of uniform wall thickness and
- 5) have bevelled edges.

Note: All steel casing supplied must conform to SABS 719 and SABS 62.

Steel casing may either be used in a temporary manner or form a permanent part of the borehole infrastructure. Its temporary use is indicated in instances where, for example, the borehole is unsuccessful or the need for it to remain in place becomes redundant. Under these circumstances it is also referred to as a pre-collar, surface casing, starter casing, outer casing or soil casing generally to be removed (recovered)

on completion of drilling. The removal of temporary/ starter casing to a depth of 5 m will not be a payable item under recovery of steel casing. It will be left in place where the Hydrogeological Consultant is of the opinion that the unsuccessful borehole should be secured to serve a long-term groundwater monitoring purpose. In such instances, additional provision must be made to protect the borehole against actions, which may compromise this function.

More commonly, however, this casing constitutes the final casing with which a successful borehole is equipped/ constructed. Its proper installation, therefore, is mandatory. It is installed from surface through unstable, unconsolidated or fractured materials usually occurring the near surface. Under these circumstances, the function of steel casing includes one or more of the following:

- (1) Supporting unstable materials against collapse into the borehole during drilling,
- (2) Facilitating the installation or removal of other casing,
- (3) Minimizing the erosion and widening of the unstable upper portions of the borehole sidewall caused by the return flow established during drilling and/or the passage of drilling equipment/tools and
- (4) Facilitating the placement of a sanitary seal and/or gravel pack or formation stabilizer.

The casing must conform to the specifications set out in Section DS6 - Equipment and Materials.

In order to ensure as far as is possible that the annular space between this casing and the borehole sidewall remains open for the later emplacement of a sanitary seal, the circumferential entrance to this space must be temporarily plugged. Hessian sacking packed around and lightly tamped into the surface entrance to this annular space can be used for this purpose. In instances where steel casing needs to be driven through unstable horizons (generally at greater depths in a borehole), it will also be required that such casing be fitted with a casing shoe to protect the "mouth" of the casing from damage (subsection DS8 (c)). Irrespective of the casing used to facilitate the drilling of the borehole, the final cased diameter of the finished product must be sufficient for the borehole to easily accept a borehole pump. Since the outside diameter of the latter is generally in the order of 100 mm, it is required that the final cased diameter of the borehole be not less than 152 mm (6 in.) nominal where steel casing is used.

The Drilling Contractor will be remunerated for steel casing per linear metre thereof supplied, delivered and installed at the rate bidded for each relevant casing diameter as set out in the Schedule of Rates.

(c) Casing Shoe

This item is fitted (welded) to the bottom end (foot) of a casing string in order to protect the "mouth" of the casing from damage due to forcing the casing through unstable horizons. Its use is therefore only warranted (indeed mandatory) in instances where such conditions reveal themselves to require securement through the emplacement of casing.

The Drilling Contractor will be remunerated for each casing shoe supplied and used at the rate bidded for each relevant shoe diameter as set out in the Schedule of Rates.

(d) uPVC Casing

Also referred to as thermoplastic casing, the material generally comprises PVC (polyvinyl chloride) which, when treated to withstand ultraviolet radiation, is known as uPVC casing. Its application in the construction of community water supply boreholes is rather specific, being used mainly in instances where security against the collapse of a borehole sidewall is required and where steel casing does not already offer such security. In such instances, the casing is inserted the entire length of the borehole and will certainly be perforated for some portion of its length.

The diameter of this casing will also necessarily be smaller than that of the steel casing used which, in most instances, will have a nominal diameter of 165 mm. In order not to compromise too severely on the minimum nominal diameter requirement of 152 mm for successfully completed community water supply boreholes (subsection 5-6.b), the inside diameter of the uPVC casing shall not be less than 127 mm with a wall thickness of 6 mm. It is also common practice to leave the steel casing in place in order to provide protection for the

uPVC casing. The decision to use uPVC casing in the final construction of a borehole shall be made by the Hydrogeological Consultant.

The Drilling Contractor will be remunerated for uPVC casing per linear metre thereof supplied and installed at the rate bidden for each relevant casing diameter as set out in the Schedule of Rates.

(e) Perforated Casing

Also referred to as slotted casing, this is used in instances where a casing string inserted into a borehole will extend across a water-bearing horizon. The perforations or slots will allow the groundwater to enter the borehole. Perforations can be made in a number of ways ranging from prefabricated machine- or plasma-cut slots to hacksaw, angle grinder or oxyacetylene torch-cut slots made in the field. The latter type of slots are seldom satisfactory since it is difficult to produce perforations which are:

- 1) of uniform size,
- 2) clean, open and free of restrictions and
- 3) small enough to control the ingress of finer material into the borehole.

It is therefore preferred that perforated casing used in the construction of community water supply boreholes be of a prefabricated type. As a general guideline, slots should be:

- 1) 300 mm in length,
- 2) 3 to 4 mm wide,
- 3) positioned in bands around the circumference of the casing,
- 4) spaced equally in each band,
- 5) each circumferential band of slots separated by 100 mm of plain pipe,
- 6) every second band of slots aligned with one another, and
- 7) a 300 mm section of plain pipe left at both ends of the casing.

Bearing in mind that the number of slots forming each circumferential band depends not only on the casing diameter but also impact on the strength of the casing, it is suggested that the guidelines presented in Table DS8-1 be adhered to in this regard.

Table DS8-1 Recommended number of slots per circumferential band for various steel casing diameters and associated percentage open area provided		
NORMAL CASING DIAMETER	NUMBER OF SLOTS PER CIRCUMFERENTIAL BAND	PER CENTAGE OPEN AREA
152mm	6	3,0%
165 mm	8	3,7%
203 mm	10	3,7%

Also presented in this table is the approximate open area provided by the above slot pattern applied to each of the given casing diameters. In certain instances, however, it may be required to use more sophisticated and expensive slotted casing. Also known as screens, these include:

- 1) continuously wound wedge wire screens,
- 2) louvered screens or bridge-slotted screens and
- 3) screens pre-coated with gravel.

The decision to use such screens shall again be made by the Hydrogeological Consultant after providing motivation to and gaining acceptance from the Implementing Authority.

The Drilling Contractor will be remunerated for perforated casing per linear metre thereof supplied and installed at the rate bidden for each relevant casing diameter as set out in the Schedule of Rates.

(f) Recovery of Steel Casing

The contractor shall make every effort to recover, only on instruction of the Hydrogeological Consultant, steel casing from unsuccessful or abandoned boreholes. This casing can also be refurbished to an acceptable condition for reuse.

The Drilling Contractor will be remunerated for the recovery of steel casing per linear metre thereof salvaged from a borehole as per the rate bidden in the Schedule of Rates. The removal of temporary/ starter casing to a depth of 5 m not be a payable item to the contractors.

Payment for the proper refurbishment of such casing shall be made on a time basis against bidden standing time rates subject to verification and certification of the amount/duration of this work by the Hydrogeological Consultant.

(g) Borehole Straightness

The straightness (alignment) of a borehole is defined by the degree to which it deviates along its length from an imaginary centre line drawn through the borehole. This is readily determined by passing a “dummy” or “dolly” through the borehole. The equipment comprises a rigid hollow steel pipe having an outside diameter which is smaller by not more than 20 mm than the inside diameter of the final casing. Caution should be exercised when conducting a straightness test in an uncased or partially cased borehole since irregularities in the borehole sidewall may cause the “dummy” to become jammed. Since the casing string is normally constructed from six-metre lengths, it is required that the “dummy” itself have a length of at least six metres in order to adequately “straddle” casing joints. This equipment must form part of the standard equipment supplied by the Drilling Contractor. It must also be readily available since the Hydrogeological Consultant may request a straightness test at any stage during drilling. The “dummy”, suspended from a flexible steel rope (normally the hoist line with which most drilling rigs are equipped), is slowly lowered down the borehole.

The borehole will be considered straight if the “dummy” passes down the entire length of the borehole and can be withdrawn without binding or becoming stuck in the borehole. The straightness test must be performed by the Drilling Contractor in the presence of the Hydrogeological Consultant and its success (or failure) recorded by this party.

A borehole which fails a straightness test will be deemed lost (subsection D S 8 (m)) and it will be required of the Drilling Contractor to drill a replacement borehole at own expense. In the event that a straightness test is made before completion of the borehole, then the contractor will be required to cease operations and facilitate access to the borehole for the duration of such activity. The contractor will recover the cost of production loss (incurred for the duration that drilling activities are interrupted) against the rate bidden for standing time in the Schedule of Rates. It will be the responsibility of the Hydrogeological Consultant to verify and certify any claim by the Drilling Contractor in this regard.

(h) Borehole Verticality

This represents the plumbness of the borehole as measured by the deviation of the centre of the borehole from the vertical at any depth within the bore. The deviation must not exceed two thirds of the borehole diameter (casing inside diameter) per 30 m of depth. Although the SABS 045-1974 standard code of practice for testing water boreholes (including for verticality) has been withdrawn, the nature and form of the apparatus to be used for this purpose remains valid. Drawing 10 in Section DS19 of this document illustrates the equipment.

