CONTRACT NO.: 8/2/2/452

TENDER DOCUMENT
2CE OR HIGHER

BID 8/2/2/452 (2CE OR HIGHER)
BID FOR THE REPLACEMENT OF ABOVE-GROUND FIRE HYDRANTS WITH BELOW GROUND FIRE HYDRANTS, INCLUDING SUPPLY, INSTALLATION, CIVIL WORKS AND REINSTATEMENTS (ONCE – OFF)
FOR
MIDVAAL LOCAL MUNICIPALITY

NOTE:

- The Quality Scoring Criteria is on page 12 of this document
- The Form of Offer and Acceptance (C.1.1) including construction period, is on page 108 of this document
- The Bill of Quantity is on page 167 of this document

TENDERER NAME	:	.....
CSD SUPPLIER NUMBER	:	.....
ADDRESS	:	.....
		.....
		.....
POSTAL CODE		.....
TELEPHONE	:	.....
FAX	:	.....
EMAIL	:	.....

REQUEST FOR TENDER

GENERAL INFORMATION N.B. NO TENDER DOCUMENTS TRANSMITTED PER FAX WILL BE ADMISSIBLE	
Tender Advertised	10 AUGUST 2021
Estimated CIDB Grading	Tenderers should have a CIDB Contractor Grading Designation of 2CE or higher Tenderers who satisfy criteria stated in the Tender Data may submit tender offers.
Clarification Meeting	Thursday, 30 October 2025
Venue for Clarification Meeting	A compulsory clarification meeting with representitives of the Employer will take place at MIDVAAL ENGINEERING OFFICES. NO 56 ROOIBOK STREET, MEYERTON, 1960: GPS Coordinates: S 26 30.894' E 028 02.681' on 2021/08/17 starting at 09h00.
Closing Date	Tuesday, 25 November 2025.
Closing Time	10H00
Closing Venue	Ground floor Tender Box at Block A, Midvaal Municipality Offices, No. 25 Mitchell Street, Meyerton, 1960
Point scoring system	The 80/20-point scoring system will be applicable to this tender, i.e. 80 points for Price and 20 points for Preferential procurement (BBBEE).
Late tenders	**Tender documents received after the closing time and date will be late and will not be accepted under any circumstances.**

Contract No. 8/2/2/452 (2CE OR HIGHER) – TO APPOINT A SERVICE PROVIDER FOR THE ONCE-OFF SUPPLY AND INSTALLATION OF BELOW-GROUND FIRE HYDRANTS WITH CIVIL WORKS AND REINSTATEMENTS TO REPLACE EXISTING ABOVE-GROUND FIRE HYDRANTS IN MIDVAAL LOCAL MUNICIPALITY.

CLOSING DATE: Tuesday, 25 November 2025 at 10:00

Name of tenderer:		CIDB CRS Number	
Contact person:		CIDB Grading	
Telephone no:		Fax no:	
Cellular no:		Email address:	

MIDVAAL
LOCAL MUNICIPALITY

CONTRACT NO. 8/2/2/452 (2CE OR HIGHER)

VOLUME 1

TENDER AND CONTRACT

CONTENTS:

Volumes		**Contents**	
Number	**Description**	**Number**	**Heading**
Volume 1	Tender	**Part 1: Tender Procedures**	
		T1.1	Tender Notice and Invitation to Tender
		T1.2	Tender Data
		Part 2: Returnable Documents	
		T2.1	List of Returnable Documents
		T2.2	Returnable Schedules
	Contract	**Part 1: Agreement and Contract Data**	
		C1.1	Form of Offer and Acceptance
		C1.2	Contract Data
		C1.3	Forms of Securities
		Part 2: Pricing Data	
		C2.1	Pricing Instructions
		C2.2	Bill of Quantities
		Part 3: Scope of Work	
		C3	Scope of Work
		Part 4: Site Information	
		C4	Site Information
Volume 2	Drawings	Volume 2	Drawings

MIDVAAL
LOCAL MUNICIPALITY

VOLUME 1

PART 1: TENDERING PROCEDURES

TABLE OF CONTENTS

PAGE (S)

T1.1 ..... TENDER NOTICE AND INVITATION TO TENDER 7

T1.2 ..... TENDER DATA 9

T1.2.1 Conditions of Tender 10

T1.2.2 Tender Data 11

T1.2.3 Award Strategy 10

ANNEXURE: STANDARD CONDITIONS OF TENDER 18

T1.1 TENDER NOTICE AND INVITATION TO TENDER

The Midvaal Local Municipality invites tenders for Contract No.**: BID 8/2/2/452 (2CE OR HIGHER) (2CE OR HIGHER) ONCE-OFF SUPPLY AND INSTALLATION OF BELOW-GROUND FIRE HYDRANTS WITH CIVIL WORKS AND REINSTATEMENTS TO REPLACE EXISTING ABOVE-GROUND FIRE HYDRANTS IN MIDVAAL LOCAL MUNICIPALITY.**

Employer Tender Number: 8/2/2/452(2025) 2CE OR HIGHER

CIDB Reference Number: 100110304

MIDVAAL LOCAL MUNICIPALITY INVITES TENDERS FOR THE REPLACEMENT OF ABOVE-GROUND FIRE HYDRANTS WITH BELOW GROUND FIRE HYDRANTS, INCLUDING SUPPLY, INSTALLATION, CIVIL WORKS AND REINSTATEMENTS (ONCE – OFF) FOR MIDVAAL LOCAL MUNICIPALITY

It is estimated that tenderers should have a CIDB contractor grading of 2CE or higher.

Preferences are offered to tenderers who ARE SUITABLE EXPERIENCE AND SUITABLY QUALIFIED EMPLOYEES AND RESOURCES TO RENDER THE SERVICES. THE COUNCIL RESERVES THE RIGHT TO ACCEPT ANY BID OR PART THEREOF AND DOES NOT BIND ITSELF TO ACCEPT. THE LOWEST OR ANY BID AND NOT TO CONSIDER ANY BID NOT SUITABLY ENDORSED OR COMPREHENSIVELY COMPLETED. BIDS COMPLETED IN PENCIL OR RE-TYPED WILL BE REGARDED AS INVALID BIDS.

BIDS MUST ALSO BE SUBMITTED IN FULL, I.E WITH ALL PAGES ATTACHED, FAILURE THEREOF WILL RESULT IN YOUR BID BEING DISQUALIFIED.IMPORTANT INFORMATION. MIDVAAL LOCAL MUNICIPALITY HEREBY REQUESTS ALL BIDDERS TO TAKE NOTE OF THE FOLLOWING PROCESS RELATING TO BID DOCUMENTS REQUESTS AND CLARIFICATION NOTES:

• BIDDERS WILL BE GIVEN AN OPPORTUNITY TO ASK QUESTIONS/CLARIFICATIONS BY SENDING AN EMAIL TO TENDERS@MIDVAAL.GOV.ZA. PLEASE QUOTE THE BID NO. ON THE SUBJECT LINE.

• THE MUNICIPALITY WILL RESPOND TO ALL RECEIVED QUERIES/CLARIFICATIONS.
RESPONSIVE BIDS WILL THEN BE EVALUATED ON 80/20 PREFERENCE POINT SYSTEM AS PRESCRIBED BY MIDVAAL LOCAL MUNICIPALITY'S SUPPLY CHAIN POLICY AND PREFERENTIAL PROCUREMENT POLICY, AND PPPFA AND ITS 2022 REGULATIONS.

BIDS WILL BE EVALUATED AND ADJUDICATED ACCORDING TO THE FOLLOWING CRITERIA:
• RELEVANT SPECIFICATIONS AND TECHNICAL PROPOSALS,
• VALUE FOR MONEY,
• CAPABILITY TO EXECUTE THE CONTRACT,
• MIDVAAL SCM POLICY, PPPFA REGULATIONS AND ANY OTHER RELEVANT LEGISLATION'S,AS WELL AS ANY SUPPORTING DOCUMENTS WHERE REQUIRED.

SPECIFIC GOALS:
LOCAL ENTERPRISE:10
BBB-EE STATUS:10

• DETAILS OF THE SPECIFIC GOALS' ALLOCATION ARE DEMONSTRATED IN THE BID DOCUMENT.
PLEASE NOTE:
1. NO FAXED OR E-MAILED TENDERS WILL BE ACCEPTED.
2. ALL TENDERS MUST BE SUBMITTED ON THE OFFICIAL FORMS (NOT TO BE RE-TYPED). ONLY ORIGINAL SIGNED TENDER DOCUMENTS WILL BE ACCEPTED.
3. BIDS MUST BE COMPLETED IN BLACK INK. NO CORRECTION FLUID WILL BE ALLOWED. ALL ALTERATIONS MUST BE CROSSED OUT AND INITIALED.
4. WHERE A COMPULSORY BRIEFING SESSION IS REQUIRED, IT IS THE ONUS OF THE BIDDER TO ATTEND AND ARRIVE ON TIME. LATE ARRIVALS WILL NOT BE ALLOWED TO SIGN THE ATTENDANCE REGISTER AND WILL BE DEEMED TO BE ABSENT.
5. NO BIDS WILL BE CONSIDERED FROM BIDDERS WHO DID NOT ATTEND THE BRIEFING SESSION.
6. MIDVAAL LOCAL MUNICIPALITY WILL NOT ACCEPT ANY BID WITH MISSING PAGES AND NOT FULLY COMPLETED WITH THE REQUIRED ATTACHMENT.

Only tenderers who read and signed the provisions of the rules and specifications which are included in the bid documents are eligible to submit tenders are eligible to submit tenders. are eligible to submit tenders are eligible to submit tenders.

A non-refundable tender deposit of R668.50 payable by proof of deposit is required on collection of the Tender documents.

• Bidding documents will be available for purchase during working hours after 12:00PM or via electronic request at tenders@midvaal.gov.za.

• A non-refundable tender deposit of R 668.50 payable by proof of deposit or cash is required on collection of the Tender documents, payments for the documents can be made at the municipality's rates and taxes hall during office hours Monday – Friday, 07:30 – 15:00 or alternatively direct deposits (no cheques accepted) to:

Midvaal Local Municipality
Bank: Nedbank
Account Number: 1224797469,
Branch: Public Sector - Central Gauteng

NB: Please use the bid/tender number as reference and remember to bring proof of payment for collection of bid documents are eligible to submit tenders. Alternatively, bidding documents may be requested via tenders@midvaal.gov.za.

The bidding document will be sent to the requesting bidder free of charge. Queries relating to the issues of these documents may be addressed to:

SCM UNIT
Tel No. 0163607453
E-mail. tenders@midvaal.gov.za

A compulsory clarification meeting with representitives of the Employer will take place at Engineering services office – 56 Rooibok Road, Highbury. GPS Coordinates: S 26.30.894' E 028 02.681' on 30 October 2025 starting at 09h00. The closing time for receipt of Tenders is 10h00 on Tuesday, November 25, 2025. Late Tenders will not be accepted.

Tenders may only be submitted on the tender documentation that is issued. Requirements for sealing, addressing, delivering, opening and assessment of Tenders are stated in the Tender Data.

MBD 1

PART A
INVITATION TO BID

YOU ARE HEREBY INVITED TO BID FOR REQUIREMENTS OF MIDVAAL LOCAL MUNICIPALITY					
BID NUMBER:	8/2/2/452 (2CE OR HIGHER)	CLOSING DATE:		CLOSING TIME:	
DESCRIPTION	BID TO APPOINT A SERVICE PROVIDER FOR THE ONCE-OFF SUPPLY AND INSTALLATION OF BELOW-GROUND FIRE HYDRANTS WITH CIVIL WORKS AND REINSTATEMENTS TO REPLACE EXISTING ABOVE-GROUND FIRE HYDRANTS IN MIDVAAL LOCAL MUNICIPALITY				
THE SUCCESSFUL BIDDER WILL BE REQUIRED TO FILL IN AND SIGN A WRITTEN CONTRACT FORM (MBD7).					

BID RESPONSE DOCUMENTS MAY BE DEPOSITED IN THE BID BOXSITUATED AT *(STREET ADDRESS)*

25 MITCHELL STREET
MEYERTON
1961

SUPPLIER INFORMATION						
NAME OF BIDDER						
POSTAL ADDRESS						
STREET ADDRESS						
TELEPHONE NUMBER	CODE		NUMBER			
CELLPHONE NUMBER						
FACSIMILE NUMBER	CODE		NUMBER			
E-MAIL ADDRESS						
VAT REGISTRATION NUMBER						
TAX COMPLIANCE STATUS	TCS PIN:		**OR**	CSD No:		
B-BBEE STATUS LEVEL VERIFICATION CERTIFICATE [TICK APPLICABLE BOX]	☐**YES** ☐**NO**		B-BBEE STATUS LEVEL SWORN AFFIDAVIT	☐**YES** ☐**NO**		
[A B-BBEE STATUS LEVEL VERIFICATION CERTIFICATE/ SWORN AFFIDAVIT (FOR EMES & QSEs) MUST BE SUBMITTED IN ORDER TO QUALIFY FOR PREFERENCE POINTS FOR B-BBEE]						
ARE YOU THE ACCREDITED REPRESENTATIVE **IN SOUTH AFRICA FOR THE GOODS /SERVICES /WORKS OFFERED?**	☐**YES** ☐**NO** [IF YES ENCLOSE PROOF]		ARE YOU A FOREIGN BASED SUPPLIER FOR **THE GOODS /SERVICES /WORKS OFFERED?**	☐**YES** ☐**NO** [IF YES ENCLOSE PROOF B:3]		
TOTAL NUMBER OF ITEMS OFFERED			**TOTAL BID PRICE**	**R**		
SIGNATURE OF BIDDER	.....		**DATE**			
CAPACITY UNDER WHICH THIS BID IS SIGNED						

BIDDING PROCEDURE ENQUIRIES MAY BE DIRECTED TO:		**TECHNICAL INFORMATION MAY BE DIRECTED TO:**	
DEPARTMENT	SUPPLY CHAIN MANAGEMENT	DEPARTMENT	ENGINEERING SERVICES
CONTACT PERSON	FINANCE: SCM OFFICE	CONTACT PERSON	TECHNICAL SUPPORT
TELEPHONE NUMBER	016 360 7609	TELEPHONE NUMBER	016 360 5812
FACSIMILE NUMBER	N/A	FACSIMILE NUMBER	N/A
E-MAIL ADDRESS	tenders@midvaal.gov.za	E-MAIL ADDRESS	tenders@midvaal.gov.za

TENDER DATA

T1.1.1 CONDITIONS OF TENDER

The conditions of tender are the Standard Conditions of Tender as contained in Annex F of the CIDB Standard for Uniformity in Construction Procurement (January 2009) as published in Government Gazette No 38960, Board Notice 136 of 2015 of 10 July 2015. (See www.cidb.org.za).

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

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

T1.1.2 TENDER DATA

The clause numbers in the Tender Data refer to the corresponding clause numbers in the Conditions of Tender (see Annex).

The additional Conditions of Tender are:

Clause number	Tender Data
F.1.1	The Employer is, Midvaal Local Municipality
F.1.2	The tender documents issued by the Employer comprise: **Volume 1:** **Tendering Procedures** T1.1 Tender Notice and Invitation to Tender T1.2 Tender Data **Returnable Documents** T2.1 List of Returnable Documents **Part 1: Agreement and Contract Data** C1.1 Form of Offer and Acceptance C1.2 Contract Data C1.3 Forms of Securities. **Part 2: Pricing Data** C2.1 Pricing Instructions C2.2 Schedule of Rates **Part 3: Scope of Work** C3.1 Scope of Work C3.2 Particular Specifications C3.4 Occupational Health, Safety and Environmental Specification and Environmental Management Plan **Part 4: Site Information** C4 Site Information **Volume 2:** Drawings
F.1.4	The Employer's agent is: Contact person **: Director- Technical Support Services** Telephone **: 016 360 5812** Facsimile **: 086 502 0523** E-mail address **:** tenders@midvaal.gov.za
F1.5.2	Replace the existing clause with the following: The Employer may not subsequent to the cancellation or abandonment of a tender process or the rejection of all responsive tender offers, re-issue a tender covering substantially the same scope of work within a period of six months **unless** only one tender was received and such tender was returned unopened to the tenderer or where in his opinion all received tenders are found to be non-responsive.
F.2.1.1	**Eligibility criteria and requirements.**

Clause number	Tender Data
	TO ADEQUATELY SUBSTANTIATE ANY ELIGIBILITY CLAIM FOR CRITERIA BELOW THE TENDERER SHALL SUBMIT INFORMATION OR COMPLETE RETURNABLE SCHEDULES: **CIDB registration and grading:** 1) Only tenderers who are registered with the CIDB or have a sub-contractor registered with the CIDB, or are capable of being so prior to the evaluation of submissions, in a contractor grading designation equal to or higher than a contractor grading designation of 2CE OR HIGHER and who satisfy criteria stated in the Tender Data may submit Tender offers. ***Certificate of Registration with CIDB to be submitted*** 2) Joint ventures are eligible to submit tenders provided that: i) every member of the joint venture is registered with the CIDB; ii) the lead partner has a contractor grading designation in the applicable class of construction work; and iii) the combined contractor grading designation calculated in accordance with the CIDB Regulations is equal to or higher than a contractor grading designation as indicated above. ***Certificates of Registration with CIDB to be submitted***
F.2.7	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.
F.2.13.3	Each tender offer shall be submitted as an original, plus 0 copy.
F.2.13.5	The Employer's address for delivery of tender offers and identification details to be shown on the Tenderer's offer package are: **Location of tender box:** Ground Floor Tender Box **Physical address:** Block A, Midvaal Municipality Offices, No. 25 Mitchell Street, Meyerton, 1960 **Identification details:** Tender reference number, Title of Tender and the closing date and time of the tender, *as well as the Tenderer's name, his Authorised Representative's name, postal address and telephonic contact numbers*.
F.2.13.6 & F.3.5	A two-envelope procedure will not be followed.
F.2.15.1	The closing time for submission of tender offers is as stated in the Tender Notice and Invitation to Tender.

Clause number	Tender Data
F.2.16	The tender offer validity period is **90 days**.
F.2.23	The Tenderer is required to submit with his tender a letter of intent from an approved insurer undertaking to provide the Performance Guarantee
F.2.24	The successful service provider will be required to submit proof of **Public Liability Insurance** to the value of **R5 million** 14 days after award of the contract . Failure to do so may result in withdrawal of the award.
F.2.25	The Tenderer is required to submit with his tender: 1) **Valid** SARS Compliance status Pin for Tenders issued by the South African Revenue Services. 2) Proof of CSD registration 3) Curriculum Vitae of all key staff. 4) Certificates of Contractor Registration issued by the CIDB 5) A Certified copy of Unemployment Insurance Certificate, Act 4 of 2002. 6) where the tendered amount inclusive of VAT exceeds R 10 million: i) audited annual financial statement for 3 years, or for the period since establishment if established during the last 3 years, if required by law to prepare annual financial statements for auditing; ii) a certificate certifying that the tenderer has no undisputed commitments for municipal services towards a municipality or other service provider in respect of which payment is overdue for more than 30 days; iii) particulars of any contracts awarded to the tenderer by an organ of state during the past five years, including particulars of any material non-compliance or dispute concerning the execution of such contract; iv) a statement indicating whether any portion of the goods or services are expected to be sourced from outside the Republic, and, if so, what portion and whether any portion of payment is expected to be transferred out of the Republic. Where a tenderer satisfies CIDB contractor grading designation requirements through joint venture formation, such tenderers must submit the Certificates of Contractor Registration in respect of each partner.
F.2.27	Add the following new clause: **Tax Compliance** In the case of a Joint Venture/Consortium the tax Compliance Status Pin must be submitted for each member of the Joint Venture/Consortium.”

