j				
MUNISIPALITEIT		<b>F</b> .	Μ	UNICIPALITY
VAN	16.3			OF
PRINS ALBERT	5		PRI	NCE ALBERT
Rig alle korrespondensie aan: DIE MUNISIPALE BESTUURDER Privaatsak X53, Prins Albert, 6930 E-Pos / E-Mail: <u>scm@pamun.gov.za</u>		VINUS	Priva	Address all correspondence to: THE MUNICIPAL MANAGER ate Bag X53, Prince Albert, 6930 23-541 1036, Fax: 023-541 1035
	TENDER D	OCUMEN	т	
TENDER NUMBER:	141 / 2021			
TENDER DESCRIPTION:	PRINCE BOREHOLE		LOCAL	
CLOSING TIME:	13h30	CLOSING	DATE:	26 NOVEMBER 2021
Tender Box at: ADMINISTRATION BUILDING PRINCE ALBERT MUNICIPALITY 33 CHURCH STREET PRINCE ALBERT 6930		<ul> <li>– (not</li> <li>2. Bids r</li> <li>3. No bid servic</li> <li>4. In the provid</li> </ul>	to be re-typed nust be comple ds will be consi e of the state. event of any	eted in black ink in writing dered from persons in the conflict between the data mary and that given in the
Name of Bidder:				
Tender Amount:				
B-BBEE Status Level of Contribu	utor:			
Preference Points Claimed:				
CSD Supplier Number				
CSD Unique Reference Number				
B-BBEE certificates submitted with VALID ORIGINAL	the bid document CERTIFIED COPIE			
Signature of Prince Albert Munici Tender Opening	pality Officials at	1.       2.		

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# PART T1: TENDERING PROCEDURES

						MBD1		
		PRINCE A	LBERT MUNICIPALITY	,				
		DETA	LS OF TENDERER					
NAME OF BIDDER:								
TRADING AS (if different from above):								
STREET ADDRESS:		City <mark>/Town</mark>		Code				
POSTAL ADDRESS:	(	City/Town		Code				
CONTACT PERSON:								
CSD REGISTRATION #:								
ENTERPRISE REGISTRATION #:								
CIDB CRS NUMBER:								
VAT REGISTRATION #:								
SARS TAX CLEARANCE PIN:								
E-MAIL ADDRESS:								
TELEPHONE #:			CELL #:					
HAVE YOU DECL SERVICE OF THE S			SHIPS WITH PERSONS II	N THE	YES	NO		
HAS AN ORIGINA VERIFICATION CER			OF A B-BBEE STATUS TED? (MBD 6.1)	LEVEL	YES	NO		
			D AND CURRENT, ORIGIN TTACHED? (MBD 15)	AL OR	YES	NO		
DECLARATION								
I am duly authorised to represent the tenderer for the purpose of this tender and hereby tender to supply all or any of the goods and/or render all or any of the services described in the attached document to the Prince Albert Municipality on the terms and conditions stipulated in this tender document and in accordance with the specification stipulated in the tender document.								
NAME (PRINT)			SIGNATURE					
CAPACITY			DATE					

## T1.1 Tender Notice and Invitation to Tender

	PRI		CIPALITY										
A AME	TENDER NOTIO	E AND INVITATIO	ON TO TENDER										
ARVINUS	NOTICE NO: 141 / 2021	DEPARTMENT:	INFRASTRUCTURE SERVICES										
ADVERTISED ON:	MUNICIPAL NOTICE BOAR BURGER	D; MUNICIPAL WEBSITE; CIDB i-TENDER; SUID-KAAP											
BID NO.:	41 / 2021 PUBLISHED DATE: 06 NOVEMBER 2021												
Tenders are hereby invited for:	PRINS ALBERT LOCAL MUNICIPALITY BOREHOLE DRILLING AND TESTING												
CLOSING DATE:	26 NOVEMBER 2021												
CLOSING TIME:		No later than <b>13H30</b> Tenders will be opened immediately thereafter, in public at the Prince Albert Municipality, Council Chambers (Administration Building, 33 Church Street, Prince Albert, 6930)											
	AVAILABILITY OF	TENDER DOCUMENTS											
	II be available electronically served no less than 48 hours		t Municipalities Website. Tender										
A hard copy set of tender documents can be reserved at the professional services provider (AGES Omega (Pty) Ltd). Tender documents will be reserved at a non- refundable cost of R 500.00 (VAT Included), payable via EFT deposit in favour of AGES Omega (Pty) Ltd, First National Bank, Cheque account number: 62399258279, Branch code: 211021 - Reference: T141/2021 and company name. Electronic copies may be obtained from the official website of the Prince Albert Municipality Reservation of the document is confirmed upon receipt of the documentation fee. Documents must be reserved by n later than Friday 12 November @ 13h00. Hard cop documents will be issued to contractors, that paid th reservation fee, at the site clarification meeting. Contact details for reservations and technical enquiries are a follows: Mr Jan Myburgh (AGES) at +27 21 100 5210 or per emai omega@ages-group.com													
Date Available: 12	NOVEMBER 2021	Non-refundable Doo	cumentation Fee: R500										
<ol> <li>Bids are to be completed in accordance with the conditions and bid rules contained in the bid document and supporting documents must be placed in a sealed envelope and externally endorsed WITH THE BID NUMBER, DESCRIPTION AND CLOSING DATE OF THE BID, and be deposited in the Tender Box, at the Administration Building of the Prince Albert Municipality, 33 Church Street, Prince Albert. 6930.</li> <li>Bids may only be submitted on the bid documentation issued by the Municipality.</li> <li>Bids will be evaluated according to the 80/20 points system. The bids are subject to the Preferential Procurement Policy Framework Act 2000 and the Preferential Procurement Regulations 2017.</li> <li>The Municipality reserves the right to withdraw any invitation to bid and/or re-advertise or to reject any bid or to accept a part of it. The Municipality does not bind itself to accept the lowest bid or to award a contract to the Bidder scoring the highest number of points.</li> <li>The evaluation of this bid will be subjected to functionality scoring. Tenderers must achieve the minimum functionality score in order to be evaluated further. The functionality criteria and weighting are set out in the tender document</li> <li>Tenderers who are not yet registered are required to register on the Central Supplier Database (CSD).</li> </ol>													
<ul> <li>and supporting doc NUMBER, DESCRI Administration Build</li> <li>Bids may only be si</li> <li>Bids will be evaluated Procurement Policy</li> <li>The Municipality resorned to the Bidder scoring</li> <li>The evaluation of the functionality score intender document</li> <li>Tenderers who are Application forms a</li> </ul>	The Municipality does not be evaluated for the subjected to function of the prince albert Municipal to the B0/20 per prince and the former of	aled envelope and extern DF THE BID, and be depo- bality, 33 Church Street, F ion issued by the Municip pints system. The bids a Preferential Procurement invitation to bid and/or re- ind itself to accept the low tionality scoring. Tendere The functionality criteria a d to register on the Cent https://secure.csd.gov.z	ally endorsed WITH THE BID sited in the Tender Box, at the rince Albert. 6930. ality. re subject to the Preferential Regulations 2017. e-advertise or to reject any bid vest bid or to award a contract rs must achieve the minimum nd weighting are set out in the ral Supplier Database (CSD).										
<ul> <li>and supporting doc NUMBER, DESCR Administration Build</li> <li>Bids may only be si</li> <li>Bids will be evaluated Procurement Policy</li> <li>The Municipality resorned to the Bidder scoring</li> <li>The evaluation of the functionality score intender document</li> <li>Tenderers who are Application forms a</li> </ul>	The subjected of the second se	aled envelope and extern DF THE BID, and be depo- vality, 33 Church Street, F ion issued by the Municip pints system. The bids a Preferential Procurement I invitation to bid and/or re- ind itself to accept the low tionality scoring. Tendere The functionality criteria a d to register on the Cent https://secure.csd.gov.z Bidders may claim	ally endorsed WITH THE BID sited in the Tender Box, at the trince Albert. 6930. ality. re subject to the Preferential Regulations 2017. -advertise or to reject any bid vest bid or to award a contract rs must achieve the minimum nd weighting are set out in the ral Supplier Database (CSD). a. preference points in terms of their										
<ul> <li>and supporting doc NUMBER, DESCRI Administration Build</li> <li>Bids may only be si</li> <li>Bids will be evalua Procurement Policy</li> <li>The Municipality re or to accept a part of to the Bidder scorin</li> <li>The evaluation of th functionality score i tender document</li> <li>Tenderers who are Application forms a</li> <li>Tenders shall be eval</li> <li>Albert Municipality Sup incorporating the Regulations</li> </ul>	The server of th	aled envelope and extern DF THE BID, and be depo- vality, 33 Church Street, F ion issued by the Municip pints system. The bids a Preferential Procurement I invitation to bid and/or re- ind itself to accept the low tionality scoring. Tendere The functionality criteria a d to register on the Cent https://secure.csd.gov.z Bidders may claim	ally endorsed WITH THE BID sited in the Tender Box, at the trince Albert. 6930. ality. re subject to the Preferential Regulations 2017. -advertise or to reject any bid vest bid or to award a contract rs must achieve the minimum nd weighting are set out in the ral Supplier Database (CSD). a. preference points in terms of their										
and supporting doc NUMBER, DESCR Administration Build 2. Bids may only be s 3. Bids will be evaluad Procurement Policy 4. The Municipality re- or to accept a part of to the Bidder scorin 5. The evaluation of th functionality score i tender document 6. Tenderers who are Application forms a Tenders shall be eval Albert Municipality Sup incorporating the Regulations Applicable Preferential	Automents must be placed in a se IPTION AND CLOSING DATE ( ding of the Prince Albert Municip ubmitted on the bid documentation ated according to the 80/20 por Framework Act 2000 and the F serves the right to withdraw any of it. The Municipality does not be go the highest number of points. his bid will be subjected to func- n order to be evaluated further. In order to be evaluated further. In the tregistered are require re obtainable from the website putted in terms of the Prince poly Chain Management Police Preferential Procurement	aled envelope and extern DF THE BID, and be depo- pality, 33 Church Street, F ion issued by the Municip pints system. The bids a Preferential Procurement I invitation to bid and/or re- ind itself to accept the low tionality scoring. Tendere The functionality criteria a d to register on the Cent https://secure.csd.gov.z Bidders may claim B-BBEE status leve 80/20 Local production ar Stipulated minimum production and con 1) Steel Value 2) Plastic Pipe	ally endorsed WITH THE BID sited in the Tender Box, at the prince Albert. 6930. ality. re subject to the Preferential Regulations 2017. e-advertise or to reject any bid vest bid or to award a contract rs must achieve the minimum nd weighting are set out in the ral Supplier Database (CSD). a. preference points in terms of their I of contribution										

### MBD 1

Validity Period:		12 weeks									
Pre-tender Clarification Meeting	Compulsory: Sydwell Williams Centre, cnr of Buitekant and Voor Street, Northe-End, Prince Albert on 16 NOVEMBER 2021 at 11H00. Tenderers who arrive after 11H15 will not be allowed to join the clarification meeting. Tenderers are advised that the compulsory clarification meeting will be conducted in adherence to the relevant COVID-19 Lockdown Regulations as promulgated at the time by the National Coronavirus Command Council for assemblies of this nature.										
	S REGARDING INFRASTRUCTURE TION MAY BE DIRECTED TO:	ANY ENQUIRIES REGARDING THE BIDDING PROCEDURE MAY BE DIRECTED TO:									
Section:	Infrastructure Services	Section:	Supply Chain Management								
Contact Person:	Ashley America	Contact Person:	Christa Baadjies								
Tel:	023 541 1036	Tel:	e-mail Enquiries Only								
E-mail:	ashley@pamun.gov.za	E-mail:	scm@pamun.gov.za								
Authorized by:	A. HENDRICKS Capacity: ACTING MUNICIPAL MANAGER										

### T1.2 Tender Data

The conditions of tender are those contained in the latest edition of SANS 10845-3, Construction Procurement – Part 3: Standard conditions of tender.

SANS 10845-3 makes 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 provisions of SANS 10845-3.

Each item of data given below is cross-referenced to the clause in SANS 10845-3 to which it mainly applies.

Clause number	Tender Data
3.1	The Employer is Prince Albert Municipality.
3.2	The Tender Documents issued by the Employer comprise the following documents: <b>THE TENDER</b> <b>Part T1: Tendering Procedures</b> 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 Guarantee C1.4 - Occupational Health and Safety Agreement
	Part C2: Pricing Data C2.1 - Pricing Assumptions / Instructions C2.2 - Bills of Quantities
	Part C3: Scope of workC3.1 - Scope of WorksC3.2 - ProcurementC3.3 - ConstructionC3.4 - ManagementC3.5 - Particular Specification: PHS – Occupational Health and SafetyC3.6 - COVID 19 Workplace Plan – Health and Safety SpecificationC3.7 - Particular Specification: Borehole DrillingC3.8 - Particular Specification: Borehole Testing
	Part C4: Site Information C4.1 Location of the Works and Access
3.3	The Employer's Agent is: Mr Jan Myburgh AGES Omega (Pty) Ltd 62 7 <sup>th</sup> Avenue Boston Cape Town 7530
	Telephone:021-100 5210Cellphone:0832736480Email:omega@ages-group.com
3.4	The language for communications is English

Clause number	Tender Data
4.1	Only those tenderers who are registered 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 2CE grading of construction work are eligible to have their tenders evaluated.
	Joint Ventures are eligible to submit tenders provided that: a) every member of the joint venture is registered with the CIDB; b) the lead partner has a contractor grading designation in the 2CE or higher 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 2CE or higher class of construction work or a value determined in accordance with Regulation 25(1B) or 25(7A) of the Construction Industry Development Regulations.
4.7	The arrangements for a compulsory clarification meeting are as stated in the Tender Notice and Invitation to Tender.
	Tenderers must sign the attendance list in the name of the tendering entity. Addenda will be issued to and tenders will be received only from those tendering entities appearing on the attendance list.
	Tenders 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.
4.12	No alternative tenders are permitted.
4.13.1	Parts of each tender offer communicated on paper shall be submitted as an original.
4.13.5 4.15	The employer's details and address for delivery of tender offers and identification details that are to be shown on each tender offer package are:
	Location of tender box: SUPPLY CHAIN MANAGEMENT UNIT Employer's address: ADMINISTRATION BUILDING OF THE PRINCE ALBERT MUNICIPALITY, 33 CHURCH STREET, PRINCE ALBERT, 6930 Identification details: T141/2021: PRINCE ALBERT LOCAL MUNICIPALITY BOREHOLE DRILLING AND TESTING
4.13.4	The tenderer is required to submit with his tender:
	A Tax compliance status PIN issued by SARS for the Municipality or their Agent to verify the Tenderer's Tax matters. An original current account in terms of water & electricity or rates & taxes obtainable from any Local Municipality or a Municipal Accounts Clearance Certificate An original valid B-BBEE status level verification certificate or an ORIGINAL CERTIFIED copy in terms of the Construction Sector Charter on Black Economic Empowerment, in terms of the Preferential Procurement Regulations, 2017 (unless available on record). Confirmation of financial standing (bank rating) from the tenderer financial institution. ORIGINAL CERTIFIED copies of Identity Documents (IDs) of all shareholders/ owner(s) / partners of bidding companies must submitted with the bid document. Joint venture agreement where applicable.
4.13.6	Telephonic, telegraphic, telex, facsimile or e-mailed tender offers will not be accepted.
4.15	The closing time for submission of tender offers is as stated in the Tender Notice and Invitation to Tender.
4.16	The tender offer validity period is 12 weeks.
4.20	The tenderer is required to submit with his tender a letter of intent from an approved insurer undertaking to provide the Performance Bond to the format included in Part C1.3 of this procurement document.

Clause number	Tender Data								
5.1	The Employer will respond to requests for clarification received up to 3 working days before the tender closing time.								
5.2	The employer shall issue addenda until 2 working days before tender closing time.								
5.4	Tenders will be opened immediately after the closing time for receipt of tenders as stated in the Tender Notice and Invitation to Tender.								
5.11.5	The procedure for the evaluation of responsive tenders is <b>Method 4 (Financial offer, quality and preference)</b> The financial offer is scored using Formula 2 in Table 1 where W <sub>1</sub> is 80. Up to 100 minus W <sub>1</sub> tender evaluation points will be awarded to tenderers who complete the								
5.11.9		are found to be eligible for the preference claimed. m score in respect of each of the criteria are as follo	MC.						
5.11.9	Quality criteria	Subcriteria	Maximum number of points						
	Tenderer's Past Experience	$\begin{array}{l} 100 = >10 \ \text{projects of similar scope} \\ 90 = 8 - 10 \ \text{projects} \\ 70 = 5 - 7 \ \text{projects} \\ 40 = 2 - 4 \ \text{projects} \\ 0 = 1 \ \text{or less projects or no submission} \end{array}$	50						
	References Related to Pas Experience	<ul> <li>t Weighting = 1.0 for projects of similar scope</li> <li>100 = Excellent service provided; received more than contracted value, company went beyond requirements of project objectives; would use company again</li> <li>90 = Good service provided; company complied with all the requirements of the project objectives; received value for money; would use company again</li> <li>70 = Generally satisfied; company complied with most of the requirements of the project objectives; would use company again</li> <li>40 = Dissatisfied; performance did not meet all the requirements of the project objectives; may use company again, provided there's a vast improvement</li> <li>0 = Extremely unhappy; performance well below the requirements of the project objectives; not prepared to use company again</li> </ul>	30						
	Plant & Equipment	100 = all plant required for project owned 90 = $>50\%$ of plant required for project owned 70 = $<50\%$ of plant required for project owned 40 = all plant required for project hired 0 = no submission	20						
	Maximum possible score	for quality (M <sub>s</sub> )	100						

Clause number	Tender Data
	<ul> <li>Schedule: References Related Past Experience</li> <li>Schedule of Plant and Equipment</li> </ul>
	The minimum number of evaluation points for quality is <b>70</b>
5.11.9	Each evaluation criteria will be assessed in terms of five indicators – no response, poor, satisfactory, good and very good. Scores of 0, 40, 70, 90 or 100 will be allocated to no response, poor, satisfactory, good and very good, respectively. The scores of each of the evaluators will be averaged, weighted and then totalled to obtain the final score for quality.
5.13	Tender offers will only be accepted if:
	the tenderer is registered on the Central Supplier Database (CSD) for the South African government (see https://secure.csd.gov.za/) unless it is a foreign supplier with no local registered entity the tenderer is in good standing with SARS according to the Central Supplier Database; the financial offer is market related (see Regulations 6(9) and 7(9) of the 8(9) of the Preferential Procurement Regulations 2017): the tenderer submits a letter of intent from an approved insurer undertaking to provide the Performance Bond to the format included in Part C1.3 of this procurement document the tenderer is registered with the Construction Industry Development Board in an appropriate contractor grading designation; the tenderer or any of its directors/shareholders is not listed on the Register of Tender Defaulters in terms of the Prevention and Combating of Corrupt Activities Act of 2004 as a person prohibited from doing business with the public sector; the tenderer has not: i) abused the Employer's Supply Chain Management System; or ii) failed to perform on any previous contract and has been given a written notice to this effect; the tenderer has completed the Compulsory Declaration and there are no conflicts of interest which may impact on the tenderer's ability to perform the contract in the best interests of the employer or potentially compromise the tender process; the tenderer is registered and in good standing with the compensation fund or with a licensed compensation insurer; the employer is reasonably satisfied that the tenderer has in terms of the Construction Regulations, 2003, issued in terms of the Occupational Health and Safety Act, 1993, the necessary competencies and resources to carry out the work safely.
5.17	The number of paper copies of the signed contract to be provided by the employer is ONE.
Additional C	onditions of Tender
6.1	Tenderers will be considered non-responsive if, inter alia,:
	The Tenderer does not comply with the required criteria as specified in 4.1 above; The Tenderer failed to attend the compulsory clarification meeting; The Tenderer failed to submit one Offer per tendering entity; The Tenderer failed to submit additional information by the due date; The Tender failed to complete or sign the Form of Offer bound into this tender document; The tender is not completed in non-erasable ink; The tender contained material qualifications or deviations that affected the scope, quality or performance of the works; significantly changed the parties' risks and responsibilities or affected the competitive position of other Tenderers if they were to be rectified.
6.2	<ul> <li>Bids will be evaluated according to Prince Albert Municipality's Infrastructure Procurement &amp; Delivery Management (IPDM) and Preferential Procurement Policies.</li> <li>The lowest, the highest or any tender will not necessarily be accepted and the Council reserves the right to accept any tender wholly or partially or to withdraw the tender.</li> <li>All copies of certificates submitted with the tender must be certified originals by a commissioner of Oaths.</li> <li>Tenders which are late, incomplete, unsigned, completed in pencil, submitted by facsimile or electronically, will not be accepted;</li> <li>Bidders with any municipal account outstanding for more than 30 days will be rejected.</li> <li>All businesses and suppliers wishing to conduct business with the Prince Albert Municipality must register on the Central Supplier Database (CSD) before any orders may be processed.</li> </ul>

# PART T2: RETURNABLE DOCUMENTS

### **T2.1** List of Returnable Documents

The tenderer must complete the following returnable schedules in black ink

#### 1. Documentation to demonstrate eligibility to have tenders evaluated

CIDB registration number.

Note: Failure to provide these documents can result in the tender not being evaluated

### 2. Returnable Schedules required for tender evaluation purposes

- Compulsory Enterprise Questionnaire
- □ Certificate of Authority for Signatory
- □ Certificate of Authority for Joint Ventures
- Proposed Amendments and Qualifications
- Record of Addenda to Tender Documents
- □ Schedule of Proposed Subcontractors
- Schedule of Plant and Equipment
- Schedule: Tenderer's Past Experience
- Schedule of Current Commitments
- Schedule: Key Staff Experience
- Schedule: Tenderers Past Experience (References)

### 3. Other documents required for tender evaluation purposes

- B-BBEE Verification Certificates issued by a verification agency accredited by the South African National Accreditation System (SANAS) in accordance with Section 7 of Statement 005, Gazette Number 34612 or, in the case of an Exempted Micro Enterprise or a Qualifying Small Enterprise, a sworn affidavit (general) on the relevant form obtained from the DTI website.
- Letter of Good Standing from the Compensation Commissioner or a licensed insurer as contemplated in the Compensation for Occupational Injuries and Diseases Act 1993 (Act No. 130 of 1993).
- □ Current Municipal Accounts or Clearance Certificates for the municipal services of the bidder, all owners, directors, members and managers of the enterprise. Alternatively, proof of a lease agreement for bidders with no municipal accounts will be accepted.
- ORIGINAL CERTIFIED copies of Identity Documents (IDs) of all shareholders/ owner(s) / partners of bidding companies must be submitted with the bid document.
- A letter of intent from an approved insurer undertaking to provide the Performance Bond to the format included in Part T2.2 of this procurement document.
- □ Confirmation of financial standing (bank rating) from the tenderer's financial institution.
- □ Joint venture agreement where applicable.

### 4. T2.1.4 Returnable Schedules that will be used for tender evaluation purposes and be incorporated into the contract

- MBD 4 Declaration of Interest
- MBD 6.1 Preference points claim form in terms of the Preferential Procurement Regulations 2017
- MBD 6.2 Declaration Certificate For Local Production and Content For Designated Sectors
- MBD 8 Declaration of bidder's past supply chain management practices
- MBD 9 Certificate of Independent Tender Determination
- MBD 15 Certificate for Payment of Municipal Services
- 5. C1.1 Offer portion of Form of Offer and Acceptance
- 6. C1.2 Contract Data (Part 2)
- 7. C2.2 Bills of Quantities

### T2.2 Returnable Schedules

### MBD2

### PRINCE ALBERT MUNICIPALITY

### TAX CLEARANCE CERTIFICATE REQUIREMENTS

It is a condition of tender 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, before an award may be considered.

1.	In order to meet this requirement bidders are required to complete in full the form TCC 001 <i>"Application for a Tax Clearance Certificate"</i> 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.	Copies of the TCC 001 "Application for a Tax Clearance Certificate" form are available from any SARS branch office nationally or on the website <u>www.sars.gov.za</u> .
3.	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.
4.	The original Tax Clearance Certificate or Tax Status Pin must be submitted together with the bid. Failure to submit the original and valid Tax Clearance Certificate or valid Tax Status Pin will result in the invalidation of the bid. Certified copies of the Tax Clearance Certificate will not be acceptable.
5.	In bids where Consortia / Joint ventures / Sub-contractors are involved, each party must submit a separate Tax Clearance Certificate.
6.	Applications for Tax Clearance Certificates may also be made via e-Filing. In order to use this provision, taxpayers will need to register with SARS as e-Filers through the website <u>www.sars.gov.za</u> .

	PRINCE ALBE DECLARATIO													
1.	No bid will be accepted from persons in the set	vice	of th	e sta	te*.									
2.	Any person, having a kinship with persons in the service of the state, including a blood relationship, may make an offer or offers in terms of this invitation to bid. In view of possible allegations of favouritism, should the resulting bid, or part thereof, be awarded to persons connected with or related to persons in the service of the state, it is required that the bidder or their authorised representative declare their position in relation to the evaluating/adjudicating authority.													
3.	In order to give effect to the above, the following questionnaire must be completed and submitted with the bid.													
3.1.	Full Name of bidder or his / her representative:													
3.2.	Identity number:													1
3.3.	Position occupied in the Company (director, trustee, shareholder <sup>2</sup> )	any (director,												
3.4.	Company Registration Number:													1
3.5.	Tax Reference Number:													
3.6.	VAT Registration Number:													
3.7.	The names of all directors / trustees / shareho employee numbers (where applicable) must be								ident	ity n	umbei	rs ar	nd st	ate
3.8.	Are you presently in the service of the state*								Y	'ES /	NO			
3.8.1.	If yes, furnish particulars.													
3.9.	Have you been in the service of the state for th	e pa	st tw	elve r	nont	hs?			Y	'ES /	NO			
3.9.1.	If so, furnish particulars.													
3.10.	Do you, have any relationship (family, friend, o the state and who may be involved with the eva bid?									'ES /	NO			
3.10.1.	If so, state particulars.													
3.11.	Are you aware of any relationship (family, frien any person in the service of the state who may and or adjudication of this bid?								Y	'ES /	NO			
3.11.1.	If so, state particulars.													
3.12.	Are any of the company's directors, managers, stakeholders in service of the state?	prin	cipal	shar	eholo	ders o	or		Y	'ES /	NO			
3.12.1.	If so, state particulars.													
3.13.	Is any spouse, child or parent of the company's principle shareholders or stakeholders in service					, mai	nage	rs,	Y	'ES /	NO			
3.13.1.	If so, furnish particulars.													