The equipment comprises a tripod (shear legs), a plumb-bob and a flexible wire line. The plumb-bob must be fitted with a centre-mounted spindle at one end and a centralising device on its circumference. The tripod is erected over the borehole such that its apex is above the centre of the borehole. The wire line is passed through a small pulley mounted at the apex. The plumb-bob, suspended from the wire line, must hang vertically from the pulley such that the wire line passes exactly through the centre of the borehole when the plumb-bob is centrally positioned within the mouth of the casing (tolerance 3 mm). The vertical distance from the pulley to the top of the casing must be measured accurately (tolerance 0,01 m). This distance must not

be less than 2,4 m. The plumb-bob is then lowered in equal increments (generally 3 m) down the borehole. The deviation of the wire line measured in millimetres from the centre of the casing must be determined at each depth increment and the measurements recorded on a data sheet. This procedure must be continued for the entire length of the borehole. The measured deviation of the wire line from the centre of the mouth of the casing at each depth increment indicates the drift ($\emptyset$) of the plumb-bob. The measured deviation is used together with a deflection factor (D_f) to calculate the actual deflection (D_a) of the borehole from the vertical at each depth increment according to the equation:

$$D_a = \emptyset (d + h)/h$$

where $\emptyset$ = the measured drift (in millimetres) of the wire line at a given plumb-bob depth,
 d = depth of plumb-bob below casing collar (in metres) for each drift ($\emptyset$) measurement,
 h = vertical distance between the casing collar and the pulley (at the tripod apex) over which the wire line passes (in metres), and
 $(d + h)/h$ represents the deflection factor (D_f).

The wire line deviation measurement is most accurately performed if a revolving template with a graduated radial slot is mounted directly over the collar of the casing. The slot is graduated in millimetres outwards from the centre of the template. The template is revolved until the wire line passing through the slot hangs free and straight in the slot and its deviation from the centre read off on the graduated slot.

The verticality test must be performed by the Hydrogeological Consultant in the presence of the Drilling Contractor. The consultant will therefore be required to provide the necessary equipment for conducting a verticality test. A borehole which fails a verticality test will be deemed lost (subsection DS8 (I)) and it will be required of the contractor to drill a replacement borehole at own expense. In the event that a verticality test is made before completion of the borehole, then the Drilling Contractor will be required to cease operations and facilitate access to the borehole for the duration of such activity.

The contractor will recover the cost of production loss (incurred for the duration that drilling activities are interrupted) against the rate bidden for standing time in the Schedule of Rates. It will be the responsibility of the Hydrogeological Consultant to verify and certify any claim by the Drilling Contractor in this regard.

(i) Backfilling

This entails filling the annular space between the borehole sidewall and the outside of the casing with suitable material. The purpose of annular backfilling includes:

- 1) the provision of a base on which to found a sanitary seal and
- 2) the provision of support for the sidewalls of the borehole and the casing.

In instances where casing has been seated at a comparatively shallow depth in fresh material below a weathered near-surface horizon, all of the drill cuttings removed from the borehole whilst drilling represents suitable material for this purpose. Annular backfilling with this material is not advisable in instances where this is not the case, such as for example where the casing extends to a substantial depth and comprises slotted/perforated sections or where the water-bearing horizon is shallow and open to the borehole via slotted/perforated casing. In these instances, it will be required to insert a formation stabiliser into the annulus. The backfilling must extend to within approximately 5 m of the ground surface.

The backfilling of boreholes will be undertaken in accordance with the criteria set out in the Standard Specifications.

(j) Formation Stabiliser

This comprises material which is placed in the annulus between the borehole sidewall and perforated/slotted sections of casing to stabilise the formation against collapse and ingress into the borehole. The drill cuttings and spoils removed from the borehole is not suitable material for this purpose.

The stabiliser must comprise material which is:

- 1) wellsorted,
- 2) well rounded,
- 3) low in calcareous content, and
- 4) graded such that the smallest grain size is larger than the casing perforations/slots.

The stabiliser material can either be placed by hand or through a tremie pipe.

Excessive bridging of stabiliser material in the annulus can be prevented:

- 1) through the use of centralisers on the casing or
- 2) by washing it in with clean water.

The formation stabiliser should extend some 10 m above the top of the uppermost perforated/slotted section of casing before the borehole is developed.

The Drilling Contractor will be remunerated for formation stabiliser per 20 litre container supplied and installed at the rate bidden for in the Schedule of Rates.

(k) Concrete Collar

The Drilling Contractor will construct a shallow circular concrete collar around each successfully completed borehole. This collar shall have the dimensions set out in Drawing 5 (Section DS19) yielding a volume approaching 0,08 m³. The concrete mixture shall consist of water, Portland cement, stone aggregate (10 mm) and river sand.

Quantities of these materials sufficient to make 0,1 m³ of concrete with the required strength of some 30 MPa after 28 days are:

- 1) 20 litre of water,
- 2) 42 kg (0,8 bag) of Portland cement,
- 3) 0,07 m³ of stone aggregate, and
- 4) 0,07 m³ of river sand.

A similar collar may need to be constructed, on request of the Hydrogeological Consultant, over unsuccessful or abandoned boreholes as per Drawing 6, Section DS19.

The contractor will be remunerated for a concrete collar per unit constructed at the rate provided in the Schedule of Rates, which rate shall include for the transport, supply, mixing and placement of all the materials required.

(l) Unsuccessful and Abandoned Boreholes

A borehole will be declared unsuccessful at the discretion of the Hydrogeological Consultant. The latter may also, at any time during the course of the work, order the abandonment of a borehole in progress.

In such instances, the Hydrogeological Consultant must instruct the Drilling Contractor on further actions to be taken.

These may include either:

- 1) the salvage of any casing from the borehole and
- 2) the plugging of the borehole or
- 3) the securement of the borehole for long-term monitoring purposes, in which case it will be provided with a sanitary seal (subsection DS8 (n)), concrete collar (DS8 (k)), protection (DS8 (q)) and marking (DS8 (r)).

Plugging (or finishing) of an unsuccessful or abandoned borehole is aimed at removing any danger or hazard such boreholes may present to the environment, e.g. as a conduit for the inflow or surface water into the groundwater regime or as a danger to traffic (whether human, stock or vehicular) in the immediate vicinity thereof. This is achieved by shovelling the drill cuttings and other suitable natural material back into the unsuccessful borehole. In order to prevent this material from "hanging" in the borehole, it might be required to periodically wash it in with clean water during the infilling process. Once the infill material extends to the ground surface, it must be compacted by tamping it down manually and any subsidence topped up with fresh backfill material. The compacting and topping up activities should be repeated until assurance can be had that all reasonable precaution has been taken to prevent future subsidence. It will also be required to cast a concrete collar over the infilled borehole (subsection DS8(m)).

The Drilling Contractor will be remunerated for an unsuccessful or abandoned borehole on the basis of bidded rates in the Schedule of Rates for such of the following items as are relevant:

- 1) drilling per linear metre of depth for each relevant drilling diameter employed,
- 2) steel casing per linear metre thereof recovered excluding starter casing to a depth of 5 metres,
- 3) backfilling,
- 4) a sanitary seal,
- 5) borehole protection, and
- 6) borehole marking.

Payment for any casing left behind in an unsuccessful or abandoned borehole will only be made, on the same basis as described in (2) above, on written certification by the Hydrogeological Consultant that the contractor has made every reasonable recovery attempt in this regard.

(m) Lost Boreholes

A borehole will be declared lost by the Hydrogeological Consultant in the event that it cannot be completed satisfactorily due to factors such as:

- 1) the irrecoverable loss of drilling equipment, materials or tools therein,
- 2) accident to plant or heavy machinery,
- 3) failure to pass a straightness test, and
- 4) failure to pass a verticality test.

A decision in this regard must be made after consultation with the Drilling Contractor, who will have the considered option to either attempt remediation of the situation to the satisfaction of the Hydrogeological Consultant or, alternatively, declare the situation irretrievable. No payment shall be made for any work done, materials used or time spent by the Drilling Contractor on a lost borehole. The cost of any materials recovered in a damaged state from a lost borehole will be borne by the contractor.

A borehole which is declared lost shall be replaced with a new borehole to be constructed by the Drilling Contractor in the vicinity of the lost borehole and at a position indicated by the Hydrogeological Consultant. Payment for a new borehole constructed under these circumstances shall be made on the same basis as for any other successfully completed borehole. Materials recovered in good condition may, however, be re-used by the contractor.

(n) Sanitary Seal and Grouting

Each successful borehole shall be furnished with a sanitary seal as described in the Standard Specifications.

The purpose of a sanitary seal is to prevent the ingress of potentially contaminated surface water into the borehole via the annular space between the borehole sidewall and the outside of the casing. Such sanitary seal shall be constructed in the presence of the Hydrogeologist or his representative. The seal shall extend to a minimum depth of 5 m below surface, and will entail the drilling of a 305 mm diameter hole, in which a 254 mm ID steel casing (TYPE 1 sanitary seal) or 215 mm ID steel casing (TYPE 2 sanitary seal) will be placed using centralisers at the bottom to ensure that the casing is placed in the centre of the hole. In exceptional cases the Engineer may decide to alter the drilling and casing diameters, but will not exceed the aforementioned diameters. Four equally spaced flat bars of appropriate size, welded to the sides of the casing can be used as centralisers.