Clause number	Tender Data
F.3.1.1	Replace the contents of the clause with the following: "Respond to a request for clarification received up to seven calendar days before the tender closing time stated in the tender data and notify all Tenderers who drew procurement documents"
F.3.4.2	Tenders will be opened in public soon after closing time and recording of received documents at Midvaal Local Municipality Civic Centre, No. 25 Mitchell Street, Meyerton.
F.3.11.1	The procedure for the evaluation of responsive tenders is: **POTENTIAL SERVICE PROVIDERS WILL HAVE TO ACHIEVE ALL THE MINIMUM REQUIREMENTS.** **IT SHOULD BE NOTED THAT THE PREFERENCE PROCUREMENT WILL BE IN LINE WITH THE PREFERENTIAL PROCUREMENT REGULATIONS**
F.3.11.3	The functionality criteria score in respect of each of criteria shall be as follows:

Criteria	Minimum Requirements / Evidence to be Submitted
Company Experience	Bidders must have successfully completed a minimum of **3 projects** in the installation of municipal reticulation networks projects or water board water reticulation networks within the last 10 years, from 2015 to date. Evidence to be submitted: Bidders must submit a minimum of three (3) fully completed satisfactory letters indicating experience in the installation of municipal reticulation networks projects or water board water reticulation networks as per attached **Annexures A, B** and **C** (on pages 1,2 and 3 of the Annexures) for projects completed within the last 10 years, from 2015 to date. Satisfactory letters must be fully completed, signed and stamped. or •Minimum of **three signed and dated appointment letters** and corresponding **completion certificates** in the installation of municipal reticulation networks projects or water board water reticulation networks **Failure to comply will result in the bid not being evaluated further.** It is the onus of bidders to make sure that they provide contactable satisfactory letters/appointment letters/completion certificates. The municipality may verify the veracity of the provided contents at any given time. Should the content of the contactable satisfactory letters/appointment letters/completion certificates not be verifiable, the information will be disregarded, and the bidder will have no claim against the municipality.

Clause number	Tender Data	
	Key Personnel	Bidders must provide CVs and proof of qualifications for each key personnel involved in installation of municipal water reticulation networks projects or water board reticulation networks projects within the last 10 years, from 2015 to date. • **Contract Manager** – Minimum 5 years post-qualification experience; minimum NQF Level 6 in Civil Engineering with ECSA Registration as Professional Engineering Technician. • **Foreman** – Minimum 5 years post-qualification experience; minimum NQF Level 4 in Civil Engineering. • **Plumber** – Minimum 3 years post-qualification experience; Trade Test / Red Seal in plumbing or water infrastructure installation. • **Safety Officer** – Minimum OHS NQF Level 5 or SAMTRAC qualification with + 3 years and above experience and in Built and Environment field. **Failure to comply will result in the bid not being evaluated further.**
	Public Liability Insurance	The Contractor shall hold valid **Public Liability Insurance** that provides indemnity against legal liability for accidental death of or injury to third-party persons and/or loss or damage to third-party property arising directly from the execution of the Contract and occurring during the period of insurance. The insurance must provide coverage for all claims arising from any one occurrence or a series of occurrences attributable to a single source or original cause. **A valid certificate of Public Liability Insurance must be submitted with the tende**r. Failure to submit this certificate will result in the tender being deemed non-responsive.

Clause number	Tender Data
F.3.13	Tender offers will only be accepted if: a. the tenderer has in his or her possession an original valid Tax Clearance Certificate or has provided a valid Tax Pin Code issued by the South African Revenue Services or has made arrangements to meet outstanding tax obligations or is Complaint to the Central Database of National Treasury; b. the tenderer is registered with the CIDB with an appropriate category of registration; c. the tenderer or any of its directors 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; d. the tenderer has not: i. abused the Employer's Supply Chain Management System; or ii. failed to pay municipal rates and taxes or service charges and such rates, taxes and charges are in arrears for more than three months; iii. failed to perform on any previous contract and has been given a written notice to this effect; e. the tenderer has completed the Compulsory Enterprise Questionnaire 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.
F.3.18	The number of paper copies of the signed contract to be provided by the Employer is one.
	Remove (The following clauses are not applicable)
F3.19.3	The transparency model must identify the criteria for selection of projects, project information template and the threshold value of the projects to be disclosed in the public domain at various intervals of delivery of infrastructure projects.
F3.19.4	The client must publish the information on a quarterly basis which contains the following information: • Procurement planning process • Procurement method and evaluation process • Contract type • Contract status • Number of firms tendering • Cost estimate • Contract title • Contract firm(s) • Contract price • Contract scope of work • Contract start date and duration • Contract evaluation reports
F3.19.5	The employer must establish a Consultative Forum which will conduct a random audit in the implementation of the transparency requirements in the procurement process.
F3.19.6	Consultative Forum must be an independent structure from the bid committees.
	Additions
F.3.20.1	**Imbalance in Tendered Rates**

Clause number	Tender Data
	In the event of tendered rates or lump sums being declared by the Employer to be unacceptable because they are either excessively low or high or not in proper balance with other rates or lump sums, the Tenderer may be required to produce evidence and advance arguments in support of the tendered rates or lump sums objected to. If, after submission of such evidence and any further evidence requested, the Employer is still not satisfied with the tendered rates or lump sums objected to, it may request the tenderer to amend these rates and lump sums along the lines indicated by it. The Tenderer will then have the option to alter and/or amend the rates and lump sums objected to and such other related amounts as are agreed on by the Employer, but this shall be done without altering the Contract Price. Should the Tenderer fail to amend the Tender in a manner acceptable to the Employer, the Employer may reject the Tender.
F3.20.2	**Invalid Tenders** Tenders shall be considered invalid and shall be endorsed and recorded as such in the tender opening record, by the responsible official who opened the tender, in the following circumstances: a. if the tender offer is not submitted on the Form of Offer and Acceptance bound into this tender document (form C1.1 Form of Offer and Acceptance); b. if the tender is not completed in non-erasable ink; c. if the tender has retyped the contract in any form or part thereof; d. if the offer has not been signed; e. if the offer is signed, but the name of the tenderer is not stated or is indecipherable. f. if the tenderer has failed to submit supporting documentation for the evaluation of quality.
F3.20.3	**Negotiations with Preferred Tenderers** The Employer may negotiate the final terms of a contract with tenderers identified through a competitive tendering process as preferred tenderer provided that such negotiation: a. does not allow any preferred tenderer a second or unfair opportunity; b. is not to the detriment of any other tenderer; and c. does not lead to a higher price than the tender as submitted. Minutes of any such negotiations shall be kept for record purposes.
F3.20.4	**General Supply Chain Management Conditions Applicable to Tenders** The Supply Chain Management Policy is available from Midvaal Local Municipality's website.
F3.20.5	**UIF** The Tenderer shall submit to the Employer a letter from the Department of Labour indicating his/her good standing with regard to UIF payments upon being requested to do so.

ANNEXURE: STANDARD CONDITIONS OF TENDER

As published in Annexure F of the CIDB Standard for Uniformity for construction Procurement, Board Notice 136 Government Gazette No 38960 of 10 July 2015

F.1 General

F.1.1 Actions

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

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

Note: 1) A conflict of interest may arise due to a conflict of roles which might provide an incentive for improper acts in some circumstances. A conflict of interest can create an appearance of impropriety that can undermine confidence in the ability of that person to act properly in his or her position even if no improper acts result.

2) Conflicts of interest in respect of those engaged in the procurement process include direct, indirect or family interests in the tender or outcome of the procurement process and any personal bias, inclination, obligation, allegiance or loyalty which would in any way affect any decisions taken.

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

F.1.2 Tender Documents
The documents issued by the employer for the purpose of a tender offer are listed in the tender data.

F.1.3 Interpretation

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

F.1.3.2 These conditions of tender, the tender data and tender schedules which are only required for tender evaluation purposes, shall not form part of any contract arising from the invitation to tender.
F.1.3.3 For the purposes of these conditions of tender, the following definitions apply:

a) **conflict of interest** means any situation in which:
   i) someone in a position of trust has competing professional or personal interests which make it difficult to fulfill his or her duties impartially;
   ii) an individual or organisation is in a position to exploit a professional or official capacity in some way for their personal or corporate benefit; or
   iii) incompatibility or contradictory interests exist between an employee and the organisation which employs that employee.
b) **comparative offer** means the price after the factors of a non-firm price and all unconditional discounts it can be utilised to have been taken into consideration;

c) **corrupt practice** means the offering, giving, receiving or soliciting of anything of value to influence the action of the employer or his staff or agents in the tender process;
d) **fraudulent practice** means the misrepresentation of the facts in order to influence the tender process or the award of a contract arising from a tender offer to the detriment of the employer, including collusive practices intended to establish prices at artificial levels;
e**)** **organization** means a company, firm, enterprise, association or other legal entity, whether incorporated or not, or a public body;
f) **functionality** means the measurement according to the predetermined norms of a service or commodity designed to be practical and useful, working or operating, taking into account quality, reliability, viability and durability of a service and technical capacity and ability of a tenderer.

F.1.4 Communication and employer's agent

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

F.1.5 Cancellation and Re-Invitation of Tenders

F1.5.1 An organ of state may, prior to the award of the tender, cancel a tender if-

(a) due to changed circumstances, there is no longer a need for the services, works or goods requested; or

(b) funds are no longer available to cover the total envisaged expenditure; or

(c) no acceptable tenders are received.

F1.5.2 The decision to cancel a tender must be published on the cidb as well as on the etender Portal in which the original tender invitation was advertised.

F.1.6 Procurement procedures

F.1.6.1 General

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

F.1.6.2 Competitive negotiation procedure

F.1.6.2.1 Where the tender data require that the competitive negotiation procedure is to be followed, tenderers shall submit tender offers in response to the proposed contract in the first round of submissions. Notwithstanding the requirements of F.3.4, the employer shall announce only the names of the tenderers who make a submission. The requirements of F.3.8 relating to the material deviations or qualifications which affect the competitive position of tenderers shall not apply.
F.1.6.2.2 All responsive tenderers, or not less than three responsive tenderers that are highest ranked in terms of the evaluation method and evaluation criteria stated in the tender data, shall be invited in each round to enter into competitive negotiations, based on the principle of equal treatment and keeping confidential the proposed solutions and associated information. Notwithstanding the provisions of F.2.17, the employer may request that tenders be clarified, specified and fine-tuned in order to improve a tenderer's competitive position provided that such clarification, specification, fine-tuning or additional information does not alter any fundamental aspects of the offers or impose substantial new requirements which restrict or distort competition or have a discriminatory effect.

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

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

F.1.6.3 Proposal procedure using the two stage-system

F.1.6.3.1 Option 1
Tenderers shall in the first stage submit technical proposals and, if required, cost parameters around which a contract may be negotiated. The employer shall evaluate each responsive submission in terms of the method of evaluation stated in the tender data, and in the second stage negotiate a contract with the tenderer scoring the highest number of evaluation points and award the contract in terms of these conditions of tender.

F.1.6.3.2 Option 2

F.1.6.3.2.1 Tenderers shall submit in the first stage only technical proposals. The employer shall invite all responsive tenderers to submit tender offers in the second stage, following the issuing of procurement documents.
F.1.6.3.2.2 The employer shall evaluate tenders received during the second stage in terms of the method of evaluation stated in the tender data, and award the contract in terms of these conditions of tender.

F.2 Tenderer's obligations

F.2.1 Eligibility

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

F.2.1.2 Notify the employer of any proposed material change in the capabilities or formation of the tendering entity (or both) or any other criteria which formed part of the qualifying requirements used by the employer as the basis in a prior process to invite the tenderer to submit a tender offer and obtain the employer's written approval to do so prior to the closing time for tenders.
F.2.2 Cost of tendering

F2.2.1 Accept that, unless otherwise stated in the tender data, the employer will not compensate the tenderer for any costs incurred in the preparation and submission of a tender offer, including the costs of any testing necessary to demonstrate that aspects of the offer complies with requirements.

F2.2.2 The cost of the tender documents charged by the employer shall be limited to the actual cost incurred by the employer for printing the documents. Employers must attempt to make available the tender documents on its website so as not to incur any costs pertaining to the printing of the tender documents.

F.2.3 Check documents

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

F.2.4 Confidentiality and copyright of documents

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

F.2.5 Reference documents

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

F.2.6 Acknowledge addenda

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

F.2.7 Clarification meeting

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

F.2.8 Seek clarification

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

F.2.9 Insurance

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

F.2.10 Pricing the tender offer

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

F2.10.2 Show VAT payable by the employer separately as an addition to the tendered total of the prices.

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

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

F.2.11 Alterations to documents

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

F.2.12 Alternative tender offers

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

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

F.2.12.3 An alternative tender offer may only be considered in the event that the main tender offer is the winning tender.

F.2.13 Submitting a tender offer

F.2.13.1 Submit one tender offer only, either as a single tendering entity or as a member in a joint venture to provide the whole of the works, services or supply identified in the contract data and described in the scope of works, unless stated otherwise in the tender data.
F.2.13.2 Return all returnable documents to the employer after completing them in their entirety, either electronically (if they were issued in electronic format) or by writing legibly in non-erasable ink.

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

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

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

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

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

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

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

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

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

F.2.15 Closing time
F.2.15.1 Ensure that the employer receives the tender offer at the address specified in the tender data not later than the closing time stated in the tender data. Accept that proof of posting shall not be accepted as proof of delivery.

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

F.2.16 Tender offer validity

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

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

F.2.16.3 Accept that a tender submission that has been submitted to the employer may only be withdrawn or substituted by giving the employer's agent written notice before the closing time for tenders that a tender is to be withdrawn or substituted.

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

F.2.17 Clarification of tender offer after submission
Provide clarification of a tender offer in response to a request to do so from the employer during the evaluation of tender offers. This may include providing a breakdown of rates or prices and correction of arithmetical errors by the adjustment of certain rates or item prices (or both). No change in the competitive position of tenderers or substance of the tender offer is sought, offered, or permitted.

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

F.2.18 Provide other material

F.2.18.1 Provide, on request by the employer, any other material that has a bearing on the tender offer, the tenderer's commercial position (including notarized joint venture agreements), referencing arrangements, or samples of materials, considered necessary by the employer for the purpose of a full and fair risk assessment. Should the tenderer not provide the material, or a satisfactory reason as to why it cannot be provided, by the time for submission stated in the employer's request, the employer may regard the tender offer as non-responsive.

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

F.2.19 Inspections, tests and analysis
Provide access during working hours to premises for inspections, tests and analysis as provided for in the tender date**F.2.20 Submit securities, bonds and policies**
If requested, submit for the employer's acceptance before formation of the contract, all securities, bonds, guarantees, policies and certificates of insurance required in terms of the conditions of contract identified in the contract data.

F.2.21 Check final draft
Check the final draft of the contract provided by the employer within the time available for the employer to issue the contract.

F.2.22 Return of other tender documents
If so instructed by the employer, return all retained tender documents within 28 days after the expiry of the validity period stated in the tender data.

F.2.23 Certificates

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

F.3 The employer's undertakings

F.3.1 Respond to requests from the tenderer

F.3.1.1 Unless otherwise stated in the tender Data, respond to a request for clarification received up to five working days before the tender closing time stated in the Tender Data and notify all tenderers who drew procurement documents.

F.3.1.2 Consider any request to make a material change in the capabilities or formation of the tendering entity (or both) or any other criteria which formed part of the qualifying requirements used to prequalify a tenderer to submit a tender offer in terms of a previous procurement process and deny any such request if as a consequence:
a) an individual firm, or a joint venture as a whole, or any individual member of the joint venture fails to meet any of the collective or individual qualifying requirements;
b) the new partners to a joint venture were not prequalified in the first instance, either as individual firms or as another joint venture; or
c) in the opinion of the Employer, acceptance of the material change would compromise the outcome of the prequalification process.

F.3.2 Issue Addenda

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

F.3.3 Return late tender offers

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

F.3.4 Opening of tender submissions

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

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

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

F.3.5 Two-envelope system

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

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

level. Return unopened financial proposals to tenderers whose technical proposals failed to achieve the minimum number of points for functionality.

F.3.6 Non-disclosure

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

F.3.7 Grounds for rejection and disqualification

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

F.3.8 Test for responsiveness

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

a) complies with the requirements of these Conditions of Tender,

b) has been properly and fully completed and signed, and

c) is responsive to the other requirements of the tender documents.

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

a) detrimentally affect the scope, quality, or performance of the works, services or supply identified in the Scope of Work*,*

b) significantly change the Employer*'s* or the tenderer's risks and responsibilities under the contract, or

c) affect the competitive position of other tenderers presenting responsive tenders, if it were to be rectified.

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

F.3.9 Arithmetical errors, omissions and discrepancies

F.3.9.1 Check the highest ranked tender or tenderer with the highest number of tender evaluation points after the evaluation of tender offers in accordance with F.3.11 for:
a) the gross misplacement of the decimal point in any unit rate;
b) omissions made in completing the pricing schedule or bills of quantities; or
c) arithmetic errors in:

i) line item totals resulting from the product of a unit rate and a quantity in bills of quantities or schedules of prices; or

ii) the summation of the prices.

F3.9.2 The employer must correct the arithmetical errors in the following manner:
a) Where there is a discrepancy between the amounts in words and amounts in figures, the amount in words shall govern.
b) If bills of quantities or pricing schedules apply and there is an error in the line item total resulting from the product of the unit rate and the quantity, the line item total shall govern and the rate shall

be corrected. Where there is an obviously gross misplacement of the decimal point in the unit rate, the line item total as quoted shall govern, and the unit rate shall be corrected.

c) Where there is an error in the total of the prices either as a result of other corrections required by this checking process or in the tenderer's addition of prices, the total of the prices shall govern and the tenderer will be asked to revise selected item prices (and their rates if bills of quantities apply) to achieve the tendered total of the prices.

Consider the rejection of a tender offer if the tenderer does not correct or accept the correction of the arithmetical error in the manner described above.

F.3.10 Clarification of a tender offer

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

F.3.11 Evaluation of tender offers

F.3.11.1 General

Appoint an evaluation panel of not less than three persons. Reduce each responsive tender offer to a comparative offer and evaluate them using the tender evaluation methods and associated evaluation criteria and weightings that are specified in the tender data.

F.3.11.2 Method 1: Price and Preference

In the case of a price and preference:

1) Score tender evaluation points for price

2) Score points for BBBEE contribution

3) Add the points scored for price and BBBEE.

F.3.11.3 Method 2: Functionality, Price and Preference

In the case of a functionality, price and preference:

1) Score functionality, rejecting all tender offers that fail to achieve the minimum number of points for functionality as stated in the Tender Data.

2) No tender must be regarded as an acceptable tender if it fails to achieve the minimum qualifying score for functionality as indicated in the tender invitation.

3) Tenders that have achieved the minimum qualification score for functionality must be evaluated further in terms of the preference points system as described the preferential procurement regulations 2017

F.3.11.4 Scoring points functionality

Score each of the criteria and sub-criteria for quality in accordance with the provisions of the Tender Data. Only tenderers achieving the minimum score as described will proceed to further evaluation, ie Price and Preference

F3.11.5 Scoring points for Price

All eligible tenders will be allocated points for price as per the point scoring system described in the preferential procurement regulations, 2017 with the lowest priced tender scoring the highest and the remaining tenders scoring lower as determined through the calculation based on the formula provided.

F3.11.6 Scoring points preferences

Confirm that tenderers are eligible for the preferences claimed in accordance with the provisions of the tender data and reject all claims for preferences where tenderers are not eligible for such preferences. Points for Preference points will only be allocated upon submission of a valid and certified BBBEE Scorecard

Calculate the total number of tender evaluation points for preferences claimed in accordance with the provisions of the tender data.

F.3.12 Insurance provided by the employer

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

F.3.13 Acceptance of tender offer

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

a) is not under restrictions, or has principals who are under restrictions, preventing participating in the employer's procurement,
b) can, as necessary and in relation to the proposed contract, demonstrate that he or she possesses the professional and technical qualifications, professional and technical competence, financial resources, equipment and other physical facilities, managerial capability, reliability, experience and reputation, expertise and the personnel, to perform the contract,
c) has the legal capacity to enter into the contract,
d) is not insolvent, in receivership, under Business Rescue as provided for in chapter 6 of the Companies Act, 2008, bankrupt or being wound up, has his affairs administered by a court or a judicial officer, has suspended his business activities, or is subject to legal proceedings in respect of any of the foregoing,
e) complies with the legal requirements, if any, stated in the tender data, and
f) is able, in the opinion of the employer, to perform the contract free of conflicts of interest.

F.3.14 Prepare contract documents

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

a) addenda issued during the tender period,

b) inclusion of some of the returnable documents, and

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

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

F.3.15 Complete adjudicator's contract

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

F.3.16 Notice to unsuccessful tenderers

F.3.16.1 Notify the successful tenderer of the employer's acceptance of his tender offer by completing and returning one copy of the form of offer and acceptance before the expiry of the validity period stated in the tender data, or agreed additional period.