MBD 4

3.14.	stakeho	or any of the directors, trustees, managers, principle shareholders, or olders of this company have any interest in any other related companies mess whether or not they are bidding for this contract?																	
3.14.1.	lf so, fu	rnish particulars.																	
4.	Full det	ails of directors / truste	es / r	me	mb	ers /	/ sh	are	hol	der	s:								
	•	COMPLETION OF	THE	FC	DLL	.ow	/INC	g IN	NFO	DRI	MA'	тіс	DN	IS	COMPULS	ORY:			
	Full	Name	Identity Number												Individu Numbe each Dir	r for	State Employee Number		
				С	ER	TIFI		тю	ON										
-		THE INFORMATION F	-	-		-			-	-				-			-	CCEPT	
NAME O ENTERP	-																		
CAPACI	ΓY												D	ATE	E				
NAME (P	PRINT)												SI	GN	IATURE				
<sup>1</sup> MSCM R	egulations	: "in the service of the stat	te" me	ean	s to	be -													
<sup>1</sup> MSCM Regulations: "in the service of the state" means to be -         a)       a member of -         (i)       any municipal council;         (ii)       any provincial legislature; or         (iii)       the National Assembly or the National Council of Provinces;         b)       a member of the board of directors of any municipal entity;         c)       an official or any Municipality or municipal entity;         d)       an employee of any national or provincial department, national or provincial public entity or constitutional institution within the meaning of the Public Finance Management Act, 1999 (Act No. 1 of 1999);         e)       a member of the accounting authority of any national or provincial entity; or         f)       an employee of Parliament or a provincial legislature.																			
		ns a person who owns sha se control over the compa		ו th	e co	ompa	any	and	l is a	activ	/ely	′ in∖	volv	ed i	in the manag	ement of	the con	npany or	

### Attach to this page

### □ Central Supplier Database (CSD) registration

### Attach to this page (original certified copies only, not copies of certified copies)

# Identity Documents (IDs) of: Directors

- Trustees
- Members
- Shareholders
- Owners
- Partners

### MBD <u>6.1</u>

	PRINCE ALBERT MUNICIPALITY				
PRI	EFERENCE POINTS CLAIM FORM	IN TERMS OF THE PREFERENTIAL PROCUREMENT RE 2017	GULATIONS,		
NB:		RM, BIDDERS MUST STUDY THE GENERAL CONDITION APPLICABLE IN RESPECT OF B-BBEE, AS PRESCRIBE T REGULATIONS, 2017			
1.	GENERAL CONDITIONS				
1.1.	<ul> <li>The following preference point systems are applicable to all bids:</li> <li>the 80/20 system for requirements with a Rand value of up to R50,000,000 (all applicable taxes included); and</li> <li>the 90/10 system for requirements with a Rand value above R50,000,000 (all applicable taxes included).</li> </ul>				
1.2.	The value of this bid is estimated r <b>80/20</b> system shall be applicable.	not to exceed R50,000,000 (all applicable taxes included) and	d therefore the		
1.3.	Preference points for this bid shall Price; and B-BBEE Status Level of Contr				
	1.3.1 The maximum points for	this bid are allocated as follows:	POINTS		
	PRICE		80		
	B-BBEE STATUS LEVEL OF CO	ONTRIBUTION	20		
	Total points for Price and B-BBEE must not exceed         100				
1.5.	the Close Corporation Act (CCA) to BBEE status level of contribution a The municipality reserves the right	ulatory Board of Auditors (IRBA) or an Accounting Officer as ogether with the bid, will be interpreted to mean that prefere ire not claimed. In to require of a bidder, either before a bid is adjudicated claim in regard to preferences, in any manner required by the	nce points for B- d or at any time		
2.	DEFINITIONS		e maniopanty.		
2.1.	"all applicable taxes"	includes value-added tax, pay as you earn, income tax insurance fund contributions and skills development levies			
2.2.	"B-BBEE"	means broad-based black economic empowerment as def of the Broad -Based Black Economic Empowerment Act;	fined in section 1		
2.3.	"B-BBEE status level of contributor"	means the B-BBEE status received by a measured ent overall performance using the relevant scorecard contained Good Practice on Black Economic Empowerment, issued in 9(1) of the Broad-Based Black Economic Empowerment A	d in the Codes of terms of section		
2.4.	"bid"	means a written offer in a prescribed or stipulated form ir invitation by an organ of state for the provision of services, through price quotations, advertised competitive biddin proposals;	response to an works or goods,		
2.5.	"Broad-Based Black Economic Empowerment Act"	means the Broad-Based Black Economic Empowerment A 53 of 2003);	· · ·		
2.6.	"comparative price"	means the price after the factors of a non-firm price and discounts that can be utilized have been taken into conside			
2.7.	"consortium or joint venture"	means an association of persons for the purpose of expertise, property, capital, efforts, skill and knowledge in a execution of a contract;	combining their an activity for the		
2.8.	"contract"	means the agreement that results from the acceptance of a of state;	a bid by an organ		
2.9.	"EME"	means any enterprise with annual total revenue of R5 milli			
2.10.	"Firm price"	means the price that is only subject to adjustments in accual increase or decrease resulting from the change abolition of customs or excise duty and any other duty, level in terms of the law or regulation, is binding on the	e, imposition, or vy, or tax, which,		

		demonstrably has an influence on the price of any supplies, or the rendering costs of any service, for the execution of the contract;
2.11.	"Functionality"	means the measurement according to predetermined norms, as set out in the bid documents, of a service or commodity that is designed to be practical and useful, working or operating, taking into account, among other factors, the quality, reliability, viability and durability of a service and the technical capacity and ability of a bidder;
2.12.	"non-firm prices"	means all prices other than "firm" prices;
2.13.	"person"	includes a juristic person;
2.14.	"rand value"	means the total estimated value of a contract in South African currency, calculated at the time of bid invitations, and includes all applicable taxes and excise duties;
2.15.	"sub-contract"	means the primary contractor's assigning, leasing, making out work to, or employing, another person to support such primary contractor in the execution of part of a project in terms of the <i>contract</i> ;
2.16.	"total revenue"	bears the same meaning assigned to this expression in the Codes of Good Practice on Black Economic Empowerment, issued in terms of section 9(1) of the Broad-Based Black Economic Empowerment Act and promulgated in the <i>Government Gazette</i> on 9 February 2007;
2.17.	"trust"	means the arrangement through which the property of one person is made over or bequeathed to a trustee to administer such property for the benefit of another person; and
2.18.	"trustee"	means any person, including the founder of a trust, to whom property is bequeathed in order for such property to be administered for the benefit of another person.
3.	ADJUDICATION USING A POIN	T SYSTEM
3.1.	The bidder obtaining the highest r	number of total points will be awarded the contract.
3.2.	Preference points shall be calcula account all factors of non-firm pric	ted after prices have been brought to a comparative basis taking into ses and all unconditional discounts;.
3.3.	Points scored must be rounded of	
3.4.		have scored equal total points, the successful bid must be the one scoring the
3.5.		art of the evaluation process and two or more bids have scored equal points for B-BBEE, the successful bid must be the one scoring the highest score for
3.6.	Should two or more bids be equal	in all respects, the award shall be decided by the drawing of lots.
4.	POINTS AWARDED FOR PRICE	
4.1.	THE 80/20 OR 90/10 PREFEREN	ICE POINT SYSTEMS
	A maximum of 80 or 90 points is a	allocated for price on the following basis:
	80/20	or 90/10
	Ps	$= 80 \left( 1 - \frac{Pt - P\min}{P\min} \right)  \text{or}  Ps = 90 \left( 1 - \frac{Pt - P\min}{P\min} \right)$
	Where	
		scored for comparative price of bid under consideration
	Pt = Compa	arative price of bid under consideration
	Pmin = Compa	arative price of lowest acceptable bid

5.	Points awarded for B-BBEE Status Lev	el of Contribution		
5.1.	In terms of Regulation 5 (2) and 6 (2) of th awarded to a bidder for attaining the B-BE			
5.2.	B-BBEE Status Level of Contributor	Number of points (90/10 system)	Number of points (80/20	
			system)	
	1	10	20	
	2	9	18	
	3	6	14	
	4	5	12	
	<u> </u>	4 3	<u> </u>	
	7	2	4	
	8	1	2	
	Non-compliant contributor	0	0	
5.3.	Bidders who qualify as EME's in terms o	f the B-BBEE Act must submit a certifi	cate issued by an Accounting	
	Officer as contemplated in the CCA or a Registered auditors do not need to meet verification and issuing EME's with B-BBE Bidders other than EME's must submit the	t the prerequisite for IRBA's approval f E Status Level Certificates.	for the purpose of conducting	
5.4.	certified copy thereof, substantiating their Verification Agency accredited by SANAS	B-BBEE rating issued by a Registered A	Auditor approved by IRBA or a	
5.5.	A trust, consortium or joint venture, will que that the entity submits their B-BBEE statu	s level certificate.		
5.6.	A trust, consortium or joint venture will qualify for points for their B-BBEE status level as an unincorporated entity, provided that the entity submits their consolidated B-BBEE scorecard as if they were a group structure and that such a consolidated B-BBEE scorecard is prepared for every separate bid.			
5.7.	Tertiary institutions and public entities will of the specialized scorecard contained in	the B-BBEE Codes of Good Practice.		
5.8.	A person will not be awarded points for E bidder intends sub-contracting more than qualify for at least the points that such a b has the capability and ability to execute th	25% of the value of the contract to any idder qualifies for, unless the intended s	other enterprise that does not	
5.9.	A person awarded a contract may not su enterprise that does not have an equal o contract is sub-contracted to an EME that	r higher B-BBEE status level than the	person concerned, unless the	
6.	BID DECLARATION			
6.1.	Bidders who claim points in respect of B-E	BEE Status Level of Contribution must	complete the following:	
7.	B-BBEE STATUS LEVEL OF CONTRIBU	JTION CLAIMED IN TERMS OF PARA	GRAPHS 1.3.1.2 AND 5.1	
7.1.	B-BBEE Status Level of Contribution:	Points Claimed (maxim 20 points	num of 10 or	
7.2.	Points claimed in respect of paragraph 5.1 and must be substantiated by me accredited by SANAS or a Register contemplated in the CCA.	eans of a B-BBEE certificate issue	d by a Verification Agency	
8.	SUB-CONTRACTING			
8.1.	Will any portion of the contract be sub-cor	ntracted? Indicate YES / NO		
8.2.	If yes, indicate:			
	(i) What percentage of the contract wi	Il be subcontracted?	%	
	(ii) The name of the sub-contractor?			

	(iii)	The B-BBEE status level of the sub-co	ontractor?			
	(iv)	Whether the sub-contractor is an EME	? Indicate	YES / NO		
9.	Desi	gnated Group: An EME or QSE which	n is at last s	51% owned by:	EME √	QSE $$
		Black people				
		Black people who are youth			-	
		Black people who are women				
		Black people with disabilities				
		Black people living in rural or underdev	veloped are	eas or	_	
		townships				
		Cooperative owned by black people			_	
		Black people who are military veterans	S			
		OR				
		Any EME				
		Any QSE				
10.	DEC	LARATION WITH REGARD TO COMPA	ANY/FIRM		<u>_</u>	
10.1.	Nam	e of firm				
10.2.	VAT	registration number				
10.3.	Com	pany registration number:				
			Partnership/Joint Venture / Consortium			
	Туре	e Of Company/ Firm	One person business/sole propriety			
10.4.	[Тіск	APPLICABLE BOX]	Close co	Close corporation		
			-	I Company		
			(Pty) Lim	Pty) Limited		
10.5.	Desc	cribe Principal Business Activities				
			Manufact	turer		
10.6.		pany Classification AppLiCABLE BOX]	Supplier			
				onal service provider		
10.7.	Mun	icipal Information	Other sel	rvice providers, e.g. trans	sporter, etc.	
		cipality where business is situated :				
		stered Account Number:				
	_	d Number:				
10.8.	Tota	I number of years the enterprise has b isiness?	been			

11.	DECLARATION	
points	s claimed, based o	who is / are duly authorised to do so on behalf of the company/firm, certify that the in the B-BBEE status level of contribution indicated in paragraph 7 of the foregoing company/ firm for the preference(s) shown and I / we acknowledge that:
(i)	The information f	furnished is true and correct;
(ii)	The preference p this form.	points claimed are in accordance with the General Conditions as indicated in paragraph 1 of
(iii)		contract being awarded as a result of points claimed as shown in paragraph 7, the contractor to furnish documentary proof to the satisfaction of the purchaser that the claims are correct;
(iv)	<ul> <li>conditions of con</li> <li>a) disqualify the</li> <li>b) recover cost</li> <li>c) cancel the concentration</li> <li>d) restrict the boost of the concentration of the co</li></ul>	tatus level of contribution has been claimed or obtained on a fraudulent basis or any of the tract have not been fulfilled, the purchaser may, in addition to any other remedy it may have – e person from the bidding process; ts, losses or damages it has incurred or suffered as a result of that person's conduct; ontract and claim any damages which it has suffered as a result of having to make ble arrangements due to such cancellation; bidder or contractor, its shareholders and directors, or only the shareholders and o acted on a fraudulent basis, from obtaining business from any organ of state for a xceeding 10 years, after the audi alteram partem (hear the other side) rule has been I forward the matter for criminal prosecution
NAMI ENTE	E OF RPRISE	
NAM	E (PRINT)	DATE
САРА	ACITY	SIGNATURE
WITN	IESS 1	WITNESS 2

### Attach to this page (original certified copies only, not copies of certified copies)

### □ B-BBEE Verification Certificate, or

Sworn Affidavit

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### **MBD 6.2**

#### PRINCE ALBERT MUNICIPALITY

### DECLARATION CERTIFICATE FOR LOCAL PRODUCTION AND CONTENT FOR DESIGNATED SECTORS

This Municipal Bidding Document (MBD) must form part of all bids invited. It contains general information and serves as a declaration form for local content (local production and local content are used interchangeably).

Before completing this declaration, bidders must study the General Conditions, Definitions, Directives applicable in respect of Local Content as prescribed in the Preferential Procurement Regulations, 2017 and the South African Bureau of Standards (SABS) approved technical specification number SATS 1286:2011 (Edition 1) and the Guidance on the Calculation of Local Content together with the Local Content Declaration Templates [Annex C (Local Content Declaration: Supporting Schedule), D (Imported Content Declaration: Supporting Schedule to Annex C) and E (Local Content Declaration: Supporting Schedule to Annex C)].

#### 1. General Conditions

- 1.1. Preferential Procurement Regulations, 2017 (Regulation 8) makes provision for the promotion of local production and content.
- 1.2. Regulation 8.(2) prescribes that in the case of designated sectors, where in the award of bids local production and content is of critical importance, such bids must be advertised with the specific bidding condition that only locally produced goods, services or works or locally manufactured goods, with a stipulated minimum threshold for local production and content will be considered.
- 1.3. Where necessary, for bids referred to in paragraph 1.2 above, a two stage bidding process may be followed, where the first stage involves a minimum threshold for local production and content and the second stage price and B-BBEE.
- 1.4. A person awarded a contract in relation to a designated sector, may not sub-contract in such a manner that the local production and content of the overall value of the contract is reduced to below the stipulated minimum threshold.
- 1.5. The local content (LC) expressed as a percentage of the bid price must be calculated in accordance with the SABS approved technical specification number SATS 1286: 2011 as follows:

LC = [1 - x / y] \* 100

Where

- x is the imported content in Rand
- y is the bid price in Rand excluding value added tax (VAT)

Prices referred to in the determination of x must be converted to Rand (ZAR) by using the exchange rate published by the South African Reserve Bank (SARB) at 12:00 on the date of advertisement of the bid as required in paragraph 4.1 below.

The SABS approved technical specification number SATS 1286:2011 is accessible on http://www.thedti.gov.za/industrial development/ip.jsp at no cost.

1.6. A bid may be disqualified if -

this Declaration Certificate and the Annex C (Local Content Declaration: Summary Schedule) are not submitted as part of the bid documentation; and

the bidder fails to declare that the Local Content Declaration Templates (Annex C, D and E) have been audited and certified as correct.

#### 2. Definitions

- 2.1. "bid" includes written price quotations, advertised competitive bids or proposals;
- 2.2. "bid price" price offered by the bidder, excluding value added tax (VAT);
- 2.3. "contract" means the agreement that results from the acceptance of a bid by an organ of state;
- 2.4. "designated sector" means a sector, sub-sector or industry that has been designated by the Department of Trade and Industry in line with national development and industrial policies for local production, where only locally produced services, works or goods or locally manufactured goods meet the stipulated minimum threshold for local production and content;
- 2.5. "duly sign" means a Declaration Certificate for Local Content that has been signed by the Chief Financial Officer or other legally responsible person nominated in writing by the Chief Executive, or senior member / person with management responsibility(close corporation, partnership or individual).
- 2.6. "imported content" means that portion of the bid price represented by the cost of components, parts or materials which have been or are still to be imported (whether by the supplier or its subcontractors) and which costs are inclusive of the costs abroad (this includes labour and intellectual property costs), plus freight and other direct

### PRINCE ALBERT MUNICIPALITY

### DECLARATION CERTIFICATE FOR LOCAL PRODUCTION AND CONTENT FOR DESIGNATED SECTORS

importation costs, such as landing costs, dock duties, import duty, sales duty or other similar tax or duty at the South African port of entry;

- 2.7. "local content" means that portion of the bid price which is not included in the imported content, provided that local manufacture does take place;
- 2.8. "stipulated minimum threshold" means that portion of local production and content as determined by the Department of Trade and Industry; and
- 2.9. "sub-contract" means the primary contractor's assigning, leasing, making out work to, or employing another person to support such primary contractor in the execution of part of a project in terms of the contract.
- 3. The stipulated minimum threshold(s) for local production and content (refer to Annex A of SATS 1286:2011) for this bid is/are as follows:

#	Description of services, works or goods	Stipulated minimum threshold- %
1	Steel value added products	100
2	Plastic Pipes (GRP, PVC, HDPE, PP)	100
3		
4		

4. Does any portion of the services, works or goods offered have any imported content?

 Tick applicable box
 YES
 NO

 4.1. If yes, the rate(s) of exchange to be used in this bid to calculate the local content as prescribed in paragraph 1.5 of the general conditions must be the rate(s) published by the SARB for the specific currency at 12:00 on the date of advertisement of the bid. The relevant rates of exchange information is accessible on ww.reservebank.co.za.Indicate the rate(s) of exchange against the appropriate currency in the table below (refer to Annex A of SATS 1286:2011):

Currency			Rates of exchange	•	
US Dollar					
Pound Sterling					
Euro					
Yen					
Yuan					
Other					
NB: Bidder	rs must submit proof of	the SA	ARB rate (s) of	exchange used.	
5. Were the Local Content Decl	aration Templates (Ann	nex C,	D and E) audi	ted and certified as o	correct?
Tick applicable box	YES			NO	
5.1. If yes, provide the following	particulars:			•	
Full name of auditor:					
Practice number:					
Telephone #:				Cell number:	
E-mail address:					
6. <u>Documentary proof regarding</u> Accounting Officer.	the declaration will, w	hen re	quired, be sub	mitted to the satisfac	tion of the
<ol> <li>Where, after the award of a b local content the DTI must be Accounting Officer provide di</li> </ol>	e informed accordingly				

	PRINCE	ALBERT	MUNICIPALITY		
DECLARATION CI	ERTIFICATE FOR LO	OCAL PRO SECTO		ONTENT FOR	DESIGNATED
LOCAL CONTENT DEC PERSON NOMINATED MANAGEMENT RESPO	IN WRITING BY THE	CHIEF EXE	CUTIVE OR SENIO	R MEMBER/PE	RSON WITH
IN RESPECT OF TENDE	ER NO.:				
TENDER DESCRIPTION	۷:				
		DECLAR	ATION		
	mplete, duly sign and su tor or any other third part				n external authorized
E) is accessible of Declaration D. After information on Decla and time of the bid if should be kept by the required to continuor	E. Guidance on the Calculation of Local Content together with Local Content Declaration Templates (Annex C, D and E) is accessible on <u>http://www.thedti.gov.za/industrial_development/ip.jsp.</u> Bidders should first complete Declaration D. After completing Declaration D, bidders should complete Declaration E and then consolidate the information on Declaration C. Declaration C should be submitted with the bid documentation at the closing date and time of the bid in order to substantiate the declaration made in paragraph (c) below. Declarations D and E should be kept by the bidders for verification purposes for a period of at least 5 years. The successful bidder is required to continuously update Declarations C, D and E with the actual values for the duration of the contract.				
	to hereby declare, the fo	-			
A. The facts contained	herein are within my ow	n personal l	knowledge.		
local cont (ii) the declar C. The local content per SATS 1286:2011, ti	s/services/works to be de ent requirements as spe ration templates have be ercentages (%) indicated he rates of exchange in which has been consoli	cified in the en audited d below has ndicated in	bid, and as measure and certified to be co s been calculated us paragraph 4.1 abov	ed in terms of SA prrect. ing the formula	ATS 1286:2011; and given in clause 3 of
Bid price, excluding VAT	· (y)			R	
Imported content (x), as	calculated in terms of SA	ATS 1286:20	011	R	
Stipulated minimum three	shold for local content (p	aragraph 3	above)		
Local content %, as calc	ulated in terms of SATS	1286:2011			
be used instead of the ta formula given in clause information contained in	If the bid is for more than one product, the local content percentages for each product contained in Declaration C shall be used instead of the table above. The local content percentages for each product has been calculated using the formula given in clause 3 of SATS 1286:2011, the rates of exchange indicated in paragraph 4.1 above and the information contained in Declaration D and E.				
D. I accept that the Mur of SATS 1286:2011.		•			
application. I also ur SATS 1286:2011, m remedies as provide	E. I understand that the awarding of the bid is dependent on the accuracy of the information furnished in this application. I also understand that the submission of incorrect data, or data that are not verifiable as described in SATS 1286:2011, may result in the Procurement Authority / Municipal / Municipal Entity imposing any or all of the remedies as provided for in Regulation 13 of the Preferential Procurement Regulations, 2017 promulgated under the Preferential Policy Framework Act (PPPFA), 2000 (Act No. 5 of 2000).				
NAME OF ENTERPRISE					
NAME (PRINT)				DATE	
CAPACITY			WITNESS 1		
SIGNATURE			WITNESS 2		

### MBD 8

		PRINCE ALBERT MUNICIPALITY		
	DECLARATION OF BIDE	DER'S PAST SUPPLY CHAIN MANAGEMENT PRACTICES		
1.		ment serves as a declaration to be used by municipalities and and services are being procured, all reasonable steps are tal nagement system.		
2.	The bid of any bidder may be	rejected if that bidder, or any of its directors have:		
a)	abused the municipality's / n conduct in relation to such sy	nunicipal entity's supply chain management system or commi stem;	tted any improper	
b)	been convicted for fraud or co	prruption 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 Corrupt Activities Act (No 12	or Tender Defaulters in terms of section 29 of the Prevention of 2004).	and Combating of	
3.	In order to give effect to the the bid.	above, the following questionnaire must be completed an	d submitted with	
1.	Suppliers as companies or pe	ctors listed on the National Treasury's Database of Restricted ersons prohibited from doing business with the public sector?	Yes /	
	this restriction by the Acco	o are listed on this Database were informed in writing of punting Officer/Authority of the institution that imposed <i>li alteram partem</i> rule was applied).	No	
2.	If so, furnish particulars:			
3.	section 29 of the Prevention a	ectors listed on the Register for Tender Defaulters in terms of and Combating of Corrupt Activities Act (No 12 of 2004)? Defaulters can be accessed on the National Treasury's	Yes / No	
		<u>za</u> ) by clicking on its link at the bottom of the home page.		
4.	If so, furnish particulars:			
5.		directors convicted by a court of law (including a court of law Africa) for fraud or corruption during the past five years?	Yes / No	
6.	If so, furnish particulars:			
7.		s directors owe any municipal rates and taxes or municipal municipal entity, or to any other municipality / municipal entity, an three months?	Yes / No	
8.	If so, furnish particulars:			
9.		ne bidder and the municipality / municipal entity or any other ing the past five years on account of failure to perform on or	Yes / No	
10.	If so, furnish particulars:			

			MBD 8 (cont.)		
4.	CERTIFICATION				
I, CERTIFY THAT THE INFORMATION FURNISHED ON THIS DECLARATION FORM TRUE AND CORRECT. I ACCEPT THAT, IN ADDITION TO CANCELLATION OF A CONTRACT, ACTION MAY BE TAKEN AGAINST ME SHOULD THIS DECLARATION PROVE TO BE FALSE.					
NAME OF ENTERPRISE					
CAPACITY		DATE			
NAME (PRINT)		SIGNATURE			
WITNESS 1		WITNESS 2			

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	PRINCE ALBERT MUNICIPALITY
	CERTIFICATE OF INDEPENDENT BID DETERMINATION
1.	Section 4 (1) (b) (iii) of the Competition Act No. 89 of 1998, as amended, prohibits an agreement between, or concerted practice by, firms, or a decision by an association of firms, if it is between parties in a horizontal relationship and if it involves collusive bidding (or bid rigging). <sup>2</sup> Collusive bidding is a <i>per se</i> prohibition meaning that it cannot be justified under any grounds.
2.	<ul> <li>Municipal Supply Regulation 38 (1) prescribes that a supply chain management policy must provide measures for the combating of abuse of the supply chain management system, and must enable the accounting officer, among others, to:</li> <li>a) take all reasonable steps to prevent such abuse;</li> <li>b) reject the bid of any bidder if that bidder or any of its directors has abused the supply chain management</li> </ul>
	<ul><li>system of the municipality or municipal entity or has committed any improper conduct in relation to such system; and</li><li>c) cancel a contract awarded to a person if the person committed any corrupt or fraudulent act during the bidding</li></ul>
	process or the execution of the contract.
3.	This Municipal Bidding Document serves as a certificate of declaration that would be used by institutions to ensure that, when bids are considered, reasonable steps are taken to prevent any form of bid-rigging.
4.	In order to give effect to the above, the following Certificate of Bid Determination must be completed and submitted with the bid:
	CERTIFICATE OF INDEPENDENT BID DETERMINATION
I, th	ne undersigned, in submitting the accompanying bid:
Bid	Number: 141/2021
Des	scription: PRINS ALBERT LOCAL MUNICIPALITY BOREHOLE DRILLING AND TESTING
	response to the invitation for the bid ISSUED by the <b>Prince Albert Municipality</b> , do hereby make the following tements that I certify to be true and complete in every respect:
cer	tify, on behalf of (Name of Bidder):
Tha	at:
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;
	<ul> <li>(b) could potentially submit a bid in response to this bid invitation, based on their qualifications, abilities or experience; and</li> </ul>
	(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 <sup>3</sup> 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;
	<ul> <li>b) geographical area where product or service will be rendered (market allocation)</li> <li>c) methods, factors or formulas used to calculate prices;</li> </ul>
	d) the intention or decision to submit or not to submit a hidu

- 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

MBD 9

	f) bidding with the intention not to win the bid.		
8.	In addition, there have been no consultations, communication regarding the quality, quantity, specifications and conditions which this bid invitation relates.	, 0 0	, ,
9.	The terms of the accompanying bid have not been, and will n any competitor, prior to the date and time of the official bid op		
10.	I am aware that, in addition and without prejudice to any other related to bids and contracts, bids that are suspicious we investigation and possible imposition of administrative penal- 89 of 1998 and or may be reported to the National Prosecu may be restricted from conducting business with the public se of the Prevention and Combating of Corrupt Activities Act No	Il be reported to the Co les in terms of Section 59 ing Authority (NPA) for co ctor for a period not excee	ompetition Commission for of the Competition Act No riminal investigation and or ding ten (10) years in terms
CEI	RTIFY THAT THE INFORMATION FURNISHED ON THIS DE	CLARATION FORM TRU	E AND CORRECT.
I AC	RTIFY THAT THE INFORMATION FURNISHED ON THIS DE CCEPT THAT, IN ADDITION TO CANCELLATION OF A CO OULD THIS DECLARATION PROVE TO BE FALSE.	<u> </u>	
I AC SHO NAI	CCEPT THAT, IN ADDITION TO CANCELLATION OF A CO OULD THIS DECLARATION PROVE TO BE FALSE.	<u> </u>	
I A( SH( NAI (PR	CCEPT THAT, IN ADDITION TO CANCELLATION OF A CO OULD THIS DECLARATION PROVE TO BE FALSE.	NTRACT, ACTION MAY	

<sup>2</sup> Bid rigging (or collusive bidding) occurs when businesses, that would otherwise be expected to compete, secretly conspire to raise prices or lower the quality of goods and / or services for purchasers who wish to acquire goods and / or services through a bidding process. Bid rigging is, therefore, an agreement between competitors not to compete.