The seal must consist of Portland Cement (quick drying) mixed to slurry with bentonite and water, which is free of oil and organic matter. The bentonite and water should be thoroughly mixed prior to adding and mixing with cement. The Contractor is to use a suitable method in placing the sanitary seal to ensure complete filling of the void between the casing and borehole. Care should be taken not to leave any voids in the sanitary seal.

The Drilling Contractor will be remunerated for a sanitary seal per linear metre thereof against the rate bidden in the Schedule of Rates. This rate will include for the supply, delivery, mixing and installation of all material for type 1 and type 2 sanitary seals.

(o) Borehole Development

Borehole development entails flushing all loose material from the borehole upon the completion of drilling. This material might comprise one or more of:

- 1) drill cuttings resting on the bottom,
- 2) loose material forming insecure portions of the borehole sidewall,
- 3) clayey material "plastered" to the borehole sidewall during the drilling process, and
- 4) fine material which has collected behind screened portions of the borehole.

The removal of this potentially "clogging" material often leads to an improvement in the yield of the borehole. The most common borehole development technique used simply entails repeatedly running the drill bit up and down in sequential passes across portions of the borehole with the compressed air turned open. The length of each pass will be dictated by the length of the drill rods used by the contractor. The process is normally performed from the bottom up, one drill rod being removed from the drill string upon development of the preceding (lower) section.

The borehole will be deemed sufficiently developed when very little or no material is brought to the surface in the return flow from the borehole as evidenced by collecting a portion of this flow in a bucket placed at the bore head during development.

Other methods, which may be employed, for borehole development includes:

- 1) surge plunging using a surge block and
- 2) jetting using a purpose-built jetting tool.

This activity must be concluded with the collection of a one-litre representative water sample obtained from the return flow during development.

The Drilling Contractor will be remunerated for borehole development on a time basis against the work time rate bidden in the Schedule of Rates. It will be the responsibility of the Hydrogeological Consultant to verify and certify any claim by the contractor in this regard.

(p) Borehole Disinfection

Also known as sterilisation, the purpose hereof is to disinfect the borehole and its contents of any bacteria, and particularly coliform bacteria, introduced into the borehole during drilling operations. Sterilisation is most readily accomplished by introducing chlorine (or chlorine-yielding compounds) into the borehole. On completion of development the borehole shall be disinfected with a solution of 0.5 kg of HTH mixed in 250 litres of water.

The Drilling Contractor will be remunerated for borehole disinfection per single application at the cost (which shall include for all materials supplied and used and the time spent) bidden for one such application as set out in the Schedule of Rates.

(q) Borehole Protection

This entails sealing the borehole from the introduction of foreign material directly through the casing. It is often achieved by means of a lockable cap fitted to the borehole collar. Experience suggests, however, that a 3 to 4 mm thick steel plate (lid) welded onto the borehole collar ensures better security. Of course, it will later be required of the Testing Contractor to remove this plate in order to gain access to the borehole for testing purposes. In order to provide the Hydrogeological Consultant with ready access to the borehole for waterlevel measuring purposes, it is required that a small hole be drilled in the lid. This hole must be furnished with a tamper-proof plug such as a "dead-end" threaded into a water pipe connector welded on the hole. The final diameter of the hole providing access to the borehole must be sufficient to allow a "normal" dipmeter probe to pass through it. It is considered that a diameter of at least 10 mm and not more than 20 mm is suitable for this purpose.

The Drilling Contractor will be remunerated for borehole protection per single installation at the cost (which shall include for all materials supplied and used and the time spent) bidden for one such installation as set out in the Schedule of Rates.

(r) Borehole Marking (in the field)

It is the responsibility of the Hydrogeological Consultant to ensure that the correct borehole identifying number is provided to the Drilling Contractor for this purpose. The consultant will be responsible for securing a batch of numbers and pass these on to the Contractor as is deemed fit and appropriate.

The activity itself represents marking the borehole by:

- 1) script-welding its assigned and unique identifying number onto the lid of the borehole and
- 2) planting a concrete block with dimensions of 200 mm x 200 mm x 200 mm in the ground with a pole (see specifications in drawing) bearing the number of the borehole at a distance of five metres to the north of the borehole.

The Drilling Contractor will be remunerated for borehole marking per single application at the cost (which shall include for all materials supplied and used and the time spent) bidden for one such application as set out in the Schedule of Rates.

(s) Site Finishing

The activities associated with this task must include the repair of construction scars on the work site resulting from drilling activities, as well as the general clean-up of the site of waste materials, debris and oil spills. The latter must be shovelled over and worked into the ground wherever possible.

The Drilling Contractor will be remunerated for site finishing per single application at the cost (which shall include for the time spent) bidden for one such application as set out in the Schedule of Rates.

(t) Sealing and Capping of Artesian boreholes

Ensure that the well is closed in such a manner that there is no leakage at the surface of the ground. The driller must be prepared to handle the flow from the well and the discharge of any plugging materials immediately on removal of the flow control device(s). The work site can be dangerous if the flow is not properly diverted. Closing a flowing artesian well is simplified if the flow can be overcome by extending the well casing above the artesian head. Alternatively, insert an inflatable packer or expandable rubber plug at the bottom of the casing. Physically stopping the flow may make things worse, however, which is why the rapid loading of drilling gel is often a better approach.

Use of appropriate grouting material is key to constructing a flowing artesian well. It will be the responsibility of the Hydrogeological Consultant to verify and certify any claim by the contractor in this regard.

The cement mixture is pumped until it reaches the land surface. Pressure grouting with a packer may be required. It may also be good to pull or perforate some of the casing to allow the grout to flow from the casing into the annulus, although this is not critical if the casing is already perforated or corroded.

DS9 TEST PUMPING

Test pumping may involve both the Stepped Discharge Test and the Constant Discharge Test. The methodology for performing the yield testing will be provided by the Hydrogeological Consultant.

DS10 REHABILITATION OF BOREHOLES

Where existing equipped boreholes are to be rehabilitated, the Contractor must provide suitable plant to enable the installed pumping equipment to be removed and reinstalled. This includes the removal and reinstallation of hand pumps, wind pumps and motorised pumps. Rehabilitation of existing boreholes may include the recovery of existing pumping equipment that was previously dropped into a borehole.

The scope of this work may vary from the basic cleaning out and redevelopment of an existing borehole to the recovery of casing, the reaming and subsequent reinstallation of casing. As far as it is possible, the nature of the rehabilitation required in each individual instance should be identified prior to undertaking this activity since this will indicate which equipment will most suitably complete the task. This is illustrated in the following examples. The straight-forward cleaning out and redevelopment of an existing borehole can readily be accomplished using a rotary air percussion drilling rig. On the other hand, the recovery of casing and the removal of unnatural material from a borehole are more readily accomplished using a cable tool (jumper) drilling rig.

It is particularly helpful to both the Hydrogeological Consultant and the Drilling Contractor undertaking the rehabilitation to know as much about the original construction (e.g., depth, diameter, length and type of casing, geology, etc) of the borehole as possible. This is impossible in instances where original records are lost, deficient, vague or poorly documented/archived. It will be required in such cases to obtain as much information as can reasonably be gleaned from an *in-situ* inspection of the borehole. This might include such basic measurements as plumbing the current depth of the borehole and establishing, by means of a casing detector, the length of casing (steel) installed, to carrying out various of the more sophisticated down-the-hole borehole measurements and observations (subsection DS14).

The rehabilitation of an existing borehole should preferably be carried out under the supervision of the Hydrogeological Consultant. In any event, the execution of such work will be subject to the same degree of data collection and record keeping as is required of a new borehole.

The Drilling Contractor will be remunerated for this service on the basis of the rates bidded in the Schedule of Rates. It will be expected of the contractor to have assessed the potential technical risks involved with such work and, as a consequence, the contractor shall have no claim against any other party for the loss of equipment, materials or tools incurred in the course of such work.

Payment for additional casing inserted into the borehole shall be made as per the Schedule of Rates. This clause does not cover the return of the Contractor to a borehole previously drilled by the Contractor.

DS11 EQUIPPING OF BOREHOLES

Equipping of Production Boreholes will be done in accordance with the instructions issued by the Hydrogeological Consultant.

DS12 DATA RECORDING AND REPORTING

It is imperative that a detailed and accurate record of all information arising from the borehole drilling activity be recorded with care and diligence. Much of this information can be collected by the Drilling Contractor.

Data must be recorded on the borehole log and penetration rate log provided by the Hydrogeological Consultant. Penetration times per metre are to be recorded with a stopwatch, all water intersection depths and estimated yield, type of formation encountered as well as all details of both temporary and permanent casing installed in boreholes shall be recorded as a minimum requirement.

All recorded data must be kept current and available for inspection at request of the Hydrogeological Consultant. The contractor will include the cost of these activities as a single sum per borehole in the Schedule of Rates. It will be the responsibility of the Hydrogeological Consultant to verify receipt of this information prior to certifying a claim by the Drilling Contractor in this regard. The following items of information represent the minimum number of parameters, which must be monitored and recorded by the contractor.