F.3.16.2 After the successful tenderer has been notified of the employer's acceptance of the tender, notify other tenderers that their tender offers have not been accepted.

F.3.17 Provide copies of the contracts

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

F.3.18 Provide written reasons for actions taken

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

F.3.19 Additional Conditions of Tender

F.3.19.1 Community Liaison Officer

The function of the CLO shall be to represent the local community in matters concerning the use of local labour on the works and to assist with and facilitate communication between the Contractor, the Engineer and the local communities.

The period of appointment of the CLO shall be as stated in the Contract for Temporary Employment as a Community Liaison officer referred to below. The date of commencement of temporary employment of the CLO shall be as agreed with the Engineer.

The identification of the approved CLO to be appointed by the Contractor under the Contract shall be resolved by the Contractor, the Ward Councillors in collaboration with the Local Community in the form of a Project Steering Committee. It will be required, therefore, that the successful Tenderer (i.e. the Contractor) enter a contract for the employment of the above-mentioned CLO, the parties to which will be the Contractor, the Local Authority and the CLO.

To this end a specimen Form of Contract for the Temporary Employment as a Community Liaison Officer is included in this document; this Form of Contract sets out, inter alia, the agreement between the parties, the duties and conditions of employment of the CLO (including the rate of remuneration to be paid).

As said contract will be between the Contractor and the CLO, all costs involved shall be borne by the Contractor and the tender shall be deemed to include for this.

Further to all of the above, the Tenderer/Contractor is referred to the relevant items contained in the Special Conditions of Contract and the relevant Annexure included in the Contract Document.

MIDVAAL
LOCAL MUNICIPALITY

VOLUME 1

PART 2: RETURNABLE DOCUMENTS

TABLE OF CONTENTS

PAGE (S)

No.	Description	Pages
T2.2.1	Authority to Sign Documents	5
T2.2.2	Clarification Meeting Certificate	6
T2.2.3	Certificate of Authority for Joint Ventures (only if Tenderer is a JV)	7
T2.2.4	Schedule of Work Experience of Tenderer	8
T2.2.5	Schedule of Construction Plant	9
T2.2.6	Schedule of Subcontractors	10
T2.2.7	Details of Experience and CV's Of Key Personal	11
T2.2.8	Alterations / Amendments / Qualifications by Tenderer	13
T2.2.9	Compulsory Enterprise Questionnaire	14
T2.2.10	General Information (Procurement)	17
T2.2.11	Equity Of Ownership	20
T2.2.12	Bidder's Attachments Checklist	22
T2.2.13	Record of Addenda to Tender Documents	23
T2.2.14	Performance Management System	24
T2.2.15	Joint Venture Disclosure Form	27
T2.2.16	Midvaal Local Municipality Indemnity	42
T2.2.17	Municipal Services, Rates And Taxes Clearance Certificate For Supply Chain Purpose	43
T2.2.18	Declaration of Interest (MBD 4)	45
T2.2.19	Declaration For Procurement Above R10 Million (Vat Included) (MBD 5)	50
T2.2.20	Points Claim Form In Terms Of The Preferential Procurement Regulations 2022 (Purchases) (MBD 6.1)	52
T2.2.21	Declaration of Tenderer's Past Supply Chain Management Practices (MBD 8)	55
T2.2.22	Certificate of Independent Tender Determination (MBD 9)	57
T2.2.23	Specific Details Of Tenderer	60
T2.2.24	Form Concerning Fulfilment of The Construction Regulations 2003	61
T2.2.25	Consent And Acknowledgments In Terms Of The Protection Of Personal Information Act 2013 (POPI)	63
T2.2.26	CIDB Contractor Registration Certificate	64
T2.2.27	Tax Clearance Certificate	66
T2.2.28	Occupational Health and Safety Plan	67

LIST OF RETURNABLE DOCUMENTS

The tenderer must complete the following returnable documents:

Documents incorporated in this tender document that must be completed and signed by all tenders

T2.2.1	Authority to Sign Documents
T2.2.2	Clarification Meeting Certificate
T2.2.3	Certificate of Authority for Joint Ventures (only if Tenderer is a JV)
T2.2.4	Schedule of Work Experience of Tenderer
T2.2.5	Schedule of Construction Plant
T2.2.6	Schedule of Subcontractors
T2.2.7	Details of Experience and CV's Of Key Personal
T2.2.8	Alterations / Amendments / Qualifications by Tenderer
T2.2.9	Compulsory Enterprise Questionnaire
T2.2.10	General Information (Procurement)
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T2.2.12	Bidder's Attachments Checklist
T2.2.13	Record of Addenda to Tender Documents
T2.2.14	Performance Management System
T2.2.15	Joint Venture Disclosure Form
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T2.2.23	Specific Details Of Tenderer
T2.2.24	Form Concerning Fulfilment of The Construction Regulations 2003
T2.2.25	Consent And Acknowledgments In Terms Of The Protection Of Personal Information Act 2013 (POPI)

Additional Documents to be provided by the Tenderer and attached to the tender

T2.2.26	CIDB Contractor Registration Certificate
T2.2.27	Tax Clearance Certificate
T2.2.28	Occupational Health and Safety Plan

Other documents that will be incorporated into the contract

C1.1	Form of Offer and Acceptance
C1.2	Contract Data
C1.3	Performance Guarantee
C1.3	Occupational Health and Safety Agreement
C2.1	Pricing Data and Bill of Quantities
C3	Scope of Work
C4	Site Information

NB: TENDERERS MUST COMPLETE THESE DOCUMENTS / DATA SHEETS / FORMS IN BLACK NON-ERASABLE INK

RETURNABLE SCHEDULES

T2.2.1 Authority to Sign Document

I/We*, the undersigned, am/are* duly authorised to sign the form of tender on behalf of

.....

by virtue of the Articles of Association/Resolution of the Board of Directors*, of which a certified copy is attached, or

.....

.....

*Delete whichever is inapplicable

1.			
	NAME	**SIGNATURE**	**DATE**
2.			
	NAME	**SIGNATURE**	**DATE**

WITNESSES:

1.			
	NAME	**SIGNATURE**	**DATE**
2.			
	NAME	**SIGNATURE**	**DATE**

T2.2.2 Clarification Meeting Certificate

This is to certify that I/We* .....

of (tenderer) .....
.....

of (address) .....
.....
.....

Telephone number .....

Fax number .....

Email .....

on (date) .....

have examined the Site of the Works and its surroundings for which I/we* am/are* submitting this Tender and have, so far as is practicable, familiarised myself/ourselves* with all information, risks, contingencies and other circumstances which may influence or affect my/our* tender.

*Delete whichever is inapplicable

SIGNED BY/ON BEHALF OF TENDERER:

NAME **SIGNATURE** **DATE**

T2.2.3 Certificate of Authority for Joint Ventures

This Returnable Schedule is to be completed only if Tenderer is a joint venture.

We, the undersigned, are submitting this tender offer in joint venture and hereby authorise Mr/Ms ....., authorised signatory of the company, close corporation or partnership..... 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 :..... Name :..... Designation :.....
		Signature :..... Name :..... Designation :.....
		Signature :..... Name :..... Designation :.....
		Signature :..... Name :..... Designation :.....

Note:

A copy of the Joint Venture Agreement showing clearly the percentage contribution of each partner to the Joint Venture shall be appended to this Schedule.

T2.2.4 Schedule of Work Experience of Tenderer

Tenderers shall insert in the Schedule hereunder details of work successfully carried out by them of a similar nature to that for which their tender is submitted.

Experience				
Employer (Name, Tel, Fax, Email)	**Consulting Engineer (Name, Tel, Fax, Email)**	**Nature of Work**	**Value of Work R(M)**	**Date Completed**
Name:				
Tel:				
Fax:				
Email:				
Name:				
Tel:				
Fax:				
Email:				
Name:				
Tel:				
Fax:				
Email:				
Name:				
Tel:				
Fax:				
Email:				
Name:				
Tel:				
Fax:				
Email:				

If there is insufficient space above, the tenderer may append additional sheets.

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

SIGNED BY/ON BEHALF OF TENDERER:

Name	**Signature**	**Date**

T2.2.5 Schedule of Construction Plant

The bidder must sign a certificate of undertaking to guarantee the availability of the plant and equipment as per **Annexure A**

CONSTRUCTION PLANT AVAILABLE					
Description	**Arrangements Made**	**Delivery Date**	**Size**	**Capacity**	**Number**

CONSTRUCTION PLANT THAT WILL BE ACQUIRED / HIRED					
Description	**Arrangements Made**	**Delivery Date**	**Size**	**Capacity**	**Number**

If there is insufficient space above, the tenderer may append additional sheets.

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

SIGNED BY/ON BEHALF OF TENDERER:

NAME		**SIGNATURE**		**DATE**

T2.2.6 Schedule Of Local Subcontractors

We notify you that it is our intention to employ the following Subcontractors for work in this contract.

LOCAL SUBCONTRACTORS						
Category/type	**Subcontractor Name/Address/Contact Person/Phone/Fax/Details of Organisation/Firm/Experience**	**(a) B-BBEE Ownership (%)**	**CIDB Contractor Grading**	**Items of work (pay items) to be undertaken by the Subcontractor**	**(b) Estimated Cost of W**	**(c) = (a) x (b) Contribution to BB-EEE Ownership (Rand)**
A) SUBTOTAL FOR LO RS (Excluding						
B) TOTAL CO uding VAT) R **PERCENTAGF OCAL SUB-CONTRACTORS (A x B / 100)** **%**						
C) SU RIBUTION TO HDI OWNERSHIP (Excluding VAT) R						
D) TOTA RACT VALUE (Excluding VAT) R						
PERCENTA E OF CONTRACT VALUE FOR HDI CONTRIBUTION (C x D / 100) %						

NOT REQUIRED

If there is insufficient space above, the tenderer may append additional sheets.

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

Acceptance of this tender shall not be construed as approval of all or any of the listed subcontractors. Should any of the subcontractors not be approved subsequent to acceptance of the tender, this shall in no way invalidate this tender, and the tendered unit rates for the various items of work shall remain final and binding, even in the event of a subcontractor not listed above being approved by the Engineer.

Tenderers must ensure that the amount of sub-contractor work correlates with the percentage provided in Schedule A30 PREFERENCE POINTS CLAIM FORM IN TERMS OF THE PREFERENTIAL PROCUREMENT REGULATIONS 2017 (PURCHASES) (MBD 6.1) and will be subject to the conditions contained therein.

Should the actual percentage of the Contract Value for Local Sub-Contractors be less than stated in this form the Employer reserves the right to deduct an amount from the payment due to the contractor by applying a deduction formula as contained in
Error! Reference source not found. of the Contract Data on page **Error! Bookmark not defined.**.

SIGNED BY/ON BEHALF OF TENDERER:

NAME		**SIGNATURE**		**DATE**

T2.2.7 Details of Experience and CV's of Key Personnel

Tenderers shall set out in the Schedule hereunder details of the experience of the relevant personnel in work of a similar nature to that for which this Tender is submitted as per Evaluation Criteria. Tender to provide copies of relevant qualifications.

CONTRACTS MANAGER				
Name & Surname:		**Qualification:**		
Contract and Client	**Nature of Work**	**Position Held**	**Value of Work**	**Year Completed**

Minimum requirements:

- 5 Years related experience in installation of municipal reticulation networks projects or water board water reticulation networks within the last 10 years, from 2015 to date.
- National Diploma NQF Level 6 Civil Engineering with ECSA Registration as Professional Engineering Technician.

FOREMAN				
Name & Surname:		**Qualification:**		
Contract and Client	**Nature of Work**	**Position Held**	**Value of Work**	**Year Completed**

Minimum requirements:

- 5 years post-qualification experience in the installation of municipal reticulation networks projects or water board water reticulation networks within the last 10 years, from 2015 to date.reticulation
- NQF Level 4 Civil Engineering

PLUMBER				
Name & Surname:		**Qualification:**		
Contract and Client	**Nature of Work**	**Position Held**	**Value of Work**	**Year Completed**

Minimum requirements:

- 4 Years construction experience in the installation of municipal reticulation networks projects or water board water reticulation networks within the last 10 years, from 2015 to date.
- Trade Test in plumbing (Red Seal)

HEALTH AND SAFETY OFFICER				
Name & Surname:		**Qualification:**		
Contract and Client	**Nature of Work**	**Position Held**	**Value of Work**	**Year Completed**

Minimum requirements:

- 3 Years construction experience
- N.Dip (Safety management)/NQF Level 6 or SAMTRAC

If there is insufficient space above, the tenderer may append additional sheets.

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

SIGNED BY/ON BEHALF OF TENDERER:

NAME		**SIGNATURE**		**DATE**

T2.2.8 Alterations / Amendments / Qualifications by Tenderer

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

If no deviations or modifications are desired, the Schedule hereunder is to be marked NIL and signed by the Tenderer.

No alternative Tender will be considered unless a Tender free of qualifications and strictly on the basis of the Tender Documents is also submitted.

PAGE/ITEM	CLAUSE/DESCRIPTION

If there is insufficient space above, the tenderer may append additional sheets.

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

SIGNED BY/ON BEHALF OF TENDERER:

Name	**Signature**	**Date**

T2.2.9 Compulsory Enterprise Questionnaire

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

Section 1: Name of enterprise .....

Address of enterprise .....

.....

Section 2: VAT registration number, if any .....

Section 3: CIDB registration number, if any .....

Section 4: Particulars of sole proprietors and partners in partnerships

Name*	Identity number*	Personal income tax number*

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

Section 5: Particulars of companies and close corporations

Company registration number .....

Close corporation number .....

Tax reference number .....

Section 6: Record of service of the state

Indicate by marking the relevant boxes with a **X,** if any sole proprietor, partner in a partnership or director, manager, principal shareholder or stakeholder in a company or close corporation participating in this tender is currently or has 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

a member of the board of directors of any municipal entity

an official of any municipality or municipal entity

an employee of any provincial department, national or provincial public entity or constitutional institution within the meaning of the Public Finance Management Act, 1999 (Act 1 of 1999)

a member of an accounting authority of any national 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 sole proprietor, partner, director, manager, principal shareholder or stakeholder	Name of institution, public office, board or organ of state and position held	Status of service (tick appropriate column)	
		current	Within last 12 months

*insert separate page if necessary

Section 7: Record of spouses, children and parents in the service of the state

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

a member of the board of directors of any municipal entity

an official of any municipality or municipal entity

an employee of any provincial department, national or provincial public entity or constitutional institution within the meaning of the Public Finance Management Act, 1999 (Act 1 of 1999)

a member of an accounting authority of any national 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 spouse, child or parent	Name of institution, public office, board or organ of state and position held	Status of service (tick appropriate column)	
		Current	Within last 12 months

*insert separate page if necessary

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

i) authorises the Employer to obtain a tax clearance certificate from the South African Revenue Services that my / our tax matters are in order;

ii) confirms that neither the name of the enterprise nor the name of any partner, manager, director or other person, who wholly or partly exercises, or may exercise, control over the enterprise appears on the Register of Tender Defaulters established in terms of the Prevention and Combating of Corrupt Activities Act of 2004;

iii) confirms that no partner, member, director or other person, who wholly or partly exercises, or may exercise, control over the enterprise, has within the last five years been convicted of fraud or corruption;

iv) confirms that I/we are not associated, linked or involved with any other tendering entities submitting tender offers and have no other relationship with any of the tenderers or those responsible for compiling the scope of work that could cause or be interpreted as a conflict of interest;

v) confirms that the contents of this questionnaire are within my personal knowledge and are to the best of my

SIGNED:

Enterprise Name	**Date**	
Name	**Position**	**Signature**

T2.2.10 General Information (Procurement)

1. Name of tendering entity: .....

2.Contact details: Contact name and number: .....

Address of tendering entity: .....

Postal code: .....

Tel no: ( ) ..... Fax no: ( ) .....

E-mail address: .....

3. Legal entity: Mark with an X.

In the case of a Joint venture, provide details on joint venture members: Joint venture member Type of entity (as defined above)

Sole proprietor	
Partnership	
Close corporation	
Company (Pty) Ltd	
Joint venture	

In the case of a Joint venture, provide details on joint venture members:

Join Venture Member	**Type if entity (as defined above)**

4. Income tax reference number: (COMPULSORY)
(In the case of a joint venture, provide for all joint venture members)
....

....

5. VAT registration number (COMPULSORY): (In the case of a joint venture, provide for all joint venture members)

....

....

6. Company or closed corporation registration number (COMPULSORY):
(In the case of a joint venture, provide for all joint venture members)

....

....

7. Construction Industry Development Board (CIDB) registration number
(COMPULSORY) (In the case of a joint venture, provide for all joint venture members)

....

....

8. Municipal rates and taxes or service charges accounts of tendering entities and its directors / members **(COMPULSORY)**
(In the case of a joint venture, provide for all joint venture members)
ATTACH COPIES OF ALL LATEST MUNICIPAL ACCOUNTS (SEE "NOTICE TO TENDERERS: VERY IMPORTANT NOTICE ON DISQUALIFICATIONS" PARAGRAPH No. 13)

9. Details of proprietor, partners, closed corporation members, or company directors, indicating technical qualifications where applicable (Form on the next page).

10. For joint ventures the following must be attached:

• Written authority of each JV partner, for authorized signatory.
• The joint venture agreement.

SIGNED BY/ON BEHALF OF TENDERER:

NAME		**SIGNATURE**		**DATE**

Details Of Proprietor, Partners, Closed Corporation Members Or Company Directors

(In the event of a joint venture, to be completed by all joint venture partners)

Name and Surname	Identity Number	Relevant qualifications and experience	Years of relevant experience

SIGNED BY/ON BEHALF OF TENDERER:

NAME		**SIGNATURE**		**DATE**

T2.2.11 Equity Of Ownership

List all partners, shareholders or members of tendering entity by name, identity number, citizenship, gender, race, B-BBEE status and ownership. In the case of a JV, complete an Equity ownership for each JV member.

Name and Surname	Position Occupied in Enterprise	Identity Number	Date RSA Citizen- ship obtained	Gender Male / Female	Race	B-BBEE Status (Yes/No)	Date of Ownership	% B-BBEE Owned	% Owned by Women	% Owned by Disabled
TOTAL								A	B	C

Note: Where owners are themselves a company or partnership, identify the ownership of the holding firm.

In the case of joint ventures equity ownership for each of the JV members are determined as above, and the combined B-BBEE ownership is then calculated as follows

Joint venture members	a % Contribution to the JV	b %BBBEE	c = a * b ÷ 100 % BBBEE contribution
Total BBBEE contribution			

A COPY OF A VALID SIGNED JOINT VENTURE AGREEMENT MUST BE ATTACHED TO THE TENDER DOCUMENT. FAILURE TO COMPLY WITH ABOVE-MENTIONED WILL RESULT IN REJECTION OF THIS TENDER

1. SMME Status

Provide details on the following

Sector/Sub-Sector in accordance with the Standard Industrial Classification	
Total Full-time Equivalent of paid Employees	
Total Annual Turnover	
Total Gross Asset Value	
Size or Class (Medium, Small, Very Small, Micro)	

NOTE: If all of the above does not adhere to the definition of a single class, use the total Annual Turnover only to decide on the class.

SIGNED BY/ON BEHALF OF TENDERER:

NAME		**SIGNATURE**		**DATE**

T2.2.12 Bidder's Attachments Checklist

Administrative Compliance:

DESCRIPTION		**BIDDER'S CHECKLIST**
1	Certified copy of the signed resolution by all directors authorising a director/ other official of the company to sign the documents on behalf of the company.	**YES NO**
2	Current Water and Lights / Rates and Taxes obtainable from the local or metropolitan municipality.	**YES NO**
3	In a case of a Joint Venture (JV)/ Consortium, the JV agreement.	**YES NO**
4	Valid B-BBEE certificate or Completed or signed Sworn Affidavit The municipality only considers B-BBEE certificates from SANAS accredited agencies as well as certificates and sworn affidavits from the DTI.	**YES NO**

SPECIFIC GOALS – POINTS CLAIM				
Goal	**Weight**		**Required Proof**	**Bidder's Checklist**
Local Enterprise ***(10 Points)***	10 Points, if the business operates within the jurisdiction of Midvaal Local Municipality		- Rates and Taxes statement in the name of the business, or that of its director(s); OR - Confirmation of the company's director(s) ward and voting district as per the IEC (Independent Electoral Commission of South Africa)	**YES** **NO**
	5 Points, if the business operates outside Midvaal but within the Sedibeng District jurisdiction			
	3 Points, if the business operates outside the Sedibeng jurisdiction			
	0 points for non-submission			
B-BBEE Status ***(10 Points)***	Status Contributor	Points	B-BBEE certificate: - issued by the DTIC (The Department of Trade and Industry and Competition) through CIPC; OR - from an accredited institution registered with SANAS; OR - a valid sworn affidavit, as issued by the DTIC	**YES** **NO**
	1	10		
	2	8		
	3	6		
	4	5		
	5	4		
	6	3		
	7	2		
	8	1		
	Non-contributor	0		

SIGNED BY/ON BEHALF OF TENDERER:

NAME		**SIGNATURE**		**DATE**

T2.2.13 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.		
9.		
10.		
11.		
12.		