<sup>3</sup>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.

### PRINCE ALBERT MUNICIPALITY **CERTIFICATE FOR PAYMENT OF MUNICIPAL SERVICES** (To be signed in the presence of a Commissioner of Oaths) I, the undersigned, in submitting the accompanying bid, declare that I am duly authorised to act on behalf of: (name of the enterprise) I hereby acknowledges that according to SCM Regulation 38(1)(d)(i), the Municipality may reject the tender of the tenderer if any municipal rates and taxes or municipal service charges owed by the Tenderer or any of its directors/members/partners to the Prince Albert Municipality, or to any other municipality or municipal entity, are in arrears for more than 3 (three) months. To the best of my personal knowledge, neither the firm nor any director/member/partner of said firm is in arrears on any of its municipal accounts with any municipality in the Republic of South Africa, for a period longer than 3 (three) months. If the value of the transaction is expected to exceed R10 million (VAT included) I certify that the bidder has no undisputed commitments for municipal services towards any Municipality in respect of which payment is overdue for more than 30 days: MUNICIPAL ACCOUNT NUMBER PHYSICAL BUSINESS ADDRESS(ES) OF THE TENDERER FURTHER DETAILS OF THE BIDDER'S Director / Shareholder / Partners, etc.: **Physical residential Director / Shareholder** Physical address of **Municipal Account** address of the **Municipal Account** / partner the Business number(s) **Director / shareholder** number(s) / partner NB: Please attach certified copy(ies) of ID document(s) NB: Please attach copy(ies) of Municipal Accounts Number of sheets appended by the tenderer to this schedule (If nil, enter NIL)

**MBD 15** 

Therefore hereby agrees and authorises the Prince Albert Municipality to deduct the full amount outstanding by the Tenderer or any of its directors/members/partners from any payment due to the tenderer; and							
I further hereby certify that the information set out in this schedule and/or attachment(s) hereto is true and correct. The Tenderer acknowledges that failure to properly and truthfully complete this schedule may result in the tender being disqualified, and/or in the event that the tenderer is successful, the cancellation of the contract.							
NAME (PRINT)			SIGNATURE				
CAPACITY			DATE				
NAME OF ENTERPRISE							
COMMISSIONER OF OATHS Signed and sworn to before me at, on		Apply official stamp of authority on this page:					
thisda							
by the Deponent, who has ackno understands the contents of this Affid of his/her knowledge and that he/s prescribed oath, and that the prescri conscience.	avit, it is true and correct to the best he has no objection to taking the						
COMMISSIONER OF OATHS:-							
Position:							
Address:							
Tel:	Version 3.0						

### Attach to this page (original certified copies only, not copies of certified copies)

Municipal services accounts of the bidder, all owners, directors, members and managers of the enterprise:

- □ Municipal Accounts
- □ Municipal Accounts Clearance Certificates
- Proof of a lease agreement for entities with no municipal accounts will be accepted

### **Compulsory Declaration**

The following particulars must be furnished. In the case of a joint venture, separate declaration in respect of each partner must be completed and submitted.							
Section 1: Enterprise Details							
Name of enterprise:							
Contact person:							
Email:							
Telephone:							
Cell no							
Fax:							
Physical address							
Postal address							
Section 2: Particulars of companies and close corporations							
Company / Close Corporation registration number							
Section 3: SARS Infor	mation						
Tax reference number							
	or: State Nat Desistared if not						
registered for VAT	er: State Not Registered if not						
Section 4: CIDB regist	ration number						
CIDB Registration num	<b>hber</b> (if applicable)						
Section 5: National Trea	asury Central Supplier Data	abase					
CSD Master registration number							
Attach CSD registration report							
Section 6: Particulars of	f principals						
<b>principal:</b> means a natural person who is a partner in a partnership, a sole proprietor, a director of a company established in terms of the Companies Act of 2008 (Act No. 71 of 2008) or a member of a close corporation registered in terms of the Close Corporation Act, 1984, (Act No. 69 of 1984).							
Full name of principal	Identity numbe	r	Personal tax reference number				
Attach separate page if nece	ssary						

#### Section 7: Record in the service of the state

Indicate by marking the relevant boxes with a cross, if any principal is currently or has been within the last 12 months in the service of any of the following:

- a member of any municipal council
- □ a member of any provincial legislature
- a member of the National Assembly or the National Council of Province
- a member of the board of directors of any municipal entity
- an official of any municipality or municipal entity
- public entity or constitutional institution within the meaning of the Public Finance Management Act of 1999 (Act No. 1 of 1999)
   a member of an accounting authority of any national

an employee of any department, national or provincial

- or provincial public entity
- an employee of Parliament or a provincial legislature
- If any of the above boxes are marked, disclose the following:

Name of principal	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	1		

#### Section 8: Record of family member in the service of the state

family member: a person's spouse, whether in a marriage or in a customary union according to indigenous law, domestic partner in a civil union, or child, parent, brother, sister, whether such a relationship results from birth, marriage or adoption

Indicate by marking the relevant boxes with a cross, if any family member of a principal as defined in section 5 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
- □ a member of any provincial legislature
- a member of the National Assembly or the National Council of Province
- within the meaning of the Public Finance Management Act, 1999 (Act 1 of 1999)
  a member of an accounting authority of any national

an employee of any provincial department, national or provincial public entity or constitutional institution

- a member of the board of directors of any municipal entity
- or provincial public entityan employee of Parliament or a provincial legislature
- an official of any municipality or municipal entity
- Name of family member
   Name of institution, public office, board or organ of state and position held
   Status of service (tick appropriate column)

   Current
   Within last 12 months

   Image: separate page if necessary
   Image: separate page if necessary

#### Section 9: Record of termination of previous contracts with an organ of state

Was any contract between the tendering entity including any of its joint venture partners terminated during the past 5 years for reasons other than the employer no longer requiring such works or the employer failing to make payment in terms of the contract.

□ Yes □ No (Tick appropriate box)

If yes, provide particulars (insert separate page if necessary)

#### Section 10: Declaration

The undersigned, who warrants that he / she is duly authorised to do so on behalf of the tendering entity confirms that the contents of this Declaration are within my personal knowledge, and save where stated otherwise in an attachment hereto, are to the best of my belief both true and correct, and:

- i) neither the name of the tendering entity or any of its principals appears on:
  - a) the Register of Tender Defaulters established in terms of the Prevention and Combating of Corrupt Activities Act of 2004 (Act No. 12 of 2004)
  - b) National Treasury's Database of Restricted Suppliers (see www.treasury.gov.za)
- ii) neither the tendering entity of any of its principals has within the last five years been convicted of fraud or corruption by a court of law (including a court outside of the Republic of South Africa);
- iii) any principal who is presently employed by the state has the necessary permission to undertake remunerative work outside such employment (attach permission to this declaration);
- iv) the tendering entity is not associated, linked or involved with any other tendering entities submitting tender offers
- v) has not engaged in any prohibited restrictive horizontal practices including consultation, communication, agreement, or arrangement with any competing or potential tendering entity regarding prices, geographical areas in which goods and services will be rendered, approaches to determining prices or pricing parameters, intentions to submit a tender or not, the content of the submission (specification, timing, conditions of contract etc) or intention to not win a tender;
- vi) has 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;
- vii) neither the tenderer or any of its principals owes municipal rates and taxes or municipal service charges to any municipality or a municipal entity and are not in arrears for more than 3 months;
- viii) SARS may, on an on-going basis during the term of the contract, disclose the tenderer's tax compliance status to the Employer and when called upon to do so, obtain the written consent of any subcontractors who are subcontracted to execute a portion of the contract that is entered into in excess of the threshold prescribed by the National Treasury, for SARS to do likewise.
- Signed.....

Name

Date.....

Position.....

Enterprise Name.....

NOTE 1 The Standard Conditions of Tender contained in SANS 10845-3 prohibits anticompetitive practices (clause 3.1) and requires that tenderers avoid conflicts of interest, only submit a tender offer if the tenderer or any of his principals is not under any restriction to do business with employer (4.1.1) and submit only one tender either as a single tendering entity or as a member in a joint venture (clause 4.13.1). Clause 5.7 also empowers the Employer to disqualify any tenderer who engages in fraudulent and corrupt practice. Clause 3.1 also requires tenderers to comply with all legal obligations.

NOTE 2: Section 30(1) of the Public Service Act, 1994, prohibits an employee (person who is employed in posts on the establishment of departments) from performing or engaging remunerative work outside his or her employment in the relevant department, except with the written permission of the executive authority of the department. When in operation, Section 8(2) of the Public Administration Management Act, 2014, will prohibit an employee of the public administration (i.e. organs of state and all national departments, national government components listed in Part A of Schedule 3 to the Public Service Act, provincial departments including the office of the premier listed in Schedule 1 of the Public Service Act and provincial departments listed in Schedule 2 of the Public Service Act of 1994 or persons contracted to executive authorities in accordance with the provisions of section 12A of the Public Service Act of 1994 or persons performing similar functions in organs of state. The offence for doing so is

#### PRINCE ALBERT MUNICIPALITY Tender No.: 141/2021 PRINCE ALBERT TOWN BOREHOLE DRILLING AND TESTING

a fine or imprisonment for a period not exceeding 5 years or both. It is also a serious misconduct which may result in the termination of employment by the employer.

NOTE 3: Regulation 44 of Supply Chain Management regulations issued in terms of the Municipal Finance Management Act of 2003 requires that organs of state and municipal entities not award a contract to a person who is the service of the state, a director, manager or principal shareholder in the service of the state or who has been in the service of the state in the previous twelve months.

NOTE: 4: Regulation 45 of Supply Chain Management regulations requires a municipality or municipal entity to disclose in the notes to the annual statements particulars of any award made to a close family member in the service of the state.

NOTE: 5 Corrupt activities which give rise to an offence in terms of the Prevention and Combating of Corrupt Activities Act of 2004) include improperly influencing in any way the procurement of any contract, the fixing of the price, consideration or other moneys stipulated or otherwise provided for in any contract and the manipulating by any means of the award of a tender.

NOTE: 6 Section 4 of the Competition Act of 1998 prohibits restrictive horizontal practice including agreements between parties in a horizontal relationship which have the effect of substantially preventing or lessening competition, directly or indirectly fixing prices or dividing markets or constitute collusive tendering. Section 5 also prohibits restrictive vertical practices. Any restrictive practices that are suspicious will be reported to the Competition Commission for investigation and possible imposition of administrative penalties.

# Certificate of Authority for Signatory

Signatories of Companies must establish their authority by attaching a copy of the relevant Resolution of the Board of Directors, duly signed and dated, to this form. *An example is shown below*.

"By Resolution of the Board of Directors at a meeting on	
Mr documents in connection with Bid No. XX/2021 on behalf of (Block	دhas been duly authorised to sign all د.ک.)
SIGNED ON BEHALF OF COMPANY	
CS OIL	
IN HIS CAPACITY AS	"

Attach to this page (original certified copies only, not copies of certified copies)

# □ Letter of Authority / Resolution by Board of Directors on company letterhead to sign tender documents

# **Certificate of Authority for Joint Ventures**

This Returnable Schedule is to be completed by joint ventures.

We, the undersigned, are submitting this tender offer in Joint Venture and hereby authorise Mr/Ms ....., authorised signatory of the company ....., acting in the capacity of lead partner, to sign all

documents in connection with the tender offer and any contract resulting from it on our behalf.

NAME OF FIRM	ADDRESS	DULY AUTHORISED SIGNATORY
Lead partner		
		Signature
		Signature
		Name
		Designation
		Signature
		Name
		Designation
		Signature
		0
		Name
		Designation
		Signature
		Name
		Designation
		Designation

#### Attach to this page (original certified copies only, not copies of certified copies)

# Letter of Authority / Resolution by Board of Directors on company letterhead to sign tender documents on behalf of Joint Venture

#### Attach to this page (original certified copies only, not copies of certified copies)

# □ Joint venture agreement

# **Proposed Amendments and Qualifications**

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 5.8 of SANS 10845-3 regarding the employer's handling of material deviations and qualifications.

If no deviations or modifications are desired, the schedule hereunder is to be marked <u>NIL</u> and signed by the Tenderer.

Page	Clause or item	Proposal

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

Signed	

Name..... Position..... Date.....

Tenderer .....

# **Record of Addenda to Tender Documents**

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

No.	Date	Title or Details
1.		
2.		
3.		
4.		
-		
5.		
6.		
7.		
8.		
0.		
9.		
10.		

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

Signed.....

Name..... Position.... Date.....

Tenderer

# Schedule of Proposed Subcontractors

We notify you that it is our intention to employ the following Subcontractors for work in 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	B-BBEE /EME Status	Nature and extent of work	Previous experience with Subcontractor
1.				
2.				
3.				
4.				
5.				

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

Signed	 Date
Name	 Position
Tenderer	 

# **Schedule of Current Commitments**

The following is a statement of <u>ALL current commitments</u> for which the Tenderer have been appointed and are currently engaged with <u>for the next 3 years</u>.

This schedule will be used to conduct a risk assessment of the Tenderers capacity to undertake the project. All information must be completed in full or the Tender may be considered non-responsive.

Please attach a schedule with the same information to this page if the space is not sufficient:

Tender No.	
Description:	
Scope of Work:	
Value of Work:	Completion Date:
Employer:	
Contact Person:	Tel/Mobile No.
Email	
Tender No.	
Description:	
Scope of Work:	
Value of Work:	Completion Date:
Employer:	
Contact Person:	Tel/Mobile No.
Email	
Tender No.	
Description:	
Scope of Work:	
Value of Work:	Completion Date:
Employer:	
Contact Person:	Tel/Mobile No.
Email	

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

Signed	Date
Name	Position
Tenderer	

#### Attach to this page

# □ **Tenderer's Current Commitments** (with details prescribed above)

# Schedule: Tenderer's Past Experience

The following is a statement of projects successfully completed by our company over the past 10 years.

This schedule will be used to determine the Tenderer's capability to undertake the services required in the Scope of Work and to conduct a risk assessment of the Tenderers capacity to undertake the project. All information must be completed in full, failing which the Tenderer's quality scoring may be negatively impacted or the Tender may be considered non-responsive.

Only those tenderers who *can prove that they* have experience in the drilling and testing of high yielding (>30 l/s) deep boreholes (+/- 300m) in Table Mountain Group sandstones and unconsolidated alluvium, and thereby satisfying the requirements of the scope of work will be awarded points for quality. Proof of such experience must be submitted with the tender. This must include proof of ownership/availability of an additional 70 Bar booster compressor and one additional 24 Bar compressor.

#### Please attach a schedule with the same information to this page.

Number of sheets appended by the tenderer to this Schedule (if nil, enter NIL)			
Signed	Date		
Name Position			
Tenderer			

# Tenderer's Past Experience: (please duplicate this page electronically, complete the information and attach with your tender)

Tender No.	Description	Scope of Work	Value of Work	Completion date	Employer name	Contact name	Contact number	E-mail address

# Schedule: Key Staff Experience

Key Staff experience will be evaluated on them having done contracts of similar scope and/or value in the key positions proposed.

An abbreviated CV of the Construction Manager (site agent), Construction Supervisor (general foreman) and Health & Safety Officer should be completed on the attached schedules and signed by the relevant key staff.

In the case of an association / joint venture / consortium, it should be indicated how the duties and responsibilities are to be shared.

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

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	

# Key Staff Experience (Abridged CV's):

# □ Complete CV's for each Key Staff attached to this schedule

# **CONSTRUCTION MANAGER (SITE AGENT)**

(Attached original certified copies of qualifications and professional registration, if any)

Full Name			
ID Number			
Current Work			
Address			
Contact Number			
E-mail address			
Highest Qualification			
NQF 5 in LIC (Yes/No)			
Date Obtained (mm/yyyy)		Years Experience (post Qualification)	
Professional Registration			
Date Obtained (mm/yyyy)		Years Experience (post Registration)	
Relevant ex	perience (refer to Scope of Work for	or relevant category of engineering)	
Employer (Client)	Project Description		Year completed

<b>Certification:</b> I certify that to the best of my knowledge and belief, the information reflected	Signature
above correctly describes me, my qualifications and my experience.	Date

# **CONSTRUCTION SUPERVISOR (FOREMAN)**

(Attached original certified copies of qualifications and professional registration, if any)

Full Name & Surname			
ID Number			
Current Work			
Address			
Contact Number			
E-mail address			
Highest Qualification			
NQF 4 in LIC (Yes/No)			
Date Obtained (mm/yyyy)		Years Experience (post Qualification)	
Professional Registration			
Date Obtained (mm/yyyy)		Years Experience (post Registration)	
F	Relevant experience in infrastructu	re construction projects	
Employer (Client)	Project Description		Year completed

Certification: I certify that to the best of my knowledge and belief, the information reflected	Signature
above correctly describes me, my qualifications and my experience.	Date

# **HEALTH & SAFETY OFFICER**

(Attached original certified copies of qualifications and professional registration, if any)

Full Name & Surname			
ID Number			
Current Work			
Address			
Contact Number			
E-mail address			
Highest Qualification			
Date Obtained (mm/yyyy)		Years Experience (post Qualification)	
Professional Registration			
Date Obtained (mm/yyyy)		Years Experience (post Registration)	
F	Relevant experience in infrastructu	re construction projects	
Employer (Client)	Project Description		Year completed

Certification: I certify that to the best of my knowledge and belief, the information reflected	Signature
above correctly describes me, my qualifications and my experience.	Date

#### Schedule: TENDERER'S PAST EXPERIENCE (References)

Tenderers are required to submit the following to <u>at least three (3)</u> of the Employer's referenced in the previous schedule of Tenderer's Experience. The Employer / Referee need to submit this reference by email to the address below on or before the closing date and time for submission of tenders in order for the Tenderer to qualify for Quality points under this category.

TO: PRINCE ALBERT MUNICIPALITY (scm@pamun.gov.za)

FROM (Referee email address):\_

SUBJECTTender Reference Check for [Company Name] :\_\_\_\_\_

Dear Sir / Madam,

We have been listed as a reference by the above Contractor for **Tender 141/2021: PRINCE ALBERT BOREHOLE DRILLING AND TESTING** for the following project/services:

Contract Number	Description of Works	Year completed

We hereby score the Tenderer by marking with an "X" in the table below with regards to their performance in adhering to the **Scope, Time, Budget and Quality** of the above project/service.

Score	Criteria	Scope	Time	Budget	Quality	Overall Rating
Zero (0)	Extremely unhappy;					
= Very	performance well below the					
Poor	requirements of the project					
	objectives; not prepared to use					
	company again					
40%	Dissatisfied; performance did					
Poor	not meet all the requirements of					
	the project objectives; may use					
	company again, provided					
	there's a vast improvement					
70%	Generally satisfied; company					
Satisfied	complied with most of the					
	requirements of the project					
	objectives; would use company					
	again					
90%	Good service provided;					
Good	company complied with all the					
	requirements of the project					
	objectives; received value for					
	money; would use company					
	again					
100%	Excellent service provided;					
Excellent	received more than contracted					
	value, company went beyond					
	requirements of project					
	objectives; would use company					
	again					

Regards

Signed	Date
Name	Position
Employer Name	

# Schedule of Plant and Equipment

Only those tenderers who *can prove that they* have experience in the drilling and testing of high yielding (>30 l/s) deep boreholes (+/- 300m) in Table Mountain Group sandstones and unconsolidated alluvium, and thereby satisfying the requirements of the scope of work, will be awarded points for quality. Proof of such experience must be submitted with the tender. This must include proof of ownership/availability of an additional 70 Bar booster compressor and one additional 24 Bar compressor.

The Drilling Contractor shall provide all labour, transport, plant, tools, materials and equipment necessary to satisfactorily complete the drilling programme as to the specifications determined by the Hydrogeological Consultant. It is imperative that the Drilling Contractor supplies equipment of a suitable size and capability to drill up to 300 m through formations such as quarzitic sandstone and dolerite. The primary compressor supplied by the Drilling Contractor should have a capacity of at least 2400 kPa (24 bar) and a volume of at least 750 cfm. Additional capacity needs to be available as per bill of quantities.

The Pump Test Contractor must provide all labour, transport, plant, tools, materials and equipment necessary to satisfactorily complete the pump testing programme as to the specifications. Yields of up to 30 l/s at 200m pumping depths must be maintainable for up to 48hrs.

The test unit must comprise of a positive displacement (PD) type pump element and a pump head driven by a motor fitted with an accelerator, gearbox and clutch. Under no circumstances shall electrical submersible, air lift or bailing techniques be acceptable.

The following plant and equipment must be available for this contract:

Equipment
Air percussion drilling rig & equipment as per SANS 10299-2
Drilling Compressor capacity of at least 2400 kPa (24 bar) and a volume of at least 750 cfm
Additional 70 Bar booster compressor
Additional 24 Bar compressor
Positive displacement pump (PD) Aquifer testing unit and equipment as per SANS 10299-4
Discharge Piping
Discharge Measuring Equipment
Water Level Measuring Equipment
Piezometer Tubing
2 Automated Water level loggers for monitoring purposes
Accredited laboratory supplied water Sample bottles for microbiological and chemical water sampling

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 this contract

Quantity	Description, Size, Capacity

Attach additional pages if more space is required

#### PRINCE ALBERT MUNICIPALITY Tender No.: 141/2021 PRINCE ALBERT TOWN BOREHOLE DRILLING AND TESTING

Details of major equipment that will be hired or acquired for this contract if my / our tender is accepted

Quantity	Description, Size, Capacity

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

Signed	Date
Name	Position
Tenderer	

Tender

### Schedule: Financial Standing

Attach to this page (original certified copies only, NOT copies of certified copies)

# □ Financial Standing (letter from bank/financial institution stating bank code/rating)

#### Attach to this page (original certified copies only, NOT copies of certified copies)

# □ Letter of Good Standing

# Part C1: Agreements and Contract Data

# C1.1 Form of Offer and Acceptance

#### Offer

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

#### 141/2021 - PRINCE ALBERT LOCAL MUNICIPALITY BOREHOLE DRILLING AND TESTING

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 VAT IS: (in words)
Rand
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 including the Schedule of Deviations (if any) to the tenderer before the end of the period of validity stated in the Tender Data, or other period as agreed, whereupon the tenderer becomes the party named as the **Contractor** in the conditions of contract identified in the Contract Data.

For the Tenderer		
Signature(s)	 	
Name(s)	 	
Capacity	 	
Name and address of organisation):	 	
Signature and name of witness	 Date	

#### Acceptance

For the Employer

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 Parts 1 to 4 above.

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 Deviations (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 these 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 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.

Signature(s)	
Name(s)	
Capacity	
Name and address of organisation):	PRINCE ALBERT MUNICIPALITY PRIVATE BAX X53 33 CHURCH STREET PRINCE ALBERT 6930
Signature and name of witness	 Date

#### 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.
- Any other matter arising from the process of offer and acceptance either as a confirmation, clarification or change 3. 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 .....

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		For the Employer
	Signature	
	Name	
	Capacity	
Name and address of organisation		Name and address of organisation
		PRINCE ALBERT MUNICIPALITY PRIVATE BAG X53
		33 CHURCH STREET PRINCE ALBERT
		6930
Wit	ness signature	
	/itness name	
	Date	

#### PRINCE ALBERT MUNICIPALITY Tender No.: 141/2021 PRINCE ALBERT TOWN BOREHOLE DRILLING AND TESTING

**Confirmation of Receipt** The Tenderer, now **Contractor**, identified in 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 <b>Contractor</b>	
	Signature
	Name
	Capacity
Signature and the name of witness	
	Signature

.....

Name

# C1.2 Contract Data

#### Part 1: Data provided by the Employer

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, is applicable to this Contract and is obtainable from <u>www.saice.org.za</u>.