(a) Penetration Rate

This represents the time taken, as measured with a stopwatch, to advance the borehole a specific depth (generally one metre). In broad terms, the harder the rock formation the slower the penetration rate and vice versa. Since the hardness (or softness) of a rock formation is a characteristic which can be associated with specific rock types, an accurate record of penetration rates serves as an additional means of identifying changes in rock type with depth. Although a slow penetration rate may be of hydrogeological significance, it can also be caused by worn equipment or difficult drilling conditions such as are presented by loose, unstable material. The measured penetration rate must, therefore, not include time spent overcoming technical problems or remedying mechanical breakdowns encountered during drilling.

(b) Formation Sampling and Description

This entails a brief description of the visual appearance of the rock formation being drilled. It is performed by inspection of the rock chips (also known as drill cuttings) brought to the surface during drilling. A spadeful of chips should be collected at the mouth of the borehole for each metre drilled. The "samples" should be placed as sequential piles in ordered rows at a cleared and visible location away from the immediate area of activity and traffic around the borehole being drilled. If instructed by the Hydrogeologist a fist full of each sample should be bagged in individual plastic bags labelled with the borehole number and sample depth. These samples should be kept at a pre-arranged location for description at a later stage. The samples should be described by a suitably qualified geotechnician/earth scientist according to the guidelines set out by the South African Institute for Engineering Geologists (SAIEG, 1995). The driller's description must include, as a minimum, a note on the colour of the formation, the relative size of the drill cuttings and, if possible, an identification of the possible rock type. Bagged samples are to be stored in a suitable robust and accessible container.

(c) Water Strike Depth

This information relates to the depth at which any water, including seepage, is encountered in a borehole during drilling. It is possible for water to be encountered at more than one depth as drilling advances. The depth(s) at which water is encountered must be determined to an accuracy of one metre and recorded. It is also necessary to record the nature of the formation associated with the water strike(s). This may, for example, be represented by a single fracture or fissure, a system of such features or a noticeably softer or more weathered horizon.

(d) Blow Yield

Water which is encountered in a borehole being drilled by the rotary air percussion method is blown out of the borehole during drilling. The amount of water being blown from the borehole provides an indication of the possible yield of the borehole. The blow yield must not be guesstimated, even though a fair visual estimate based on experience can often be provided by the Drilling Contractor. Also, since water may be encountered at more than one depth, it is necessary to measure and record the blow yield immediately following each water strike. These measurements should be repeated as drilling continues until constancy is revealed by at least four consecutive measurements each representing a further metre of drilling.

The accurate measurement of the blow yield does not require the use of sophisticated equipment. The most acceptable and preferred means of measurement is provided by the use of a 90° V-notch weir. The use of a 90° V-notch weir entails channelling all of the water being blown from the borehole through such a weir, which has been placed level in the channel (or ditch) leading the return water flow away from the borehole being drilled. The height of water flowing over the notch is translated into a flow rate or yield as indicated in Table 12-1. It is imperative that the height of water flowing over the weir is not measured within the notch itself but at and from a position in the weir upstream and to the side of the notch and which corresponds exactly in height to the inverted apex of the notch.

Table 12-1 Tabulation of height vs flow rate data for a 90° V-notch weir						
HEIGHT (mm)	FLOW RATE (l/s)	FLOW RATE (l/s) FOR				
		HEIGHT + 2 mm	HEIGHT + 4 mm	HEIGHT + 5 mm	HEIGHT + 6 mm	HEIGHT + 8 mm
10	0,01			0,04		
20	0,08			0,15		
30	0,23			0,04		
40	0,47	0,53	0,60		0,67	0,74
50	0,80	0,88	0,97		1,06	1,16
60	1,26	1,36	1,47		1,59	1,71
70	1,84	1,97	2,11		2,25	2,40
80	2,55	2,71	2,88		3,05	3,23
90	3,41	3,60	3,80		4,00	4,21
100	4,42	4,64	4,87		5,10	5,34
110	5,59	5,85	6,11		6,38	6,65
120	6,94	7,22	7,52		7,83	8,14
130	8,46	8,79	9,12		9,46	9,81
140	10,17	10,53	10,90		11,28	11,67
150	12,07	12,47	12,88		13,30	13,73
160	14,17	14,61	15,07		15,53	16,00
170	16,48	16,96	17,46		17,96	18,48
180	19,00	19,53	20,07		20,62	21,18
190	21,75	22,32	22,91		23,50	24,11
200	24,72	25,34	25,97		26,61	27,26
210	27,92	28,59	29,26		29,95	30,65
220	31,36	32,08	32,80		33,54	34,28
230	35,04	35,81	36,58		37,37	38,17
240	38,97	39,79	40,62		41,45	42,30

Another common but less preferred method in use is the “drum-and- stopwatch” technique. This requires only that all of the water blown from the borehole be channelled to a point where the concentrated flow can be collected in an open-ended drum of known volume (generally 20 litres) and the time taken to fill the container measured with a stopwatch for accuracy. Dividing the full volume of the drum (in litres) by the time taken (in seconds) to fill the drum gives the blow yield in litres per second (l/s). It is cautioned, however, that this method is only effective and reliable for yields of less than approximately 2 l/s.

(e) Groundwater Rest Level

This parameter represents the depth, as measured from surface, to the level of standing water in the borehole. This measurement can be made with the use of any liquid level indicating device, the most common of which is an electrical contact meter (diameter). The groundwater level measurement must be accurate to the nearest 0,01 metre (one centimetre). The measurement reference point, which may either be the ground level or the collar of the borehole, should be identified against the measured depth value. The latter reference point will generally be represented by the top of the casing with which the borehole has been equipped. In these instances, it will also be necessary to measure the height by which the casing extends above ground level. If the borehole is drilled and completed on the same day, then a groundwater level measurement must be taken immediately before leaving the site.

If drilling and borehole construction extends over two or more days, then such measurements must also be taken before daily drilling activities commence, provided that water, including seepage water, has been encountered in the borehole. A groundwater level measurement must be referenced to the date on which it is made and, if more than one such measurement is made per day, then also the time of each such measurement must be recorded.

DS13 Down-the-hole Loss of Equipment

Drilling equipment, materials or tools may be lost down a borehole during drilling operations. Since this can often result in the irretrievable loss of a borehole, substantial efforts are generally employed by the Drilling Contractor to recover such material. This activity is also referred to as fishing. The Hydrogeological Consultant will afford the contractor every opportunity and reasonable time to fish for lost equipment. The Drilling Contractor must, in turn, keep the Hydrogeological Consultant informed of progress and the likelihood of success in this regard.

The data regarding lost equipment, material or tools shall be recorded on the borehole log and penetration rate log provided in Section DS19 of this document.

The contractor will have no claim against any other party for any losses incurred in this regard. Further, the fate of a borehole which cannot be continued or completed due to the presence of lost equipment, materials or tools therein will finally be decided by the Hydrogeological Consultant. It may either be declared successful or lost.

(a) Borehole declared Successful

Circumstances under which a borehole may be declared successful include:

- 1) the borehole has encountered significant water or is drilled for resource monitoring purposes,
- 2) pumping equipment can be installed to an acceptable depth in the borehole and
- 3) the lost equipment does not pose a threat to the present and future quality of the groundwater.

In the event that a borehole is declared successful despite the irrecoverable loss of drilling equipment, materials or tools therein, then the exact nature and position of the equipment lost in the borehole must be recorded and appear in relevant project documentation.

The Drilling Contractor will be remunerated for a borehole declared successful under these circumstances on the same basis as for any other successfully completed borehole.

(b) Borehole declared Unsuccessful

Although the circumstances under which a borehole will be declared unsuccessful are varied and diverse, the criteria which should apply include:

- (1) the borehole has not yet encountered water irrespective of the depth reached,
- (2) the borehole has not yet encountered water even though the geological and hydrogeological indications are positive,
- (3) the borehole has encountered water but in too small a quantity to warrant the installation of pumping equipment, yet the geological and hydrogeological indications are positive that more water can be obtained, and
- (4) the borehole has encountered a significant quantity of water but the lost equipment prevents the installation of pumping equipment to an acceptable depth or if the lost equipment reduces the artesian flow by restricting the borehole's capacity.

In the event that a borehole is declared lost under these circumstances, then the criteria set out in subsection DS8 (m) for further actions, payment, etc, shall apply.

Note that a borehole can be declared "Lost" for other reasons as set out in subsection DS8(l).

DS14 Down-the-hole Borehole Measurements

This activity is more commonly referred to as borehole logging. The measurements are carried out by manually or mechanically lowering tools or instruments of various technical sophistication down a borehole. Borehole logging is useful in instances where:

- (a) surface geophysical data need to be calibrated against subsurface information,
- (b) geological information for a borehole is absent or suspect,
- (c) borehole construction information is absent or suspect, and
- (d) information is required for the proper and effective stimulation by various means of borehole yields.