If there is insufficient space above, the tenderer may append additional sheets.
Number of additional sheets appended by the tenderer to this Schedule (If nil, enter NIL)

SIGNED BY/ON BEHALF OF TENDERER:

NAME		**SIGNATURE**		**DATE**

T2.2.14 Performance Management System

The Municipal Finance Management Act (No. 56 of 2003) Section 116 (2) (d) determines that a Municipality must enter into a Performance Management System (PMS) with all service providers.

An assignment specific PMS has been drafted and needs to be signed by the appointed signatory as part of this tender document and the costing for this project will run for 36 months from the date of appointment.

ACCEPTANCE OF PMS AGREEMENT

You are hereby requested to sign this document as acceptance of the agreement. Failure to sign this document will lead to disqualification.

CONTRACTOR

SIGNATURE	NAME

ANNEXURE "B"

PERFORMANCE MANAGEMENT SYSTEM EXTERNAL SERVICE PROVIDERS
(in terms of Section 116 of the Municipal Finance Management Act, Act 56 of 2003)

CONTRACT	**BID TO APPOINT A SERVICE PROVIDER FOR THE ONCE-OFF SUPPLY AND INSTALLATION OF BELOW-GROUND FIRE HYDRANTS WITH CIVIL WORKS AND REINSTATEMENTS TO REPLACE EXISTING ABOVE-GROUND FIRE HYDRANTS IN MIDVAAL LOCAL MUNICIPALITY.**				
COMPANY					
TENDER NO	**BID 8/2/2/452(2CE OR HIGHER)**	**DATE APPROVED**			
TERM OF CONTRACT	**ONCE-OFF**				
RESPONSIBLE PERSON FOR ASSESSMENT & COMPLETION OF PERFORMANCE REPORT					
KEY PERFORMANCE AREA	**KEY PERFORMANCE INDICATOR**	**RESPONSIBLE PERSON & TARGET DATE**	**COMPLIANCE & DATE**	**DEVIATIONS, IF ANY, PROVIDE REASONS**	**AGREED RECTIFICATION MEASURES TO COMPLY**
A. OPERATIONAL KPI's (TO BE COMPLETED BY RELEVANT DEPARTMENT ACCORDING TO APPROVED TENDER SPECIFICATIONS)					
Project Initiation	1. Submit and obtain approval for Health & Safety file. 2. Inform department of labour about the project. 3. Submit construction programme and obtain approval from the Engineer. 4. Provide Public Liability Insurance of 5 million 5. Provide construction guarantees and proof of insurance as required.	Service Provider Within 14 days of award.			
Contract Administration	1. Provide Weekly progress report. 2. Provide an updated construction programme Weekly 3. Submit invoices on or before 25th of each month. 4. Attend site meetings as arranged by the Engineer.	Service Provider Weekly/ Monthly.			
Construction	1. Compliance with health and safety requirements. 2. Comply with quality requirements.	Service Provider Monthly or as required.			

Accepted and agreed upon:

ON BEHALF OF SERVICE PROVIDER	**SIGNATURE: MIDVAAL LOCAL MUNICIPALITY**
DATE	**DATE**

T2.2.15 Joint Venture Disclosure Form

GENERAL

i) All the information requested must be filled in the spaces provided. If additional space is required, additional sheets may be used and attached to the original documents.

ii) A copy of the joint venture agreement must be attached to this form, in order to demonstrate the Affirmable, Joint Venture Partner's share in the ownership, control, management responsibilities, risks and profits of the joint venture, the proposed joint venture agreement must include specific details relating to:

a. the contributions of capital and equipment

b. work items to be performed by the Affirmable Joint Venture Partner's own forces

c. work items to be performed under the supervision of the Affirmable Joint Venture Partner.

iii) Copies of all written agreements between partners concerning the contract must be attached to this form including those, which relate to ownership options and to restrictions/limits regarding ownership and control.

iv) ABE partners must complete ABE Declaration Affidavits.

v) The joint venture must be formalised. All pages of the joint venture agreement must be signed by all the parties concerned. A letter/ notice of intention to formalise a joint venture once the contract has been awarded will not be considered.

vi) Should any of the above not be complied with, the joint venture will be deemed null and void and will be considered non-responsive.

1. JOINT VENTURE PARTICULARS

a) Name.....

b) Postal address.....

.....

.....

c) Physical address .....

.....

.....

d) Telephone.....

e) Fax

2. IDENTITY OF EACH NON-AFFIRMABLE JOINT VENTURE PARTNER

2.1(a) Name of Firm .....

Postal Address.....

Physical Address .....

Telephone .....

Fax.....

Contact person for matters pertaining to Joint Venture Participation Goal requirements:

.....

2.2(a) Name of Firm .....

Postal Address.....

Physical Address .....

Telephone .....

Fax.....

Contact person for matters pertaining to Joint Venture Participation Goal requirements:

.....

(Continue as required for further non-Affirmable Joint Venture Partners)

3. IDENTITY OF EACH AFFIRMABLE JOINT VENTURE PARTNER

3.1(a) Name of Firm .....

Postal Address.....

Physical Address .....

Telephone .....

Fax.....

Contact person for matters pertaining to Joint Venture Participation Goal requirements:

.....

3.2(a) Name of Firm .....

Postal Address.....

Physical Address .....

Telephone .....

Fax.....

Contact person for matters pertaining to Joint Venture Participation Goal requirements:

.....

3.3(a) Name of Firm .....

Postal Address.....

Physical Address .....

Telephone .....

Fax.....

Contact person for matters pertaining to Joint Venture Participation Goal requirements:

.....

4. BRIEF DESCRIPTION OF THE ROLES OF THE AFFIRMABLE JOINT VENTURE PARTNERS IN THE JOINT VENTURE

.....

.....

.....

5. OWNERSHIP OF THE JOINT VENTURE

a) Affirmable Joint Venture Partner ownership percentage(s) .....%

b) Non-Affirmable Joint Venture Partner ownership percentage(s) .....%

c) Affirmable Joint Venture Partner percentages in respect of : *

i) Profit and loss sharing .....

ii) Initial capital contribution in Rands .....

(*Brief descriptions and further particulars should be provided to clarify percentages).

iii) Anticipated on-going capital contributions in Rands .....

iv) Contributions of equipment (specify types, quality, and quantities of equipment) to be provided by each partner.

.....

.....

.....

6. RECENT CONTRACTS EXECUTED BY PARTNERS IN THEIR OWN RIGHT AS PRIME CONTRACTORS OR AS PARTNERS IN OTHER JOINT VENTURES

	NON-AFFIRMABLE JOINT VENTURE PARTNERS	PARTNER NAME
a)		
b)		
c)		
d)		
e)		

	AFFIRMABLE JOINT VENTURE PARTNERS	PARTNER NAME
a)		
b)		
c)		
d)		
e)		

7. CONTROL AND PARTICIPATION IN THE JOINT VENTURE

(Identify by name and firm those individuals who are, or will be, responsible for, and have authority to engage in the relevant management functions and policy and decision making, indicating any limitations in their authority e.g. co-signature requirements and Rand limits).

a) Joint Venture cheque signing

.....

.....

.....

b) Authority to enter into contracts on behalf of the Joint Venture

.....

.....

.....

c) Signing, co-signing and/or collateralising of loans

.....

.....

.....

d) Acquisition of lines of credit

.....

.....

.....

e) Acquisition of performance bonds

.....

.....

.....

f) Negotiating and signing labour agreements

.....

.....

.....

8. MANAGEMENT OF CONTRACT PERFORMANCE
(Fill in the name and firm of the responsible person).

a) Supervision of field operations

.....

b) Major purchasing

.....

c) Estimating

.....

d) Technical management

.....

9. MANAGEMENT AND CONTROL OF JOINT VENTURE

a) Identify the "managing partner", if any,

.....

.....

.....

.....

b) What authority does each partner have to commit or obligate the other to financial institutions, insurance companies, suppliers, subcontractors and/or other parties participating in the execution of the contemplated works?

.....

.....

.....

.....

c) Describe the management structure for the Joint Venture's work under the contract

MANAGEMENT FUNCTION / DESIGNATION	NAME	PARTNER*

(Fill in “ex Affirmable Joint Venture Partner” or “ex non-Affirmable Joint Venture Partner”.

10. PERSONNEL

a) State the approximate number of operative personnel (by trade/function/discipline) needed to perform the Joint Venture work under the Contract.

TRADE/FUNCTION/ DISCIPLINE	NUMBER EX AFFIRMABLE JOINT VENTURE PARTNERS	NUMBER EX NON-AFFIRMABLE JOINT VENTURE PARTNERS

(Fill in “ex Affirmable Joint Venture Partner” or “ex non-Affirmable Joint Venture Partner”).

b) Number of operative personnel to be employed on the Contract who are currently in the employ of partners.

(i) Number currently employed by Affirmable Joint Venture Partners

.....

(ii) Number currently employed by the Joint Venture

.....

c) Number of operative personnel who are not currently in the employ of the respective partner and will be engaged on the project by the Joint Venture

.....

d) Name of individual(s) who will be responsible for hiring Joint Venture employees

.....

.....

e) Name of partner who will be responsible for the preparation of Joint Venture payrolls

.....

.....

11. CONTROL AND STRUCTURE OF THE JOINT VENTURE

Briefly describe the manner in which the Joint Venture is structured and controlled.

.....

.....

.....

.....

The undersigned warrants that he/she is duly authorised to sign this Joint Venture Disclosure Form and affirms that the foregoing statements are true and correct and include all material information necessary to identify and explain the terms and operations of the Joint Venture and the intended participation of each partner in the undertaking.

The undersigned further covenants and agrees to provide the Employer with complete and accurate information regarding actual Joint Venture work and the payment therefore, and any proposed changes in any provisions of the Joint Venture agreement, and to permit the audit and examination of the books, records and files of the Joint Venture, or those of each partner relevant to the Joint Venture, by duly authorised representatives of the Employer.

Signature
.....

Duly authorised to sign on behalf of.....

Name
.....

Address
.....

Telephone.....
.....

Date
.....

Signature
.....

Duly authorised to sign on behalf of.....

Name
.....

Address
.....

Telephone.....
.....

Date
.....

Signature
.....

Duly authorised to sign on behalf of.....

Name
.....

Address
.....

Telephone.....
.....

Date
.....

Signature
.....

Duly authorised to sign on behalf of.....

Name
.....

Address
.....

Telephone.....

Date
.....

(Continue as necessary)

T2.2.16 Midvaal Local Municipality Indemnity

1.The Contractor hereby agrees to indemnify, hold harmless and defend Midvaal Local Municipality and their officers, employees, agents and representatives, from and against the following liabilities arising as a result of the execution of the work:

1.1 Any liability with regard to claims by governmental authorities or others for non-compliance by Contractor of any Act of Parliament, law, ordinance, regulation or by-law made by a lawful authority provided that such compliance therewith was required for the execution of the Contract or at Law.

1.2 Any liability arising from actual or alleged public or private nuisance arising out of negligent acts or omissions to act of Contractor or its Subcontractors, or of their employees.

1.3 Any liability arising from loss or damage to Contractor and/or Subcontractor's equipment and their other property on site.

1.4 Any liability arising from claims with regard to the death of/or injury or sickness or disease to Contractor' employees or the death of/or injury or sickness or disease to third parties.

1.5 Any liability arising from any loss of/or damage to property belonging to a third party.

1.6 Any liability arising from actual or asserted infringement or improper appropriation or use of patents, copyrights, proprietary information or know- how in respect of the work designed by/or under the responsibility of the Contractor.

1.7 Any liability arising from the death or injury or loss or damage to property of third parties or Midvaal Local Municipality's property as a result of the negligent acts or omissions of contractors or its subcontractor's employees.

1.8 Contractor shall indemnify Midvaal Local Municipality against all claims, proceedings, damages and costs of whatsoever nature arising out of contravention of environmental legislation.

I,_____the undersigned (duly authorised to sign) hereby declare that I have read and understood the abovementioned and agree to all the above.

COMPANY:	
ADDRESS:	
TEL:	
CELL:	

T2.2.17 Municipal Services, Rates and Taxes Clearance Certificate for Supply Chain Purpose

The purpose of this form is to obtain proof that municipal services, rates and taxes of the service provider are not more than three months in arrears with the relevant municipality / landlord in the municipal area where the service provider conduct his / her business. **This form is to be completed only if the service provider's rates and taxes are not in arrears for more than three months.**

PART A – to be completed by the relevant municipality in the case where the service provider is the registered owner of the site / owner pays for municipal services / tenant pays for municipal services

OR

PART B – to be completed by the landlord in the case where the service provider is renting the premises / rental paid by tenant include municipal services.

PART A (TO BE COMPLETED BY THE LOCAL AUTHORITY)
Name of the Municipality:
Property Physical Address:
Registered Name:
Official's Name: _____ Municipality Stamp Here Signature : _____ Date: _____ **Please indicate whether company/owner in arrears or up-to-date** Rates and taxes : Up-to-date/in arrears for more than 3 months Water: Up-to-date/in arrears for more than 3 months Electricity: Up-to-date/in arrears for more than 3 months Refuse : Up-to-date/in arrears for more than 3 months Other services: Up-to-date/in arrears for more than 3 months
PART B (TO BE COMPLETED BY THE LANDLORD)
Name of the Landlord:
Property Physical Address:
Landlord Signature:
Date: _____ **Landlord's business stamp here** Or an Affidavit from SAPS in the event the landlord does not have a business stamp) **Please tick whether up-to-date or in arrears** Rental: Up-to-date/ in arrears for more than 3 months Municipal services: Up-to-date/ in arrears for more than 3 months

SIGNED BY/ON BEHALF OF TENDERER:

NAME	**SIGNATURE**	**DATE**

T2.2.18 Declaration of Interest (MBD4)

1. No bid will be accepted from persons in the service of the state.

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 service of the state, it is required that the bidder or their authorised representative declare their position relation to the evaluating/adjudicating authority.

3. A Person who is an advisor or consultant contracted with the municipality.

4. In order to give effect to the above, the following questionnaire must be completed and submitted with the bid.

4.1 Full Name of bidder or his or her representative:

_____

4.2 | | | | | | | | | | | | | |

Identity Number:

4.3 Position occupied in the Company (director, trustee, shareholder²):

_____

4.4 Company Registration Number:

_____

4.5 Tax Reference Number:

_____

4.6 VAT Registration Number:

_____

4.7 The names of all directors / trustees / shareholders members, their individual identity numbers and state employee numbers must be indicated in paragraph 4 below.

4.8 Are you presently in the service of the state? **YES** **NO**

If so, furnish particulars.

1 MSCM Regulations: "in the service of the state" means to be –

(a) A member of –

- *any municipal council;*

- *any provincial legislature; or*
- *the national Assembly or the national Council of provinces;*

(b) a member of the board of directors of any municipal entity;

(c) an official of 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 public entity; or

(f) an employee of Parliament or a provincial legislature.

² Shareholder" means a person who owns shares in the company and is actively involved in the management of the company or business and exercises control over the company.

4.9 Have you been in the service of the state for the past twelve months?

YES	**NO**

If so, furnish particulars.

_____

_____

4.10 Do you have any relationship (family, friend, other) with persons in the service of the state and who may be involved with the evaluation and or adjudication of this bid?

YES	**NO**

If so, furnish particulars.

_____

_____

4.11 Are you, aware of any relationship (family, friend, other) between any other bidder and any persons in the service of the state who

may be involved with the evaluation and or adjudication of this bid?

YES	NO

If so, furnish particulars.

_____

_____

1.1 Are any of the company's directors, trustees, managers, principle shareholders or stakeholders in service of the state?

YES	NO

If so, furnish particulars.

_____

_____

1.2 Are any spouse, child or parent of the company's directors, trustees, managers, principle shareholders or stakeholders in service of the state?

YES	NO

If so, furnish particulars.

_____

_____

1.3 Do you or any of the directors, trustees, managers, principle shareholders, or stakeholders of this company have any interest in any other related companies or business whether or not they are bidding for this contract.

YES	NO

If so, furnish particulars.

_____

_____

2. Full details of directors / trustees / members / shareholders.

FULL NAME	IDENTITY NUMBER	STATE EMPLOYEE NUMBER

Please note that The Federal Executive of the DA resolved as follows:

"That no office-bearer or member of the professional staff of the Party, or any company, partnership, close corporation or similar juristic entity in which such office-bearer or member of the professional staff has an interest, may tender for or contract to provide any goods or services to any DA controlled government.

For the purposes of this resolution:

"office-bearer" means any public representative or member of the Federal Executive, a provincial executive, a provincial management committee, a regional executive or a constituency executive;

"an interest" means that the office bearer or member of the professional staff has a 5% of more stake; and

"member of the professional staff" means any person who has an employment contract with the Party, and includes any person who is employed by the Party but who is paid by an organ of state, but does not include any person paid a gratuity or honorarium for services rendered to the Party."

6.1 Are you or your company an office-bearer by means of any public representative or member of the Federal Executive, a provincial executive, a provincial management committee, a regional executive or a constituency executive?

YES	NO

If so, furnish particulars.

_____

_____

6.2 Do you or your company have an interest by means that the office bearer or member of the professional staff has a 5% of more stakes?

YES	NO

If so, furnish particulars.

6.3 Are you or your company a member of the professional staff by means any person who has an employment contract with the Party, and includes any person who is employed by the Party but who is paid by an organ of state, but does not include any person paid a gratuity or honorarium for services rendered to the Party?

YES **NO**

If so, furnish particulars.

_____

_____

CERTIFICATION

I, THE UNDERSIGNED (NAME)

CERTIFY THAT THE INFORMATION FURNISHED ON THIS DECLARATION FORM IS CORRECT.

I ACCEPT THAT THE STATE MAY ACT AGAINST ME SHOULD THIS DECLARATION PROVE TO BE FALSE.

SIGNATURE **DATE**

POSITION **NAME OF BIDDER**

T2.2.19 Declaration for Procurement above R10 Million (Vat Included)-MBD5

TENDERERS MUST COMPLETE THE FOLLOWING QUESTIONNAIRE:

1. Are you by law required to prepare annual financial statements for auditing?

   YES / NO

1.1. If yes, submit audited annual financial statements for the past three years or since the date of establishment if established during the past three years.

.....

.....

1.2. If no, un-audited financial statements must be submitted with your tender.

.....

.....

2. Do you have any outstanding undisputed commitments for municipal services towards a municipality or any other service provider in respect of which payment is overdue for more than 30 days?
   YES / NO

2.1. If no, this serves to certify that the Tenderer has no undisputed commitments for municipal services towards a municipality or other service provider in respect of which payment is overdue for more than 30 days.

2.2. If yes, provide particulars.

.....

.....

.....

.....

3. Has any contract been awarded to you by an organ of state during the past five years, including particulars of any material non-compliance or dispute concerning the execution of such contract?
   YES / NO

3.1. If yes, furnish particulars.

.....
.....

.....
.....

CERTIFICATION

I, THE UNDERSIGNED (FULL NAME)
.....
.....

CERTIFY THAT THE INFORMATION FURNISHED ON THIS DECLARATION FORM IS 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.

POSITION		**SIGNATURE**		**DATE**

T2.2.20 Preference Points Claim Form In Terms of the Preferential Procurement Regulations 2022 (Purchases) (MBD6.1)

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

NB: **BEFORE COMPLETING THIS FORM, TENDERERS MUST STUDY THE GENERAL CONDITIONS, DEFINITIONS AND DIRECTIVES APPLICABLE IN RESPECT OF THE TENDER AND PREFERENTIAL PROCUREMENT REGULATIONS, 2022**

---

1. GENERAL CONDITIONS

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

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

1.2 **To be completed by the organ of state**

a) The applicable preference point system for this tender is the ***90/10*** preference point system. OR

b) The applicable preference point system for this tender is the ***80/20*** preference point system.