#### **CONTRACT SPECIFIC DATA**

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

Clause	Data
1.1.1.13:	The Defects Liability Period is 6 months.
1.1.1.14:	The time for achieving Practical Completion is 8 (eight) weeks, inclusive of the 21 day period referred to in Clause 5.3.2 below, and inclusive of non-working days referred to in Clause 5.8.1 below, but exclusive of special non-working days (Clause 5.8.1).
1.1.1.15:	The name of the Employer is: <b>PRINCE ALBERT MUNICIPALITY</b> represented by the <b>MUNICIPAL MANAGER</b> and/or such other person or persons duly authorised thereto by the Employer in writing.
1.1.1.16:	The name of the Employer's Agent is: <b>Prince Albert Municipality</b> or their successors duly appointed by the Employer
1.1.1.20:	The acceptance of the "Form of Offer" from the recommended tenderer may be subject to an agreed reduction in work items to suit the Employers budget.
1.1.1.26:	The Pricing Strategy is a <b>Bill of Quantities (re-measurable)</b> .
1.2.1.2:	The address of the Employer is:       Municipal Manager,         Address (physical):       Municipal Manager,         33 Church Street       PRINCE ALBERT         6930       Address (postal):         Private Bag X53       PRINCE ALBERT         6930       Output Bag X53         PRINCE ALBERT       6930         Telephone:       023 541         e-mail:       ashley@pamun.gov.za
1.2.1.2:	The address of the Employer's Agent is:         Physical address:       62 7th Avenue         Boston         Cape Town         7530         Postal address:       Postnet 203, Pvt Bag X9063         East London         5200         E-mail address:       omega@ages-group.com
3.2.3:	The Employer's Agent shall obtain the specific approval of the Employer before executing any of his functions or duties according to the following Clauses of the General Conditions of Contract:1.Clause 3.3.1Nomination of Employer's Agent's Representative2.Clause 3.3.4Employer's Agent's authority to delegate3.Clause 5.8.1Non-working times4.Clause 5.11.2Suspension of the Works5.Clause 5.12.4Acceleration instead of extension of time6Clause 6.3.2Orders for variations to be in writing7.Clause 10.1.5Contractor's claim
5.3.1:	<ul> <li>The documentation required before commencement with Works execution is:</li> <li>(1) Health and Safety Plan (Refer to Clause 4.3)</li> <li>(2) Initial programme (Refer to Clause 5.6) including cash flow</li> <li>(3) Security (Refer to Clause 6.2)</li> <li>(4) Insurance (Refer to Clause 8.6)</li> </ul>

#### PRINCE ALBERT MUNICIPALITY Tender No.: 141/2021 PRINCE ALBERT TOWN BOREHOLE DRILLING AND TESTING

Clause	Data
	<ul> <li>(5) Occupational Health and Safety Agreement (C1.4 of the Contract Document)</li> <li>(6) Letter of Good Standing from the Compensation Commissioner (if not insured with a Licensed Compensation Insurer)</li> </ul>
5.3.2:	The time to submit the documentation required before commencement with Works execution is 14 days.
5.4.2:	The access and possession of the site shall not be exclusive to the Contractor but as set out n the Site Information.
5.8.1:	<ul> <li>The special non-working days are:</li> <li>(1) All gazetted public holidays falling outside the year end break.</li> <li>(2) The year end break as determined by the South African Federation of Civil Engineering Contractors.</li> </ul>
5.12.2.2:	A delay caused by inclement weather 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 working programme of the contractor has been brought to a halt. Delays on working days only (based on a five-day working week) will be taken into account for the extension of time, but the Contractor shall make provision in his programme of work for an expected delay of "n"" working days caused by normal rainy weather, for which he will not receive any extension of time, where "n" equals <b>2 days per month</b> . Extension of time during working days. It shall be further noted that where the critical path is not affected, no extension of time for <u>abnormal</u> climatic conditions or for any other reason will be entertained.
5.13.1:	The penalty for failing to complete the Works is <b>R2 000</b> per calendar day.
5.14.1	The requirements for achieving Practical Completion are: Completed nr of boreholes drilled, constructed and tested as per Bill of Quantity according to defined specifications. Sites to be cleared and in exactly the same state as prior to drilling other that protruding casing and concrete collar.
5.16.3:	The latent defects period is <b>10 years</b>
6.1	Add the following to Clause 6.1:
	Payment for works identified in the Scope of Work as being labour-intensive shall only be made in accordance with the provisions of the Contract if the works are constructed strictly in accordance with the provisions of the Scope of Work. Any non-payment for such works shall not relieve the Contractor in any way from his obligations either in contract or in delict.
	The Contractor's payment invoices shall be accompanied by labour information for the corresponding period in a format specified by the Employer. If the contractor chooses to delay submitting payment invoices, labour returns shall still be submitted as per frequency and timeframe stipulated by the Employer. The contractor's invoices shall not be paid until all pending labour information has been submitted.
6.5.1.2.3:	The percentage allowance to cover overhead charges is <b>10%</b>
6.10.1.5:	The percentage advance on materials not yet built into the Permanent Works is <b>80%</b> . The percentage advance on Plant not yet supplied to Site is <b>80%</b> .
6.10.3:	There is no limit on retention. A guarantee in lieu of retention is permitted.
8.6.1.1.2:	The value of Plant and materials supplied by the Employer to be included in the insurance sum is <b>Not Required</b> .
8.6.1.1.3:	The amount to cover professional fees for repairing damage and loss to be included in the insurance sum is <b>NIL</b> .
8.6.1.2:	A Coupon Policy for Special Risks Insurance issued by the South African Special Risks Insurance Association is <b>required</b> .
8.6.1.3:	The limit of indemnity for liability insurance is <b>R10 000 000.00</b> for any single claim – the number of claims to be unlimited during the construction and defects liability periods.
8.6.1.4	The Contractor shall effect and maintain ground support insurance as set out in the Scope of Works.

Clause	Data
10.3.2	Amicable settlement in terms of Clause 10.4 shall be contemplated for all disputes prior to referring any dispute to adjudication or arbitration.
10.7.1	The determination of disputes which are unresolved in terms of Clause 10.4.2 shall be by arbitration.

#### Part 2: Data provided by the Contractor

Clause	Data			
1.1.1.9:	The name of the Contractor is			
1.2.1.2:	The address of the Contractor is			
	Address (physical)			
	Address (postal)			
	Telephone :			
	email :			
6.2.1:	The security to be provided by the Contractor shall be one of the following:		ng:	
		Type of security	Contractor's choice. Indicate "Yes" or "No"	
	Cash deposit of 10% of the Contract Sum (excluding VAT) plus retention of 5% of the value of the Works.			
	Performance guarantee of 10% of the Contract Sum (excluding VAT) plus retention of 5% of the value of the Works.			
Cash deposit of 5% of the Contract Sum (excluding VAT) plus Retention of 10% of the value of the Works Performance guarantee of 5% of the Contract Sum (excluding VAT) plus Retention of 10% of the value of the Works		ງ VAT) plus		
	The performance gu	arantee shall contain the exact wordin	ng of the docur	ment included in C1.3.
6.8.3:	The variations in cost of special materials is:			
	Type of special ma	terial L	Unit	Rate or price

Signed	Date
Name	Position
Tenderer	

# C1.3 Form of Guarantee

#### PERFORMANCE GUARANTEE

For use with the General Conditions of Contract for Construction Works, Third Edition (2015)

#### **GUARANTOR DETAILS AND DEFINITIONS**

"Guarantor" means:	
"Physical address:	
"Employer" means:	Prince Albert municipality
"Contractor" means:	
"Employer's Agent"	means:
"Works" means:	Contract No: 141/2021: PRINS ALBERT LOCAL MUNICIPALITY BOREHOLE DRILLING AND TESTING
"Site" means: The s	ite as defined in Clause 1.1.1.29 of the General Conditions of Contract
	The Agreement made in terms of the Form of Offer and Acceptance and such amendments or tract as may be agreed in writing between the parties.
"Contract Sum" mea	Ins: The accepted amount inclusive of tax of R
Amount in words:	
"Guaranteed Sum" r	neans: The maximum aggregate amount of
Amount in words:	
"Expiry Date" means	s: The date of issue by the Employ r's Agent of the Certificate of Completion of the Works

#### CONTRACT DETAILS

Employer's 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 Expiry Date or the date of issue by the Employer's Agent of the Certificate of Completion of the Works or the date of payment in full of the Guaranteed Sum, whichever occurs first. The Employer's Agent and/or the Employer shall advise 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 surety ship;
- 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 Employer's Agent in an Interim or Final Payment Certificate has not been made in terms of the Contract and failing such payment within seven (7) 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
- a provisional or final sequestration or liquidation court order has been granted against the Contractor and that the 5.2 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.
- It is recorded that the aggregate amount of payments required to be made by the Guarantor in terms of 4 and 5 6. 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 Guaranter any resulting surplus. All monies refunded to the Guarantor in terms of this Performance Guarantee shall bear interest at the prime overdraft rate of the Employer's bank compounded monthly and calculated from the decise payment was made by the Guarantor to the Employer until the date of refund.
- Payment by the Guarantor in terms of 4 or 5 shall be mad whin seven (7) calendar days upon receipt of the first 8. written demand to the Guarantor.
- Payment by the Guarantor in terms of 5 will only be n ad against the return of the original Performance Guarantee 9. by the Employer.
- The Employer shall have the absolute right arrange his affairs with the Contractor in any manner which the 10. 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.
- Where this Performance Guarantee is issued in the Republic of South Africa the Guarantor hereby consents in 14. 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.

Tender

#### PRINCE ALBERT MUNICIPALITY Tender No.: 141/2021 PRINCE ALBERT TOWN BOREHOLE DRILLING AND TESTING

AND ADDERT TOWN DORENOLE DRILLING AND TEOTING
Signed at
Date
Guarantor's signatory (1)
Capacity
Guarantor's signatory (2)
Capacity
Witness signatory (1)
Witness signatory (2)

# C1.4 Occupational Health and Safety Agreement

# AGREEMENT MADE AND ENTERED INTO BETWEEN THE PRINCE ALBERT MUNICIPALITY (HEREINAFTER CALLED THE "EMPLOYER") AND

(Contractor/Mandatary/Company/CC Name)

IN TERMS OF SECTION 37(2) OF THE OCCUPATIONAL HEALTH AND SAFETY ACT, ACT No. 85 OF 1993 AS AMENDED.

I, ....., representing

in its own right, do hereby undertake to ensure, as far as is reasonably practicable, that all work will be performed, and all equipment, machinery or plant used in such a manner as to comply with the provisions of the Occupational Health and Safety Act (OHSA) and the Regulations promulgated thereunder.

I furthermore confirm that I am/we are registered with the Compensation Commissioner and that all registration and assessment monies due to the Compensation Commissioner have been fully paid or that I/We are insured with an approved licensed compensation insurer.

COID ACT Registration Number:

OR Compensation Insurer: ...... Policy No.: .....

I undertake to appoint, where required, suitable competent persons, in writing, in terms of the requirements of OHSA and the Regulations and to charge him/them with the duty of ensuring that the provisions of OHSA and Regulations as well as the Municipalities Special Conditions of Contract, Way Leave, Lock-Out and Work Permit Procedures are adhered to as far as reasonably practicable.

I further undertake to ensure that any subcontractors employed by me will enter into an occupational health and safety agreement separately, and that such subcontractors comply with the conditions set.

I hereby declare that I have read and understand the appended Occupational Health and Safety Conditions and undertake to comply therewith at all times.

I hereby also undertake to comply with the Occupational Health and Safety Specification and Plan.

Witness

Mandatary

Witness

for and on behalf of PRINCE ALBERT MUNICIPALITY

### **OCCUPATIONAL HEALTH AND SAFETY CONDITIONS**

- 1. The Chief Executive Officer of the Contractor shall assume the responsibility in terms of Section 16(1) of the Occupational Health and Safety Act (as amended). Should the Contractor assign any duty in terms of Section 16(2), a copy of such assignment shall immediately be provided to the representative of the Employer as defined in the Contract.
- All work performed on the Employer's premises shall be performed under the supervision of the construction supervisor who understand the hazards associated with any work that the Contractor performs on the site in terms of Construction Regulations.
- 3. The Contractor shall appoint a Competent Person who shall be trained on any occupational health and safety aspect pertaining to them or to the work that is to be performed.
- 4. The Contractor shall ensure that he familiarises himself with the requirements of the Occupational Health and Safety Act and that he, his employees, and any sub-contractors, comply with them.
- 5. Discipline in the interests of occupational health and safety shall be strictly enforced.
- 6. Personal protective equipment shall be issued by the Contractor as required and shall be worn at all times where necessary.
- 7. Written safe work procedures and appropriate precautionary measures shall be available and enforced, and all employees shall be made conversant with the contents of these practices.
- 8. No substandard equipment/machinery/articles or substances shall be used on the site.
- 9. All incidents referred to in terms of Section 24 of the Occupational Health and Safety Act shall be reported by the Contractor to the Department of Labour and the Employer.
- 10 The Employer hereby obtains an interest in the issue of any formal inquiry conducted in terms of Section 32 of the Occupational Health and Safety Act and into any incident involving a Contractor and/or his employees and/or his sub-contractor/s.
- 11. No use shall be made of any of the Employer's machinery/plant/equipment/substance/personal protective equipment or any other article without prior arrangement and written approval.
- 12. No alcohol or any other intoxicating substance shall be allowed on the site. Any person suspected of being under the influence of alcohol or any other intoxicating substance shall not be permitted access to, or allowed to remain on the site.
- 13. Prior to commencement of any work, verified copies of all documents mentioned in the agreement, must be presented to the Employer.

# Part C2: Pricing Data

# **C2.1 Pricing Assumptions / Instructions**

Pricing assumptions mean the criteria as set out below, read together with all parts of this contract document, which it will be assumed in the contract that the tenderer has taken into account when developing his prices.

It is emphasized that the contractor must endeavour at all times to make use of local labour (skilled and unskilled) and local suppliers, obtained from within the Prince Albert Municipal Area when undertaking the various activities which lend themselves to labour-intensive methods.

- Measurement and payment shall be in accordance with the relevant provisions of clause 8 of each of the SABS 1200 Standardised Specifications for Civil Engineering Construction referred to in the Scope of Work, Particular or Works Specifications. The Preliminary and General items shall be measured in accordance with the provisions of SABS 1200-AA, General (Small Works).
- 2. The short descriptions of the items of payment given in the Bill of Quantities are only for the purposes of identifying the items. More details regarding the extent of the work entailed under each item appear in the Scope of Work.
- 3. The units of measurement described in the Bill of Quantities are metric units. Abbreviations used in the Bill of Quantities are as follows:

%	=	percent
h	=	hour
ha	=	hectare
kg	=	kilogram
kl	=	kilolitre
km	=	kilometre
km-pass	=	kilometre-pass
kPa	=	kilopascal
kW	=	kilowatt
	=	litre
m	=	metre
mm	=	millimetre
m²	=	square metre
m³	=	cubic metre
MN	=	meganewton
MN.m	=	meganewton-metre
MPa	=	megapascal
No.	=	number
Prov sum	=	Provisional sum
PC sum	=	Prime Cost sum
R/only	=	Rate only
sum	=	lump sum
t	=	ton (1000 kg)
W/day	=	Work day

4. For the purpose of the Bill of Quantities, the following words shall have the meanings hereby assigned to them:

Unit:	The unit of measurement for each item of work as defined in the Standard Specifications.					
Quantity:	The number of units of work for each item.					
Rate:	The agreed payment per unit of measurement.					
Amount:	The product of the quantity and the agreed rate for an item.					
Lump sum:	An agreed amount for an item, the extent of which is described in the Bill of Quantities but the quantity of work of which is not measured in any units.					
Provisional sum:	An amount provided for work the scope and/or the necessity of which is undecided and which will be dealt with in accordance with clause 6.6.1 of the General Conditions of Contract.					
Prime cost sum:	An amount provided to cover the cost price of certain goods, services or materials in accordance with clause 6.6.2 of the General Conditions of Contract.					

- 5. Unless otherwise stated, items are measured net in accordance with the drawings, and no allowance is made for waste.
- 6. The prices and rates in the Bill of Quantities are to be fully inclusive prices for the work described under the several items. Such prices and rates cover all costs and expenses that may be required in and for the execution of the work

described in accordance with the provisions of the Scope of Work, and shall cover the cost of all general risks, liabilities, and obligations set forth or implied in the Contract Data, 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.

- 7. It will be assumed that prices included in the bills of quantities are based on Acts, Ordinances, Regulations, Bylaws, International Standards and National Standards that were published 28 days before the closing date for tenders. (Refer to <u>www.stanza.org.za</u> or <u>www.iso.org</u> for information on standards).
- 8. Where the Scope of Work requires detailed drawings and designs or other information to be provided, all costs associated therewith are deemed to have been provided for and included in the unit rates and sum amount tendered for such items.
- 9. A price or rate shall be entered against each item in the Bill of Quantities. Should the Tenderer not wish to make any charge in respect of an item, a rate of zero "R0.00" or "Nil" shall be entered. An item against which no price is entered will be considered to be covered by the other prices or rates in the Bill of Quantities. Except where rates only are required, insert all amounts to be included in the total tendered price in the "Amount" column and show the corresponding total tendered price. The Tenderer may not group a number of items together and tender one lump sum for such group of items.
- 10. Reasonable compensation will be received where no pay item appears in the Bill of Quantities in respect of work required in terms of the Contract and which is not covered in any other pay item.
- 11. The quantities set out in the Bill of Quantities are approximate and do not necessarily represent the actual amount of work to be done. The quantities of work accepted and certified for payment will be used for determining payments due and not the quantities given in the Bill of Quantities. The tendered rates shall be valid irrespective of any change in the quantities during the execution of the works under the contract.
- 12. Those parts of the contract to be constructed using labour-intensive methods have been marked in the Bills of Quantities with the letters "LI" in a separate column filled in against every item so designated. The works, or parts of the works so designated are to be constructed using labour-intensive methods only. The use of plant to provide such works, other than plant specifically provided for in the scope of work, is a variation to the contract. The items marked with the letters LI are not necessarily an exhaustive list of all the activities which must be done by hand, and this clause does not over-ride any of the requirements in the generic labour intensive specification in the Scope of Works.
- 13. Payment for items which are designated to be constructed labour-intensively (either in this schedule or in the Scope of Works) will not be made unless they are constructed using labour-intensive methods. Any unauthorised use of plant to carry out work which was to be done labour-intensively will not be condoned and any works so constructed will not be certified for payment.
- 14. No unauthorized amendment shall be made to the Bill of Quantities or any part of the Pricing Data. If such amendment is made or if the Bill of Quantities is not properly completed, the tender may be rejected.
- 15. All transportation of material anywhere on/off or from or to the various sites will be deemed to be unlimited free-haul and the contractor must allow for this in the rates tendered for the items in the Bill of Quantities.

# **C2.2 Bills of Quantities**

	PRINCE ALBERT GROUNDWATER DEVELOPMENT SECTION 1 - BOREHOLE DRILLING										
ITEM	DESCRIPTION	QTY	UNIT	RATE (ZAR)	AMOUNT (ZAR)						
1-0	Mobilization & Set-up of plant	1	sum								
2.0	Interhole move & set-up of plant at Borehole	1	ea								
3-0	Establishment of extra 24 bar compressor	1	sum								
4-0	Establishment of extra 70 bar booster	Rate only	sum								
5-0	Odex Drilling 273mm	40	m								
	Odex Drilling 219 mm	Rate only	m								
	Odex Shoe 273 mm	2	ea								
	Odex Shoe 219 mm	2	ea								
	Drilling up to 100 m										
9-1	304 mm dia.	Rate only	m								
9-2	254 mm dia.	Rate only	m								
9-3	230 mm dia.	160	m								
9-4	203 mm dia.	Rate only	m								
9-5	190 mm dia.	Rate only	m								
9-6	172 mm dia	Rate only	m								
9-7	165 mm dia.	Rate only	m								
	Drilling up to 300 m										
10-1	254 mm dia.	Rate only	m								
10-2	230 mm dia.	40	m								
10-3	203 mm dia.	Rate only	m								
10-4	190 mm dia.	200	m								
10-5	172 mm dia	200	m								
10-5	165 mm dia.	Rate only	m								
	Casing										
11-0	Steel 273 mm dia.	40	m								
11-1	Steel 219 mm dia.	Rate only	m								
11-2	Steel 177 mm dia.	Rate only	m								
	uPVC 200 mm dia. Class 12 (threaded, flush-fit)	Rate only	m								
11-4	uPVC 177 mm dia. Class 12 (threaded, flush-fit)	240	m								
11-5	uPVC 160 mm dia. Class 12 (threaded, flush-fit)	Rate only	m								
11-6	uPVC 140 mm dia. Class 12 (threaded, flush-fit)	Rate only	m								
11-7		240	m								
	Installation of Casing Gravel Pack	120	20 Lt								
	Gravel Pack Development	4	Hr								
		2	Hr								
	Blow Yield Test	1	ea								
	De-Establishment	⊥ Rate only	ea								
	Poly Grout	8	Hr								
	Running cost of extra 24 bar compressor	Rate only	Hr								
	Running of extra 70 bar booster	Rate only	25 kg								
	Injection Grouting	6	25 kg Hr								
	TLB Hire	Rate only	еа								
	Camera Investigation	Rate only									
	HEALTH & SAFETY FILE		ea								
24-0	Data Recording	2	ea								
				10 % CONTINGENCIES	N						
				TOTAL (EXCLUDING VAT)	R -						

### PRINCE ALBERT MUNICIPALITY Tender No.: 141/2021 PRINCE ALBERT TOWN BOREHOLE DRILLING AND TESTING

	PRINCE ALBERT GROUNDWATER DEVELOPMENT SECTION 2 - BOREHOLE TESTING									
ITEM	DESCRIPTION	QTY	UNIT	RATE (ZAR)	AMOUNT (ZAR)					
1-0	ESTABLISHMENT, PLANT SET-UP, INTERHOLE MOVES AND DE-ESTABLISHMENT									
1-1	Establishment of Own Facilities on Site									
1-1-1	Living quarters, offices, workshops, etc.									
1-1-2	Ablution and latrine facilities	Sum		R -						
1-1-3	Water supply, electricity, communications									
1-2	Mobilisation and set-up of plant to / at first borehole	1	Sum		R -					
1-3	Set-up of plant per borehole (after first)	2	no		R -					
1-4	Interhole Moves									
1-4-1	For distances up to 10 km	2	no		R -					
1-4-2	For distances exceeding 10 km		km							
1-5	De-establishment from site	1	Sum		R -					
2-0	TEST PUMPING									
2-1	Installation of Test Pump (depth up to 50m)									
2-1-1	For yield up to 10 l/s	1	no		R -					
2-1-2	For yield greater than 10 l/s	2	no		R -					
2-2	Installation of Test Pump (per meter over 50m)									
2-2-1	For yield up to 10 l/s (Est. installation of 114 m / borehole)	80	m		R -					
2-2-2	For yield greater than 10 l/s	240	m		R -					
2-3	Laying out of Discharge Hose									
2-3-1	Minimun of 50 m	3	no		R -					
2-3-2	50 m to 100 m (extra-over 50 m) (Additional 50 m / borehole)	200	m		R -					
2-4	Calibration Test	3	Hr		R -					
2-5	Stepped Discharge Test	12	Hr		R -					
2-6	Constant Discharge Test									
2-6-1	For yield up to 10 l/s	24	Hr		R -					
2-6-2	For yield greater than 10 l/s	96	Hr		R -					
2-7	Recovery Monitoring	132	Hr		R -					
2-8	Borehole Disinfection (complete per borehole)	3	no		R -					
2-9	Borehole Protection (complete per borehole)	3	no		R -					
2-10	Borehole Marking	3	no		R -					
2-11	Site Finishing (complete per borehole)	3	no		R -					
	DATA RECORDING AND REPORTING (complete per borehole)	4	no		R -					
	Water level monitoring per observation borehole	Rate only								
	CHEMICAL ANALYSIS OF WATER SAMPLE - Laboratory Full Sans 241	3	no		R -					
	Delivery of samples at laboratory	3	no		R -					
				SUB-TOTAL	R -					
				10 % CONTINGENCIES	R -					
				TOTAL (EXCLUDING VAT)	R -					

### SUMMARY OF BILLS OF QUANTITIES

SECTION	DESCRIPTION	AMOUNT
1	BOREHOLE DRILLING	
2	BOREHOLE TESTING	
3		
4		
	SUB TOTAL OF SCHEDULED WORK (EXCLUDING VAT)	
	Add 10% Contingencies	
	SUB TOTAL OF SCHEDULED WORK	
	VAT: Add VAT at the rate of 15% of the total	
	TENDER SUM CARRIED FORWARD TO C1.1 FORM OF OFFER	

### DECLARATION

I/we, the undersigned, do hereby declare that these are the properly priced Bills of Quantities forming part C2.2 of this Contract Document upon which my/our tender for **TENDER NO.** XX/2021: PRINS ALBERT LOCAL MUNICIPALITY BOREHOLE DRILLING AND TESTING has been based.

Signed.....

Date.....

Name	
Position	

Tenderer .....

# Part C3: Scope of Work

# C3.1 Scope of Works

### C3.1.1 Employer's objectives

The Employer's objectives include the following:

- (i) To provide new and maintain existing engineering services infrastructure of an acceptable quality for the benefit of all its inhabitants in the most cost-effective and cost-efficient manner possible;
- (ii) To deliver public services infrastructure using labour intensive construction methods wherever technically feasible and economically viable;
- (iii) To alleviate poverty through the provision of employment opportunities to the unemployed;
- (iv) To assist with the socio-economic development of targeted groups;
   (v) To comply with the requirements of statutory, legislative and regulatory frameworks governing local government infrastructure provision.
- government infrastructure provision;(vi) To comply with all funding conditions (own and grants).

The Employer's objective is to secure groundwater supply to the town of Prince Albert by drilling two new boreholes down to a depth of 300m near existing production boreholes that are prone to flood damage. It further includes the testing of one existing borehole as well as the testing of the two newly drilled boreholes. The description of the project contained in the Scope of Work is merely an outline of the Contract Works and shall not limit the work to be carried out by the Contractor under this Contract. Details of some of the major items are given in this section and approximate detailed quantities for each type of work to be carried out in accordance with the Contract Documents are included in the Bill / Schedule of Quantities.

# C3.1.2 Labour Intensive Works

Labour-intensive works comprise the activities described in the Labour-Intensive Particular Specification (PS-LI).

Such works shall be constructed using Targeted Labour who are temporarily employed in terms of this scope of work.