Although down-the-hole borehole measurements may be made at any time during the construction of a borehole, they are generally performed on completion thereof. In the event that such measurements need to be made before completion of the borehole, then the Drilling Contractor will be required to cease operations and facilitate access to the borehole for the duration of such activity. The contractor will be able to recover the cost of production loss (incurred for the duration that drilling activities are interrupted) against the rate specified for standing time in the Schedule of Rates, any claim in this regard shall be verified and certified by the Hydrogeological Consultant.

The nature of the information to be gathered dictates the technique(s) to be used and the time required to complete these measurements. Basic information such as the depth of the borehole and the amount of steel casing installed therein is readily and cheaply determined by means of straightforward and uncomplicated instruments. Geophysical and geological information, on the other hand, requires the more costly application of specialized borehole logging instrumentation including the use of video cameras.

It is required that the more sophisticated of these investigations:

- (1) be motivated to and authorised by the Implementing Authority prior to their execution, and
- (2) be applied judiciously at the discretion of the Hydrogeological Consultant.

(a) Borehole Construction Information

This includes information such as:

- (1) the depth and diameter(s) of the borehole,
- (2) the depth and diameter(s) of casing installed in the borehole and

(3) the integrity of the casing.

This information can be used to verify/check the documented construction details of a borehole. The depth of a borehole can be determined simply by plumbing with a weighted line. A calliper tool can be used to determine borehole and casing diameters and the length and integrity of the casing string. The length of steel casing can also be determined more simply with a sensor operating on electromagnetic principles.

(b) Geological Information

This covers aspects such as identifying:

- (1) the nature of different rockformations occurring at various depths within a borehole on the basis of their geophysical (geo-electrical) properties and
- (2) the presence and size of fractures and/or fissures intersected by a borehole.

This information can be used to:

- (1) calibrate surface geophysical data obtained from similar geological environments,
- (2) determine the optimum depth at which a borehole pump should be installed in a borehole and
- (3) direct the application of borehole yield stimulation activities such as hydro fracturing.

(c) Hydrogeological Information

This includes information such as:

- (1) the porosity of rock formations and
- (2) the rate of groundwater movement.

These measurements generally require the use of more sophisticated and costly instrumentation.

(d) Hydrochemical Information

This covers aspects such as the variation of groundwater quality with depth in a borehole. These measurements again require the use of generally more sophisticated instrumentation. Not quite in the same vein as these measurements, yet of probably greater importance, is the representative water sample obtained from a borehole during its development (subsection DS8 (o)).

The water sample must be submitted to a laboratory as soon as is reasonably possible for chemical analysis in accordance with the instructions provided by the Employer's Agent.

These results will provide an early indication of whether the groundwater quality is acceptable or not and, if not, whether test pumping is warranted.

DS15 CESSATION OF DRILLING ACTIVITIES

The termination, at any stage, of drilling operations on a borehole shall rest with the Hydrogeological Consultant.

DS16 MEASUREMENT AND PAYMENT

The Contractor appointed under this Contract is considered to be an expert in his field and is expected to organise and carry out the required work in an expert manner. Drilling problems encountered will be overcome entirely within the framework of the Drilling Specifications and the Bill of Quantities, and no claims for extra payments will be entertained for problems foreshadowed in the Drilling Specification or due to limitations imposed by the Drilling Specifications.

It is the Drilling Contractor's responsibility to appoint a qualified agent, whom shall be on-site full time for the duration of the drilling works, and whom shall have the authority to confirm the measured quantities

with the Employer's Agent and sign-off the quantities on behalf of the Drilling Contractor. In the event that the Drilling Contractor fails to appoint such an agent, the measurement of quantities taken by the Employer's Agent shall be taken to be the correct measurement of the work for the purpose of payment to the drilling contractor.

The measurement of and payment for all materials and drilling -& drilling-related works provided by the Contractor in the course of the project will be according to the criteria as set out and are applicable in respect of such as are variously specified hereunder and in the remainder of the Drilling Specification (with reference specifically to DS8 BOREHOLE CONSTRUCTION):

(a) Standing Time

This will cover periods when the Contractor's drilling rig and crew or, if more than one rig and crew are fielded, when all rigs and crews are idle waiting for decisions by the Hydrogeological Consultant where those decisions or whose presence is required before the commencement or continuation of the work. Under no circumstances will standing time be payable for any delays other than those incurred by the Hydrogeological Consultant's decisions. Except only for abnormal weather conditions as provided for in the Conditions of Contract, no standing time will be payable due to inclement weather or prevention of access to a site by the Contractor or Hydrogeological Consultant due to inclement weather. Further, no standing time will be payable to the Contractor in respect of any periods where the Contractor is not engaged in the execution of the Works as a result of the Hydrogeological Consultant having failed to issue an instruction to commence with the works of any Works Segment and there being no other Contract Works on which the Contractor is required to carry out work.

The Contractor must make provision for one-hour standing time per borehole to allow for the measurement of groundwater levels and the determination of optimum casing installation (plain and slotted). Since no separate payment will be made for standing time (up to 1 hour) resulting from these activities, the Contractor must allow for this.

(b) Inter-hole Moves

Payment for inter-hole moves up to a distance of ten kilometres shall be made at the unit rate bidden for in the Schedule of Rates. Inter-hole moves in excess of ten kilometres shall be remunerated for the first ten kilometres at the bidden unit rate and, for each full kilometre thereafter, at the rate per kilometre bidden in the Schedule of Rates.

(c) Reaming of Boreholes

Where a borehole has previously been drilled to a smaller diameter than that required, the original borehole should be reamed to the required diameter. Reaming of a borehole to larger diameters may also be required for borehole construction purposes. Remuneration for this work shall be according to the rates bidden in the Schedule of Rates.

(d) Removal of Existing Pumping Equipment

This rate shall cover the removal of existing pumping equipment in a borehole to be rehabilitated and secure storage of removed existing equipment. Payment for removal up to an installed depth of 50 m shall be made at the unit rate bidden for in the Schedule of Rates. Installed depths in excess of 50 m shall be remunerated for the first 50 m at the bidden unit rate and, for each full metre thereafter, at the rate per metre bidden in the Schedule of Rates. The Contractor is solely responsible for the secure storage of removed equipment to prevent theft of existing equipment from site.

(e) Re-installation of existing Pumping Equipment

This rate shall cover the re-installation of existing pumping equipment in a borehole following rehabilitation of the borehole. Payment for installation up to a depth of 50 m shall be made at the unit rate bidden for in the Schedule of Rates. Re-installation depths in excess of 50 m shall be remunerated for the first 50 m at the bidden unit rate and, for each full metre thereafter, at the rate per metre bidden in the Schedule of Rates. The existing pumping equipment shall be restored to its working condition as

encountered before removal unless the Contractor is instructed otherwise by the Hydrogeological Consultant.

(f) Labour-based Methods to Prepare Access to Site

The use of labour-based methods required to prepare access to a site (bush clearing and/or limited road making) must be approved by the Hydrogeological Consultant. Labour required for such work must be employed from the local community with whom the number of man days required for the task is to be negotiated and finalised prior to gaining approval from the Hydrogeological Consultant.

Contractors must always keep in mind that the minimum wages payable to labourers must at all times adhere to "Minimum Wage Legislation" for the particular area.

DS17 SCHEDULED ITEMS

DS17.1 ESTABLISHMENT, PLANT SET-UP, INTER-HOLE MOVES AND DE-ESTABLISHMENT

DS17.1.1 Establishment of one fully functional and independent drilling unit to site.....Unit: Sum

The Contractor will be remunerated at the tendered sum in the Bill of Quantities for the establishment to site of one fully functional and independent drilling unit as defined in the Schedule of Plant and Equipment available for the Contract (Schedule T2.1.24). The establishment and de-establishment to and from site of the portable air booster will be remunerated separately at the tendered sum in the Bill of Quantities. This includes the compressor.

DS17.1.2 Set-up of drill rig at each drill site.....Unit: No

A setup of a drill rig entails all the necessary site -and equipment preparations required by the Contractor for the commencement of drilling at a drill site with one fully functional and independent drilling unit as per Schedule T2.1.24. The Contractor will be remunerated for one set-up per completed borehole as per the tendered rate in the Bill of Quantities. Drill rig set-ups will also apply to the deepening and clearing of boreholes and the Contractor will be remunerated one drill rig setup per deepened/cleared borehole according to the tendered rate in the Bill of Quantities.

The set-ups for each borehole will exclude the set-ups of grouting equipment required for the grouting of casing in boreholes. The set-ups of grouting rigs will be measured separately from the set-ups of drilling rigs.

DS17.1.3 Inter-hole moves of drill rig for distances 100m to 2km.....Unit: No

Inter-hole moves entail the transport of a fully functional and independent drilling unit from one drill site to the next drill site. These inter-hole moves will not include the transport of the grouting unit. The Contractor will be remunerated for one inter-hole move per completed borehole, for distances 100 m – 2 km at the tendered rate in the Bill of Quantities. Inter-hole moves will also apply to the clearing of boreholes and the Contractor will be remunerated one inter-hole move per cleared borehole according to the tendered rate in the Bill of Quantities.

The Contractor will **not** be remunerated for any inter-hole moves up to a distance of 100 m.

DS17.1.4 Collection of casing from municipal stores (casing truck with crane).....Unit: km

Not applicable.