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

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

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

1.4 **To be completed by the organ of state**

The maximum points for this tender are allocated as follows:

	POINTS
PRICE	
SPECIFIC GOALS	
Total points for Price and SPECIFIC GOALS	**100**

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

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

2. DEFINITIONS

(a) **"tender"** means a written offer in the form determined by an organ of state in response to an invitation to provide goods or services through price quotations, competitive tendering process or any other method envisaged in legislation;

(b) **"price"** means an amount of money tendered for goods or services, and includes all applicable taxes less all unconditional discounts;

(c) **"rand value"** means the total estimated value of a contract in Rand, calculated at the time of bid invitation, and includes all applicable taxes;

(d) **"tender for income-generating contracts"** means a written offer in the form determined by an organ of state in response to an invitation for the origination of income-generating contracts through any method envisaged in legislation that will result in a legal agreement between the organ of state and a third party that produces revenue for the organ of state, and includes, but is not limited to, leasing and disposal of assets and concession contracts, excluding direct sales and disposal of assets through public auctions; and

(e) **"the Act"** means the Preferential Procurement Policy Framework Act, 2000 (Act No. 5 of 2000).

3. FORMULAE FOR PROCUREMENT OF GOODS AND SERVICES

3.1 THE 80/20 or 90/10 PREFERENCE POINT SYSTEMS

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

80/20 **or 90/10**

$$Ps = 80\left(1 - \frac{Pt - P\,min}{P\,min}\right) \quad \text{or} \quad Ps = 90\left(1 - \frac{Pt - P\,min}{P\,min}\right)$$

Ps = Points scored for price of tender under consideration

Pt = Price of bid under consideration

Pmin = Price of lowest acceptable tender

4. POINTS AWARDED FOR SPECIFIC GOALS

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

4.2 If it is unclear whether the 80/20 or 90/10 preference point system applies, the following will apply:—

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

(b) any other invitation for tender, either the 80/20 or 90/10 preference point system will apply and the lowest acceptable tender will be used to determine the applicable preference point system;

then the organ of state must indicate the points allocated for specific goals for both the 90/10 and 80/20 preference point system.

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

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

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

Local Enterprise	N/A	N/A	N/A	
B-BBEE	N/A	N/A	N/A	
	N/A	N/A	N/A	

DECLARATION WITH REGARD TO COMPANY/FIRM

4.3 Name of company/firm _____

4.4 Company registration number _____

4.5 TYPE OF COMPANY/ FIRM

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

[TICK APPLICABLE BOX]

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

i) The information furnished is true and correct;

ii) The preference points claimed are in accordance with the General Conditions as indicated in paragraph 1 of this form;

iii) In the event of a contract being awarded as a result of points claimed as shown in paragraphs 1.4 and 4.2, the contractor may be required to furnish documentary proof to the satisfaction of the organ of state that the claims are correct;

iv) If the specific goals have been claimed or obtained on a fraudulent basis or any of the conditions of contract have not been fulfilled, the organ of state may, in addition to any other remedy it may have –

(a) disqualify the person from the tendering process;

(b) recover costs, losses or damages it has incurred or suffered as a result of that person's conduct;

(c) cancel the contract and claim any damages which it has suffered as a result of having to make less favourable arrangements due to such cancellation;

(d) recommend that the tenderer or contractor, its shareholders and directors, or only the shareholders and directors who acted on a fraudulent basis, be restricted from obtaining business from any organ of state for a period not exceeding 10 years, after the *audi alteram partem* (hear the other side) rule has been applied; and

(e) forward the matter for criminal prosecution, if deemed necessary.

T2.2.21 Declaration Of Bidder's Past Supply Chain Management Practices (MBD 8)

1 This Municipal Bidding Document must form part of all bids invited.

2 It serves as a declaration to be used by municipalities and municipal entities in ensuring that when goods and services are being procured, all reasonable steps are taken to combat the abuse of the supply chain management system.

3 The bid of any bidder may be rejected if that bidder, or any of its directors have:

a. abused the municipality's / municipal entity's supply chain management system or committed any improper conduct in relation to such system;
b. been convicted for fraud or corruption during the past five years;
c. willfully neglected, reneged on or failed to comply with any government, municipal or other public sector contract during the past five years; or
d. been listed in the Register for Tender Defaulters in terms of section 29 of the Prevention and Combating of Corrupt Activities Act (No 12 of 2004).

4 In order to give effect to the above, the following questionnaire must be completed and submitted with the bid.

Item	Question	Yes	No
4.1	**Is the bidder or any of its directors listed on the National Treasury's Database of Restricted Suppliers as companies or persons prohibited from doing business with the public sector?** (Companies or persons who are listed on this Database were informed in writing of this restriction by the Accounting Officer/Authority of the institution that imposed the restriction after the audi alteram partem rule was applied). **The Database of Restricted Suppliers now resides on the National Treasury's website (**www.treasury.gov.za**) and can be accessed by clicking on its link at the bottom of the home page.**	Yes ☐	No ☐
4.1.1	If so, furnish particulars:		
4.2	Is the bidder or any of its directors listed on the Register for Tender Defaulters in terms of section 29 of the Prevention and Combating of Corrupt Activities Act (No 12 of 2004)? **The Register for Tender Defaulters can be accessed on the National Treasury's website (www.treasury.gov.za) by clicking on its link at the bottom of the home page.**	Yes ☐	No ☐
4.2.1	If so, furnish particulars:		
4.3	Was the bidder or any of its directors convicted by a court of law (including a court of law outside the Republic of South Africa) for fraud or corruption during the past five years?	Yes ☐	No ☐
4.3.1	If so, furnish particulars:		
Item	**Question**	**Yes**	**No**
4.4	Does the bidder or any of its directors owe any municipal rates and taxes or municipal charges to the municipality / municipal entity, or to any other municipality / municipal entity, that is in arrears for more than three months?	Yes ☐	No ☐

4.4.1	If so, furnish particulars:		
4.5	Was any contract between the bidder and the municipality / municipal entity or any other organ of state terminated during the past five years on account of failure to perform on or comply with the contract?	Yes ☐	No ☐
4.7.1	If so, furnish particulars:		

CERTIFICATION

I, THE UNDERSIGNED (FULL NAME) _____

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.

SIGNATURE	**DATE**
POSITION	**NAME OF BIDDER**

T2.2.22 Certificate Of Independent Bid Determination (MBD 9)

1. This Municipal Bidding Document (MBD) must form part of all bids[1] invited.

2. 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).[2][2] Collusive bidding is a *pe se* prohibition meaning that it cannot be justified under any grounds.

3. 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:

a. take all reasonable steps to prevent such abuse;
b. reject the bid of any bidder if that bidder or any of its directors has abused the supply chain management system of the municipality or municipal entity or has committed any improper conduct in relation to such system; and
c. cancel a contract awarded to a person if the person committed any corrupt or fraudulent act during the bidding process or the execution of the contract.

4. This MBD 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.

5. In order to give effect to the above, the attached Certificate of Bid Determination (MBD 9) must be completed and submitted with the bid:

---

[1]Includes price quotations, advertised competitive bids, limited bids and proposals

[2] 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

I, the undersigned, in submitting the accompanying bid:

Contract No: 8/2/2/452: BID FOR THE REPLACEMENT OF ABOVE-GROUND FIRE HYDRANTS WITH BELOW GROUND FIRE HYDRANTS, INCLUDING SUPPLY, INSTALLATION, CIVIL WORKS AND REINSTATEMENTS (ONCE – OFF) FOR MIDVAAL LOCAL MUNICIPALITY.

(Bid Number and Description)

in response to the invitation for the bid made by:
(Name of Municipality / Municipal Entity)

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

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

1. I have read and I understand the contents of this Certificate;

2. I understand that the accompanying bid will be disqualified if this Certificate is found not to be true and complete in every respect;

3. I am authorized by the bidder to sign this Certificate, and to submit the accompanying bid, on behalf of the bidder;

4. Each person whose signature appears on the accompanying bid has been authorized by the bidder to determine the terms of, and to sign, the bid, on behalf of the bidder;

5. For the purposes of this Certificate and the accompanying bid, I understand that the word "competitor" shall include any individual or organization, other than the bidder, whether or not affiliated with the bidder, who:

   (a) has been requested to submit a bid in response to this bid invitation;

   (b) could potentially submit a bid in response to this bid invitation, based on their qualifications, abilities or experience; and

   (c) provides the same goods and services as the bidder and/or is in the same line of business as the bidder

6. The bidder has arrived at the accompanying bid independently from, and without consultation, communication, agreement or arrangement with any competitor. However communication between partners in a joint venture or consortium[3] will not be construed as collusive bidding.

7. In particular, without limiting the generality of paragraphs 6 above, there has been no consultation, communication, agreement or arrangement with any competitor regarding:

   (a) prices;
   (b) geographical area where product or service will be rendered (market allocation)
   (c) methods, factors or formulas used to calculate prices;
   (d) the intention or decision to submit or not to submit, a bid;
   (e) the submission of a bid which does not meet the specifications and conditions of the bid; or
   (f) bidding with the intention not to win the bid.

8. In addition, there have been no consultations, communications, agreements or arrangements with any competitor regarding the quality, quantity, specifications and conditions or delivery particulars of the

[3] 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

products or services to which this bid invitation relates.

1. The terms of the accompanying bid have not been, and will not be, disclosed by the bidder, directly or indirectly, to any competitor, prior to the date and time of the official bid opening or of the awarding of the contract.

2. I am aware that, in addition and without prejudice to any other remedy provided to combat any restrictive practices related to bids and contracts, bids that are suspicious will be reported to the Competition Commission for investigation and possible imposition of administrative penalties in terms of section 59 of the Competition Act No. 89 of 1998 and or may be reported to the National Prosecuting

Authority (NPA) for criminal investigation and or may be restricted from conducting business with the public sector for a period not exceeding ten (10) years in terms of the Prevention and Combating of Corrupt Activities Act No. 12 of 2004 or any other applicable legislation.

SIGNATURE	**DATE**
POSITION	**NAME OF BIDDER**

T2.2.23 Specific Details of Tenderer

Tenderer:

Address: .....

.....

.....

.....

Contact Person: .....

Telephone Number: .....

Fax Number: .....

Bank: .....

Branch: .....

Name of Cheque Account: .....

Cheque Account Number: .....

Contact Person: .....

Telephone Number: .....

Guarantee: .....

Branch: .....

Contact Person: .....

Telephone Number: .....

VAT Registration No: .....

.....

Signed ..... Date.....

Name..... Position .....

Tenderer .....

T2.2.24 Form Concerning Fulfilment of the Construction Regulations 2003

In terms of regulation 4(3) of the Construction Regulations, 2003 (hereinafter referred to as the Regulations), promulgated on 18 July 2003 in terms of Section 43 of the Occupational Health and Safety Act, 1993 (Act No 85 of 1993) the Employer shall not appoint a contractor to perform construction work unless the Contractor can satisfy the Employer that his/her firm has the necessary competencies and resources to carry out the work safely and has allowed adequately in his/her tender for the due fulfilment of all the applicable requirements of the Act and the Regulations.

1. I confirm that I am fully conversant with the Regulations and that my company has

   (or will acquire/procure) the necessary competencies and resources to timeously, safely and successfully comply with all of the requirements of the Regulations.

2. Proposed approach to achieve compliance with the Regulations

	(Tick)
YES	
NO	

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

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

   .....

   .....

   .....

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

   .....

   .....

   .....

   .....

5. Potential key risks identified and measures for addressing risks:

   .....

   .....

   .....

.....

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

(Tick)

YES	
NO	

SIGNED BY/ON BEHALF OF TENDERER:

NAME		**SIGNATURE**		**DATE**

T2.2.25 Consent And Acknowledgments in Terms Of The Protection of Personal Information Act 2013 (POPI)

This section sets out how personal information will be collected, used and protected by Midvaal Local Municipality hereinafter referred to as "MLM", as required by the Protection of Personal Information Act. The use of the words "the individual" for the purposes of this document shall be a reference to any individual (bidder) communicating with MLM and/or concluding any agreement, registration or application, with the inclusion of each of those individuals referred to or included in terms of such agreement, registration or application.

1. **What is personal information?**
The personal information that MLM requires relate to names and surnames, birth dates, identity numbers, passport numbers, demographic information, education information, occupation information, health information, addresses, memberships, and personal and work email and contact details.

2. **What is the purpose of the collection, use and disclosure (the processing) of personal information?**
MLM is legally obligated to collect, use and disclose personal information for the purposes of:

- reporting MLM initiatives to the Gauteng Provincial Treasury and Sedibeng District Municipality;
- reporting to National Treasury all contracts awarded;
- obtaining information related to Tax Compliance information from SARS;
- Verifying information on the National Treasury database of defaulters;
- evaluating and processing applications for registration on the database;
- compiling statistics and other reports;
- providing personalised communications;
- complying with the law; and/or
- for a purpose that is ancillary to the above. Personal information will not be processed for a purpose other than what is identified (the purpose) above without obtaining consent beforehand.

3. **How will MLM process personal information?**
MLM will only collect personal information for the purpose as stated above. Information will be collected in the following manner:

- directly from the individual;
- from service providers who provided with services or goods to MLM;
- from MLM's own records relating to previous supply of services or goods; and/or
- from a relevant public or equivalent entity.

4. **To whom will personal information be disclosed?**

The personal information may be disclosed to other relevant public or other entities on whose behalf we act as intermediaries, other third parties referred to above in relation to the purpose or who are sources of personal information, service providers such as professional bodies who operate across the borders of this country (transborder flow of information) where personal information must be sent in order to provide the information and/or services and/or benefits requested or applied for. In the event of another party/ies acquiring all of or a portion of MLM's mandate or functions, personal information will be disclosed to that party but they will equally be obliged as we are, to protect personal information in terms of this policy and the law.

5. **Consent and Permission to process personal information:**

I hereby agree with the policy and provide authorisation to MLM to process the personal information provided for the purpose stated.

- I understand that withholding of or failure to disclose personal information will result in MLM being unable to perform its functions and/or any services or benefits I may require from MLM.

- Where I shared personal information of individuals other than myself with MLM I hereby provide consent on their behalf to the collection, use and disclosure of their personal information in terms of this personal information policy and I warrant that I am authorised to give this consent on their behalf.
- To this end, I indemnify and hold MLM not responsible in respect of any claims by any other person on whose behalf I have consented, against MLM should they claim that I

was not so authorised.

- I understand that in terms of POPI and other laws of the country, there are instances where my express consent is not necessary in order to permit the processing of personal information, which may be related to police investigations, litigation or when personal information is publicly available.
- I will not hold MLM responsible for any improper or unauthorised use of personal information that is beyond its reasonable control.

6. Rights regarding the processing of personal information:

· The individual may withdraw consent to the processing of personal information at any time, and should they wish to do so, must provide MLM with reasonable notice to this effect. Please note that withdrawal of consent is still subject to the terms and conditions of any contract that is in place. Should the withdrawal of consent result in the interference of legal obligations, then such withdrawal will only be effective if MLM agrees to same in writing. MLM specifically draws to the attention that the withdrawal of consent may result in it being unable to provide the requested information and/or services and/or financial or other benefits.

· In order to withdraw consent, please contact the Information Officer at Johannesm@midvaal.gov.za

· A copy of the full MLM policy is available at our offices, situated at Head Office, 25 Mitchell Street, Meyerton, 1961, South Africa.

· Individuals are encouraged to ensure that where personal information has changed in any respect to notify MLM so that our records may be updated. MLM will largely rely on the individual to ensure that personal information is correct and accurate.

· The individual has the right to access their personal information that MLM may have in its possession and are entitled to request the identity of which third parties have received and/or processed personal information for the purpose. Please note however, that any request in this regard may be declined if:

- the information comes under legal privilege in the course of litigation,
- the disclosure of personal information in the form that it is processed may result in the disclosure of confidential or proprietary information,
- giving access may cause a third party to refuse to provide similar information to MLM,
- the information was collected in furtherance of an investigation or legal dispute, instituted or being contemplated,
- the information as it is disclosed may result in the disclosure of another person's information,
- the information contains an opinion about another person and that person has not consented, and/or
- the disclosure is prohibited by law.

7. Requesting access and lodging of complaints:

- Please submit any requests for access to personal information in writing to MLM's information officer at Johannesm@midvaal.gov.za
- With any request for access to personal information, MLM will require the individual to provide personal information in order to verify identification and therefore the right to access the information.
- There may be a reasonable charge for providing copies of the information requested.
- If any request has not been addressed to satisfaction a complaint may be lodged at the office of the Information Regulator.

SIGNED BY/ON BEHALF OF TENDERER:

NAME		**SIGNATURE**		**DATE**

T2.2.26 Certificate Of Registration Of Contractor

CIDB Contractor Registration Certificate

A Certificate of Contractor's Registration issued by the Construction Industry Development Board (CIDB) shall be attached.

Where a tenderer satisfies CIDB Contractor grading designation requirements through joint venture formation, such tenderers must submit the Certificates of Contractor Registration in respect of each partner.

T2.2.27 Tax Clearance Certificate

An **original** valid Tax Clearance Certificate from the South African Revenue Service (SARS) or proof shall be attached (or proof that the tenderer has made arrangements with SARS to meet his or her outstanding tax obligations).

Each party to a Consortium/Joint Venture shall submit a separate Tax Clearance Certificate, or proof that he or she has made the necessary arrangements with SARS.

T2.2.28 Occupational Health and Safety Plan

Tenderers are to note the requirements of the Occupational Health and Safety Act No. 85 of 1993 and the Construction Regulations 2014 issued in terms of Section 43 of the Act. The tenderer shall be deemed to have read and fully understood the requirements of the above Act and Regulations and to have allowed for all costs in compliance therewith.

In this regard the tenderer shall prepare and attach a Health and Safety Plan in respect of the Works in order to demonstrate the necessary competencies and resources to perform the construction work all in accordance with the Act and Regulations. Such Health and Safety Plan shall cover inter-alia the following details:

1) Management Structure, Site Supervision and Responsible Persons including a succession plan.
2) Contractor's induction training programme for employees, sub-contractors and visitors to the Site.
3) Health and safety precautions and procedures to be adhered to in order to ensure compliance with the Act, Regulations and Safety Specifications.
4) Regular monitoring procedures to be performed.
5) Regular liaison, consultation and review meetings with all parties.
6) Site security, welfare facilities and first aid.
7) Site rules and fire and emergency procedures.

Tenderers are to note that the Contractor is required to ensure that all sub-contractors or others engaged in the performance of the contract also comply with the above requirements.

The tenderer shall also take into account the additional requirements stated in the Scope of Work when drawing up the Health and Safety Plan for the contract.

Details of the Health and Safety Plan shall be appended to this Schedule.

Number of sheets appended by the tenderer to this Schedule

MIDVAAL LOCAL MUNICIPALITY

VOLUME 1

PART 1: AGREEMENT AND CONTRACT DATA

TABLE OF CONTENTS

PAGE (S)

C1.1 ..... FORM OF OFFER AND ACCEPTANCE (AGREEMENT) 1
C1.1.1 FORM OF OFFER 1
C1.1.2 FORM OF ACCEPTANCE 2
C1.1.3 SCHEDULE OF DEVIATIONS 3
C1.2 ..... CONTRACT DATA 5
C1.2.1 PART 1: DATA PROVIDED BY THE EMPLOYER 5
C1.2.2 PART 2: DATA PROVIDED BY THE CONTRACTOR 15

C1.1 FORM OF OFFER AND ACCEPTANCE (AGREEMENT)

FORM OF OFFER

THE TENDERER IS TO COMPLETE AND SIGN THE FORM OF OFFER

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

Contract No. 8/2/2/452 BID FOR THE REPLACEMENT OF ABOVE-GROUND FIRE HYDRANTS WITH BELOW GROUND FIRE HYDRANTS, INCLUDING SUPPLY, INSTALLATION, CIVIL WORKS AND REINSTATEMENTS (ONCE – OFF) FOR MIDVAAL LOCAL MUNICIPALITY.

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 authorized, signing this part of this Form of Offer and Acceptance, the Tenderer offers to perform all of the obligations and liabilities of the Contractor/Service Provider 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 and Pricing data.