Contractors shall only engage supervisory and management staff in labour-intensive works that have completed the required skills programmes prescribed in PS-LI.

## C3.1.3 Overview of the works

This contract covers the drilling and testing of two new groundwater supply production boreholes as well as the testing of one existing borehole at the town of Prince Albert. Detailed methodology requirements are defined in section C4 and C5 of this document.

# C3.1.4 Extent of the works

The works to be constructed under this contract include but is not limited to that which is defined in the scope of works and bill of quantities or as directed from time to time by the Employer's Agent and include the following main activities:

- a) Site clearance at one borehole drilling site
- b) Drilling of two new production boreholes
- c) Testing of two new production boreholes
- d) Testing of one existing borehole
- e) Water quality analyses of three boreholes

# C3.2 Procurement

## C3.2.1 Preferential procurement procedures

The procurement of goods and services for any project or other requirement of the municipality should cater for the engagement of local SMME sub-contractors and local suppliers. This will provide opportunities for local economic development of smaller businesses to increase their share in public sector procurement.

# C3.2.2 Subcontractors (non-targeted)

The Contractor shall not subcontract more than 25% of the value of the contract to subcontractors that do not have an equal or higher B-BBEE status level than the Contractor, unless such subcontractors are exempted micro enterprises that can demonstrate to the satisfaction of the Employer's Agent that they have the capability and ability to execute the subcontract works.

Where monetary allowances for provisional sums or prime cost items have been provided in the Bills of Quantities, and where the work is to be executed/supplied by sub-contractors/suppliers then the following selection process shall be followed in respect of the required sub-contractors/suppliers:

- The Contractor shall invite three quotations from suitably qualified sub-contractors/suppliers, the selection of which shall be in approximation with and to the approximation of the Employer's Agent, for the required work or items
- which shall be in consultation with, and to the approval of the Employer's Agent, for the required work or items.
  The evaluation of the quotation received must include a preference points system as described in the Tender Data

# C3.2.3 Attendance on subcontractors

Approval given in terms of subcontracting shall not relieve the Contractor of any responsibility, duty or obligation imposed upon him by the Contract, and the Contractor shall in particular be and remain solely liable and responsible for all acts, omissions, negligence or breaches of contract on the part of the assignee or any of his employees, and for all acts, omissions or negligence of any Sub- Contractor or any of his employees.

# C3.2.4 Local Labour

It is the intention that this contract should make the maximum possible use of the local labour force which is at present underemployed. To this end it will be expected of the Contractor to limit the use of non-local employees to key personnel only and to employ and train local labour on this contract.

A minimum of 90% of the unskilled labour force must be procured from the local community in which the project is undertaken.

# C3.3 Construction

### C3.3.1 Standardised Specifications

The following relevant standardised specifications, as listed below, shall form the Standard Specifications and apply to this contract:

- a) the information provided to the contractor as included in this Contract Document.
- b) all relevant and applicable criteria set out in Part 3.1 of the document. THE DEPARTMENT OF WATER AFFAIRS AND FORESTRY, 1997. Minimum Standards and Guidelines for Groundwater Resource Development for the Community Water Supply and Sanitation Programme, First Edition. April 1997.
- c) any other relevant and applicable specifications set out elsewhere in the Minimum Standards and Guidelines Document.
- d) any further details and/or instructions as may be ordered by the Client or the Hydrogeological Consultants. Specialist work (for example: ODEX drilling) may only be conducted after written confirmation has been obtained from the Consulting Engineer and Project Geologist.
- e) technical drawings and instructions as set out in the Standard Rate Agreement Document of the Department of Water Affairs and Forestry.
- f) the Contractors liability for any latent defects will be according to Clauses 55 and 56 of the General conditions of contract for works of civil engineering construction, Sixth Edition (1990), with the term "Engineer" replaced by "Hydrogeological Consultant".
- g) all standards procedures indicated in the SANS 10299:2013 Development, maintenance and management of groundwater resources. The Contractor can purchase the SANS 10299 document from Standards South Africa at www.stansa.co.za.

### C3.3.2 Known services

The Contractor shall make himself acquainted with all existing services. Under no circumstances shall the Contractor alter or in any way interfere with the existing works or underground services unless authorised by the Employer's Agent.

Where existing works are of such a nature that the Employer's Agent may require them to be moved by the Contractor, the cost of such work will be paid for at scheduled rates or on dayworks basis. The Contractor will be held responsible for damages to any existing works and any damages caused shall be made good at his own cost without delay.

The Contractor is to exercise care when the proposed work is to cross an existing service, or work is to be performed close to an existing service. Prior to commencement of the relevant portion of the proposed works the Contractor with the Employer's Agent or his duly appointed representative shall also perform a visual inspection of the area in question. This inspection will not waive the Contractor of his obligations with respect to care of the works referenced in the General Conditions of Contract.

No other existing services are known to exist that may be affected by the works to be constructed under this contract. However the Contractor shall ensure before excavating that there are no visible services or obstructions that require safeguarding.

### C3.3.3 Damage to services

The Contractor shall be responsible for any damage to such existing services and works in the execution of this contract and shall reimburse the Employer, authority or the owner concerned for any repairs required and for damages. Damage that occurs to unknown services during construction will be paid for by the Employer.

However, all services that have been located and exposed, and are subsequently damaged by the Contractor or his subcontractor, shall be reinstated to the same state as it was before the damage occurred at the cost of the Contractor. Damaged services must be repaired on the same date of occurrence and not be delayed without the written approval of the relevant service authority.

# C3.3.4 Reinstatement of services and structures damaged during construction

The Contractor shall inform the Employer's Agent immediately when a service or structure is damaged. The extent of the damage and a proposal on how to reinstate the service or structure shall be submitted to the Employer's Agent on a sketch with dimensions and time frames.

The Contractor shall not be allowed to reinstate any service or structure unless indicated so by the Employer's Agent. The Contractor shall render all reasonable assistance to the service or structure owner with the reinstatement of the service or the structure if required.

The Contractor shall be liable to reinstate the service or structure to its original state.

## C3.3.5 Services and facilities provided by the employer

### C3.3.5.1 Water and Electricity Supply

The Contractor shall make his own arrangements with the Municipality for the necessary connections and additional reticulation, the cost, if any, of which will be for the Contractors account. Water shall be used sparingly and if in the opinion of the Employer's Agent excessive consumption by the contractor occurs then the cost of such excessive consumption shall be borne by the Contractor.

The Contractor shall make his own arrangements for the supply of electricity that he may require for the execution of the works and the costs of any connections, additional reticulation and the supply of electricity shall be borne by the Contractor.

### C3.3.5.2 Housing

No housing is available nor shall be allowed on site for the Contractor's employees. It is the sole responsibility of the Contractor at his own cost to house his employees and transport them to and from the site.

### C3.3.5.3 Site instruction book and Site diary

The Contractor shall keep an A4 triplicate book for site instructions on the Site at all times and provide a Site Diary for daily completion by the Contractor.

### C3.3.6 Other facilities and services

### C3.3.6.1 Waste Disposal

The Contractor shall make his own arrangements for solid and liquid waste disposal. Disposal will take place at an approved Site.

### C3.3.6.2 Telephone Facilities

The Contractor shall be responsible for arranging his own telephone facilities and shall be responsible for all costs relating thereto.

### C3.3.6.3 Ablution Facilities

Temporary ablution facilities need to be provided by the contractor on site. The facilities must be maintained in a clean and sanitary condition by the Contractor for the duration of the contract.

### C3.3.7 Notice boards, signs and barricades

All notices, signs and barricades 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 or notice to another position, or to remove it from the Site of the Works if in his opinion it is unsatisfactory, inconvenient or dangerous.

### C3.3.8 Dealing with Water

The Contractor shall make provision and allow for all water flow management on site. If not specifically scheduled, all costs for this operation for the duration of the contract shall be deemed to be included in the General charges of the Contractor.

### C3.3.9 Alterations, additions, extensions and modifications to existing works.

The Contractor shall prior to commencement of construction works in any particular area satisfy himself that the dimensional accuracy, alignment, levels and setting out of existing structures or components thereof are compatible with the proposed works and shall notify the Employer's Agent of any areas of dissatisfaction.

# C3.4 Management

# C3.4.1 Standardised management specifications for construction works

The following relevant standardised specifications, as listed below, shall form the Standard Specifications and apply to this contract:

SABS 1200 A	:	General (1986)
SABS 1200 AA	:	General (small works)
SANS 10299-2	:	Design, construction and drilling of boreholes
SANS 10299-4	:	Test pumping of water boreholes
DWS 1997	:	MINIMUM STANDARDS AND GUIDELINES FOR GROUNDWATER RESOURCE DEVELOPMENT FOR THE COMMUNITY WATER SUPPLY AND SANITATION PROGRAMME

# C3.4.2 Particular specifications

The following particular specifications shall apply to this contract and are Annexures to the Scope of Works:

• PHS - Pre-construction Health and Safety Specification

# C3.4.3 Construction Programme and Methods

The programme to be submitted by the Contractor in terms of the General Conditions of Contract shall be in the form of a bar chart with a horizontal time scale and shall clearly show all significant activities, the duration of all activities, the interdependencies (if any) of activities and the critical path of the overall programme, clearly related to the items or groups of items in the Bill of Quantities and indicating the value and quantity of work that will be completed each month and shall ideally be drawn up using a commercially available computer programme. The programme shall take account of and include:

- a) All activities, including establishment on site, trimming and finishing and the completion of all minor ancillary works.
- b) Commencement and Due Completion dates
- c) All special non-working days, shut down periods and breaks defined in the Contract Data.
- d) Allowance for inclement weather as may be provided for in the Contract Data.
- e) Known physical conditions or artificial obstructions
- f) Searching for, dealing with and carrying out alterations to existing services, and
- g) The accommodation and safeguarding of public access and traffic
- h) Other information specifically required by the Employer's Agent.

The following details shall be submitted together with the programme:

- (i) The number of working hours per day, working days per week, assumed holiday or shut down periods on which the programme is based.
- (ii) The overall labour and major plant resource levels on which the programme is based.
- (iii) The detailed traffic accommodation proposals on which the programme is based (road or lane closures, lengths of sections to be worked, timing etc.).
- (iv) The estimated value of work to be subcontracted to local SMME's.
- (v) The estimated value of materials to be procured from local suppliers.
- (vi) Monthly cash flow based on the programme

The Contractor shall base his initial programme of work on the scope of the work as described in the project specification and the schedule of quantities. This programme shall be reviewed on a regular basis by the Contractor in accordance with changing circumstances, delays and amendments to the work ordered by the Employer's Agent as a result of further examinations made by him, or to meet budget constraints.

Minor revisions to the approved programme may be introduced from time to time by mutual agreement between the Contractor and the Employer's Agent. Should the Employer's Agent believe that a major revision of the programme is required, the Contractor will be notified in writing and a revised programme shall be submitted within two weeks of receipt of such notification.

# C3.4.4 Sequence of the works

The Contractor shall include the sequence of works, clearly identifying floats and critical path activities, in the tender programme.

### C3.4.5 Methods and procedures

The Contractor will advise in his tender the methods and procedures that he proposes in performing the works. These methods and procedures shall not be deemed as terms of the Contract. The Contractor is also allowed to change his methods and procedures as he sees fit subject to the change being approved by the Employer's Agent. Methods and procedures will not vary the specification and cannot be used to provide qualifications to the proposed agreement. The intention of the method statement is to provide the Employer's Agent and the Employer with information as to how he proposes to perform the said works.

# C3.4.6 Quality plans and control.

Within three weeks of the award of the contract the Contractor shall furnish the Employer's Agent with a Quality Assurance and Control plan that incorporates all of the requirements of this specification.

# C3.4.7 Site usage

The Contractor's employees shall not be allowed to stay on site except for the duration of a working day. The only person to be allowed on site for the duration of a calendar day shall be the site guard(s). Access to the site will be in a controlled manner. People visiting the site will have to sign in and out on a daily basis.

## C3.4.8 Format of communications

No press statements are allowed without the prior written approval of the Employer. Contractual communication will flow between the Contractor and Employer's Agent as normally required. Normal routine matters should as far as possible be resolved on site between the Contractor's Agent and Employer's Agent's Representative. All instructions to the Contractor will be in writing and shall be deemed to have been received if left with the Contractor or his agent at the site of the works or at the business premises of the Contractor. The format of the letters, invoices etc., will be determined and agreed at the first site meeting.

# C3.4.9 Key personnel

The Contractor is deemed to have, in making his offer, all key personnel available as declared on the *Schedule of Key Staff Experience* to perform the works entirely in the contracted time and cost. The Employer's Agent and his duly appointed representative will be the key contacts on site.

## C3.4.10 Electronic payments

The Contractor shall provide his banking details to enable electronic payments to be made; such payments shall be at the direction of the Prince Albert municipality's procurement policy.

### C3.4.11 Daily records

A Daily Site Diary shall be used by the Contractor for recording day by day the state of the weather, the work done each day and full details of any circumstance which may affect the progress of the works. One original sheet and two copies shall be used for each day. The original sheet of each set of 3 pages will be retained by the Employer's Agent or his representative. The Contractor may remove the second sheet but the third sheet shall be retained on the site until completion of the works, when it shall be handed over to the Employer's Agent.

### C3.4.12 Payment certificates

The payment certificate to be submitted by the Contractor in terms of the General Conditions 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 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 workings 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 and tax invoice before the 20<sup>th</sup> of each month.

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's payment certificate will be added to the times allowed to the Employer's Agent in terms of the General Conditions to submit the signed payment certificate to the Employer and the Contractor and shall also be added to the period in which the Employer is required to make payment to the Contractor.

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Payment for particular items scheduled shall conform to the applicable payment clauses of the Pricing Data, Project Specifications and the Particular Specifications.

Where retention money is applicable to a Contract, the retention money shall be deducted on the invoice from the total amount for work done and then the Value Added Tax (VAT) added to calculate the total amount payable on the invoice.

If penalties are payable, they will be deducted prior to the addition of VAT but after the calculation of retention.

# C3.4.13 Finishing and Tidying

As the works proceed the work areas shall be progressively and systematically finished off and tidied. Spoil, rubble and other materials shall not be allowed to accumulate.

# C3.4.14 Occupational Health and Safety Act

In terms of the provisions of Section 37(2) of the Occupational Health and Safety Act, Act No. 85 of 1993 (the Act) the Contractor as an employer in its own right and in its capacity as principal contractor for the execution of the works, shall have certain obligations and the following arrangement shall apply between the Contractor and the Employer to ensure compliance by the Contractor with the provisions of the Act:

- a) The Contractor undertakes to acquaint the appropriate officials and employees of the Contractor with all relevant provisions of the Act and the Construction regulations 2014 promulgated in terms of the Act, and
- b) The Contractor undertakes that all relevant duties, obligations and prohibitions imposed by the Act and the Construction regulations 2014 shall be fully complied with, and
- c) The Contractor shall be obliged to report forthwith to the Employer any investigation, complaint or criminal charge which may arise as a consequence of the provisions of the Act or Construction regulations 2014 pursuant to work performed on behalf of the Employer, and shall, on written demand, provide full details in writing of such investigation, complaint or criminal charge, and
- d) The Contractor shall when called upon to do so, enter into and execute an agreement as provided for under Section 37(2) of the Act. The agreement in the relevant form shall be submitted to the Employer together with a letter of good standing from the Compensation Commissioner within fourteen days after receipt of the Letter of Acceptance. The site will not be handed over to the Contractor until the Employer has received the completed Agreement and the letter of good standing.

# C3.4.15 Accommodation of Traffic

It is a condition of this contract that traffic is accommodated, and all signage for roadworks is provided, in accordance with the Drawings and the requirements of Volume 2 Chapter 13 of the June 1999 edition of the South African Road Signs Manual.

# C3.4.16 Safety

The Contractor shall be responsible for the safety and security of his personnel, materials on site and the works in general at all times. The Contractor shall therefore acquaint himself with the current situation in the areas (by liaising with the local police if necessary), and shall provide all security measures, including the employment of accredited security services, as he deems necessary to comply with the requirements of this clause.

The Contractor shall ensure that the general public is at all times protected from the works, and that all works areas are properly fenced off so that the general public is prevented from gaining access to the works areas. Where the normal use by the public of, and access to roadways and all other public areas is not available due to the construction works, adequate notices and signage of such temporary closures and alternative routes shall be provided.

# C3.4.17 Environmental Care and Management

The Contractor's attention is drawn to the environmentally sensitive nature of the site. It is the specific requirement of this Contract that the Contractor shall at all times adhere strictly to the requirements below:

### 1) General

The Contractor shall ensure that no damage whatsoever is caused as a result of his operations or otherwise by his workmen in the areas adjacent to the site. The movement of plant and workmen shall be restricted to the construction areas and essential access routes. The Contractor's workmen will not be permitted in any area which may be designated by the Employer as "Restricted". Details of the restricted areas shall be issued to the Contractor on site. The Contractor shall take steps to protect all property, landscaping, vegetation and soil not directly affected by the Works and shall ensure that no avoidable damage or disturbance is caused, and that no erosion is allowed to occur.

### 2) Protected Areas

The Employer shall identify certain areas within the vicinity which are to be protected. Any instance of damage to these areas shall make the Contractor liable to a fine per protected area which will be deducted from the following payment certificate.

### 3) Solid waste

Disposal of solid waste other than to the municipal facility will not be allowed.

### 4) Liquid waste

No polluted effluent or other liquid of any nature shall be discharged or allowed to run into any watercourse. The handling and disposal of these liquids shall not allow these liquids to enter the ground water system. All such liquids are to be transported off site and disposed-off in a manner agreed with the Employer.

### 5) Fire Hazards

No fires may be lit except if approved by the Employer and in properly prepared facilities approved by the Employer. Fires shall be kept small and appropriate to their function. The Contractor shall ensure that the fire risk on and near the site is reduced to a minimum and shall take immediate and effective steps to extinguish any fire that may break out. Al costs relating to damage by fire caused by the contractor will be for the contractors cost.

### 6) Contamination by cement

The Contractor shall take care when dealing with cement, especially near ground and surface watercourses. Any, even slight, contamination of watercourses by cementitious material is prohibited. The use of cement must be controlled with respect to the above and surplus concrete must be removed from site.

### 7) Reinstatement of scarred areas

All scarred areas, borrow and spoil areas, cut and fill slopes, all temporary haul and access roads and tracks and any other areas where the vegetation has been removed and or damaged, shall be reinstated to restore the area as nearly as possible to its original state. Such reinstatement shall include the removal of refuse, debris, construction infrastructure and materials, the scarifying of all hardened surfaces, the replacement and spreading of unused material, the correction of drainage deficiencies to provide free drainage, the flattening of cut and fill slopes and the shaping and trimming of surfaces, all as necessary or as directed by the Employer.

### 8) Environmental instructions to workmen

The Contractor shall ensure that his workmen are properly instructed and carry out the requirements of these environmental clauses. The Contractor will be held liable for all unauthorized damage caused by him or any of his workmen. The Contractor shall provide adequate training to his workmen with regards to the environmental conditions applicable to the works.

### 9) Noise Pollution

The Contractor's attention is drawn to the fact that all construction activities will be undertaken within an existing community and noise levels are to be kept to the essential minimum, especially when working outside normal working hours.

### 10) Alien Vegetation

All alien plant species removed during the construction of the works to be done in a manner so as to avoid future proliferation.

# C3.4.18 Employment of Local Labour

It is the intention that this contract should make the maximum possible use of the local labour force which is at present underemployed. To this end it will be expected of the contractor to limit the use of non-local employees to key personnel only and to employ and train (where applicable) local labour on this contract.

# C3.4.19 Community Liaison and Community Relations

In all dealings with the community and works employed from within the community, the contractor shall take due cognizance of the character, culture and circumstances of the community involved and shall at all time use his best endeavours to avoid the development of disputes and to foster a spirit of cooperation and harmony towards the project.

The contractor shall at all times, keep the Employer's Agent fully informed on all matters affecting the contractor and the community, and shall attend all community meetings relating to the project as may be reasonably required by the Employer's Agent. All matters concerning the community shall be discussed and where possible, resolved at such meetings.

Where any resolution of a community meeting shall be contrary to the terms and provisions of the Contract, the Contractor shall not give effect there-to without a prior written instruction from the Employer's Agent.

# C3.4.20 Community Liaison Officer

Where applicable, the Employer will identify a Liaison Officer (CLO) to facilitate communication between the Contractor and themselves. All decisions regarding local labour, local problems and any other matters of local importance related to the Contract will be made in consultation with the CLO.

# C3.5 Particular Specification: PHS – Occupational Health and Safety

### C3.5.1 PHS1 - Introduction

The Occupational Health and Safety Act 1993 (Act No. 85 of 1993) together with its applicable Regulations ("the OH&S Act) forms part of the Health and Safety Regulations. Any word or expression to which a meaning has been assigned in the OH&S Act, shall have the meaning so assigned to it unless otherwise indicated. The Principal Contractor must comply with all the relevant requirements of the OH&S Act which aims to minimise Health and Safety hazards on projects.

In terms of the Construction Regulation 4(1) (a) of the OH&S Act, the **PRINCE ALBERT MUNICIPALITY**, as the Client, is required to compile an Occupational Health & Safety Specification for all projects.

The purpose of this specification is to ensure that Principal Contractors entering into a Contract with the **PRINCE ALBERT MUNICIPALITY** maintains an acceptable level of OH&S performance. The OH&S Specification forms an integral part of the Contract and Principal Contractors shall ensure that their contractors and/or suppliers comply with this Specification.

Compliance with the OH&S specification does not absolve the Principal Contractor from adhering to the legal requirements with regards to health & safety of his employees and mandataries.

The Principal Contractor must give the required notice to the Provincial Department of Labour before commencement of any construction work.

This notice shall include the information as set out in Form A to this Specification and shall be signed by both Principal Contractor and Client.

### C3.5.2 PHS 2 - General

This specification covers health and safety matters applicable during construction.

The Contractor shall comply with the Occupational Health and Safety Act (Act No. 85 of 1993) (OHS Act) and in particular with its Construction Regulations.

All the work included in this Contract shall, for the purpose of complying with the OHS Act and the Construction Regulations, be deemed to be "construction work".

It should be noted that, with a few exceptions, the Standard Specifications and the Project Specifications are "end product specifications" and not "method specifications". As the methods of construction to be used are generally determined by the Contractor detailed safety requirements applicable to all the operations to be carried out on Site are not provided in the project documentation. The Contractor shall apply all the relevant safety regulations and requirements to the work methods and materials used.

### C3.5.3 PHS 3 – Scope of the Work

The temporary and permanent Works required under this Contract are described in Part C3, Scope of Work of the contract document

The Contractor, in complying with the OHS Act and the Construction Regulations, shall consider all aspects of the Works described and take into account the construction methods and materials to be used.

Although particular attention must be given to the Employers identified risks or hazards, the Principal Contractor must provide for all other relevant items in his health and safety plans submitted.

# The Principal Contractor must ensure current registration and good standing with the Compensation Commissioner. Evidence to this effect must be submitted to the Client.

The Principal Contractor must submit in writing the name and experience of the full-time competent employee it intends to employ to supervise construction work.

It is the responsibility of the Principal Contractor and his Contractors to provide for all expenditure related to the management of the OH&S Act.

### C3.5.4 PHS 4 – Existing Site Conditions

The contractor shall take into account inter-alia, the following conditions in complying with the OH&S Act.

- a) Existing Services
- b) Traffic accommodation requirements
- c) Surrounding land-use
- d) Anticipated weather conditions

The existing conditions are described in Part C3, Scope of Work of the contract document.

### C3.5.5 PHS 5 – Design Information

Design information applicable to safety planning is provided in Part C3, Scope of Work of the contract document. Should the Contractor require any further design information in order to prepare the Safety Plan this information will be provided by the Employer's Agent upon receipt of written requests from the Contractor.

### C3.5.6 PHS 6 – Construction Materials

The following commonly used construction materials and substances potentially pose health and safety hazards:

- a) All materials contained in pressurised containers.
- b) Bitumen and tar products
- c) Cement
- d) Epoxies
- e) Lime and other stabilizing agents
- f) Paints
- g) Timber preservations

The materials to be used to construct the Works are described in Part C2, Bills of Quantities, and Part C3, Scope of Work of the contract document.

The Contractor shall take appropriate measures to manage the risks associated with the use of all the materials required to complete the Works, i.e. not only those listed above, and shall, inter alia, implement all the precautionary measures provided by manufacturers and suppliers for the storage, use and application of materials used.

# C3.5.7 PHS 7 – Site Access & Environmental Conditions

The Contractor must take note of the requirements regarding the control of access for deliveries, vehicular and pedestrian routes to site. The Contractor must comply with all safety, environmental and other relevant conditions and requirements on the Project.

# C3.5.8 PHS 8 – Use of Site by the Employer

The Contractor must comply with any continued use of the site by the Employer to maintain traffic flows, stormwater routes or to allow work to be done by other contractors or authorities.

### C3.5.9 PHS 9 - Wayleaves

The Contractor shall be responsible for obtaining all wayleaves, permissions or permits applicable to working near any existing services or other infrastructure on Site and shall abide by the safety conditions imposed by such wayleaves, permissions or permits.

## C3.5.10 PHS 10 – Reporting of Incidents

All incidents shall be reported strictly in accordance with the requirements of the OH&S Act and the General Conditions of Contract.

## C3.5.11 PHS 11 – Measurement and Payment

A separate payment item for the requirements in terms of the OH&S Act is allowed for in the Bill of Quantities. The Contractor must allow for all necessary costs involved in complying with the OH&S Act (Act No. 85 of 1993) and in particular with its Construction Regulations under this item.

# C3.5.12 PHS 12 – Health and Safety Plan

In compliance with the Construction Regulations the Contractor shall, after performing a risk assessment, prepare a health and safety plan to be submitted for the approval to the Employer.

The Health and Safety Plan shall include, but not be limited to, the following:

- a) The safety management structure including the names of all designated persons such as the construction supervisor and any other competent persons;
- b) Safety method statement and procedures to be adopted to ensure compliance with the OH&S Act. Aspects to be dealt with shall include:
- Public vehicular and pedestrian traffic accommodation measures;
- Control of the movement of construction vehicles;
- The storage and use of materials;
- The use of tools, vehicles and plant;
- Temporary support structures;
- Dealing with working at height;
- The use of batch plant;
- Excavation work;
- Demolition work;
- Security, access control and the exclusion of unauthorised persons.
- c) The provision and use of temporary services.
- d) Compliance with wayleaves, permissions and permits.
- e) Safety equipment, devices and clothing to be employed.
- f) Emergency procedures;
- g) Provision of welfare facilities;
- h) Induction and training;
- i) Provision and maintenance of the health and safety file and or other documentation;
- j) Arrangements for monitoring and review to ensure compliance with the safety plan.