DS17.1.5 De-establishment of one fully functional and independent drilling unit from site.....Unit: Sum

The Contractor will be remunerated at the tendered sum in the Bill of Quantities for the de-establishment from site of one fully functional and independent drilling unit as specified in the Schedule of Plant and Equipment available for the Contract (Schedule T2.1.24).

DS17.2 Drilling Subcontractor's compliance with Health and Safety Act.....Unit: Sum

The drilling subcontractor's compliance with the occupational health and safety act (act 85 of 1993) and all relevant and applicable regulations, especially the construction regulations, 2014 as promulgated in terms of section 43 of the occupational health and safety act (act 85 of 1993), as amended from time to time, for the duration of the contract.

The tendered sum shall include full compensation to the Contractor for the drilling subcontractor's compliance with all the requirements of the OHS Act and the Construction Regulations 2003 at all times, as described in the Scope of Work and Employer's health and safety specification (Refer Particular Specification PB). The successful tenderer shall provide the Employer's Agent with a complete breakdown of this tendered sum, if so required.

The Contractor shall note that all obligations contained in the Act, Regulations and Employers health and safety specification shall be included in this item. No additional claims will be considered; neither will an extension of time be considered for delays due to non-compliance with the Contractor's health and safety plan. The sum will be paid to the Contractor in equal monthly amounts.

DS17.3 Drilling: Rotary drilling with mud / direct or reverse circulation (Tricone drilling), Rotary Air Percussion (DTH) & Diamond/Core Drilling. All formations excluding the Peninsula formation (this includes rocks covering the Peninsula formation, eg calcrete, clay, sand, mudstone & sandstone).....Unit: m

The Contractor will be remunerated per meter of drilling into Non-Peninsula Formations according to the tendered rates in the Bill of Quantities. These rates will include all labour, work time, the use of all the necessary drilling equipment, support vehicles and the use of a first compressor. The rates will exclude drilling chemicals, muds, or additives, which shall be measured and paid separately.

DS17.4 Drilling: Rotary drilling with mud / direct or reverse circulation (Tricone drilling), Rotary Air Percussion (DTH) & Diamond/Core Drilling. Peninsula formation and conglomerates derived from the Peninsula formation (hard, abrasive quartzite or well-cemented quartzitic conglomerate).... Unit: m

The Contractor will be remunerated per meter of drilling into Peninsula Formations according to the tendered rates in the Bill of Quantities. These rates will include all labour, work time, the use of all the necessary drilling equipment, support vehicles and the use of a first compressor. The rates will exclude drilling chemicals, muds, or additives, which shall be measured and paid separately.

DS17.5 Casing: Supplied and Delivered.....Unit: m

The Contractor will be remunerated for casing per linear meter thereof supplied and delivered at the tendered rate for each relevant casing diameter as set out in the Bill of Quantities.

DS17.6 Casing: Installation and retrieval

DS17.6.1 Installation.....Unit: m

The Contractor will be remunerated for every linear meter of installation of the casing at the tendered rate for each relevant casing diameter as set out in the Bill of Quantities.

DS17.6.2 Retrieval.....Unit: m

The Contractor will be remunerated for the retrieval of casing, per linear meter thereof salvaged from a borehole as per the tendered rate in the Bill of Quantities.

The installation and removal of temporary/starter casing to a depth of 6 m will not be a payable item.

DS17.7 Casing: CentralizersUnit: No

The Contractor will be remunerated for the number of casing centralizers used at the tendered rate in the Bill of Quantities. This rate will include the supply, delivery and installation of the centralizers.

DS17.8 Grouting of Casing

DS17.8.1 Set-up of grout rig at borehole.....Unit: No

A setup of a grout rig entails all the necessary site –and equipment preparations required by the Contractor for the commencement of grouting of casing inside a borehole. The Contractor will be remunerated for one setup of the grout rig per completed borehole, regardless of the number of stages of drilling/grouting, as per the tendered rate in the Bill of Quantities. The setup of the drill rig to keep the packer in position while grouting will have been sufficiently remunerated by the initial setup to commence with the drilling and will not be an additional payable item for grouting.

DS17.8.2 Inter-hole moves of grout rig for distances 100 m to 2 km.....Unit: No

The Contractor will not be remunerated for inter-hole moves up to a distance of 100 m. The Contractor will be remunerated for one inter-hole move per completed borehole, for distances 100 m – 2 km at the tendered rate in the Bill of Quantities. The inter-hole move of the drill rig to keep the packer in position while grouting will have been sufficiently remunerated by the initial inter-hole move to commence with the drilling and will not be an additional payable item for grouting.

DS17.8.3 Pressure Grouting of Casing.....Unit: m³

The Contractor will be remunerated for the supply, delivery, mixing and installation of grout at the tendered rate in the Bill of Quantities for every cubic meter of grout installed by pressure grouting. This rate shall include the cement and water used for mixing the grout as well as all the necessary equipment and time spent for pressure grouting the casing. No payment shall be made for the volume of grout remaining inside the grouted casing nor for the grout remaining in the mixing and holding tanks using this item. All necessary additives to the grout will be paid separately. The use of a rig to keep the packer in place and to pump the grout through the drilling shafts will also be included in the rate for this item.

DS17.8.4 Grouting of casing with tremmie pipes.....Unit: m³

The Contractor will be remunerated for the supply, delivery, mixing and installation of grout at the tendered rate in the Bill of Quantities for every cubic meter of grout installed with the use of tremmie pipes. This rate shall include the cement and water used for mixing the grout as well as all the necessary equipment and time spent for grouting the casing with tremmie pipes. No payment shall be made for the volume of grout remaining inside the mixing and holding tanks. All necessary additives to the grout will be paid separately. The use of a rig to keep the packer in place while grouting with tremmie pipes will also be included in the rate for this item.

DS17.8.5 Grout mixed but not used.....Unit: m³

It can be expected that some grout will remain inside the mixing and holding tanks by the time a return flow of grout has been established from the borehole and the borehole has been successfully grouted. Due to the uncertainty associated with the amount of grout required to successfully grout a borehole, the Contractor will be remunerated for the volume of left-over grout (i.e. grout left in mixing and holding tanks) at the tendered rate in the Bill of Quantities.

DS17.9 Inflatable packers for grouting

DS17.9.1 Supply and delivery.....Unit: No

The Contractor will be remunerated for the supply and delivery of each inflatable packer at the tendered rate in the Bill of Quantities upon the successful completion of the grouting of both casings by using the inflatable packers.

DS17.9.2 Installation and retrieval.....Unit: m

The Contractor will be remunerated for the installation and retrieval of the packers for every meter of depth installed and retrieved at the tendered rate in the Bill of Quantities, upon the successful completion of the grouting of both casings by using the inflatable packers. This rate, along with the rates for DS17.8.3

and DS17.8.4, will include the use of the drill rig as well as the working time required to place and hold the packer in place.

DS17.10 Grouting: Cement Additives

The Contractor will be remunerated for the additives per specified unit used in grout according to the tendered rates in the Bill of Quantities:

DS17.10.1 Super plasticizing agent and gas producing expansion medium Unit: ℓ

DS17.10.2 Integrated anti-cement washout Unit: kg

DS17.10.3 Accelerator (non-chloride) Unit: ℓ

DS17.10.4 Temperature reducing agent Unit: ℓ

DS17.10.5 Non-shrink additive Unit: kg

DS17.11 Use of 2nd Compressor (900 CFM, 24 BAR)Unit: Hr

If required, a second compressor may be used upon agreement with the Hydrogeological Consultant. The Contractor will be remunerated for the hourly use of the second compressor according to the tendered rate in the Bill of Quantities. The Contractor will have the responsibility to liaise with the Hydrogeological Consultant, and to record the hours of compressor use on a daily basis, in such a format as the Hydrogeological Consultant may require for ease of verification. It will be the responsibility of the Hydrogeological Consultant to verify and certify any claim by the Contractor in this regard.

DS17.12 Borehole Open Hole ProtectionUnit: No

The Contractor will be remunerated for the supply, delivery and installation of the temporary flanges or borehole caps at the tendered rate in the Bill of Quantities.

DS17.13 Borehole Development and Testing by Blowing Unit: Hr

The Contractor will be remunerated for borehole development and testing by blowing on a time basis against the hourly rate tendered in the Bill of Quantities. This rate will also include the use of all the equipment required to perform borehole development and testing by blowing (rig, compressor, drill string, V-notch weir etc.). It will be the responsibility of the Hydrogeological Consultant to verify and certify any claim by the Contractor in this regard.

DS17.14 Standing time Unit: Hr

This will cover periods when the Contractor's drilling rig and crew is idle waiting for decisions by the Consultant where those decisions or whose presence is required before the commencement or continuation of the work.

The Contractor must be prepared to stand for a maximum of 24 hours without payment for the Hydrogeological Consultant to make the necessary decisions. Under no circumstances will standing time be payable for any delays other than those incurred by the Hydrogeological Consultant's decisions. It specifically excludes lost time due to the Contractor's equipment failure, time required for the repair or maintenance of the Contractor's equipment and non-productive time whilst waiting for delivery of materials and equipment supplied by the Contractor or supplied by the Contractor's equipment -and material suppliers. The Contractor may claim standing time only for idle time during what is considered normal working hours. The Contractor may therefore only claim 9 hours of standing time per weekday (24 hours). Standing time will not be claimable under any circumstances on a Saturday or Sunday.