THE OFFERED RATES TO PROVIDE THE WORKS, EXCLUSIVE OF VALUE ADDED TAX, ARE AS SET OUT IN THE PRICING DATA

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

Signature(s) _____ _____

Name(s) _____ _____

Capacity _____ _____

For the Tenderer _____

(Name and address of organisation)

Name and signature of witness _____ **Date** _____

C1.1.2 FORM OF ACCEPTANCE

THE EMPLOYER IS TO COMPLETE AND SIGN THE FORM OF ACCEPTANCE

By signing this part of the 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 1 Agreement and Contract Data, (which includes this Agreement)
Part 2 Pricing Data
Part 3 Scope of Work
Part 4 Site Information
Part 5 Drawings

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 28 days 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 Contact 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 of 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 the Contractor) within five days after 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 binding contract between the parties,

FOR EMPLOYER OFFICIAL USE ONLY

Signature(s) _____ _____

Name(s) _____ _____

Capacity _____ _____

For the Employer _____
(Name and address of organisation)

Name and signature of witness _____ **Date** _____

C1.1.3 SCHEDULE OF DEVIATIONS

Notes:

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

1 **Subject** _____

Details _____

2 **Subject** _____

Details _____

3 **Subject** _____

Details _____

4 **Subject** _____

Details _____

5 **Subject** _____

Details _____

6 **Subject** _____

Details _____

7 **Subject** _____

Details _____

8 **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 change to the terms of the offer agreed by the Tenderer and the Employer during the 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 and

signed copy of this Agreement shall have any meaning or effect in the contract between the parties arising from this Agreement.

For the Tenderer:

Signature(s) _____ _____

Name(s) _____ _____

Capacity _____ _____

_____
(Name and address of organisation)

Name and signature of witness _____ **Date** _____

For the Employer:

Signature(s) _____ _____

Name(s) _____ _____

Capacity _____ _____

_____
(Name and address of organisation)

Name and signature of witness _____ **Date** _____

C1.2 CONTRACT DATA

The General Conditions of Contract for Construction Works (2015) published by the South African Institution of Civil Engineering, are applicable to this contract.

Copies of these conditions of contract may be obtained from the South African Institution of Civil Engineering (Telephone number: 011-805 5947)

C1.2.1 PART 1: DATA PROVIDED BY THE EMPLOYER

GCC Clause	Information
1.1.15	The name of the Employer is Midvaal Local Municipality
1.2.1	The address of the Employer is: Address 25 Mitchell Street, Meyerton, 1961 Midvaal Tel: 016 360 5813 Fax: 086 502 0523 Email: tenders@midvaal.gov.za
1.1.16	The name of the Engineer is the Director- Technical Support Services of Midvaal Local Municipality
1.2.1.2	The address of the Engineer is: Director- Technical Support Services Address 25 Mitchell Street, Meyerton, 1961 Midvaal Tel: 016 360 5813 Fax: 086 502 0523 Email: tenders@midvaal.gov.za
5.8.1	The special non-working days are All Public Holidays in terms of the Public Holidays Act as amended.
5.8.1	The year end break commences on 16 December until the first working Monday of January of the succeeding year.
6.2.1	Not Applicable
1.1.1.14	The time for achieving Practical Completion will be dependent on individual works orders.
5.3.1	The documentation required before commencement with works executed are: • Health and Safety Plan (Clause 4.3) • Guarantee from Bank or Insurance Company (Clause 6.2) • Insurance of Construction Machinery Plant (Clause 8.6) • Insurance of Motor Vehicle liability (Clause 8.6) • Commissioner of COID (Clause 8.6) • Signed Notification to the Department of labour • Construction Permit where applicable
6.8.2	Tenderers should price assuming that rates will be fixed for a year. Rates shall be subject to contract price adjustment after a year of the Contract Period for the Term Tender has elapsed. Adjustment will be permitted once a year and the adjusted rates shall be fixed for a duration of a year thereafter
6.8.3	Price adjustments for variations in the costs of special materials is allowed.

GCC Clause	Information
6.10.1.5	(80%) percentage claim for materials onsite will be permitted.
6.10.3	The percentage retention on the amounts due to the Contractor is 10%.
6.10.6	A Retention Money Guarantee is not permitted.
1.1.1.13	The Defects Liability Period is 12 months (52 weeks), from completion of a particular work order or instruction.
10.4.2	Dispute resolution shall be by arbitration if amicable settlement has failed.

C1.2.1.1 Variations

The variations to the General Conditions of Contract are:

GCC Clause	Information
8.6	Notwithstanding anything elsewhere contained in the Contract and without limiting the obligations, liabilities or responsibilities of the Contractor in any way whatsoever (including but not limited to any requirement for the provision by the Contractor of any other insurances) the Employer shall effect and maintain as appropriate in the joint names of the Employer and the Contractor and where relevant Sub-Contractors the following insurances which are subject to the terms, limits, exceptions and conditions of the Policy :
8.6.1.1 8.6.1.1 8.6.1.1 8.6.1.1.1 8.6.1.1.2 8.6.1.1.3	**Contract Works Insurance** – which will provide cover against accidental and physical loss of or damage to the Works, Temporary Works and Materials intended for incorporation in the Works from whatsoever cause arising other than causes set out in Clause 8.3.1 for which the Contractor is responsible for the Works in terms of Clause 8.2.1, and for a sum insured which shall, unless otherwise specified in the Contract, be the aggregate of : the Contract Price, a sum to cover the value (specified at the time of delivery to the Contractor) of materials supplied by the Employer for incorporation in the Works and not included in the Contract Price, and a sum to cover professional fees, not included in the Contract Price, payable in respect of the repair or reinstatement of damage to the Works.
8.6.1.2	**Public Liability Insurance** which will provide indemnity against legal liability in the event of accidental death of or injury to third party persons and/or loss or damage to third party property arising directly from the execution of the Contract and occurring during the period of Insurance with a limit of indemnity of R5million in respect of all claims arising from any one occurrence or series of occurrences consequent on or attributable to one source or original cause.
8.6.1.3	Following the introduction of legislation affecting the articles of the **South African Special Risks Insurance Association (SASRIA)**, insurance cover for loss or damage to the Works caused by any event defined as a risk in terms of the insurance offered by SASRIA, will be provided under a certificate issued by SASRIA.
8.6.1.4	Full details of the Contract Works and Public Liability insurances effected by the Employer may be obtained from the Employer and the Contractor/Subcontractors

GCC Clause	Information
	are deemed to be aware of the terms, exclusions and conditions of these insurances.
8.6.1.5	The Employer shall pay the premium in connection with the insurances effected by the Employer in 8.6.1.1, 8.6.1.2 and 8.6.1.3 above.
8.6.2	The Employer/Contractor/Sub-contractors and/or any other party who obtains indemnity under the policies effected under 35.1.1, 35.1.2 and 35.1.3 above shall become liable for the deductibles (first amount payable) which are applicable in respect of each and every occurrence or series of occurrences attributable to one source or cause giving rise to loss or damage or indemnifiable liability.
8.6.3 8.6.3.1 8.6.3.2 8.6.3.3 8.6.3.4	In the event of an occurrence which is likely to give rise to a claim under the insurance effected by the Employer, the following procedure shall be adhered to: In addition to any statutory requirements and/or other requirements contained in the Conditions of Contract, the Contractor shall immediately notify the Employer's Insurance Brokers, giving the circumstances, nature and an estimate of the loss or damage. The Contractor shall, when required, complete a claims advice form, available from the Employer's Insurance Brokers, to whom the form shall be returned without delay. The Contractor shall afford all access to the representatives of the Insurers for the purpose of the assessment of any loss or damage. Negotiations on the settlement of claims shall be conducted by the Contractor/Sub-Contractor with the Insurers through the Employer's Insurance Brokers .
8.6.4	Any amount which becomes payable to the Contractor or any of his Sub-Contractors as a result of claim under the Contract Works Insurance shall if required by the Employer be paid net of the deductible to the Employer who shall pay the Contractor from the proceeds of such payment upon rectification repair or reinstatement of the loss or damage but this provision shall not in any way affect the Contractor's obligations liabilities or responsibilities in terms of the Contract.
8.6.5	The Contractor shall insure all Constructional Machinery and Plant (including tools, offices and other temporary structures and content) and other items, other than those intended for incorporation into the works, owned, leased or hired brought on to the Site against all risks of physical loss or damage for the period such Plant shall be on the Site to the full value thereof. In respect of Plant brought on to the Site by or on behalf of Sub-Contractors the Contractor shall be deemed to have complied with the provisions of this Sub-Clause by ensuring that such Sub-Contractors have similarly insured such Plant and Machinery. Such insurance shall be effected with an Insurer and in terms approved by the Employer (which approval shall not be unreasonably withheld) and the Contractor shall, when required, submit to the Employer's Insurance Brokers, the policy or policies of insurance and receipts for payment of the current premiums.
8.6.6	The Contractor and the Sub-contractors shall effect and maintain at their cost insurance under the provision of the Compensation for Occupational Injuries and Diseases Act (COID), 1993 (Act No. 130 of 1993).
8.6.7	The Contractor and the Sub-Contractors shall effect and maintain at their own cost motor vehicle liability insurance with at least indemnification for "balance of third party" risks, including passenger liability with a limit of indemnity of not less than R2,5million.
8.6.8	The Contractor and the Sub-Contractors shall effect and maintain at their own cost any additional insurance, which they deem necessary to cover damage or loss or

GCC Clause	Information
	injury not insured in terms of the insurance effected by the Employer. Such insurance shall be effected with an Insurer and in terms approved by the Employer (which approval shall not be unreasonably withheld) and the Contractor shall, when required, submit to the Employer's Insurance Brokers the policy or policies of insurance and the receipts for payment of the current premiums. If the Contract entails manufacture and or assembly of the Works or part thereof on a site other than the Contract site, the Contractor must satisfy the Employer that all materials and equipment intended for incorporation into the Works are adequately insured during manufacture and assembly. If the Employer has an insurable interest in such works during manufacture or assembly, such interest shall be recorded by way of endorsement on the policies concerned. The Contractor shall furnish the appropriate insurance policies to the Employer within 14 days from the Commencement Date.
8.6.9	Submission of the Tender will be construed by the Employer as acceptance by the Contractor that he is satisfied with the insurance effected by the Employer supplemented by any additional insurance which he shall specify in the manner provided for in the Schedule of Assessment.
8.6.10	The Contractor shall give all notices and observe all conditions and requirements imposed by any and all relevant insurance policies which shall be read as being part of the General Conditions of Contract and which shall be binding on the Contractor.
8.6.11	In addition to any statutory obligations, or other requirements contained in the Conditions of Contract, the Contractor shall report in writing to both the Engineer and the Employer's Insurance Brokers every accident within 48 hours of its occurrence, whether such accident is in respect of damage to persons or property. The report shall contain full details of the accident. The Engineer and/or the Employer's Insurers shall have the right to make all and any enquiries either on the Site or elsewhere as to the cause and results of any such accident and the Contractor shall give the Engineer and/or the Employer's Insurers full facilities for carrying out such enquiries.
8.6.12	Negotiations on the settlement of claims under the insurance effected by the Employer shall be conducted by the Contractor/Sub-Contractor with the Insurers through the Employer's Insurance Brokers.
8.6.13	Any claims against the insurance effected by the Employer shall be subject to the Contractor being responsible for the payment of the amount stated in the Policy as being the Deductible (First Amount Payable) as defined in the Policy.
8.6.14	The Employer shall not be liable for or in respect of any damages or compensation payable at law in respect or in consequence of any accident or injury to any workman or other person in the employ of the Contractor or any Sub-Contractor save and except an accident or injury resulting from any act or default of the Employer, its agents or servants and the Contractor shall be deemed to have indemnified and shall keep indemnified the Employer against all such damages and compensation (save and except as aforesaid) and against all claims, demands, proceedings, costs, charges and expenses whatsoever in respect thereof or in relation thereto.
8.6.15	The Contractor shall insure in the joint names of the Employer, the Contractor and all Sub-Contractors (whether nominated or otherwise) for an amount of R2million per occurrence against the liability stated in Sub-Clause 35.1.18 with an Insurer approved by the Employer (which approval shall not be unreasonably withheld) and shall continue such insurance during the whole of the time that any persons are employed by him on the Works and shall submit to the Engineer such policy of

GCC Clause	Information
	insurance and the receipt of payment of the current premium. Provided always that in respect of any persons employed by any Sub-Contractor, the Contractor's obligation to insure as aforesaid under this Sub-Clause shall be satisfied if the Sub-Contractor shall have insured against the liability in respect of such persons in such manner that the Employer is indemnified under the policy of insurance but the Contractor shall require such Sub-Contractor to produce to the Engineer such policy and the receipt for payment of the current premium.
8.6.16	If the Contractor shall fail to effect and keep in force the insurances referred to in this Clause or for any other insurance which he may be required to effect in terms of the Contract, then and in any such case the Employer may effect and keep in force any such insurance and pay such premium or premiums as may be necessary for that purpose and from time to time deduct the amount so paid by the Employer as aforesaid from any monies due or which may become due to the Contractor or recover the same as a debt due from the Contractor.
8.6.17	The Contractor shall ensure that all proposed and appointed sub-contractors are fully aware of the contents of Clause 8.6.14
8.6.1.1.2	The value of the materials supplied by the Employer to be included in the insurance sum is nil.
8.6.1.1.3	The amount to cover professional fees for repairing damage and loss to be included in the insurance sum is R150,000.00.
8.6.18	The liability of performance guarantee shall be 10% of the Contract Value

C1.2.1.2. Additions

The additional Conditions of Contract are:

GCC Clause	Information
2.4	**Ambiguity in documents** ***Add clause 2.4*** The Employer or the Contractor shall notify the other as soon as either becomes aware of an ambiguity or inconsistency in or between the documents, which are part of this Contract. Governed by the spirit and intention of the Contract, the Employer shall give a binding instruction resolving the ambiguity or inconsistency.
5.9.1	**Instructions and drawings** ***Add clause 5.9.1*** 5.9.1 Source of instructions The Contractor shall neither seek nor accept instructions from any authority external to the Employer, the Engineer or their authorized representatives in connection with the performance of his services under this Contract. The Contractor shall refrain from any action which may adversely affect the Employer and shall fulfill his commitments with fullest regard for the interest of the Employer.
5.9.1	**Instructions and drawings** ***Add clause 5.9.1*** 5.9.1.1 Instructions The Engineer may issue contract instructions to the Contractor regarding: 5.9.1.2 Alteration to design, quality or quantity of the works provided that such contract instructions shall not substantially change the scope of the works. 5.9.1.3 Rectification of discrepancies, errors in description or omissions in contract documents other than this document. 5.9.1.4 Removal of any materials and goods from the site and the substitution of any other materials and goods therefor. 5.9.1.5 Removal or re-execution of any work. 5.9.1.6 Opening up of work for inspection. 5.9.1.7 Provision and testing of samples of materials and goods, specimens of finished and assemblies of elements of the works. 5.9.1.8 Protection of the works. 5.9.1.9 Making good physical loss and repairing damage to the works. 5.9.1.10 Removal from the site of any party employed on the works. 5.9.1.11 Removal from the site of any persons not engaged on or connected with the works. 5.9.1.12 The appointment of nominated subcontractors, the nominated subcontract amounts and the work to be executed thereunder. 5.9.1.13 Proof of payment to nominated subcontractors. 5.9.1.14 Notices to nominated subcontractors. 5.9.1.15 Prime cost amounts and the purchase of materials and goods included therein. 5.9.1.16 Budgetary allowances and work executed by the contractor thereunder.
5.9.13	**Instructions and drawings** ***Add clause 5.9.1*** 5.9.1.17 Default of Contractor in carrying out Engineer's or his duly authorized representative Instructions In case of default on the part of the Contractor in carrying out an instruction of the Engineer or his duly authorized representative, the Employer shall be entitled to employ and pay other persons to carry out the same and all expenses consequent thereon or incidental thereto shall be borne by the Contractor and shall be recoverable from him by the Employer and may be deducted by the Employer from any monies due or which may become due to the Contractor.

GCC Clause	Information
8.6	**Insurances** ***Add clause 8.6*** 35.9 Special Insurances The Contractor shall provide temporary lateral support insurance where the Employer considers that the execution of the works could cause the weakening of or interference with the support of land adjacent to the site and the consequences thereof.
5.13	**Penalties** ***Add clause 5.13*** During the Contract Period should the Contractor: 5.13.1.1 Fail to comply with the specifications a) The Employer shall levy a penalty on the Contractor, should the latter fail to perform any ordered Works that complies at minimum with the specification as highlighted per the Scope of Work. b) The value of the penalty shall be determined cumulative as R5 000.00 per day per site, but not exceeding a total amount of R150,000.00. Should the penalty reach the maximum specified limit the Employer shall reserve the right to: 1) terminate the Contract; 2) perform the Works internally or through another Contractor; and 3) deduct additional costs incurred by the Employer from monies owed to the Contractor or from the Contractor's Guarantee. Additional costs incurred by the Employer shall include all claims from Contract affected parties, claims such as but not be limited to claims from customers, any costs associated with the loss of water, and all costs associated with the procurement of an alternative Contractor. No liability in terms of this clause shall be attached to the Contractor if he can prove to the satisfaction of the Employer that the nature of the failure is due to fire, war, riot, strikes, act of God, lockout, accident or other unforeseen occurrence or circumstances beyond the Contractor's control, provided, however, that in all cases the Contractor has notified the Employer in writing within 24 hours of it first coming to his notice, that delivery shall be delayed or become impossible for the above-mentioned reasons. 5.13.1.2 Fail to provide support, management and coordination a) The Employer shall levy a penalty on the Contractor, should the latter fail to provide the undertaken management, coordination and support. b) The value of the penalty shall be determined cumulative as R5,000.00 per day per site, but not exceeding a total amount of R150,000. Should the penalty reach the maximum specified limit the Employer shall reserve the right to: 1) terminate the Contract; 2) perform the Works internally or through another Contractor; and 3) deduct additional costs incurred by the Employer from monies owed to the Contractor or from the Contractor's Guarantee. Additional costs incurred by the Employer shall include all claims from Contract affected parties, claims such as but not be limited to claims from customers, any

GCC Clause	Information
	costs associated with the loss of water, and all costs associated with the procurement of an alternative Contractor. No liability in terms of this clause shall be attached to the Contractor if he can prove to the satisfaction of the Employer that the nature of the failure is due to fire, war, riot, strikes, act of God, lockout, accident or other unforeseen occurrence or circumstances beyond the Contractor's control, provided, however, that in all cases the Contractor has notified the Employer in writing within 24 hours of it first coming to his notice, that delivery shall be delayed or become impossible for the above-mentioned reasons. 5.13.1.3 Fail to complete a works The Employer shall levy a penalty on the Contractor, should they fail to execute the works within a 6 month period The value of the penalty shall be determined cumulative as R5,000.00 per day per site, but not exceeding a total amount of R150,000. Should the penalty reach the maximum specified limit the Employer shall reserve the right to: 1) terminate the Contract; 2) perform the Works internally or through another Contractor; and 3) deduct additional costs incurred by the Employer from monies owed to the Contractor or from the Contractor's Guarantee. Additional costs incurred by the Employer shall include all claims from Contract affected parties, claims such as but not be limited to claims from customers, any costs associated with the loss of water, and all costs associated with the procurement of an alternative Contractor. No liability in terms of this clause shall be attached to the Contractor if he can prove to the satisfaction of the Employer that the nature of the failure is due to fire, war, riot, strikes, act of God, lockout, accident or other unforeseen occurrence or circumstances beyond the Contractor's control, provided, however, that in all cases the Contractor has notified the Employer in writing within 24 hours of it first coming to his notice, that delivery shall be delayed or become impossible for the above-mentioned reasons. 5.13.1.4 Fail to pay SMME's and Labourers on time The Employer shall levy a penalty on the Contractor, should the latter fail to pay SMME's (subcontractors) or labourers on time as per their contract agreements. The value of the penalty shall be determined cumulative as R5000.00 per day late, but not exceeding a total amount of R150 000.00. Should the penalty reach the maximum specified limit the Employer shall reserve the right to: 1) terminate the Contract; 2) pay the SMME's or labourers through another Contractor; and 3) deduct additional costs incurred by the Employer from monies owed to the Contractor or from the Contractor's Guarantee. Additional costs incurred by the Employer shall include all claims from Contract affected parties. 5.13.1.5 Penalties irreversible The Contractor shall note that all penalties once imposed shall be non-recoverable or reversible, even if the default is remedied.
New	***Add clause 11:*** 11 Confidential nature of documents