### C3.5.13 PHS 13 – Safety Audits by Employer

The Contractor shall permit the Employer to regularly audit, at an agreed interval, the implementation and maintenance of the approved Health and Safety Plan and shall co-operate and provide all the required documentation, as may be required, in this regard.

### C3.5.14 PHS 14 – Variations

Should any variations be ordered or design amendments issued, the Employer's Agent shall inform the Contractor of all the associated potential hazards to ensure that the health and safety aspects of the word ordered are taken into account.

# C3.5.15 PHS 15 – Items Requiring Particular Attention

### PHS15.1 Traffic

Safe, normal traffic movement must be accommodated on the road during construction. Access to properties must be maintained at all times.

### PHS15.2 Pedestrian Safety

The contractor's machine operators must be made aware of the dangers the plant poses to pedestrians. Special care must be taken when reversing or manoeuvring in confined spaces. Where deemed necessary, flagmen may have to be deployed with plant.

### PHS15.3 Demolition Work

Where the Employer's Agent instructs the Contractor to demolish existing structures, the demolition work shall be carried out under the supervision of a competent person. The structural integrity of the structure must be checked to prevent premature collapse.

#### PHS15.4 Dust

Construction work will take place within the vicinity of residential dwellings. The contractor must limit dust nuisance by covering or wetting loose material which can be blown around by wind.

#### PHS15.5 Formwork and support work

All formwork and support work operations are carried out under the supervision of a competent person who has been appointed in writing for that purpose.

#### C3.5.16 PHS 16 - The Principal Contractor's Specific Duties with **Regards to Hazardous Work or Activities**

The following hazardous work or activities are identified in terms of the Construction Regulation 2014 and it is the duty of the Principal Contractor to ensure that the said work and activities are carried out in terms of the relevant subregulations of this Regulation or other applicable regulations.

Hazardous Work or Activity	Applicable Sub- Regulations of the Construction Regulation 2014	Other Applicable Regulations
Excavation	11	Precautionary measures as stipulated for confined spaces under the general Safety Regulations published under Government Notice R1031 of 30 May 1986, as amended.
Construction vehicles	21	
Use and temporary storage of flammable liquids on construction sites	23	Applicable provisions as stipulated in the General Safety Regulations published under Government Notice R1031 of 30 May 1986, as amended.
Housekeeping on construction sites	25	Applicable provisions as stipulated in the General Safety Regulation published under Government Notice R1031 of 30 May 1986, as amended.
Stacking and storage on construction sites	26	Applicable provision as stipulated in the General Safety Regulation published under Government Notice R1031 of 30 May 1986, as amended.
Fire precaution on construction sites	27	Applicable provisions as stipulated in the Environmental Regulations for workplaces published under Government Notice R2281 of 16 October 1987, as amended.

#### C3.5.17 PHS 17 – Risk Assessments

Risk assessments that are to be carried out for work to be executed under this contract may include but shall not be limited to the following:

- Clearing & Grubbing of the Area/Site a) b)
  - Site Establishment including: Office/s Secure/safe storage for materials, plant & equipment Ablutions Sheltered eating area Maintenance workshop
  - Vehicle access to site
- Dealing with existing structures
- c) d) Location of existing services
- e) Installation and maintenance of temporary construction electrical supply, lighting and equipment
- f) Adjacent land uses/surrounding property exposures

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- Boundary and access control/Public Liability Exposures (NB: The Employer is also responsible for the OH&S of g) non-employees affected by his/her work activities).
- h) Health risks arising from neighbouring as well as own activities and from the environment e.g. threats by dogs, bees, snakes, lightning, etc.
- Exposure to noise i)
- Exposure to vibration i)
- Protection against dehydration and heat exhaustion k)
- Protection from wet and cold conditions I)
- Dealing with HIV/Aids and other diseases m)
- Use of Portable Electrical Equipment including n)

Angle grinder Electrical drilling machine

Skill saw

Excavations including 0)

### Ground/soil conditions Trenching Shoring Drainage of trench

Welding including p)

- Arc Welding Gas Welding Flame cutting Use of LP gas torches and appliances
- Loading & offloading of trucks q)
- r) Driving & operation of construction vehicles and mobile plant including
  - Trenching machine Excavator Roller Plate compactor Front end loader Mobile cranes and the ancillary lifting tackle

  - Parking of vehicles & mobile plant Towing of vehicles & mobile plant
  - Use and storage of flammable liquids and other hazardous substances
- s) Layering and bedding t)
- Installation of pipes in trenches ú)
- Pressure testing of pipelines V)
- Backfilling of trenches w)
- Protection against flooding X)
- Protection from overhead power lines y)
- z) As discovered by the Principal Contractor's hazard identification exercise
- aa) As discovered from any inspections and audits conducted by the Client or by the Principal Contractor or any other Contractor on site.
- bb) As discovered from any accident/incident investigation.

# C3.6 Covid 19 Workplace Plan – Health and Safety Specification

## C3.6.1 Overview

Coronavirus Disease 2019 (COVID-19) is a respiratory disease caused by the SARS-CoV-2 virus. Depending on the severity of COVID-19's international impacts, outbreakconditions—including those rising to the level of a pandemic can affect all aspects of daily life, including travel, trade, tourism, food supplies, and construction.

To reduce the impact of COVID-19 outbreak conditions on businesses, workers, customers, and the public, it is important for all employers to plan for COVID-19. Planning for COVID-19 may involve updating plans to address the specific exposure risks, sources of exposure, routes of transmission, and other unique characteristics of SARS-CoV-2.

The OHS Act places the onus on employers to maintain a healthy and safe working environment. The COVID -19 Pandemic obliges employers to manage the risk of this Virus in the workplace. Risk assessments must be put into place and amended to identify the possibility of viral contamination in the workplace. This includes the implementation of a contingency plan in the event of the outbreak of coronavirus on the premises or site.

For the purposes of OHS in the workplaces to which this Directive applies, the identifiable hazard relating to COVID-19 is the transmission by an infected person to workers in the workplace. In workplaces to which the public has access, the hazard includes transmission of the virus by members of the public. Each situation requires special measures to be implemented by employers in order to prevent the transmission of the virus.

On 17 March 2020, the Department of Employment and Labour issued guidelines for employers to deal with COVID-19 at workplaces. The Department of Employment and Labour appealed to employers to use the prescriptions of the OHSA in particular the Hazardous Biological Agents Regulations governing workplaces in relation to Coronavirus Disease 2019 caused by the SARS-CoV-2 virus.

The OHS Act further requires employers, to ensure, as far as is reasonably practicable, that all persons who may be directly affected by their activities (such as customers, clients or contractors and their workers who enter their workplace or come into contact with their employees) are not exposed to hazards to their health or safety. This obligation also applies to self-employed persons whose working activities bring them into contact with members of the public.

A joint, Pro-Active approach from employers and employees is needed during this period in an effort to fight this Pandemic.

In response to the above, ISHS has compiled an Addendum to the Health & Safety Specification to be implemented before works commence on site. All contractors must familiarize themselves with all new COVID 19 legislation and guidelines from the Department of Employment & Labour in order to ensure mitigation on the spread of COVID 19

All the information regarding the COVID-19 must be read in conjunction with the National Institute for Communicable Diseases (NICD), Department of Health, Department Employment and Labour legislation and guidelines and Regulations for Hazardous Biological Agents.

### C3.6.2 Hazard Identification and Risk Assessment

The workers risk of occupational exposure to SARS-CoV-2 (the virus that causes COVID-19) during an outbreak may vary from very high to high, medium, or low (caution) risk. The level of risk depends in part on the industry type, need for contact within 2 metres (6 feet) of people known to be, or suspected of being infected with SARS-CoV-2, or requirement for repeated or extended contact with persons known to be, or suspected of being infected with SARS-CoV-2.

Very High Exposure Risk

Very high exposure risk jobs are those with high potential for exposure to known or suspected sources of COVID-19 during specific medical, post-mortem, or laboratory procedures.

### High Exposure Risk

High exposure risk jobs are those with high potential for exposure to known or suspected sources of COVID-19.

### Medium Exposure Risk

Medium exposure risk jobs include those that require frequent and/or close contact with (i.e. within 2 meters of) people who may be infected with SARS-CoV-2, but who are not known or suspected COVID-19 patients. In areas without ongoing community transmission, workers in this risk group may have frequent contact with travellers who may return from international locations with widespread COVID-19 transmission.

In areas where there is ongoing community transmission, workers in this category may have contact with the general public (e.g. in schools, high-population-density work environments, such as labour centres, consulting rooms, point of entry personnel and some high-volume retail settings).

### Lower Exposure Risk (Caution)

Lower exposure risk (caution) jobs are those that do not require contact with people known to be, or suspected of being infected with SARS-CoV-2, nor frequent close contact with (i.e. within 2 meters of) the general public. Workers in this category have minimal occupational contact with the public and other co-workers.

The risk Assessment must be updated with the objective:

- 1. To identify and assess the potential risk of exposure to COVID-19 virus at workplaces.
- 2. To identify control measures (or the absence of control measures) and assess their effectiveness to reduce the risk of transmission of COVID-19 virus from recognised and unrecognised sources of infection in a workplace.
- 3. To inform the management of the risk of potential exposure to COVID-19 virus and additional controls that might be required.

Requirements for the protection of employees against hazardous biological agents (HBA), such as the COVID-19 virus, are covered in the South African Occupational Health and Safety Act, 1993, Regulations for Hazardous Biological Agents, 2001.

The contractor must cause the risk assessment to be conducted on the basis of all available information as far as is reasonably practicable, including, but not limited to:

- 1. classification of COVID-19 virus into the relevant risk group, according to its level of risk of infection.
- 2. Recommendations from organisations such as the World Health Organization (WHO) or a competent person regarding the control measures necessary in order to protect the health of employees against COVID-19 virus as a result of their work; and
- 3. knowledge of diseases from which employees might be suffering and which may be aggravated by conditions at the workplace.

### The contractor to review the risk assessment if there:

- 1. Is a reason to suspect that the previous assessment is no longer valid
- 2. Has been a change in a process involving COVID-19 virus or in the methods, equipment or procedures in the handling, control or processing of COVID-19 samples or patients

### Risk management and control measures

- 1. Annexure 2 of the Regulations for Hazardous Biological Agents (2001) sets out a hierarchy of control measures using standard and transmission-based precautions.
- 2. Personal protective equipment should be appropriate to the route of transmission eg. respirators, impermeable gloves, supply, selection, training, separate storage, decontamination or sterilisation.
- 3. Testing of engineering control measures should be conducted every 24 months by an approved HBA inspection authority (retaining records for at least 3 years). Annexure D of the Regulations for Hazardous Biological Agents (2001) sets out requirements for the labelling, packaging, transporting and storage in special containers marked with the biohazard sign.
- 4. The employer must have written procedures for disposal of HBA to a designated site in terms of the Environmental Conservation Act and decontamination or disinfection of all containers.

### **Competencies**

- 1. The Regulations for Hazardous Biological Agents (2001) do not define any competency requirements for conducting an HBA risk assessments (or for the monitoring of exposure at the workplace). Employers and self-employed persons are advised to ensure anyone engaged to undertake an HBA risk assessment is competent in risk assessment processes and is familiar with the Regulations for Hazardous Biological Agents (2001). Knowledge of the HBA of concern (in this case COVID-19 virus) and HBA in general is advisable. It is recommended that the services of a registered Occupational Hygienist or certified Safety Professional is obtained to undertake the COVID-19 risk assessments.
- 2. Regulation 12.(b) of the Regulations for Hazardous Biological Agents (2001) requires that examinations and tests of engineering control measures be carried out at intervals not exceeding 24 months by an approved HBA inspection authority or by a person whose ability to do the measurements, analysis and tests is verified by such an approved HBA inspection authority.

The outcomes and findings of the risk assessments must inform the programme to monitor the exposure of employees to COVID-19 as well as the programme of medical surveillance.

With COVID-19, it may not be possible to eliminate the hazard, the most effective protection measures are (listed from most effective to least effective):

- engineering controls,
- administrative controls,
- safe work practices (a type of administrative control),
- and PPE.

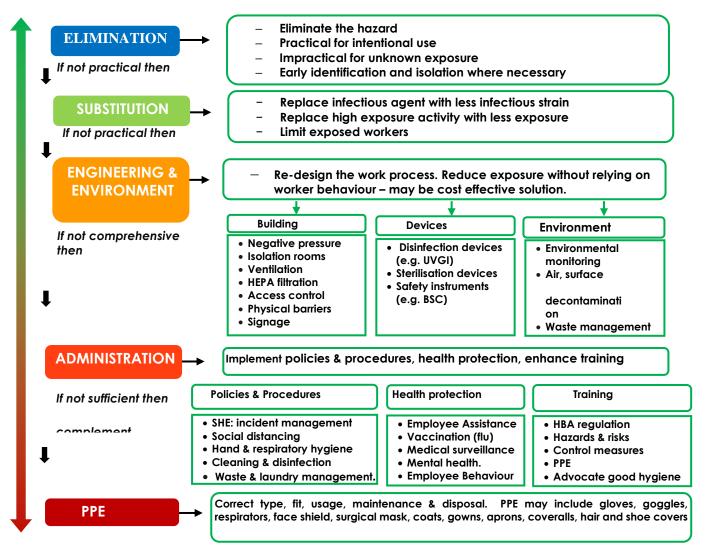
There are advantages and disadvantages to each type of control measure when considering the ease of implementation, effectiveness and cost.

In addition to the types of workplace controls discussed below, the National Institute for Communicable Diseases (NICD) provides fact sheets that guide specific workplaces (employers and employees) in relation to recommended infection prevention strategies to implement in workplaces.

### EXAMPLE OF BIO- RISK ASSESSMENT FORMAT:

	on with vo	ur supervisor	or relevant com	mittee													
PARTI	in with yo		ects of the work e		nt and d	luties (	or activit	ies of	the wo	orker							
COMPANY	<i>(</i> :	deneral appe						DAT	E OF								
ASSESSOR	NAME:							APP	ROVED	BY:							
SIGNATUR	E:							SIG	IATUR	E:							
SCOPE OF	WORK:							LOC	ATION:								
<b>REVIEW D</b>	ATE:																
PART II									LI	KELIHO	DOD OF EX	POSURE	TO SAF	S-Co\	/-2		
RISK MAT	RIX				Unlikely Highly improbable					Possible May be experienced once every year by an individual				by an	Likely Likely to be experienced once or twice a year by an individual		
CONSEQU OF EXPOS		evere tal or permanent d	lisability		Medium					High					Very high		
TO SARS-0		loderate edical attention >1	4 days and complete n	ecovery	Low					Medium					High		
		egligible ar miss or unlikely	to happen		Very lo	w				low					Medium		
Keep mo	nitoring the p	rocess	Keep the process go regularly and consid				the proces ment a cor de			n as	Investigate			ely	Stop the controls	e process and in	plement
PART III	Identifi	cation of risk a	nd proposed prev	entative r	neasure	es to re	duce ris	k									
HAZARD	WHO MAY BE AT RISK	ACTIVITY EXPOSURE EFEETS VERY LOW AND		X L	co	ISTING NTROL ASURES	W EXIS	CEED ITH TING TROLS	CC	DITIONAL ONTROL EASURES	ACTION BY	DUE DATE					
												YES	NO				
												YES	NO				

# EXAMPLE: APPLYING THE HIERARCHY OF CONTROLS FOR COVID-19



## C3.6.3 Safe Work Procedures

Safe work practices and procedures based on the outcome of the Risk Assessment conducted must be implemented and explained to employees on site. Safe work practices are types of administrative controls that include procedures for safe and proper work used to reduce the duration, frequency, or intensity of exposure to a hazard.

Examples of safe work practices for SARS-CoV-2 include:

- Providing resources and a work environment that promotes personal hygiene. For example, no-touch refuse bins, hand soap, alcohol-based hand rubs containing at least 70 percent alcohol, disinfectants, and disposable towels for workers to clean their hands and their work surfaces.
- Requiring regular hand washing or using of alcohol-based hand rubs. Workers should always wash hands when they are visibly soiled and after removing any PPE.
- Display handwashing signs in restrooms.
- Site Access and Egress Points Contractor must implement a strict access and visitors control policy on building and construction projects that must include pre-screening procedures.
- Implement procedure whereby start-up checklist is completed before construction activities continues.

### C3.6.4 Screening

The Principal Contractor must ensure that all employees and visitors are screened prior to entering the site.

Screening must include,

- Hand Wash
- Infrared Thermometer Testing (< 38°C is acceptable)
- Self-Assessment (Questionnaire)

Every employer must take measures to-

- screen any worker, at the time that they report for work, to ascertain whether they have any of the
  observable symptoms associated with COVID-19, namely fever, cough, sore throat, redness of eyes or
  shortness of breath (or difficulty in breathing);
- require every worker to report whether they suffer from any of the following additional symptoms: body aches, loss of smell or loss of taste, nausea, vomiting, diarrhoea, fatigue, weakness or tiredness; and
- require workers to immediately inform the employer if they experience any of the symptoms while at work.
- Implement measures and procedures such as screening questionnaire to understand the risk of Covid-19 to yourself and other employees before starting up. The information herein is to be used to determine if you meet the access requirements to this site in terms of Covid-19 susceptibility.
- Employers must comply with any guidelines issued by the National Department of Health in consultation with the Department in respect of symptom screening and if in addition required to do so, medical surveillance and testing.
- Record shall be kept by the employer of all screenings and should an employee show any positive symptoms related to COVID-19, such employee will be quarantined and the appointed Construction Manager will inform the Department of Health COVID-19 Hotline 0800 029 999 or Western Cape Provincial 24/7 Operational Hotline (021) 928 4102.

If a worker presents any symptoms associated with COVID-19, namely fever, cough, sore throat, redness of eyes or shortness of breath (or difficulty in breathing); or advises the employer of these symptoms, the employer must

- not permit the worker to enter the workplace or report for work; or
- if the worker is already at work immediately-
- isolate the worker, provide the worker with a FFP1 surgical mask and arrange for the worker to be transported in a manner that does not place other workers or members of the public at risk either to be self-isolated or for a medical examination or testing;
- assess the risk of transmission, disinfect the area and the worker's workstation, refer those workers who
  may be at risk for screening and take any other appropriate measure to prevent possible transmission.
- ensure that the worker is tested or referred to an identified testing site.

### C3.6.5 Personal Protective Equipment (PPE)

While engineering and administrative controls are considered more effective in minimizing exposure to SARS-CoV-2, PPE may also be needed to prevent certain exposures. While correctly using PPE can help prevent some exposures, it should not take the place of other prevention strategies.

Examples of PPE include gloves, goggles, face shields, face masks, gowns, aprons, coats, overalls, hair and shoe covers and respiratory protection, when appropriate. During an outbreak of an infectious disease, such as COVID-19, recommendations for PPE specific to occupations or job tasks may change depending on geographic location, updated risk assessments for workers, and information on PPE effectiveness in preventing the spread of COVID-19. Employers should check the NICD website regularly for updates about recommended PPE.

### All types of PPE must be:

- Selected based upon the hazard to the worker.
- Properly fitted (e.g., respirators).
- Consistently and properly worn when required.
- Regularly inspected, maintained, and replaced, as necessary.
- Carefully removed, cleaned, and stored or disposed of, as applicable, to avoid
- contamination of self, others, or the environment.
- PPE spotters required to monitor the usage of PPE throughout the site.

Employers are obligated to provide their workers with PPE needed to keep them safe while performing their duties. The types of PPE required during a COVID-19 outbreak will be based on the risk of being infected with SARS-CoV-2 while working and job tasks that may lead to exposure.

### C3.6.6 Employee Welfare

The Principal Contractor and their contractors must ensure that hand wash/sanitizers are compulsory on site and that workers use hand wash facilities prior, during and after each activity irrespective of how long or short the activity is.

Hand sanitizer must be one that has at least 70% alcohol content and is in accordance with the recommendations of the Department of Health.

### Surfaces

The Principal Contractor must ensure that all work surfaces and equipment are disinfected before work begins, regularly during the working period and after work ends.

- The Principle Contractor and Contractors to prepare and maintain a cleaning schedule for all facilities.

### Ventilation

The Principal Contractor must,

- keep the workplace well ventilated by natural or mechanical means to reduce the SARS-CoV-2 viral load.

### C3.6.7 Social Distancing

The Principal Contractor must arrange the workplace to ensure minimal contact between workers and as far as reasonably practicable ensure that there is a minimum of 1.5metres between workers while they are working, for example, at their workstations. Depending on the circumstances of the workplace or the nature thereof, the minimum distance may need to be longer. Reducing the number of workers present in the workplace at any time in terms by means of rotation, staggered working hours, shift systems or remote working arrangements

- Supervisors should consider in their daily planning to avoid close contact with persons where possible.
- It is important that employee representatives are elected and appointed to ensure workers can raise anonymous issues to them instead of discussing site issues in large groups for management to address.
- It is recommended that traditional contractual site/progress meetings be conducted through online media platforms such as Webex/skype conference calling etc. instead of grouping on site where possible, provision of sufficient internet services should be available on sites to accommodate this.

The Principal Contractor must ensure that where reasonably practicable given the nature of the workplace, every employer must -

- Ensure that adequate social distancing is always maintained
- Provide compliance with relevant legislation and risk assessment

### Awareness:

The Principal Contractor must ensure that the relevant signage is clearly displayed on site,

employees are kept informed and up to date with the latest news regarding COVID 19.

- Awareness Training in small groups
- Providing workers with up-to-date education and training on COVID-19 risk factors and protective behaviours (e.g. cough etiquette and care of PPE).

### C3.6.8 Waste Management

The employer must have written procedures for the management, storage and disposal of all personal protective equipment and cleaning material potentially contaminated by Hazardous Biological Agents. All hazardous waste must be disposed of at a designated site in terms of the Environmental Conservation Ac and National environmental waste act.

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In compliance with the guideline published by the Department of Health; Employers must ensure the following:

- All waste management plans, classifications and procedures to include COVID 19 waste/Isolation Waste/Health Care Waste.
- A designated area to be made available for the storage of COVID- 19 waste
- Should an Employee display known symptoms of COVID- 19, the medical waste of that person may be kept in the isolation room established on site.
- All corona virus waste shall be treated as isolation waste and must be double bagged in preferably red plastic inside of 50 L or 142 L single use boxes and must be labelled "SUSPECTED COVID- 19" whilst the employees' status is not confirmed. The double bagged waste can remain in the isolation room for collection.
- Should the suspected patient tested as negative; the waste must be handled as health care waste.
- All employees working with isolation waste shall be provided with PPE as outlined in the highest risk category above (gloves, face shield, mask etc.)
- Arrange with our municipal environmental health Practitioners for the collection of the waste at your facility.
- A separate waste register must be implemented to record all COVID-19 waste removed from the facility.
- All COVID 19 waste must be disposed at a registered Health Care Risk Waste Facility (searchable on google maps).

### C3.6.9 COVID 19 Incident or Infection Case Requirements

The Principal Contractor must ensure that if a worker has been diagnosed with COVID-19 that:

- the Department of Health and the Department of Employment and Labour is informed.
- investigate the cause including any control failure and review its risk assessment to ensure that the necessary controls and PPE requirements are in place.
- give administrative support to any contact-tracing measures implemented by the Department of Health.

### Returning to work after being Infected with COVID 19

# The Principal Contractor must ensure that the following is implemented after an employee has been infected and is returning to work.

If a worker has been diagnosed with COVID-19 and isolated in accordance with the Department of Health Guidelines, an employer may only allow a worker to return to work on the following conditions:

The worker has undergone a medical evaluation confirming that the worker has been tested negative for COVID-19.

- the employer ensures that personal hygiene, wearing of masks, social distancing, and cough etiquette is strictly adhered to by the worker; and
- the employer closely monitors the worker for symptoms on return to work.

In addition.

- No person may refuse to be screened or tested if suspected that, that person has COVID19 like symptoms as per the Amended Disaster Management Act 2002.
- As per the Disaster Management Act 2002, no person that has been clinically or by a laboratory, confirmed as having COVID-19, or who is suspected of having contracted COVID-19, or who has been in contact with a person who is a carrier of COVID-19, may refuse self-quarantine or quarantine by a health establishment.
- Once identified through screening a person under investigation (PUI) needs to be moved to an isolated area on site that has been disinfected and access controlled.
- It is important to note that once an employee has been diagnosed with the symptoms of COVID19 and it
  has been clinically confirmed as positive by a Laboratory and this employee has been on site or at office.
- Note: the entire site/office must be evaluated for the COVID19 virus by a Health Establishment as a precaution.

# C3.6.10 Compensation for Occupational Injuries and Diseases Act (Coida) 130 of 1993

Principle Contractor must ensure that a separate register containing the details of confirmed or suspected COVID 19 cases are kept on file and made available for inspection by any approved government authority as required by the National Disaster Act 57 of 2002.

All cases of occupationally acquired COVID 19 to be reported to the department of labour in accordance with General Administrative Regulation 8 and Section 6 of the Notice (CF/03/2020) on Compensation for Occupationally-Acquired Novel Corona Virus Disease (COVID 19).

Occupationally- acquired COVID -19 is a disease contracted by an Employee as defined in the COID Act arising out of and in the course of his or her employment.

### Reporting:

The following documentation should be submitted to the Compensation Commissioner or the employer individually liable or the mutual association concerned:

- a) Employer's Report of an Occupational Disease (W CL.1)
- b) Notice of an Occupational Disease and Claim for Compensation (W.CL.14)
- c) Exposure and Medical Questionnaire
- d) First Medical Report in respect of an Occupational Disease (W.CL 22) indicating U07.1 as the ICD -10 code for Covid -19
- e) Exposure History (W.CL. 110) and /or any other appropriate employment history which may include any information that may be helpful to the Compensation Commissioner.
- f) A medical report on the employee's symptoms that details the history, establishes a diagnosis of COVID -19 and laboratory results and chest radiographs where appropriate or any other information relevant to the claim.
- g) For each consultation, a Progress Medical Report (W.CL. 26).
- h) Final Medical Report in respect of an Occupational Disease (W.CL.26) when the employee's condition has reached Maximum Medical Improvement (MMI).
- i) An affidavit by the employee if employer cannot be traced or will not timeously supply a W.CL.1, where applicable.