The Contractor will be fully responsible for the preparation of each drill site to facilitate the proper drainage of water once an artesian water strike occurs. No standing time will be payable to the Contractor whilst preparing the drill site's drainage for an artesian water strike. Also, no standing time will be payable

to the Contractor for production time loss due to the failure of the Contractor to provide adequate drainage to the drill site (refer to clause DS17.15).

Except only for abnormal weather conditions as provided for in Sub-Clause 2.2.2 of the Conditions of Contract, no standing time will be payable due to inclement weather or prevention of access to a site by the Contractor or Hydrogeological Consultant due to inclement weather. Further, no standing time will be payable to the Contractor in respect of any periods where the Contractor is not engaged in the execution of the Works as a result of the Consultant having failed to issue an instruction to commence with the works of any Works Segment and there being other Contract Works on which the Contractor is required to carry out work.

Standing time will be applicable to the waiting period for grout to dry which will be subject to Clause PC 8 (d) Grouting of casing) as well as the approval of the Hydrogeological Consultant. Standing time will not be claimable for drilling production lost during the grouting of a borehole's casing. Standing time will not be paid for the first 24 hours waiting period for the grout to dry. After the first 24 hours waiting period, the Contractor will be reimbursed a total of 8 hours of standing time for the loss of production during each subsequent 24 hours of the waiting period.

DS17.15 Drainage Channel for Drill Site

The Contractor will be remunerated for the construction of the drainage channel in its entirety according to the tendered rates in the Bill of Quantities for the number of sandbags and area of plastic canvas required.

These rates will include full compensation for the delivery, equipment, material and labour required to construct the drainage channel. No standing time will be payable to the Contractor for the loss of production time by its drill rig while the channel is being constructed. It is the Contractor's responsibility to ensure that the drainage channel is planned and constructed in a prompt and efficient manner as not to waste production time.

DS17.15.1 Sandbags – 40kg military style polypropylene bags.....Unit: No

DS17.15.2 Plastic Canvas.....Unit: m²

DS17.16 Sample Containers

DS17.16.1 Plastic sample bags (300 x 185mm x 190 micron)Unit: No

The Contractor will be remunerated for every 100 sampling bags supplied at the tendered rate in the Bill of Quantities.

DS17.16.2 Water sample bottles (500 mL)Unit: No

The Contractor will be remunerated for every sampling bottle supplied at the tendered rate in the Bill of Quantities.

DS17.16.3 Metal core trays 1.5 m long.....Unit: No

The Contractor will be remunerated for every metal core tray supplied and delivered at the tendered rate in the Bill of Quantities.

DS17.17 Borehole Straightness Test (Dummy Run to 80 m).....Unit: No

The Contractor will be remunerated per straightness test at the tendered rate in the Bill of Quantities. No standing time will be payable to the Contractor for loss of production time during a straightness test.

DS17.18 Clearing collapsed boreholesUnit: Hr

DS17.18.1 Lowering of 114mm (OD) reverse circulation (RC) rotary drill rods and blade scraper.....Unit: m

The Contractor will be remunerated for the lowering of 114mm (OD) reverse circulation rotary drill rods and blade scraper (or appropriate drill bit) according to the tendered rate in the Bill of Quantities for every meter of lowered rods. While it is envisaged that a blade scraper would be a suitable tool for clearing out blockages in the borehole, an alternative bit may be used if acceptable to the Employer's Agent. This rate will apply to only the un-collapsed portions of the boreholes and irrespective of the type of bit used. This rate will include all of the time and equipment deemed necessary (drill rig, labour, support vehicles etc.) for the lowering of the rods and will also cover the subsequent raising of the rods upon completion of the clearing of the borehole. The drill rods must be of sufficient internal diameter to allow a camera to pass through them to the bottom of the string, and through the blade scraper or bit used.

DS17.18.2 Clearing blockages with RC blade scraper.....Unit: Hr

The Contractor will be remunerated for the clearing of blockages with an RC blade scraper (or appropriate drill bit) according to the tendered rate in the Bill of Quantities for every hour of clearing. This rate will only apply to the collapsed portions of the boreholes (i.e. no payment shall be made for the un-collapsed or cased portions of the boreholes through which the drill rods have to be lowered).

This rate will include all of the time and equipment deemed necessary for the clearing of boreholes (drill rig, labour, support vehicles, compressors, etc.). The measurement for this item will be based only on the hourly use of the compressor used for clearing (i.e. the difference on the compressor's hour meter between before –and after clearing).

DS17.19 Omitted

DS17.20 Removal and repositioning of existing probe hole chambers.....Unit: Sum

The Contractor will be remunerated for both the removal and subsequent repositioning of all the chambers according to the tendered sum in the Bill of Quantities. The sourcing of a suitable crane is the responsibility of the Contractor and no standing time will be payable to the Contractor for any production time lost due to difficulties in sourcing a suitable crane.

DS17.21 Borehole camera inspection (up to 400m).....Unit: No

DS17.22 Allowance for the Contractor's Hydrogeologist.....Unit: Month

The Contractor shall employ a Hydrogeologist for the duration of the drilling works of the contract, who shall advise the Contractor on matters pertaining the drilling works and/or geology of the contract, and who shall liaise with the Hydrogeological Consultant on behalf of the Contractor.

The monthly rate tendered in the Bill of Quantities shall cover full compensation to the Contractor to employ the Hydrogeologist, to be available to the contract on a permanent basis for the duration of the drilling works of the contract.

DS18 FINAL ACCEPTANCE

The Hydrogeological Consultant shall accept a successfully finished community water supply or monitoring borehole by certifying the Drilling Contractor's invoice for such borehole as true and correct for payment by the Implementing Authority. At this stage, the Hydrogeological Consultant will have established that all aspects pertaining to the work and the final product meet, at least, those of the various criteria and requirements set out above which have been imposed.

DS19 SPECIFICATION DRAWINGS, DATA RECORDING AND REPORTING

This information will be provided by the Hydrogeological Consultant.

PARTICULAR SPECIFICATION: PA

PA HEALTH & SAFETY SPECIFICATIONS

The site-specific H & S Specifications, Appendix A will be issued as an Addendum

C3.5: MANAGEMENT

C3.5.1 MANAGEMENT OF THE WORKS**C3.5.1.1 Applicable SANS standards**

As specified under Clause C3.4

C3.5.1.2 Particular / generic specifications

As specified under Clause C3.4

C3.5.1.3 Planning and Programming

Refer Clause 5.6 of the Conditions of Contract.

If the programme submitted by the Contractor in terms of Clause 5.6 of the Conditions of Contract has to be revised because the Contractor is falling behind in his programme, he shall submit a revised programme of how he intends to regain lost time to ensure completion of the Works within the period defined in Clauses 5.12 of the Conditions of Contract or within a granted extension of time.

Proposal to increase the tempo of work must incorporate positive steps to increase production either by more labour and plant on the Site, or by using the available labour and plant in a more efficient manner.

Failure on the part of the Contractor to submit or to work according to the programme or revised programmes shall be sufficient reason for the Employer's Agent to take steps as set out in Clause 9.2 of the Conditions of Contract.

The approval of a programme by the Employer's Agent shall have no contractual significance other than that the Employer's Agent will be satisfied if the work is carried out according to the programme. The said approval shall not limit the right of the Employer's Agent to instruct the Contractor to vary the programme if necessary.

C3.5.1.4 Sequence of the works

To be determined by the Contractor.

C3.5.1.5 Software application for programming

Not applicable.

C3.5.1.6 Methods and Procedures

The Works shall be executed in terms of the various and applicable specifications, the general health and safety specifications and subsequent health and safety plan, the Conditions of Contract as well as the various clauses within the Scope of Work.

C3.5.1.7 Quality plans and control

Refer the various and applicable specifications, the general health and safety specifications and subsequent health and safety plan, the Conditions of Contract as well as the various clauses within the Scope of Work.

C3.5.1.8 Environment

The Contractor shall, for the duration of the contract, take appropriate measures to control the dust and soil movement which may arise due to his operations.

C3.5.1.9 Accommodation of traffic on public roads occupied by the Contractor

The Contractor shall carry out, erect and maintain such temporary works and provide all temporary road signs, pipes, deviations, warning boards, barricades, signs, lighting and demarcations and the like, as are necessary to maintain and safeguard the normal flow of public and private vehicular and pedestrian traffic.

Work shall be undertaken in accordance with the S.A. Road Traffic Signs Manual and Road Signs Note No. 13, Roadwork (CSRA-CUTA Road Traffic Signs Sub-Committee).

C3.5.1.10 Recording of weather

Refer C3.4.10.

C3.5.1.11 Format of communications

All contractual communication shall be in writing.