GCC Clause	Information
	All maps, drawings, photographs, mosaics, plans, reports, recommendations, estimates, documents and all other data compiled by or received by the Contractor under the Contract shall be the property of the Employer and Engineer, shall be treated as confidential and shall be delivered only to the Engineer or his duly authorized representative on completion of the Works; their contents shall not be made known by the Contractor to any person other than the personnel of the Contractor performing services under this Contract without the prior written consent of the Employer.
New	***Add clause 12:*** 12 Officials not to benefit The Contractor warrants that no official of the Employer has been or shall be admitted by the Contractor to any direct or indirect benefit arising from this Contract or the award thereof. The Contractor agrees that breach of this provision is a breach of the Contract.
New	***Add clause 13:*** 13 Prevention of corruption The Employer shall be entitled to cancel the Contract and to recover from the Contractor the amount of any loss resulting from such cancellation, if the Contractor has offered or given any person any gift or consideration of any kind as an inducement or reward for doing or intending to do any action in relation to the obtaining or the execution of the Contract or any other contract with the Employer or for showing or intending to show favour or disfavour to any person in relation to the Contract or any other contract with the Employer, if the like acts shall have been done by any persons employed by him or acting on his behalf whether with or without the knowledge of the Contractor in relation to this or any other Contract with the Employer.
New	***Add clause 14:*** 14 False claims by the Contractor 14.1 Failure, by the Contractor, to demonstrate or present any feature declared during the procurement stage shall constitute grounds for Contract termination or the market related equivalent price discount, if no market related value is available, the Employer shall give a final ruling on the amount. This shall be at the discretion of the Employer based on the implication of such omission. Should the Contractor refuse to accept the Employer's price, the Contract shall be terminated. 14.2 Any false claims, by the Contractor or his staff (with or without his knowledge), based on Works to be performed or completed shall constitute grounds for Contract termination and result in blacklisting on the Employer's database. 14.3 The Contractor shall note that any of the above shall constitute non-performance on the part of the Contractor, further resulting in him forfeiting his full Contract Guarantee.
New	***Add clause 15:*** In terms of EPWP requirements, the Contractor is to ensure compliance with the following: • Provide a certified ID copy (13 digit) for each local labourer (Once off) • Provide a certified and legible contract of employment for each local labourer (Once off)

GCC Clause	Information
	• Provide proof of payment of wages (Monthly) • Provide log sheets / timesheets for each local labourer (Monthly) • Provide proof of UIF deduction & contributions (Monthly) • Provide proof of good standing with COIDA (Monthly) Should the contractor fail to comply with the EPWP requirements, the penalties stipulated above for failure to provide support, management and coordination will apply.
New	***Add clause 16:*** In terms of subcontracting / SMME's requirements, the Contractor is to ensure compliance with the following: • Provide a contract agreement indicating the value of the appointment, scope of works and duration of the contract • Provide EPWP required documentation for the subcontractors / SMME's as per Clause 15 Should the contractor fail to comply with the subcontracting / SMME requirements, the penalties stipulated in Penalty clauses above failure to provide support, management and coordination will apply.

C1.2.2 PART 2: DATA PROVIDED BY THE CONTRACTOR

GCC Clause	Information
Clause 1.1.1.9	The name of the Contractor is …….. …….
Clause 1.2.1.2	The address of the Contractor is: Physical ……. ……. ……. ……. ……. ……. ……. Postal ……. ……. ……. ……. ……. ……. Tel: …… Fax: …….. Email: …….. ……. …….
Clause 6.8.3	The variation in cost of special materials is Type Unit Rate ***NOT APPLICABLE***

MIDVAAL LOCAL MUNICIPALITY

VOLUME 1

PART 1: FORMS AND SECURITIES

TABLE OF CONTENTS

PAGE (S)

C1.3 ..... FORMS AND SECURITIES 1

C1.3.1 Form of Guarantee 2

C1.3.2 Health and Safety Contract Between Employer and Contractor In Terms of Section 37(2) Of The Occupational Health and Safety Act No 85 Of 1993 4

C1.3.3 Health and Safety Contract: General Information 5

C1.3 FORMS AND SECURITIES

FORMS FOR COMPLETION BY THE CONTRACTOR

THE FOLLOWING FORMS ARE TO BE COMPLETED BY THE CONTRACTOR AFTER THE TENDER HAS BEEN AWARDED TO THE SUCCESSFUL TENDERER

a) Form of Guarantee

b) Agreement in terms of the Occupational Health and Safety Act

c) Occupational Health and Safety Indemnity Undertaking

The forms will be completed by the Contractor who will be instructed to do so in the Form of Acceptance. The completed forms will become part of the Contract.

The Form of Guarantee is a pro forma document. The Contractor will provide an original document, from a financial institution, with the same text within the time stated in the Contract Data. Only a Bank or approved Insurance Company or Guarantee Corporation is acceptable as Guarantor.

C1.3.1 Form of Guarantee

TO BE PRINTED ON THE OFFICIAL LETTERHEAD 0F THE GUARANTOR.

PERFORMANCE GUARANTEE

Contract No. 8/2/2/452 (2CE OR HIGHER): BID FOR THE REPLACEMENT OF ABOVE-GROUND FIRE HYDRANTS WITH BELOW GROUND FIRE HYDRANTS, INCLUDING SUPPLY, INSTALLATION, CIVIL WORKS AND REINSTATEMENTS (ONCE – OFF)

WHEREAS Midvaal Local Municipality (hereinafter referred to as “the Employer” or “beneficiary”) entered into a Contract with

_____

(hereinafter called “the Contactor”)

on the _____ day of _____ 20____, for the construction of

_____

at _____

AND WHEREAS it is provided by such Contract that the Contractor shall provide The Employer with security by way of a guarantee for the due and faithful fulfillment of such Contract by the Contractor;

AND WHEREAS _____has/have at the request of the Contractor, agreed to give such guarantee; NOW THEREFORE WE, _____ _____ do hereby guarantee and bind ourselves jointly and severally as Guarantor and Co-principal Debtors to The Employer under renunciation of the benefits of division and exclusion for the due and faithful performance by the Contractor of all the terms and conditions of the said Contract, subject to the following conditions:

1. The Employer shall, without reference and/or notice to us, have complete liberty of action to act in any manner authorized and/or contemplated by the terms of the said Contract, and/or to agree to any modifications, variations, alterations, directions or extensions of the completion date of the works under the said Contract, and that its rights under this guarantee shall in no way be prejudiced nor our liability hereunder be affected by reason of any steps which The Employer may take under such Contract, or of any modification, variation, alterations of the completion date which The Employer may make, give, concede or agree to under the said Contract.

2. This guarantee shall be limited to the payment of a sum of money.

3. The Employer shall be entitled, without reference to us, to release any guarantee held by it, and to give time to or compound or make any other arrangement with the Contractor.

4. This guarantee shall remain in full force and effect until the issue of the Certificate of Completion in terms of the Contract, unless we are advised in writing by The Employer before the issue of the said Certificate of his intention to institute claims, and the particulars thereof, in which event this guarantee shall remain in full force and effect until all such claims have been paid or liquidated.

5. Our total liability hereunder shall not exceed the Guaranteed Sum of _____ _____ (R _____)

6. The Guarantor reserves the right to withdraw from this guarantee by depositing the Guaranteed Sum with the beneficiary, whereupon our liability hereunder shall cease.

7. We hereby choose our address for the serving of all notices for all purposes arising here from as

IN WITNESS WHEREOF this guarantee has been executed by us at _____

on this _____ day of _____ 20____.

As witnesses:

1. _____ Signature _____

2. _____ Signature _____

Duly authorized to sign on behalf of _____

Address _____

_____

_____

C1.3.2 Health and Safety Contract Between Employer and Contractor In Terms of Section 37(2) Of The Occupational Health and Safety Act No 85 Of 1993

Written agreement between Midvaal Local Municipality (hereinafter referred to as "the

Employer) and _____ (hereinafter referred to as "the mandatory") as envisaged by Section 37(2) of the Occupational Health and Safety Act, No. 85, of 1993 as amended.

I _____ representing

_____ (mandatory) do hereby acknowledge that

_____ (mandatory) is an employer in its own right and shall be regarded as the employer for purposes of the contract work specified in the body of the principal agreement with duties as prescribed in the Occupational Health and Safety Act, No. 85 of 1993 as amended so as to ensure that all work will be performed or machinery and plant used in accordance with the provisions of the said Act. I furthermore agree to comply with the requirements of the Employer as contained in the Occupational Health and Safety Specification included with the principal agreement and to liaise with the employer should I, for whatever reason, be unable to perform in terms of this agreement.

Signed this _____ day of _____ at _____

Signature on behalf of mandatory _____

Signature on behalf of Employer _____

Compensation Fund Registration No. of mandatory _____

Good Standing Certificate : ☐ yes ☐ no (tick one box)

C1.3.3 Health and Safety Contract: General Information

1. The Occupational Health and Safety Act comprises Sections 1 to 50 and all un-repealed regulations promulgated in terms of the former Machinery and Occupational Safety Act No 6 of 1983 as amended, as well as other regulations which may be promulgated in terms of the OHS Act.

2. 'Mandatory' is defined as including an agent, a contractor or a subcontractor for work, but without derogating from his status in his own right as an employer or user of plant and machinery

3. Section 37 of the Occupational Health and Safety Act potentially punishes employers (principals) for the unlawful acts or omissions of mandatories (contractors) save where a written agreement between the parties has been concluded containing arrangements and procedures to ensure compliance with the said Aid by the mandatory.

4. All documents attached or referred to in the above agreement from an integral part of the agreement.

5. To perform in terms of this agreement mandatories must be familiar with the relevant provisions of the Act.

6. Mandatories who utilise the services of their own mandatories (subcontractors) are advised to conclude a similar written agreement.

7. Be advised that this agreement places the onus on the mandatory to contact the Employer in the event of inability to perform as per this agreement. The Employer, however, reserves the right to unilaterally take any steps as may be necessary to enforce this agreement.

8. The contractor shall be responsible for the full and proper implementation of the terms and provisions of the Act and its regulations in the area in which the work is to be undertaken by the Contractor.

9. The Contractor shall be responsible for the well-being, in relation to health and safety, of all persons coming upon or into such area in accordance with that legislation, including the implementation of any directives issued by management of the Employer in this respect.

10. The work to be done is _____

11. The area in which the work is to be conducted is _____

12. The Contractor shall familiarise himself with such area and all risks existing thereon and undertakes to report to the representative of the Employer any hazard or risk to health and safety which arises during the contract work in the area concerned and over which the Contractor may have no control. All necessary and appropriate safety / health equipment shall be issued by the Contractor to all persons working on or coming into the area.

C1.3.3.1 Occupational Health and Safety Indemnity Undertaking

I, the undersigned _____

in my capacity as _____

of the firm _____

1.0 hereby undertake to ensure that I/my firm and/or employees and/or subcontractors and/or his employees -

1.1 comply strictly with the provisions of the Occupational Health and Safety Act of 1993 (as amended) and/or the regulations promulgated in terms thereof, with specific reference to section 37(2) of the said act, as well as any relevant legislation, in the course of the performance/execution of any service and/or work in, to or on any of the Employer's buildings, construction sites and/or premises;

1.2 ensure that consultants and/or visitors comply with any instructions and measures relating to occupational health and safety, as prescribed by the Employer; and

1.3 comply strictly with the statutorily prescribed work systems, operational equipment, machinery and occupational health and safety conditions;

2.0 and as an independent employer and contractor, hereby indemnify, in terms of the above undertakings, the Employer -

2.1 in respect of any costs that I/my firm and/or employees and/or subcontractors and their employees may incur of necessity in compliance with the above undertakings; and

2.2 against any claims that may be instituted against the Employer and/or any liability that the Employer may incur, whether instituted and/or caused by me/my firm's employees, agents, consultants, subcontractors and/or their employees and visitors or the Employer's clients or neighbours in respect of any incidents related to my/my firm's activities and as a result of which the occupational health and safety of the persons involved have been detrimentally affected; and

2.3 against similar claims that I, managers or directors of my firm may have against the Employer and any damages for which I, managers or directors of my firm hold the Employer liable.

3.0 My firm's compensation commissioner number is _____
and I confirm that my firm and its subcontractors' fees have been paid up and obligations in respect of the compensation commissioner have been complied with and further that I shall furnish proof thereof in writing on request.

4.0 I hereby confirm that I have the authority to sign this indemnity undertaking and that the Employer is not obliged to confirm such confirmation.

Signed at _____ this _____ day

of _____ _____

_____ _____

Signature Capacity

As witnesses:

1 _____

2 _____

MIDVAAL
LOCAL MUNICIPALITY

VOLUME 1

PART 2: PRICING DATA

TABLE OF CONTENTS

		Pages
C2	PRICING DATA	1
C2.1	PRICING INSTRUCTIONS	1
C2.1.1	GENERAL PREAMBLE TO THE BILL OF QUANTITIES	1
C2.1.2	SUFFICIENCY OF TENDER	2
C2.1.3	SPECIAL PAYMENT CONDITIONS	2
C2.1.4	CONTRACTUAL REQUIREMENTS	5
C2.1.5	ADDITIONAL FITTINGS AND SPECIALS PROVISION AND INSTALLATION	5
C2.1.6	REMOVAL AND TEMPORARY STORAGE	5
C2.1.7	REINSTATEMENT OF ROAD CROSSINGS, INCLUDING THE SUPPLY AND INSTALLATION OF ASPHALT FOR REINSTATEMENT OF ROAD CROSSINGS, 300MM THICK	6
C2.1.8	REINSTATEMENTS	6
C2.1.9	MISCELLANEOUS ITEMS	9
C2.1.10	REMOVING DEBRIS	7
C2.1.11	RELOCATION OF EXISTING FITTINGS	7
C2.1.12	ANCHOR/THRUST BLOCKS AND PEDESTALS	7
C2.1.13	PROVISION AND INSTALLATION OF METERS	7
C2.1.14	SUPPLY AND INSTALLATION OF VALVES AND SPECIALS	7
C2.1.15	SUPPLY AND INSTALLATION OF PIPEWORK	7
C2.1.16	CONNECTING TO EXISTING PIPES	7
C2.2	SCHEDULE OF RATES	8
C2.3	PAYMENT REFERENCES AND DESCRIPTIONS	11

C2 PRICING DATA

C2.1 PRICING INSTRUCTIONS

C2.1.1 GENERAL PREAMBLE TO THE BILL OF QUANTITIES

a) All items in the Schedule of Rates, except where otherwise specified in Clause 8 of a Standardised Specification or in the Project Specification, shall be measured and shall cover operations as recommended in the standard system of measurement of civil engineering quantities, published under the title “Civil Engineering Quantities”, by the South African Institution of Civil Engineering.

b) The basis and principles of measurement and payment are described in this section (Pricing Instructions) and Clause 8 of each of the Standardised Specifications for Civil Engineering Construction. The applicable SANS 1200 Standardised Specifications are listed in the Scope of Work, Portion 1: Project Specification. Variations and amendments to the Standardised Specifications are contained in the Scope of Work, Portion 2: Variations and Additions to the Standardised Specifications.

c) Descriptions in the Schedule of Rates are abbreviated and comply generally with those in the Standardised Specifications. Clause 8 of each Standardised Specification, read together with the relevant clauses of the Scope of Work, set out what ancillary or associated activities are included in the rates for the operations specified. Should any requirements of the measurement and payment clause of the applicable Standardised Specification or the Scope of Work, conflict with the terms of the Schedule of Rates, the requirements of the Standardised Specification or Scope of Work, as applicable, shall prevail.

d) The clauses in a specification in which further information regarding the Schedule item may be found are listed in the “Payment Refers” column in the Schedule. The reference clauses indicated are not necessarily the only sources of information in respect of listed items. Further information and specifications may be found elsewhere in the Contract Documents. Standardised Specifications are identified by the letter or letters which follow SANS in the SANS 1200 series of specifications, e.g. G for SANS 1200G.

e) Unless otherwise stated, items are measured net in accordance with the drawings, and no allowance is made for waste.

f) The quantities set out in the Schedule of Rates are the estimated quantities of the Contract Works, but the Contractor shall be required to undertake whatever quantities may be directed by the Engineer from time to time. The Contract Price for the completed Works shall be computed from the actual quantities of work done, valued at the relevant unit rates and/or prices.

g) The rates and/or prices to be inserted in the Schedule of Rates are to be the full inclusive prices for the work described under the several items. Such rates and/or prices shall cover all costs and expenses that may be required in and for the execution of the work described, and shall cover the cost of all general risks, liabilities, and obligations set forth or implied in the documents, as well as overhead charges and profit. Reasonable charges shall be inserted as these shall be used as a basis for assessment of payment for additional work that may have to be carried out.

h) A price or rate is to be entered against each item in the Schedule of Rates, whether the quantities are stated or not. An item against which no price is entered will be considered to be covered by the other prices or rates in the Schedule.
The tenderer shall fill in rates for all items where the words, “rate only” appear in the “Amount” column.

i) The units of measurement described in the Schedule of Rates are metric units. Alternatives used are as follows :

mm	=	millimetre	h	=	hour
m	=	metre	kg	=	kilogram
km	=	kilometre	t	=	ton (1000kg)
m^2	=	square metre	No.	=	number
m^2 pass	=	square metre pass	sum	=	lump sum
ha	=	hectare	MN	=	meganewton
m^3	=	cubic metre	MN.m	=	meganewtom-metre
m^3km	=	cubic metre-kilometre	P Csum	=	Prime Cost sum
l	=	litre	Prov sum	=	Provisional sum
kl	=	kilolitre	%	=	percent

j) For the purpose of this Schedule of Rates, where applicable, 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 COLTO Standard Specification for Road and Bridge Works for State Authorities (1998 edition).
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 Bills of Quantities but the quantity of work of which is not measured in any units.

k) Arithmetical errors in the Schedule of Rates shall be corrected in accordance with Clause F3.9 of the Conditions of Tender. Should there be any discrepancy between rates and/or prices written in the Assessment Schedule and the Schedule of Rates, the latter shall govern.

l)

m) The Schedule of Rates shall be completed by hand in **BLACK PEN INK**.

C2.1.2 Sufficiency of tender

The Contractor shall be deemed to have satisfied himself before tendering as to the correctness and sufficiency of his Tender for the construction of the Works and of the rates and prices, which rates and prices shall, except in so far as it is otherwise provided in the Contract, cover all his obligations under the Contract and all matters and things necessary for the proper execution and completion of the Works.

C2.1.3 Special payment conditions

This clause shall be read in conjunction with the 'Penalties' clause(s). Where the penalty clause shall always receive precedence over this clause, should it be found that duplicative financial corrective measures exist.

C2.1.3.1 Applicability of payment items

All payment items forming part of this Contract shall not apply to ordered Works completed by the Contractor under this Contract, where completed Works:

- were not completed to acceptable quality;
- were not issued by the Engineer;
- are still within the defects and liability period; or
- were not accepted by the Engineer or his duly authorised representative.

C2.1.3.2 Provided previously

The Contractor shall **NOT RE-EXECUTE WORKS** under this Contract where he had executed works for the Employer under a previous contract(s).

The Employer shall at his sole discretion decide to re-execute such works.

C2.1.3.3 Working outside normal hours

The additional costs, if any, to perform works outside normal working hours shall be deemed to have been allowed for in the provided activity pricing rates and/or prices.

C2.1.3.4 Materials and equipment

C2.1.3.4.1 Materials

The Employer shall not provide any materials, as this shall be provided by the Contractor and deemed to have been included in the various provided activity rates and prices.

C2.1.3.4.2 Equipment

The Employer shall not provide any works equipment, as this shall be provided by the Contractor and deemed to have been included in the various provided activity rates and prices.

C2.1.3.4.3 Damage to materials provided by the Employer

Where the Contractor or public damage any materials, provided by the Employer, whilst in the care of the Contractor, he shall immediately report such damage, arrange for the replacement and all replacement costs shall be at his expense.

C2.1.3.5 Permits and way-leaves

All associated costs to obtain permits and way-leaves as required for the execution of the works, where such affect other services, shall be deemed to have been included in the scheduled rates for SANS 1200A or SANS 1200AA or SANS 1200AB where pricing provision for such items have been allowed for in the pricing schedules, alternatively it shall be deemed to be included the various scheduled activity rates or prices provided by the Contractor.