# C3.6.11 Updates and Amendments to the Project Health and Safety Plan must include but is not limited to the following:

- Updating of Admirative control measures
  - Risk Assessment
  - Submit a record of its risk assessment together with a written policy concerning the protection of the health and safety of its employees from COVID-19 as contemplated in section 7(1) of Occupational Health and Safety Act 85/1993
- Appoint a COVID-19 Compliance Officer in terms of Regulation 16 (6)(a) of the Disaster Management Act 2002
- Records to be kept of all employee screening and self-assessments
- Updating of registers (i.e. Routine Cleaning Register Facility and vehicles, COVID 19 PPE Issue Register, COVID 19 Training Register)
- Safe working procedures
- Notify all workers of the contents of this directive and amendments. (Employee obligation)
- Provide workers with information that raises awareness
- Contingency plan in the event of the outbreak of coronavirus
- (COVID 19 Emergency Procedures)
- Update of engineering controls
- Social distancing measures (Number of employees required to perform activities)
- Health and safety measures
- Symptom screening
  - Sanitizers, disinfectants and other measures
  - Measures in respect of workplaces to which public have access
- Ventilation
- Personal Protective equipment
- Provision of safe transport for employees (Including permit procedures)
- Waste Management

# This amendments to the Health and Safety specification are in line with that of the following guidelines and legislation and must be consulted when updating the Health and Safety Plan:

 DEPARTMENT OF EMPLOYMENT AND LABOUR - COVID-19 OCCUPATIONAL HEALTH AND SAFETY MEASURES IN WORKPLACES COVID-19 (C19 OHS), 2020
 DIRECTIVE BY THE MINISTER OF EMPLOYMENT AND LABOUR IN TERMS OF REGULATION 10 (8) OF THE REGULATIONS ISSUED BY THE MINISTER OF COOPERATIVE GOVERNANCE AND TRADITIONAL AFFAIRS IN TERMS OF SECTION 27 (2) OF THE DISASTER MANAGEMENT ACT, 2002

(ACT NO. 57 OF 2002)

- DEPARTMENT OF HEALTH COVID-19 Disease: INFECTION PREVENTION AND CONTROL GUIDELINES
- REGULATIONS FOR HAZARDOUS BIOLOGICAL AGENTS
- NATIONAL INSTITUTE FOR OCCUPATIONAL HEALTH
- COVID-19 OCCUPATIONAL HEALTH AND SAFETY MEASURES IN WORKPLACES COVID-19 (C19 OHS), 2020,
- NOTICE ON COMPENSATION FOR OCCUPATIONALLY- ACQUIRED NOVEL CORONA VIRUS DISEASE (COVID -19) AND THE COMPENSATION FOR OCCUPATIONAL INJURIES AND DISEASES ACT, 1993 (NO. 130 OF 1993) AS AMENDED
- RISK ADJUSTED STRATEGY REGULATIONS 2020 ISSUED BY THE MINISTER OF COOPERATIVE GOVERNANCE AND TRADITIONAL AFFAIRS IN TERMS OF SECTION 27 (2) OF THE DISASTER MANAGEMENT ACT, 2002 (ACT NO. 57 OF 2002)

(Note. These documentations are subject to change based on expected amendments to regulations by national government.)

## C3.6.12 Amendment to Baseline Risk Assessment Table

Activity	Risk Ratin g	Hazard	Control Measure	Responsible Person
(SARS-CoV-2) Severe Acute Respiratory Syndrome Coronavirus 2		Relevant Occupational diseases due to exposure. COVID-19 infected employees.	<ul> <li>Inform employees of the correct information in regards with COVID-19, as published by the Department of health.</li> <li>Sufficient ongoing awareness</li> <li>and information provided to employees regarding COVID 19.</li> <li>Correct information signage and posters to be strategically displayed on site as recommended by National Department of Health.</li> <li>Screening procedure to be implemented to ensure employees are tested before entering site.</li> <li>Provision for hand sanitizer to all employees to be able to sanitize hands.</li> <li>Ensure and promote social distancing by allowing enough space between employees to reduce the risk of possible infection (minimum of 1,5 meters between employees).</li> <li>Prevent any employee of being in contact with an infected or suspected infected person.</li> <li>Encourage sick or personal to stay at home.</li> <li>Promote good personal hygiene. As far as reasonably practicable that surfaces and tops be cleaned regularly.</li> <li>Management to ensure that all items delivered will be sanitized before it is used on site.</li> <li>Required PPE must be made available and that employees are informed of the correct use and disposal of that personal protective equipment.</li> </ul>	CR 8.1 & COVID 19 Compliance Officer/ Coordinators

# COVID 19 - BASELINE RISK ASSESSMENT

			1	Hazardous waste procedure te	
			-	Hazardous waste procedure to be formulated to ensure possible contaminated personal protective equipment are disposed correctly as per guideline published by the Department of Health on the management of coronavirus or COVID – 19 Health Care Waste. All employees must receive training in the use, maintenance and limitations of personal protective equipment provided. Comprehensive COVID 19 Emergency Procedure to be Included to ensure that sufficient measures are in place in case of a COVID 19 positive person on site.	
Access Control	Н	Risk for possible	-	Security personnel to be trained	CR 8.1 &
		infection of the		on the COVID 19 access control	COVID 19
		Coronavirus through		procedures.	Compliance Officer/
		entry of external persons.	-	Have sufficient hand sanitizers/soap and water for use	Coordinators
		1		to employees and visitors prior to	
				entering the site.	
			-	Visitors/Employees to sign in and out.	
			-	No biometric systems to be used.	
			-	Limit all access points -	
				designated access and egress points together with signage to	
				be clearly identifiable .	
Visitors & Employees entering site (including deliveries)	Η	Risk for possible infection of the Coronavirus through entry of external persons		All visitors to be escorted to site office, be inducted and receive COVID 19 awareness training with proof of attendance. Comply with all relevant Legislation COVID 19 team to familiarise themselves with the latest legislation and guidelines that has been issued by the relevant authorities and ensure that all persons are adequately informed. All employees/persons to be screened as required by Department of Health a Guidelines. Security to control attendance register/book alone to avoid double handling and possible spread of virus. All employees & visitors who previously been screened and tested positive shall provide a Medical Certificate indicating that he/she has been declared fit for work and Coronavirus Free. Non-contact Temperature testing to be conducted by responsible trained persons to all employees/visitors prior to entering the site with records kept.	CR 8.1 & COVID 19 Compliance Officer/ Coordinators
			-	Employees/Persons who indicates any signs of COVID 19	
				, , ,	

Off-loading of Material/ Deliveries	Н	Coronavirus through entry of external	_	based on completion of the checklist and shall be escorted to the isolation room and be provided with a mask (should they not have any). Report all incidents and suspected COVID 19 cases/employees to site management and the respective COVID 19 /team / Compliance Officer/Coordinators All persons delivering material must have PPE- Face Masks compulsory Limit all access points Relevant signage to be provided	CR 8.1 & COVID 19 Compliance
		persons	-	and displayed All persons delivering material must have PPE- Cloth Masks are compulsory Drivers to remain in vehicles where possible, should they be required to offload manually the site employees must maintain a distance of at least 2 meters.	Compliance Officer/ Coordinators
Screening	Η	Risk for possible infection of the Coronavirus to persons performing screening procedure.	-	Screening team shall be issued with the relevant personal protective equipment (Full face shield/screen, N 95 Mask/ 3-layer surgical mask, latex gloves etc. Screening Team to keep safe distance when screening employees and visitors. Screening team to ensure where high temperature (above 38°C) is registered, possible Infected person will report his/her symptoms to his/her construction manager who will contact the NICD hotline on 080002999. A suspected infected person must be moved to the isolation area immediately with minimal interaction/contact with other persons on site. Should the suspected infected person be able, they will drive themselves to a hospital/doctor. Should this person be unable to transport themselves, a household member must be contacted to transport the employee. A suspected infected person will only be allowed to return to site after being examined by Doctor and being given certificate that clears him/her from COVID 19.	CR 8.1 & COVID 19 Compliance Officer/ Coordinators
Washing/Sanitizing of Hands and disinfectant of surfaces.	Н	Coming into contact with COVID 19 due to touching of possibly contaminated surfaces.	-	Workers to be trained and instructed on how to wash their hands. Sufficient hand Wash Bays and Soap to be at site entrance. Workers t ensure that hands are washed prior and after every activity.	CR 8.1 & COVID 19 Compliance Officer/ Coordinators

	1				
Working on Site/ Site Inspections	М	Risk for possible infection of the		No sharing of stationary or utensils. Using at least 70% alcohol-based hand sanitizer. Use disposable towels. Display handwashing signs in all areas. All work areas, eating facilities and ablution facilities to be cleaned/disinfected prior, during and after work. Sufficient waste bins with lids and must be emptied regularly Comply with all relevant legislation and restrictions	CR 8.1 & COVID 19
		Coronavirus to persons performing inspection.		Appoint a COVID Compliance officer persons to coordinate COVID 19 activities with daily feedback to management. Employees who are elderly and or have existing respiratory ailments or are currently sick must remain at home until further notice from the President. All persons with general flue like symptoms to be encouraged to stay at home or seek medical attention PPE to be worn at all times- Cloth Masks are compulsory No sharing of PPE Spotters to be on site monitoring use of PPE and or unusual behaviour of employees Alternate/stagger Working Hours Designated isolation room/areas to be provided for all possible COVID 19 cases and must be decontaminated as needed Provide and display Emergency & Counselling Contact Numbers Provide designated bins for all used PPE and dispose safely Alternate Lunch and Tea Breaks to be considered to avoid any gathering of persons n site.	Compliance Officer/ Coordinators
Operating of Mobile/Small Plant and Tools	Н	Risk for possible infection of the Coronavirus to employees due to sharing of plant and equipment.	_	One operator to be assigned per mobile plant Daily Inspections to be conducted prior to use of plant and tools Cabin to be disinfected prior, during and after to use Good hygiene to be implemented when operating of Mobile/Small Plant and Tools	CR 8.1 & COVID 19 Compliance Officer/ Coordinators Plant Operators
Conducting & Attending Safety Awareness Sessions & Inductions including progress//site meetings.	Η	Risk for possible infection of the Coronavirus to employees due to possible lack of social distancing and gathering of persons.	_	Ensure that sufficient Sanitisers are available at all entrances/work areas and office. Use loudspeaker/loudhailer to be used if possible. Avoid sharing the same loud hailers Avoid physical contact, no shaking of hands	CR 8.1 & COVID 19 Compliance Officer/ Coordinators

— Make use of technologymedia <ul> <li>If not possible then adequate and sufficient space is required with smaller groups.</li> <li>Alternate awareness assion schedules and inductions             <ul> <li>Employees to be informed regarding Saction 14 of the OHS Act 85/1833 and all relevant tigalation.</li> <li>Employees to be informed regarding Saction 14 of the OHS Act 85/1833 and all relevant tigalation.</li> <li>Alternate awareness assion schedules and networks to conduct remote meetings. Zoom, Skype. Microand facilities (Toilets) and cleaning thereof</li> </ul>            Using Ablution         H         Coming into contact with COVID 19 due to touching opposite frams for provide additional facilities af ara as reasonably practicable as far as reasonably practicable.         CR 8.1 &amp; Compliance Office/ Coordinators           Using Ablution         H         Coming into contact with COVID 19 due to touching opposite. Mean Mand towell paper towall to dry your hands.         CR 8.1 &amp; Compliance Office/ Coordinators           Using Ablution of delay or at agreed risk assassment         - Decontaminate Portable Toilets as far as reasonably practicable as assassment         CR 8.1 &amp; Compliance Office/ Coordinators           Transportation of Employees due to dry your hands.         - Decontaminate Portable Toilets as a ras assassment to realing relevant areas.         - CR 8.1 &amp; Compliance Office/ Coordinators           Transportation of Employees due to dry our appropriate Intervals assassment.         - Decontaminate Portable toilets as far as reacen grading deceptant areas.         - CR 8.1 &amp; Compliate 1000000000000000000000000000000000</li></ul>				1		
-Employees/Persons who indicates any signs of COVID 19 based on completion of checklist or screening and shall be escorted to the isolation room and be provided with a mask (should they not have any). Such a person must be requested to contact their Doctor or The COVID 19 helpline and leave site.Departure from place of work.HEmployee / family member at risk for possible infection of the CoronavirusContractor to ensure the company that transport their staff apply regular sanitizing principals cordinators of the site to ensure visitors complyCR8.1 & COVID 19 Compliance	Facilities (Toilets) and cleaning thereof		COVID 19 due to touching of possibly contaminated surfaces. Risk for possible infection of the Coronavirus to employees due to possible lack of social distancing and gathering		sufficient space is required with smaller groups. Alternate awareness session schedules and inductions Employees to be informed regarding Section 14 of the OHS Act 85/1993 and all relevant legislation. Avid any meetings held on site in a confined space. Use of media networks to conduct remote meetings, Zoom, Skype, Microsoft Teams for meetings where necessary. Provide additional facilities (toilets) Use flushable toilets as far as reasonably practicable Ensure that sufficient Sanitisers/ Soap & Water are available Wash Hands (before and after use) when using facilities Use your own hand towel/ paper towel to dry your hands. Clean Ablution facilities at least twice per day or as agreed/risk assessment Decontaminate Portable Toilets daily or at appropriate intervals Additional Signage to be displayed Register required for cleaning relevant areas. Outsource cleaning of portable toilets if possible, where this is not possible the following must apply but is not limited to. Daily vehicle inspections and disinfecting to be conducted Limit number of employees as per the relevant legislation Driver to monitor this process All employees/persons must complete a Self- Assessment/checklist prior to	COVID 19 Compliance Officer/ Coordinators
of work. Arriving at home after conducting emergency workmember at risk for possible infection of the Coronavirus.company that transport their staff apply regular sanitizing principals Ensure that sufficient controls are in place at all access points of the site to ensure visitors complyCOVID 19 Compliance Officer/ Coordinators				_	them entering the vehicle/plant. Employees/Persons who indicates any signs of COVID 19 based on completion of checklist or screening and shall be escorted to the isolation room and be provided with a mask (should they not have any). Such a person must be requested to contact their Doctor or The COVID 19 helpline and leave site.	
emergency work     in place at all access points of the site to ensure visitors comply     Coordinators	of work. Arriving at home	Н	member at risk for possible infection of the	-	Contractor to ensure the company that transport their staff apply regular sanitizing principals	COVID 19 Compliance
					in place at all access points of the site to ensure visitors comply	

			_	COVID 19. Before departure the workplace the Construction Supervisor must ensure that all employees are sanitized by using available sanitizer. Used PPE must be removed and safely disposed as per waste management plan	
Treating of Injuries on Site	H	Risk for possible infection of the Coronavirus to employees possible lack of social distancing.	_	Competent First Aider to attend to all reported cases and follow all COVID 19 protocols and emergency procedures. First Aider t be provided with the relevant PPE (disposable overall) Assess the injured person with caution and discretion. Temperature of injured person to be taken immediately or prior to assessment if possible Additional PPE Required but is not limited to, E.g. approved Medical Masks, N-95 or N-99 Masks or similar, suitable gloves, and Face & eye protection Decontaminate area and equipment if area has been contaminated A register to be provided of All persons who has been screened and tested positive Note, this must be done in a dignified and confidential manner. All COVID 19 statistics to be provided to the department of Health Emergency procedures and tracking register to be provided for infected persons	CR 8.1 & COVID 19 Compliance Officer/ Coordinators
Waste Management	Н	Risk for possible infection of the Coronavirus to employees being exposed to possible contaminated waste.		All corona virus waste shall be treated as isolation waste and must be double bagged in preferably red plastic inside of 50 L or 142 L single use boxes and must be labelled "SUSPECTED COVID- 19" whilst the employees' status is not confirmed. Place the bags in the designated Health Care Waste Staging area. A Separate Waste Register to be provided	CR 8.1 & COVID 19 Compliance Officer/ Coordinators

Note: All Activities to be re-assessed by the Principal Contractor and their contractors prior to start of work and must be communicated with all relevant employees with proof placed on file.

# C3.6.13 Annexure: COVID 19 Occupational Health & Safety Pre-Start Checklist

(The contractor must ensure that the checklist is completed and returned to ISHS on commencement of work)

		Compliant	
No	Item	(yes or no)	Comment
1.	The date the business will open and the number of expected employees	DATE:	AMOUNT:
2.	The steps taken to get the workplace COVID -19 ready.		
3.	Sanitary and social distancing measures and facilities at the entrance and exit to the workplace in place.		
4.	The steps taken to get the workplace COVID -19 ready		
4.1.	The attendance -record system and infrastructure		
4.2.	The work -area of employees ready		
4.3.	Sheltered eating area and ablution facilities.		
5.	Staff rotational arrangements (for establishments where fewer than 100% of employees will be permitted to work).		
6.	Details regarding transport to site in place		
7.	Arrangements regarding site access in place		
8.	Details regarding screening on site in place		
9.	Risk Assessments in place		
10.	Proof of Risk Assessment communicated (Indicate if included in general COVID 19 induction)		
11.	All site personnel issued with PPE based on the outcome of the COVID 19 Risk Assessment (Register)		
12.	COVID-19 emergency procedures communicated to all employees (Register)		
13.	Procedures for welfare, washing, sanitising and disinfection implemented		
14.	Updated Waste Management Procedure (Including COVID 19 waste). Separate waste manifest register for all COVID 19 waste disposed		
15.	Procedure for investigation of COVID-19 cases		
16.	COVID-19 Compliance Officer details and appointment(s)		
17.	COVID-19 Compliance Manager details added to list of emergency numbers displayed.		
18.	Arrangements for visitors or members of the public, including sanitation, PPE and social distancing measures in place		
19.	List of high-risk staff with underlying medical conditions		

#### PRINCE ALBERT MUNICIPALITY Tender No.: 141/2021 PRINCE ALBERT TOWN BOREHOLE DRILLING AND TESTING

20.	COVID 19 Notices and Signage displayed	
21.	Provisions made for an adequate isolation area as per emergency procedure	
22.	Awareness training (inductions, toolbox talks and safe procedure of communication)	
23.	Provisions for soap and water/sanitizer (70 % alcohol)	

(Note. These documentations are subject to change based on expected amendments to regulations by national government. The Contractor must ensure that all relevant documentation pertaining to is revised as and when new regulations and guidelines are published.)

Construction Manager CR (8)(1):	
Name:	
Signature:	
Date:	

# C3.6.14 Acknowledgement and Acceptance of Conditions of the Addendum to OHS Specifications

Acknowledgement of receipt of the Health and Safety Specifications and amendments:

\_\_\_\_\_ representing the Contractor,

\_\_\_\_\_ (Name of Company)

Do hereby declare that I have satisfied myself with the content of the construction Health and Safety Specification and shall ensure that the Contractor and its personnel comply with all obligations / requirements in respect thereof.

I acknowledge having read and understood the conditions contained in this legal document and furthermore, we agree and accept to abide by the conditions and requirements of the act.

SIGNATURE OF PRINCIPAL CONTRACTOR

DATE

SIGNATURE OF CLIENT

١,

DATE

### OCCUPATIONAL HEALTH AND SAFETY SPECIFICATION FORM 1 –NOTIFICATION OF CONSTRUCTION WORK

1.1	Details of Principal Contractor Name:			
	Postal Address:			
	Tel No	Fax No:		
	Contractor's contact person			
	Compensation registration number:			
1.2	Details of Employer Name			
	Postal address			
		Fax No:		
	Client's contact person:			
1.3	Details of Employer's Agent			
	Name			
	Postal address			
	Tel No	Fax No:		
	Contact person:			
1.4	Details of Project			
	Name and telephone number of the site contr	act person		
	Physical address of the construction site or si	te office		
	Nature of the construction work: Expected commencement date			
	Expected completion date			
	Estimated maximum number of persons on the construction site			
		nstruction site		
Princip	al Contractor	Client		
Date:		Date:		
		CE OF THE DEPARTMENT OF LABOUR <u>PRIOR TO COMMENCEMENT</u>		

# C3.7 Particular Specification: Borehole Drilling

The contract is for the drilling and/or the rehabilitation of water supply boreholes and all works associated therewith in accordance with:

- a) the information provided to the contractor as included in this Contract Document.
- b) all relevant and applicable criteria set out in the document.

THE DEPARTMENT OF WATER AFFAIRS AND FORESTRY, 1997.

Minimum Standards and Guidelines for Groundwater Resource Development for the Community Water Supply and Sanitation Programme, First Edition. April 1997.

- c) any other relevant and applicable specifications set out elsewhere in the Minimum Standards and Guidelines Document.
- d) any information specifically set out in the attached Agreement Contract.
- e) any further details and/or instructions as may be ordered by the Client or the Hydrogeological Consultants. Specialist work (for example: ODEX drilling) may only be conducted after written confirmation has been obtained from the Consulting Engineer and Project Hydrogeologist.
- f) technical drawings and instructions as set out in the Standard Rate Agreement Document of the Department of Water Affairs and Forestry.
- g) the Contractors liability for any latent defects will be according to Clauses 55 and 56 of the General conditions of contract for works of civil engineering construction, Sixth Edition (1990), with the term "Engineer" replaced by "Hydrogeological Consultant".
- h) all standards procedures indicated in the SANS 10299:2013 Development, maintenance and management of groundwater resources. The Contractor can purchase the SANS 10299 document from Standards South Africa at <u>www.stansa.co.za</u>.

Copies of the MINIMUM STANDARDS AND GUIDELINES DOCUMENT will be available to the Contractor at the hydrogeological consultant should he be interested.

Figures and drawings relating to all borehole development procedures are given in the above-mentioned document.

The Drilling Contractor should avail himself that the drilling equipment utilised during the completion of this project complies with the standards of the Department of Water Affairs and Forestry, as set out in the MINIMUM STANDARDS DOCUMENT as well as the SANS 10299 document.

The Drilling Contractor will function under the direct supervision of the Hydrogeological Consultant. This does not imply that the Drilling Contractor is absolved from any responsibility, but rather that all drilling activities will be approached through communication and discussion between the Hydrogeological Consultant and the Drilling Contractor with a view to developing the most suitable and mutually acceptable finished product

It is emphasised that the Drilling Contractor must be registered with the Department of Water Affairs and Forestry as an acknowledged drilling contractor.

The Drilling Contractor should also be a member of an acknowledged drilling association.

The Drilling Contractor may also indicate his maximum capacity.

The Municipality reserves the right to appoint any Drilling Contractor based on their Equipment, Availability and Pricing.

The Municipality also reserves the right to appoint any Sub-Contractor should the initial Drilling Contractor be unable to finish the project in accordance with the specified timeframe or should the Contractor be unable to deliver the boreholes as instructed by AGES.

# C3.7.1 Approach and Responsibility

The Drilling Contractor will function under the direct supervision of the Hydrogeological Consultant. This does not imply that the Drilling Contractor is absolved from any responsibility, but rather that all drilling activities will be approached through communication and discussion between the Municipal Representative and the Drilling Contractor with a view to developing the most suitable and mutually acceptable finished product.

# C3.7.2 Drilling Equipment and Materials

The Drilling Contractor shall provide all labour, transport, plant, tools, materials and equipment necessary to satisfactorily complete the drilling programme as to the specifications determined by the Hydrogeological Consultant. It is imperative that the Drilling Contractor supplies equipment of a suitable size and capability to drill up to 400 m through formations such as quarzitic sandstone and dolerite. The compressor supplied by the Drilling Contractor should have a capacity of at least 2400 kPa (24 bar) and a volume of at least 750 cfm. Additional capacity needs to be available as per bill of quantities.

Equipment brought onto the site may not be removed there from without the written permission of the Municipal Representative. It will be the responsibility of the Contractor to arrive on site with all equipment, materials and chemicals required to complete the work without interruption.

The Hydrogeological Consultant will have the right to inspect the equipment to be used prior to the commencement of the work. If the Hydrogeological Consultant considers the plant in use on the site of the Works is in any way inefficient or inadequate in capacity, he shall have the right to call upon the Contractor to put such equipment in order within 7 days or, alternatively, to remove such plant and replace it with other plant or equipment which he considers necessary to meet the requirements of the Contract.

In the event that this requirement is not satisfied, the Hydrogeological Consultant reserves the right to advise the Client to terminate the Contract immediately.

# C3.7.3 Drilling Techniques and Capability

The preferred drilling technique is rotary air percussion employing a down-the-hole (DTH) hammer. The Drilling Contractor must have equipment capable of drilling 165 to 304 mm diameter boreholes. Odex drilling might be required as defined in the bill of quantities.

# C3.7.4 Borehole Construction

Drilling of the borehole must commence at a diameter which will allow for the trouble free insertion of casing, as well as a bentonite plug and grout sanitary seal down to a depth of 5 m or as specified by the hydrogeologist.

The unconsolidated overburden is to be cased via 273mm Odex drilling to an anticipated 20m depth.

Drilling is to commence at a drilling diameter of 230 mm down to a depth of 100m. Thereafter at 190mm up to 200m. Deeper drilling will be at a diameter of 172mm. uPVC 177 mm dia. Class 12 (threaded, flush-fit) must then be installed to a depth of 120m. The final completion depth will be directed by the Client's representative (AGES).

Final borehole construction will be decided on site between the hydrogeological consultants and the contractor.

### C3.7.4.1 Drilling Media

The Contractor may not use drilling which may cause hole erosion or involve the use of clay, oil, salt or any lost circulation agent, sawdust ,cement or any form of plugging that could affect the production capacity of the water bearing zone intersected.

Where the air percussion drilling technique is used foam may be required. It will be the responsibility of the driller to use foam mix compatible with and suitable for the geological conditions being experienced.

# C3.7.4.2 Sanitary Seal

Where required, the borehole shall be completed with a minimum of 5m of cement and or bentonite extending from ground level to the top of either backfill drill chips, formation stabilizer or any combination thereof.

#### C3.7.4.3 Concrete Collar

It is required of the drilling contractor to construct a concrete collar in accordance with the MINIMUM STANDARDS AND GUIDLINES DOCUMENT refer to Diagram 2 in Section 5.2 for an example. The concrete collar must be to the satisfaction of the Consulting Hydrogeologist or AGES representative

#### C3.7.4.4 Drilling and Construction of Boreholes

The drilling shall be carried out with the least possible delay in order to run the casing as required and to remove any drilling foam from the borehole in the shortest possible time. Any time spent conditioning holes and removing any obstructions will be at the contractor's expense.