The Contractor shall, for the full duration of the Contract Period, supply and maintain the following documentation:

- (a) Site Communication and Request Book.
- (b) Safety File containing all relevant safety data.
- (c) Daily register of all labour, plant and equipment.
- (d) Quality Control file containing all quality control/assurance forms and records.
- (e) Daily Register of labour and plant status.
- (f) One full set of Contract Drawings and documents.
- (g) Latest revision of the Construction Programme.

The above-mentioned shall be kept on Site and shall be accessible to the Employer's Agent at all times.

C3.5.1.12 Key personnel

Key personnel shall be on site at all times to control and supervise construction activities.

C3.5.1.13 Management meetings

The Contractor shall have regular site management meeting to coordinate and manage the Works.

Monthly Contract meeting shall be held on site. This meeting shall be chaired by the Employer's Agent.

C3.5.1.14 Forms for contract administration

The Employer, the Contractor and the Employer's Agent shall operate and maintain their own individual contract administration systems.

C3.5.1.15 Electronic payments

The Contractor must ensure that all interim payment certificates are accompanied by a Tax Invoice, with the Contractor's and the Employer's VAT Registration numbers printed thereon, to ensure timeous payment of the certificate. Contractors must allow 30 days from date of invoice for the payment to be effected.

Contractors wishing to be paid electronically must ensure that their correct banking details are also printed on their Tax Invoice.

C3.5.1.16 Daily records

A complete set of daily records indicating labour and plant on site, weather, work performed and any safety incidents, is to be kept on site and must be available for perusal by the Employer's Agent at all times.

C3.5.1.17 Bonds and guarantees

As specified elsewhere.

C3.5.1.18 Payment certificates

As specified elsewhere.

C3.5.1.19 Permits

Not applicable.

C3.5.1.20 Proof of compliance with the law

As specified elsewhere.

C3.5.1.21 Insurance provided by the employer

As specified elsewhere.

C3.5.1.22 "As built information"

As the work progresses, the Contractor shall keep full records of all amendments to and deviations from the drawings as issued to the Contractor at the start of the contract. The true positions, invert levels and ground levels of all services shall be surveyed after construction and indicated on the drawings, for which purpose the Contractor shall receive a separate complete set of drawings at no cost, from the Employer's Agent. The Contractor must provide as-built survey information in digital format. In addition, the Contractor shall provide a copy of all quality control test results signed off by the Employer's Agent as part of the as-built information submission.

C3.5.1.23 Testing

Process control

The Contractor shall arrange for all tests required for process control to be done by an accredited laboratory acceptable to and approved by the Employer's Agent.

The Contractor may establish his own laboratory on site, or he may employ the services of an independent commercial laboratory. Whatever method is used, the Contractor must submit the results of tests carried out on materials and workmanship when submitting work for acceptance by the Employer's Agent. The costs for these tests shall be deemed to be included in the relevant rates and no additional payment will be made for testing as required.

Acceptance control

The process control test results submitted by the Contractor for approval of materials and workmanship may be used by the Employer's Agent for acceptance control. However, before accepting any work, the Employer's Agent may have further control tests carried out by a laboratory of his choice. The cost of such additional tests will be covered by a provisional sum provided in the schedule of quantities, but tests that failed to confirm compliance with the specifications, will be for the account of the Contractor.

C3.5.1.24 Management of EME's/QSE's

The monthly fee shall include full compensation for all guidance, mentoring, training, supervision, setting out and monitoring activities that may be deemed necessary to ensure the Works carried out by EME's/QSE's are in accordance with the technical and OHS specifications and within the agreed timeframes.

C3.5.1.25 Provisional Sum for the Variation in Rates

Works packages will be negotiated with the EMEs/QSEs and any variance in the Contractor's agreed rates and the EMEs/QSEs rates, both positive and negative will be set off under a provisional item included in the Preliminary and General section of the Bill of Quantities.

C3.5.2 HEALTH AND SAFETY

The Contractor shall comply with the Employers health and safety specifications as specified in Particular Specification PA.

C3.5.2.1 Health and safety requirements and procedures of the employer

- (a) In terms of the provisions of Section 37(2) of the Occupational Health and Safety Amendment Act, 1993 (Act 85 of 1993), hereinafter referred to as the Act, the following arrangements and procedures shall apply between the Contractor and the Employer to ensure compliance by the Contractor with the provisions of the Act:
 - (i) The Contractor undertakes to acquaint the appropriate officials and employees of the Contractor with all relevant provisions of the Act and the Regulations promulgated in terms of the Act.
 - (ii) The Contractor undertakes that all relevant duties, obligations and prohibitions imposed in terms of the Act and Regulations on the Contractor will be fully complied with.
 - (iii) The Contractor accepts sole liability for such due compliance with the relevant duties, obligations and prohibitions imposed by the Act and Regulations and expressly absolves the Employer from himself being obliged to comply with any of the aforesaid duties, obligations and prohibitions, with the exception of such duties, obligations and prohibitions expressly assigned to the Employer in terms of the Act and its associated Regulations.
 - (iv) The Contractor agrees that any duly authorised officials of the Employer shall be entitled, although not obliged, to take such steps as may be necessary to monitor that the Contractor has conformed to his undertakings as described in paragraphs (i) and (ii) above, which steps may include, but will not be limited to, the right to inspect any appropriate site or premises occupied by the Contractor, or any appropriate records or safety plans held by the Contractor.
 - (v) The Contractor shall be obliged to report forthwith to the Employer and Employer's Agent any investigation, complaint or criminal charge which may arise as a consequence of the provisions of the Act and Regulations, pursuant to work performed in terms of this Contract, and shall, on written demand, provide full details in writing, to the Employer and Employer's Agent, of such investigation, complaint or criminal charge.
 - (vi) The Contractor shall furthermore, in compliance with Constructional Regulations 2014 (Notice No 10113, dated 7 February 2013) to the Act acquaint himself with the requirements of the Employer's health and safety specification as laid down in regulation 5(1)(b) of the Construction Regulation 2014, and prepare a suitably and sufficiently documented coherent site specific health and safety plan as contemplated in regulation 7(1)(a) of the Construction Regulation 2014 for approval by the Employer

or his assigned agent. The Contractor's health and safety plan and risk assessment shall be submitted for approval, to the Employer or his agent, within 14 days of the Commencement Date and shall be implemented and maintained from the commencement of the Works. The Contractor shall at all times be responsible for full compliance with the approved plan as well as with the Construction Regulations and no extension of time will be considered for delays due to non-compliance with the abovementioned plan or regulations.

- (vii) The Employer, or his assigned agent, reserves the right to conduct periodic audits, as contemplated in the Construction Regulations 2014, to monitor that the Contractor is compliant in respect of his obligations. Failure by the Contractor to comply with the requirements of these Regulations shall entitle the Employer's Agent, at the request of the Employer or his agent, to suspend all or any part of the Works, with no recourse whatsoever by the Contractor for any damages incurred as a result of such suspension, until such time that the Employer or his agents are satisfied that the issues in which the Contractor has been in default have been rectified.
- (viii) The proposed type of work, materials to be used and potential hazards likely to be encountered on this Contract are detailed in the C3.4: Construction, the Bill of Quantities, the Drawings, and in the Employers' health and safety specification (regulation 5(1) of the Construction Regulations 2014).

Payment items are included in the Bill of Quantities to cover the Contractor's cost for compliance with the OHS Act and the abovementioned regulations.

C3.5.2.2 Protection of the public

The Contractor shall at all times ensure that his operations do not endanger any member of the public.

C3.5.2.3 Barricades and lighting

As specified elsewhere.

C3.5.2.4 Traffic control on roads

As specified elsewhere.

C3.5.2.5 Measures against disease and epidemics

As specified elsewhere.

C3.5.2.6 Aids awareness

Not applicable.

THE CONTRACT

PART 4 (OF 4): SITE INFORMATION

- C4.1** **Scope**
- C4.2** **Nature of ground and sub-soil conditions**
- C4.3** **Finishing-off of the Site**

C4.1 **SCOPE**

For the purposes of the Contract, it will be deemed that, prior to submitting his Tender, the Contractor has acquainted himself fully with the information and data provided within the specifications.

The Contractor shall have no claim against the Employer in respect of geotechnical or subsurface conditions encountered during the course of the Contract.

C4.2 **SUB-SOIL CONDITIONS**

No geotechnical investigation was done.

Material on site is expected to vary between sandy material and hard rock. The latter material should be excavatable by using an excavator however the use of a mechanical breaker is envisioned.

C4.3 **FINISHING-OFF OF THE SITE**

The site shall be finished-off in accordance with the specifications and to the satisfaction of the Employer's Agent.

APPENDIX A

HEALTH & SAFETY SPECIFICATIONS

An Addendum will be issued to all Tenderer.

APPENDIX B

TENDER DRAWINGS

List of Tender Drawings:

- 500748-PH09-DRG-WR-0002 - Borehole Kiosk and Layout Details
- 500748-PH09-DRG-WR-0003 - Typical Water Details (Sheet 1 of 3)
- 500748-PH09-DRG-WR-0004 - Typical Water Details (Sheet 2 of 3)
- 500748-PH09-DRG-WR-0005 - Typical Water Details (Sheet 3 of 3)

APPENDIX C

BILL OF QUANTITIES