#### C3.7.4.5 Straightness and Verticality

Where required, all boreholes shall be drilled and cased straight and vertical and all casings. AGES representative shall have the right to reject any or all casing which fails to meet the requirements of this Specification and the casing rejected will be replaced at the Contractor's expense.

Any delays encountered in running the casings (plain and slotted) considered to be due to poor hole alignment shall be at Contractor's expense.

To demonstrate the compliance of his work with this requirement the Contractor, when called upon to do so, shall furnish all labour, tools and equipment and shall make the tests and to the satisfaction of the AGES representative. At completion of construction of each borehole a straightness test must be carried out in the presence of the Consulting Hydrogeologist. For this the Drilling Contractor must have the necessary equipment on the site at all times.

This test is carried out by lowering a "dummy" on the end of a steel rope through the borehole. The "dummy" consists of a rigid hollow steel pipe with an outside diameter, which is not less than 20 mm smaller in diameter than the borehole casing. The "dummy" is to be at least 6 m in length to ensure that it straddles the casing joints in the borehole.

The borehole will be considered straight if the "dummy" passes down the entire length of the borehole and can be withdrawn without it binding or becoming stuck in the borehole. A borehole, which fails a straightness test, will be deemed lost and the Drilling Contractor will be required to drill a replacement borehole at his own expense.

If any fault arises the Contractor's shall correct it at his own expense. Should the Contractor fail to correct such faulty straightness or plumbness, AGES representative may refuse to accept the borehole and no payment of the work and materials shall be authorised.

#### C3.7.4.6 Protection

During the contract period when work is not in progress, the boreholes shall be kept capped or sealed in such manner to prevent vandalism. The Contractor shall remove any foreign material at his own expense. On completion of each borehole, the Contractor shall apply and fit an approved permanent borehole cap or seal the casing off to the satisfaction of the consultant.

#### C3.7.4.7 Casing

Casing is required to ensure the long term stability of the borehole. The function of the casing is to support unstable materials from collapsing into the borehole during drilling and after drilling. All casing to be used on the project must meet project specification by being new, seam welded, round, straight, and with a uniform wall thickness of not less than 4 mm

#### C3.7.4.8 Slotted Casing-Steel

If applicable, where the casing is required below or at the water strike level to prevent the unstable water bearing zone from collapsing, the casing has to slotted to allow the inflow of water intersected. The slotted section be inserted at least 3-5m into the underlying stable formation or as directed by the hydrogeologist.

As a general guideline, slots should be:

- 300 mm in length;
- 3 to 4 mm wide;
- Positioned in bands around the circumference of the casing
- Spaced equally in each band, each band separated by 100 mm of plain pipe must be staggered in relation to the above and below; and
- A 150 mm section of plain pipe left at both ends of each length of casing to minimize any reduction in the collapse strength.

All casing installed should be manufactured of steel, with a minimum wall thickness of 4 mm Casing with an inside diameter of 6.5"-8.5" (165 to 216 mm).

RECOMMENDED NUMBER OF SLOTS PER CIRCUMFERENTIAL BAND FOR VARIOUS STEEL CASING DIAMETERS AND ASSOCIATED PERCENTAGE OPEN AREA PROVIDED			
NOMINAL CASING DIAMETER	NO. OF SLOTS PER CIRCUMFERENTIAL BAND	PERCENTAGE OPEN AREA	
152 mm	6	3.0 %	
165 mm	8	3.7 %	
203 mm	10	3.7 %	

#### C3.7.4.9 Plain Casing- Steel / uPVC

Plain casing may be used either as construction (surface or temporary) or permanent (final) casing. The correct installation of permanent casing, should be to the base of the reamed section, is obligatory.

Plain casing is installed from surface through the unstable or highly weathered materials. In the non-water yielding zones, the casing is positioned into the stable section of the reamed section.

All casing to be used on the project must meet project specification by being new (or second hand refurbished to an acceptable condition), seam welded, round, straight, and with a uniform wall thickness (4 mm).

Perforated, or slotted, casing is to be installed 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. These perforations or slots should be prefabricated to ensure that they are uniform, straight and free of clogging or bridging material. Slots should be 300 mm in length, 3-4 mm wide and positioned in bands around the circumference of the casing.

The Drilling Contractor shall make every effort to recover steel casing from unsuccessful or abandoned boreholes. This casing can be refurbished to an acceptable condition for re-use.

# C3.7.5 Expertise

The Contractor under this Contract is considered to be an expert water driller and is expected to organise and carry out the work specified hereunder in an expert manner. Drilling problems encountered will be overcome entirely within the framework of the Specification and Quotation and no claim for extra payment will be entertained for problems foreshadowed in the Specification or due to limitations placed by this Specification A straightness test may be requested by the Engineers Representative at any time during drilling and the Drilling Contractor should have the necessary equipment on site at all times to carry out a straightness test.

# C3.7.6 Abandonment

The AGES representative shall have the right at any time during drilling to order the abandonment of the borehole. The Contractor shall remove the machinery, withdraw casings, if applicable and shall fill or leave the borehole to the satisfaction of the AGES representative. NO payment shall be made for any casing left in the borehole which has been abandoned unless this specifically approved for technical reasons by the AGES representative.

Payment shall be made for such abandoned borehole at the rates provided.

# C3.7.7 Lost Boreholes

A borehole will be declared lost by the Engineers Representative in the event that it cannot be completed satisfactorily due to factors such as the irrecoverable loss of drilling equipment, materials or tools therein, accident to plant or heavy machinery, failure to pass a straightness or verticality test. The Drilling Contractor will then have the option to remediate the situation to the satisfaction of the Engineers Representative or, alternatively, to 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. Furthermore, the cost of any materials recovered in a damaged state from a lost borehole will be borne by the Drilling Contractor.

A borehole which is declared lost shall be replaced with a new borehole to be constructed by the Drilling Contractor at a position indicated by the Engineers Representative.

All lost and unsuccessful boreholes are to be plugged by backfilling with drilling cuttings which are to be periodically washed down with water to prevent "hanging" in the borehole. Once the infill material extends to the surface it must be compacted until assurance can be had that no further subsidence will occur. The Drilling Contractor must then construct a shallow circular concrete collar around each lost borehole. The concrete mixture shall consist of water, portland cement, stone aggregate (10 mm) and clean sand.

# C3.7.8 Development

On completion of construction, the borehole shall be developed Development shall be carried out using air lift pumping, jetting or such other standard techniques as may be directed by the AGES representative.

Development will be continued for the period directed by the AGES representative.

# C3.7.9 Borehole Disinfection

Also known as sterilisation, it is the Contractors responsibility to disinfect the borehole and its contents of any bacteria, and particularly Coliform bacteria, introduced into the borehole during the pump testing operations.

Sterilisation is most readily accomplished by introducing chlorine (or chlorine-yielding compounds) into the borehole. Commercially available chlorine-yielding products include: (a) calcium hypochlorite (CaCIO<sub>2</sub>) in granular or tablet form, (b) sodium hypochlorite (NaCIO) in aqueous form and (c) chlorinated lime. Preference is given to the use of sodium hypochlorite since it does not contain calcium which may react with the natural concentration of calcium in the groundwater to form a precipitate of calcium hydroxide causing a reduction in the natural permeability of water bearing formation materials. It is generally required to establish a chlorine concentration of some 1 000 mg/l in the borehole. This must necessarily take into account: (a) the volume of

water in the borehole and (b) the concentration of available chlorine, also referred to as free-chlorine in the sterilant.

A formula by which the amount (either by volume or by weight) of sterilant required can be estimated is given as:

Volume (or weight) of sterilant required =  $(V_W)(C_d/C_S)$ 

where  $V_W =$  volume of water in the borehole (in litres),

 $C_d$  = desired concentration of available chlorine (in mg/l) and

 $C_S$  = concentration of available chlorine in the sterilant (in mg/l).

Since the concentration of available chlorine in the sterilant is often given as a percentage, it is required that this be converted to mg/l units. This is achieved simply by multiplying the trade percentage by 10,000, viz. 70 percent available chlorine is equivalent to a chlorine concentration of 700,000 mg/l. Guideline volumes/weights of common compounds to be used for disinfection purposes under most normal circumstances can be derived from the information provided in the Table below.

Table         Guideline volumes/weights of common sterilants to be used per unit volume of water for various borehole diameters				
Nominal inside	Volume of water	Volume/weight of sterilant to be used for disinfecting per unit volume of water below groundwater rest level		
diameter of borehole	per meter of borehole	Sodium hypochlorite	Calcium hypochlorite	Chlorinated lime
152 mm	18	500 ml (2 cups)	26 g ( <sup>1</sup> / <sub>3</sub> cup)	90 g (1 cup)
165 mm	21	600 ml (2 <sup>1</sup> / <sub>2</sub> cups)	30 g ( <sup>1</sup> / <sub>3</sub> cup)	105 g (1 cup)
203 mm	33	940 I (4 cups)	47 g ( <sup>1</sup> / <sub>2</sub> cup)	165 g (1 <sup>1</sup> / <sub>2</sub> cups)
254 mm	51 I	1500 ml (6 cups)	73 g (³/₄ cup)	255 g (2 <sup>1</sup> / <sub>2</sub> cups)
diff	<ul> <li>No distinction is drawn between open and cased portions of a borehole since these differences are considered to have a negligible impact on calculated unit volumes.</li> <li>The trade percentage of chlorine in the listed sterilants is taken to be: <ul> <li>3.5 percent by volume (35 ml/l) for sodium hypochlorite,</li> <li>70 percent by weight (700 g/kg) for calcium hypochlorite, and</li> <li>20 percent by weight (200 g/kg) for chlorinated lime.</li> </ul> </li> </ul>			

Since any disinfectant agent destroys only the bacteria it contacts, simply pouring the solution into the borehole does not promote complete disinfection. This can be achieved by agitating the water in the borehole to affect thorough mixing with the disinfectant. Alternatively, the required amount of granular, dry compound (calcium hypochlorite) can be placed in a short perforated tube capped at both ends, suspended from a cable or rope and then raised and lowered through the column of water in the borehole until the entire compound is dissolved.

#### Use of calcium hypochlorite:

The required quantity of this compound can either be dissolved in clean, clear water or introduced in dry form as described above. If introduced as a solution, the required quantity should be dissolved using ten litres of water per kilogram of compound. For the example provided in the table above, this means dissolving 2.25 kg of calcium hypochlorite in  $2.25 \times 10 \text{ I} = 22.5 \text{ I}$  of water. The calcium hypochlorite solution must then be poured into the borehole. Granular HTH chlorine is an example of such a compound.

#### Use of sodium hypochlorite:

The required volume of this solution may be poured directly into the borehole without further treatment (such as premixing/blending with clean, clear water). Concentrated household bleach (eg. JIK) is an example of such a solution.

#### Use of chlorinated lime:

The same procedure as described for calcium hypochlorite should be followed.

# C3.7.10 Data Recording and Reporting

A detailed and accurate record of all information arising from the borehole drilling activity must be recorded. The information to record by the Drilling Contractor includes the following:

Penetration rate:	This represents the time taken, as measured with a stop watch, to advance the borehole one meter.
Formation sampling:	A spade full of drilling chips should be collected at the mouth of the borehole for each meter drilled. The "samples" are to be placed in sequential piles in ordered rows at a cleared site away from the immediate activity around the borehole being drilled.
Fracture intersection:	This information relates to the depth at which fracturing, and possible water intersection (including seepage) occurs. The depth(s) at which the fracture(s) or water is encountered must be recorded to an accuracy of 1 m.
Blow yield:	Water encountered at depth must be measured and recorded immediately following each water strike. The most acceptable and preferred means of measurement is provided by the use of a 90° V-notch weir. Alternatively, the "drum and stopwatch" technique can be used for blow yields which are less than 2 l/s.
Drilling register:	Daily drilling progress will be recorded in a drilling register by the Contractor and this register is to be signed at the end of each days drilling by both the Drilling Contractor and the Engineers Representative

# C3.7.11 Completion of Borehole

Once casing has been installed, the annular space between the borehole sidewall and the outside of the casing must be filled with suitable material. This backfilling must extend to within 5 m of the ground surface.

In instances where the borehole has been cased with solid casing, the drill cuttings which have been removed from the borehole during drilling may be used for annular backfilling purposes.

In situations where the water bearing horizons are open to the borehole via slotted/perforated casing, however, a formation stabiliser must be installed into the annulus. This stabiliser must comprise material which is well sorted, well rounded, low in calcareous content and graded so that the smallest grain size is larger than the casing slots/perforations. To ensure that the formation stabiliser enters into the annulus it can be washed in with fresh water. The formation stabiliser must extend some 10 m above the top of the uppermost slotted/perforated section of casing before the borehole is developed.

In order to prevent pollutants from being washed into the borehole via the annulus, a sanitary seal must be provided. The seal must consist of portland cement mixed to a slurry with bentonite and water (which must be free of oil and any other organic matter). The bentonite and water must be mixed at a ratio of 2 kg bentonite to 25 I water prior to adding and mixing in 50 kg of cement. The final grout seal must extend to a depth of at least 5 m below groundlevel and is to be founded on the formation stabiliser.

The Drilling Contractor must construct a shallow circular concrete collar around each successful borehole. The concrete mixture shall consist of water, portland cement, stone aggregate (10 mm) and clean sand.

All successful boreholes are to be protected by welding a cap to the borehole collar.

On completion of work the Drilling Contractor shall tidy the site by clearing and removing all foreign material brought onto site. Drill chips are to be levelled and the site rehabilitated to the satisfaction of the Hydrogeological Consultant.

# C3.7.12 General

(a) The position of the drilling sites will be indicated by the Hydrogeological Consultant.

- (b) The Hydrogeological Consultant will have the right to reject, with motivation, any material (including casing, gravel pack) which is deemed inappropriate, substandard or otherwise unsuitable for the project.
- (c) No accommodation is provided and staff toilet facilities remain the responsibility of the Drilling Contractor
- (d) The Drilling Contractor shall adhere to the Mines and Works Safety Regulations and the South African Laws related to safety

(e) No drilling is to be carried out without the Hydrogeological Consultant being present, unless prior approval has been granted by the Engineer.

# C3.8 Particular Specification: Borehole Testing

C3.8.1 Testing Scope Testing of new boreholes Testing of existing boreholes	: 2 : 1
<b>Type (s) of testing technique to be considered</b> Slug testing Calibration testing Stepped discharge testing Constant discharge testing Recovery testing	: No : No : Yes : Yes : Yes
<b>Type of pump considered appropriate</b> Positive Displacement Line-shaft turbine Submersible	: Yes : No : No
Salient information: Smallest borehole diameter (mm) Estimated maximum depth to water level (m) Estimated maximum discharge line length (m) Estimated maximum installation depth (m) Estimated yield range (l/s)	: 165 : 25 : 100 : 200 : 5 to 30
Removal of existing equipment required	: No
Type of installation Re-installation of existing equipment required	: N/A : N/A

# C3.8.2 Controlled Aquifer Testing

#### C3.8.2.1 Expertise

The Contractor under this Contract is considered to be an experienced test pumping contractor and is expected to organise and carry out the work specified hereunder in a manner considered acceptable by the Hydrogeological Consultant

#### C3.8.2.2 Cessation of Testing Activities

The decision to terminate the test pumping operations on a particular borehole shall rest with the Hydrogeologist.

#### C3.8.2.3 Supervision of Works

The Contractor shall have a senior test pump testing technician on site at all times to manage and carry out the pump testing and to liaise with the Hydrogeologist

#### C3.8.2.4 Safety Standards

The Contractor shall adhere to the Site Safety Regulations and the South African Laws related to safety and the Environment. A copy of the Health, Safety and Environmental Management Plan file will need to be submitted and approved by the Client prior works on site.

#### C3.8.2.5 Approach and Responsibilities

The Pump Test Contractor will function under the direct supervision of the Hydrogeological Consultant or his representative. The Pump Contractor shall be responsible for formulating a pump testing schedule for those boreholes to be tested with a view to developing the most suitable and mutually acceptable finished product.

# C3.8.3 Pump Testing Equipment and Materials

The Pump Test Contractor must provide all labour, transport, plant, tools, materials and equipment necessary to satisfactorily complete the pump testing programme as to the specifications.

Equipment brought onto the site may not be removed there from without the written permission of the Hydrogeological Consultant. It will be the responsibility of the Contractor to arrive on the site with all equipment, materials and chemicals required to complete the work without interruption.

The Hydrogeological Consultant will have the right to inspect the equipment to be used prior to the commencement of the work.

In the event that this requirement is not satisfied, the Hydrogeological Consultant reserves the right to advise the Employer to terminate the Contract immediately.

#### THE EQUIPMENT REQUIRED FOR THIS TENDER INCLUDES THE FOLLOWING:

#### C3.8.3.1 Test Unit

The test unit must comprise of a positive displacement (PD) type pump element and a pump head driven by a motor fitted with an accelerator, gearbox and clutch. Under no circumstances shall electrical submersible, air lift or bailing techniques be acceptable.

#### C3.8.3.2 Discharge Piping

The discharge piping comprises both the rising main and the discharge hose. The Contractor must supply sufficient rising main to set the test pump at the recommended depths. The Contractor must also provide discharge piping, free of leaks for its entire length, of at least 100 m.

#### C3.8.3.3 Discharge Measuring Equipment

Control of the discharge will be provided by a flow meter and gauge at the borehole or by direct measurement into a container of known capacity (see the table below). This equipment is to be supplied by the Contractor and is to form part of the Contractors standard equipment under this Contract.

Yield range vs container size for volumetric measurements		
Yield range	Container size	
< 2 l/s	201	
2 to 5 l/s	50	
5 to 20 l/s	2101	
20 to 30 l/s	500 I	
> 30 l/s	1000 I	

#### C3.8.3.4 Water Level Measuring Equipment

Measurement of the water level draw-down will be taken using an electrical contact meter (dip meter) inserted within PVC or HDPE piezometer tubing. Each dip meter must be equipped with a measuring tape of an acceptable length and approved standard and which is graduated to an accuracy of at least 0.01 m (10 mm). These instruments must be in good working order and sufficient spare instruments must be available on site.

#### C3.8.3.5 Piezometer Tubing

The piezometer tubing supplied by the Contractor must be of sufficient length to match the pump installation depth. The diameter must be of a minimum of 15 mm (preferably 20 mm) to allow free movement of the dip meter and cable. The tubing must be open and perforated at its lower end to allow the free access of water into the tube.

# C3.8.4 Pump Test Design

The final design of the Controlled Pump Test will be the responsibility of the Hydrogeologist, but will include step tests, constant discharge tests and water level recovery tests.

#### C3.8.4.1 Multiple Discharge or Step Draw-down Test

This test will be carried out on each borehole prior to the commencement of the Constant Discharge Test.

The test shall comprise a minimum of four (4) step tests, with each discharge rate being greater than the previous rate. Each step shall be of 60 minutes duration or for a period directed by the Hydrogeological Consultant. Each further step will follow on immediately from the previous step. The pumping test shall be continuous, and the Contractor will be responsible for labour, for maintaining each discharge rate constant and for increasing the discharge rate at the specified time.

No interruptions will be allowed. Should interruptions occur, the test will be restarted, after allowing for a full water level recovery, at the expense of the Contractor.

No testing shall commence without the Hydrogeological Consultant, or his representative, being present.

After completion of the step test the water level will be allowed to recover to within 5% of the rest water level.

### C3.8.4.2 Constant Discharge Test (CDT)

The constant discharge test will commence on completion of the recovery test following the step test.

The constant discharge test must be carried out at the yield determined by the Hydrogeologist. The Contractor must provide the necessary staff, for maintaining a constant yield and for recording draw down levels in the pumping borehole and any observation boreholes.

Breakdowns in equipment exceeding 2% of the total pumping time will not be allowed. Should interruptions exceed the above limit, the test will be restarted, after allowing for full water level recovery, at the expense of the Contractor.

The constant discharge tests will last for a period of 100 hours or more, unless instructed otherwise by the Hydrogeologist.

On completion of the constant discharge test, the borehole must be allowed to recover for a minimum of 24 hours or until the water level in the borehole has recovered to within 10% of the original rest water level. This period of recovery may, however, be increased or decreased at the discretion of the Hydrogeologist.

In the event that the water level is drawn down to pump suction, the pump will be stopped and recovery will commence immediately.

No test shall be started without the Hydrogeologist or his representative being present or have given the goahead.

The water must be discharged in a suitable location down-gradient of the pumped borehole. Care should be taken that the discharge water does not cause unnecessary erosion.

#### C3.8.4.3 Water Level Recovery Test (WLRT)

On completion of the CDT, the borehole must be allowed to recover for a minimum of 24 hours or until the water level in the borehole has recovered to within 10% of the original rest water level. The period of recovery may, however, be increased or decreased at the discretion of the Hydrogeologist.

#### C3.8.4.4 Pump Suction

In the event that the water level is drawn to pump suction, the pump must be stopped and a WLRT started immediately.

# C3.8.5 Data Recording

A detailed and accurate record of all information arising from the pump testing activity must be recorded on the data sheets which are supplied in this tender.

Water level and discharge measurements shall be taken by the Contractor at predetermined intervals, as indicated on the data sheets. Water level measurements must be measured to an accuracy of at least 0.01 m (10 mm).

The Contractor must also record any extraordinary observations made during the test. These may include changes in water colour, temperature, odour and turbidity of the discharged water.

# C3.8.6 Groundwater Sampling

The contractor shall collect a water sample in clean 1ℓ sample bottle for macro-chemical analysis at the end of the constant discharge test. Two samples must be collected, one for macro-chemical analyses and one (in a sterilised glass bottle) for delivery to the laboratory. The borehole number, data, time and project name (i.e. PA 1) must be written with a permanent marker pen on at least two sides of each sample bottle. The analysis must be carried out at an accredited laboratory. Samples must be kept in a cooler box packed with dry ice or stored in a fridge until delivery to the laboratory.

# C3.8.7 Termination of the Pump Testing

The Project Hydrogeologist may at any stage during the execution of the Contract request the Contractor to terminate a pump test if, in the opinion of the Consultant, continuation of the test is not in the interest of the project. Factors which might contribute to such a decision by the Project Hydrogeologist are as follows:

#### C3.8.7.1 Sufficient Data Collected

The Project Hydrogeologist may terminate a pump test if, in his opinion, sufficient data has been collected for an adequate scientific evaluation of the test.

#### C3.8.7.2 Incorrect Execution

If a test does not meet the project criteria and requirements - such as consistency of discharge and/or accuracy measurements, the Project Hydrogeologist can instruct the Contractor to terminate the test. In such an event

the test shall be re-started as if it were the first attempt, and only after the water level in the borehole has recovered to within 0.20m of the pre-test level, or as instructed by the Project Hydrogeologist.

The Contractor shall not be entitled to any remuneration for any test which is aborted under these circumstances irrespective of the time elapsed up to the instruction from the Project Hydrogeologist to terminate the test.

# C3.8.8 Closing Boreholes

On completion of the test pumping operation, the boreholes are to be re-sealed through welding, in such a way as not to allow the cap to be removed in future by any other means than using a grinder. The site must be restored to its previous condition and all rubbish, oil spills, etc. must be cleaned and removed by the contractor to a suitable waste disposal site and the padlock keys and water samples handed over to the hydrogeologist.

# C3.8.9 General

- (a) On completion of the pump testing, the site must be restored to its original state.
- (b) The borehole cap must be re-welded.
- (c) Accommodation, staff toilet facilities, water and supplies is the responsibility of the Contractor.
- (d) The Pump Test Contractor shall adhere to the Mines and Works Safety Regulations and the South African Laws related to safety and the environment. A copy of the Health, Safety and Environmental Management Plan that will apply for this project is attached. The rules and regulations stipulated in this document will have to be strictly complied with.
- (e) No pump testing is to be carried out without the Hydrogeological Consultant being present, unless instructed otherwise by the Project Hydrogeologist. The Hydrogeological Consultant will have the right to reject, with motivation, any equipment that is deemed inappropriate, substandard or otherwise unsuitable for the project

# **Part C4: Site Information**

# C4.1 Location of the Works and Access

The site of the works is located approximately 8 km south of Prince Albert Town along the R328 towards Oudshoorn on the Swartberg Pass road. The drilling sites are located directly adjacent to the R328 and can be easily accessed. One drilling site needs minor earth works to allow drilling to take place outside the road reserve. It is important to note that the drilling and testing sites are located within an environmentally sensitive area as well as being directly adjacent to a prominent tourism route.

The contractor needs to ensure that traffic will be able to pass on the road during drilling and testing operations and sufficient signage must be put up to inform traffic of construction work being in progress. Traffic needs to be secured against any interference or damage to vehicles.

The Contractor shall ensure that no damage whatsoever is caused as a result of his operations or otherwise by his workmen in the areas adjacent to the site. The movement of plant and workmen shall be restricted to the construction areas and essential access routes. The Contractor's workmen will not be permitted in any area which may be designated by the Employer as "Restricted". Details of the restricted areas shall be issued to the Contractor on site. The Contractor shall take steps to protect all property, landscaping, vegetation and soil not directly affected by the Works and shall ensure that no avoidable damage or disturbance is caused, and that no erosion is allowed to occur. The Employer shall identify certain areas within the vicinity which are to be protected. Any instance of damage to these areas shall make the Contractor liable to a fine per protected area which will be deducted from the following payment certificate.

No polluted effluent or other liquid of any nature shall be discharged or allowed to run into any watercourse. The handling and disposal of these liquids shall not allow these liquids to enter the ground water system. All such liquids are to be transported off site and disposed-off in a manner agreed with the Employer.

No fires will be allowed.

The Contractor shall take care when dealing with cement, especially near ground and surface watercourses. Any, even slight, contamination of watercourses by cementitious material is prohibited. The use of cement must be controlled with respect to the above and surplus concrete must be removed from site.

All scarred areas, borrow and spoil areas, cut and fill slopes, all temporary haul and access roads and tracks and any other areas where the vegetation has been removed and or damaged, shall be reinstated to restore the area as nearly as possible to its original state. Such reinstatement shall include the removal of refuse, debris, construction infrastructure and materials, the scarifying of all hardened surfaces, the replacement and spreading of unused material, the correction of drainage deficiencies to provide free drainage, the flattening of cut and fill slopes and the shaping and trimming of surfaces, all as necessary or as directed by the Employer.

The general location of the works is indicated in the following map and photos.