C2.1.3.6 Locating existing service

The cost to locate existing services shall be included in the various works activity pricing rates and/or prices, including any excavations required and the provision and use of service detection personnel and equipment.

C2.1.3.7 Confined space

The Contractor shall note that work activities shall be executed within confined spaces and it shall be deemed that allowance has been made in all provided activity pricing rates and/or prices.

C2.1.3.8 Concrete

Descriptions (prices) of concrete work shall be deemed to include the design of concrete mixes and all testing of concrete and materials other than compressive strength testing of concrete samples from concrete being placed in the works (the Contractor shall only be entitled to payment for those samples and compressive strength tests called for by the Engineer or his duly authorized representative and which pass the test requirements), handling and depositing (by hoisting or lowering) concrete in the forms, working and packing concrete around reinforcement, all "construction joints" other than "designated joints" as defined in SANS 1200G which are given separately, shaping tops of components as required and striking off and curing.

Descriptions (prices) of concrete in surface beds cast in panels shall be deemed to include formwork, fillets and the like in forming the panels.

C2.1.3.9 Smooth formwork

Descriptions (prices) shall be deemed to include for rubbing off all projections at seams etc. after removal of the formwork, making good any defects with 2:1 cement mortar and leaving a smooth surface with all arises slightly rounded, all to the satisfaction of the Engineer or his duly authorized representative.

C2.1.3.10 Reinforcement

Descriptions (prices) for all steel reinforcement to concrete shall be deemed to include cutting and waste, bending, hooked ends, binding at lappings and intersections with annealed wire, all as above described, hoisting or lowering and maintaining in position whilst the concrete is being deposited and cover blocks and spacers in accordance with the relevant SANS Codes of Practice.

Descriptions (prices) of standard fabric reinforcement as included in Table 1 of SANS 1024 shall be deemed to include 300mm wide laps.

The mass of binding wire is not included in the mass of the reinforcement and the cost thereof shall be deemed to be included in the prices for the reinforcement.

C2.1.3.11 Testing

The cost of testing of the ordered Works shall be included the various applicable Works items. In particular those:

- clearly intended by or provided for in the specifications.
- involving testing or tests to ensure that the design of the whole of the Works or any part of the Works is appropriate for the purpose which it was intended to fulfil.

No additional or separate payment for testing shall be entertained by the Employer.

C2.1.3.12 Cost of samples

All samples shall be supplied by the Contractor at his own cost unless the supply thereof is clearly intended in the specifications or Bill of Quantities to be at the cost of the Employer. Payment shall not be made for samples which do not comply with the specifications.

C2.1.3.13 Assessment of hydrants and/or fittings

The cost of assessing a hydrant and/or fitting(s) not forming part of the ordered Works, whilst executing ordered work shall be included the various Works items. No additional or separate payment for this assessment shall be entertained by the Employer.

C2.1.3.14 Payment ONLY for works completed

The Contractor shall note that payment shall only be made for Works activities successfully (delivering the end result) executed, complying with the quality requirements and provided to the Engineer or his duly authorized representative.

C2.1.3.15 Payment for the Labour-Intensive Component of the Works

Those parts of the works to be constructed using labour-intensive methods are marked in the bill of quantities with the letters LI either in a separate column or as a prefix or suffix 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 deviation from 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.
Where minimum labour intensity is specified in the design, the contractor is expected to use their initiative to identify additional activities that can be done labour-intensively in order to comply with the set minimum labour intensity targets.

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. Any non-payment for such works shall not relieve the Contractor in any way from his obligations either in contract or in delict.

C2.1.3.16 Linkage of Payment for Labour-Intensive Component of Works to Submission of Project Data

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 timeframes stipulated by the Employer. The contractor's invoices shall not be paid until all pending labour information has been submitted.

The following information shall be maintained on site and submitted in electronic/hard copy formats:

- Certified ID copies of all locally employed labour
- Signed Contracts between the employer and the EPWP Participants
- Attendance Registers for the EPWP Participants
- Proof of Payment of EPWP Employees
- Monthly Reporting Template as per EPWP requirements

C2.1.4 Contractual Requirements

Unit: %

The contractor shall be limited to a percentage of the works order value in order to compensate for the Preliminary and General items in terms of fixed and time related expenses. The percentage shall cover all site establishment and de-establishment requirements, health and safety compliance and environmental completion, supervision and office overheads in terms of SABS1200 8.3.1 and 8.4.1.

C2.1.5 Additional fittings and specials provision and installation

Unit: P.Sum

On the Engineer's instruction, the Contractor shall be required to provide a quotation for the complete provision of additional fittings and specials not allowed for elsewhere in this document as part of this Contract, based on the minimum specification provided elsewhere in this Contract documentation. A provisional sum is provided here, but the unit of measurement shall be based on the various items required.

C2.1.6 Removal and Temporary Storage

C2.1.6.1 Remove and temporarily store paving block units

Unit: m^2

The rate shall include the complete (labour, material, plant, equipment and travelling) cost for the removal, transportation and delivery to the storage area of all removed paving block units of various sizes.

The Engineer or his duly authorised representative shall only approve payment for ordered Works, where the Contractor provides proof that the removed paving block units have been stored in the agreed location.

Where the Contractor fails to return any removed paving block units, on completion of the ordered Works, he shall not be paid for the entire ordered Works at the associated property.

C2.1.6.2 Remove and temporarily store grass sods

Unit: m^2

The rate shall include the complete (labour, material, plant, equipment and travelling) cost for the removal, transportation and delivery to the storage area of all removed grass sods.

The Engineer or his duly authorised representative shall only approve payment for ordered Works, where the Contractor provides proof that the removed grass sods have been stored in the agreed location.

Where the Contractor fails to return any removed grass sods, on completion of the ordered Works, he shall not be paid for the entire ordered Works at the associated property.

C2.1.6.3 Remove and temporarily store all types of kerbs

Unit: m^2

The rate shall include the complete (labour, material, plant, equipment and travelling) cost for the removal, transportation and delivery to the storage area of all types of kerbs.

The Engineer or his duly authorised representative shall only approve payment for ordered Works, where the Contractor provides proof that the removed kerbs have been stored in the agreed location.

Where the Contractor fails to return any removed kerbs, on completion of the ordered Works, he shall not be paid for the entire ordered Works at the associated property.

C2.1.6.3.1 Shore trench opposite structure or service

Unit: m

The rate shall include the complete (labour, qualified operators, material, plant, equipment and travelling) cost of shoring the trenches opposite structures or services as required during construction including commissioning, environmental management, health and safety, and submitting a record of installations to the Engineer.

C2.1.6.4 Removal of Existing Fire Hydrants and Related Fittings, and Transport to Depot

Unit: No

The work shall entail the complete removal of existing above-ground fire hydrants and all associated fittings (including standpipes, flanges, bolts, nuts, and ancillary connections) from the existing live water reticulation network. The

Contractor shall take all necessary precautions to ensure safe working conditions and to avoid damage to the surrounding pipework and network components during removal.

All hydrants and fittings removed shall be carefully handled, loaded, and transported to the designated municipal depot or other storage location as instructed by the Engineer. Proper records shall be kept of the number and type of hydrants removed, and proof of delivery to the depot must be provided to the Engineer for approval of payment.

The rate for this item shall include all labour, tools, plant, equipment, transport, safety measures, and incidental costs necessary to complete the work in accordance with the Engineer's instructions.

C2.1.7 Reinstatement of road crossings, including the supply and installation of asphalt for reinstatement of road crossings, 300mm thick

Unit: m^2

The rate shall include the complete (labour, qualified operators, material, plant, equipment and travelling) cost of reinstatement of road crossings including commissioning, environmental management, health and safety, and submitting a record of installations to the Engineer. The rate should also include the complete supply and transportation costs of the asphalt.

C2.1.8 Reinstatements

C2.1.8.1 Reinstate paving block units, complete

Unit: m^2

The rate shall include the complete (labour, qualified operators, material, plant, equipment and travelling) cost of reinstatement of paving block units including commissioning, environmental management, health and safety, and submitting a record of installations to the Engineer. The rate should also include the complete supply and transportation costs of the paving block units.

C2.1.8.2 Reinstate paving grass sods, complete

Unit: m^2

The rate shall include the complete (labour, qualified operators, material, plant, equipment and travelling) cost of reinstatement of grass sods including commissioning, environmental management, health and safety, and submitting a record of installations to the Engineer. The rate should also include the complete supply and transportation costs of the grass sods.

C2.1.8.3 Reinstate all types of kerbing, complete

Unit: m

The rate shall include the complete (labour, qualified operators, material, plant, equipment and travelling) cost of reinstatement of all types of kerbing including commissioning, environmental management, health and safety, and submitting a record of installations to the Engineer. The rate should also include the complete supply and transportation costs of the kerbing.

C2.1.8.4 Top soiling including trimming, filling, top soiling and levelling of verges, removal of debris, rocks etc. using stockpiled material

Unit: m^2

The rate shall include the complete (labour, qualified operators, material, plant, equipment and transport) cost of top soiling including trimming, filling, top soiling and levelling of verges, removal of debris, rocks etc. using stockpiled material.

C2.1.9 Miscellaneous Items

Unit: Various

The rates shall include the complete (labour, qualified operators, material, plant, equipment and travelling) cost of supplying and installing various items in terms of the specifications including, environmental management and health and safety requirements.

C2.1.10 Removing Debris

Unit: No.

The rate shall include the complete (labour, material and equipment) cost for the removal and disposal of all debris from manholes and chambers of various sizes and shapes for a distance of 0.5m within the entering and existing conduit; Including materials for cleaning and disposal, safety equipment (including that required for the Engineer or his duly authorised representative's sole use) and traffic accommodation equipment.

C2.1.11 Relocation of existing fittings

Unit: No

The rate shall include the complete (labour, qualified operators, material, plant, equipment and travelling) cost of the relocation of existing fittings as required during construction including cutting, threading, jointing (including new washers and gaskets at the joints), testing (including testing in terms SANS 1200LF of sub-clause 7.3.2), commissioning, environmental management, health and safety, and submitting a record of installations to the Engineer for various listed sizes and fitting types.

C2.1.12 Anchor/thrust blocks and pedestals

Unit: No.

The rate shall include the complete (labour, qualified operators, material, plant, equipment and travelling) cost for supply and installations of pedestals, anchors/thrust blocks as per standard drawings.

C2.1.13 Supply and Installation of hydrants and Specials

Unit: No.

The rate shall cover the cost of supplying, handling and installing a hydrant and specials, including labour, transportation, cutting, jointing, testing (including testing in terms SANS 10105-2 for inspection schedules and procedural test requirements, Supported by SANS 1128-1 for equipment performance criteria), commissioning, environmental management, health and safety, and submitting a record of installations to the Engineer.

The Employer will not entertain any claims regarding standing time, if shut-downs with the relevant Midvaal Local Municipality officials have not been arranged timeously in order to facilitate installation of valves and specials. If materials fail to meet specifications it will be for the contractor's expense to rectify.

Unit: No.

C2.1.16 Connecting to Existing pipes

Unit: No

The rate shall include the complete (labour, qualified operators, material, plant, equipment and travelling) cost of exposing the existing water main at the connection, isolating the appropriate section of pipe, cutting into the existing pipe, repairs to the lining and any coating of the pipe (when applicable), and dewatering. The rate shall cover a range of pipe diameters (50mm to 250mm).

The Employer will not entertain any claims regarding standing time, if shut-downs with the relevant Midvaal Local Municipality officials have not been arranged timeously in order to facilitate tie-ins.

C2.2 SCHEDULE OF RATES

A. PRELIMINARY & GENERAL

Item No	Payment Ref	Description	Unit	Est Qty	Rate (R)	Amount (R)
A1	SANS1200 A 8.3 &8.4	**Section A: Preliminary & General**				
A1.1		**Fixed-charge items**				
A1.1.1	A 8.3.1	Contractual requirements	Sum	1		
A1.1.10	A 8.4.1	Dealing with water (including pumping, diversion & protection)	Sum	1		
A1.1.11	A 8.3.2	Access to the Works (temporary roads/ramps as necessary)	Sum	1		
A1.2		**Health, Safety and Public Liaison**				
A1.2.1	C2.3.1.5	Allow for compliance with OHS Act by submitting an overall, general safety plan for project over three (3) months	Sum	1		
A1.2.2	C2.3.1.6	Allow for Health and Safety Officer	Months	3		
A1.2.3	C2.3.1.7	Allow for Community Liaison Officer	Months	3		
TOTAL CARRIED FORWARD TO SUMMARY						

B. EXCAVATIONS FOR REMOVAL OF OLD ABOVE-GROUND HYDRANTS

Item No	Payment Ref	Description	Unit	Est Qty	Rate (R)	Amount (R)
B1.1	SANS 1200 DB 8.3.4 / DA 8.3.2	Excavate around existing above-ground hydrants to expose connections; include shoring, trimming & dewatering	No.	150		
B1.4	DB 8.3.6	Dispose of material to approved tip	m^3	168		
TOTAL CARRIED FORWARD TO SUMMARY						

C.REMOVAL & TRANSPORT OF EXISTING ABOVE-GROUND HYDRANTS

Item No	Payment Ref	Description	Unit	Est Qty	Rate (R)	Amount (R)
C1.1	C2.1.6.4 / SANS 1200 A 8.3.7	Isolate, disconnect & **remove existing above-ground hydrant** incl. standpipe, valves & fittings	No.	150		
C1.2	C2.1.6.4 / SANS 1200 A 8.3.7	Clean, tag & transport removed hydrants & fittings to **Municipal Depot. I**ncluding Recording & handing over inventory of removed items	Sum	1		
TOTAL CARRIED FORWARD TO SUMMARY						

D.SUPPLY & INSTALLATION OF NEW BELOW-GROUND FIRE HYDRANTS & FITTINGS

All hydrants, valves, pipes & fittings to relevant SANS specifications; compatible with existing mains; include thrust blocks, connections, gaskets, bolts, corrosion protection & marker plates.

Item No	Payment Ref	Description	Unit	Est Qty	Rate (R)	Amount (R)
D1.1	SANS 1128 / SANS 1200 LF 8.3.2	Supply & install **belowground fire hydrant**, multi-drilled 80mm Inlet flange with drilling to standard SABS hydrant drilling and T/16 flanged Outlets made to SABS 1128 Specs Bayonet outlet	No.	150		
D1.2	SANS 1200 GA 8.3.5	Supply & install **hydrant valve box** & frame (heavy-duty cover "FH")	No.	150		
D1.4	SANS 1200 LF 8.3.2	Supply & install **ductile iron / HDPE** pipe connections incl. couplings, reducers, tees	Item	150		
D1.5	SANS 1200 GA 8.3.2	**Concrete thrust blocks** at hydrants/tees, incl. formwork & curing	m^3	12		
D1.6	SANS 1200 LF 8.3.6	**Corrosion protection** (bitumen wrap/epoxy) to buried fittings	Item	150		
D1.7	SANS 1186	**Hydrant marker post** reflective, coded per MLM standard	No.	150		
TOTAL CARRIED FORWARD TO SUMMARY						

E. CONSTRUCTION OF CEMENT BRICK-WALL CHAMBER & LID (SANS COMPLIANT)

Item No	Payment Ref	Description	Unit	Est Qty	Rate (R)	Amount (R)
E1.1	SANS 1200 GA 8.3.1 / LB 8.3.1	Trim, compact & prepare founding level for chamber including backfilling to NGL	m^3	75		
E1.2	SANS 1200 LB 8.3.2	**Concrete blinding** 15–20 MPa, 75 mm thick	m^2	50		
E1.3	SANS 227 / LB 8.3.3	**Cement stock brick masonry** walls, 230 mm, in 1:5 mortar; include DPC & weepholes	No	12000		
E1.4	SANS 1200 GA/LB	Below Ground **Hydrant valve box** with Red Lid	No.	150		
TOTAL CARRIED FORWARD TO SUMMARY						

F. REINSTATEMENT OF SURFACES

Item No	Payment Ref	Description	Unit	Est Qty	Rate (R)	Amount (R)
F1.1	C2.1.8.1 / SANS 1200 A 8.3.8	Reinstatement of **paving blocks** incl. bedding & compaction	m^2	200		
F1.2	C2.1.7 / SANS 1200 GA 8.3.9	Reinstatement of **concrete slabs/sidewalks**, 25–30 MPa	m^2	150		
F1.3	C2.1.8.2 / SANS 1200 A 8.3.8	Reinstatement of **gravel/shoulder/grass** areas	m^2	100		
TOTAL CARRIED FORWARD TO SUMMARY						

BOQ SUMMARY

Bill	Description	Amount (R)
A	Preliminary & General	
B	Excavations for removal	
C	Removal & transport of old hydrants	
D	Supply & installation of new below-ground hydrants	
E	Brick-wall chamber construction	
F	Reinstatement of surfaces	
SUB-TOTAL (Excl. VAT)		
VAT @ 15%		
TOTAL TENDER SUM (Incl. VAT)		

C2.3 PAYMENT REFERENCES AND DESCRIPTIONS

C2.3.1 PRELIMINARY & GENERAL

C2.3.1.1 SANS 1200 A 8.3 & 8.4 : Preliminary and General Requirements

Covers all site establishment and de-establishment activities, contractual obligations, health and safety compliance, environmental obligations, supervision, and general overheads associated with the project.

C2.3.1.2 SANS 1200 A 8.3.1 – Contractual Requirements

Payment for fulfilling contractual obligations, including site management, submission of required documentation, compliance with specifications, and general administration necessary for execution of the works.

C2.3.1.3 SANS 1200 A 8.4.1 – Dealing with Water (Pumping, Diversion, and Protection)

Covers costs associated with maintaining dry and safe working conditions on site by pumping, diverting, or otherwise protecting works from groundwater, stormwater, or existing water services.

C2.3.1.4 SANS 1200 A 8.3.2 – Access to the Works (Temporary Roads and Ramps)

Includes provision, maintenance, and eventual removal of temporary access routes, ramps, or roadways necessary to execute the works safely and efficiently.

C2.3.1.5 - Compliance with Occupational Health and Safety Act (OHS Act)

Covers costs associated with preparing, submitting, and maintaining an overall, general Health and Safety Plan for the project over a three (3) month period, in accordance with the Occupational Health and Safety Act and relevant regulations. Payment includes all administrative, documentation, and coordination activities required to achieve compliance.

C2.3.1.6 - Health and Safety Officer

Payment for the appointment and provision of a competent Health and Safety Officer for the duration of the project to ensure compliance with the OHS Act, approved safety plan, and all site-specific safety requirements. Includes monitoring, reporting, conducting site inductions, toolbox talks, and ensuring adherence to all health and safety protocols.

C2.3.1.7 A 8.3.2 - Community Liaison Officer (CLO)

Covers costs related to the appointment and functioning of a Community Liaison Officer responsible for maintaining communication between the Contractor, the Client, and the local community. Duties include facilitating local labour recruitment, addressing community concerns, attending coordination meetings, and submitting periodic reports on community engagement activities.

C2.3.2 EXCAVATIONS FOR REMOVAL OF OLD ABOVE-GROUND HYDRANTS

C2.3.2.1 SANS 1200 DB 8.3.4 / DA 8.3.2 – Excavation for Hydrant Exposures

Covers excavation around existing above-ground hydrants to expose connections. Includes shoring of trenches, trimming of sides and bottom, dewatering where necessary, and all safety precautions.

C2.3.2.2 SANS 1200 DB 8.3.6 – Disposal of Excavated Material

Payment for loading, transporting, and disposing of surplus or unsuitable excavated material at an approved tipping site, in compliance with environmental regulations.

C2.3.3 REMOVAL & TRANSPORT OF EXISTING ABOVE-GROUND HYDRANTS

C2.3.3.1 SANS 1200 A 8.3.7 / C2.1.6.4 – Isolation, Disconnection, and Removal of Hydrants

Covers isolating the water main, disconnecting and removing existing hydrants, including standpipes, valves, and all associated fittings. Work to be done under live network conditions with due care to avoid damage to the existing system.

C2.3.3.2 SANS 1200 A 8.3.7 / C2.1.6.4 – Cleaning, Tagging, and Transporting of Removed Hydrants
Includes cleaning removed hydrants and fittings, tagging for identification, preparing an inventory, and transporting all items to the designated Municipal Depot. Contractor to provide proof of delivery and a full record of all items handed over.

C2.3.4 SUPPLY & INSTALLATION OF NEW BELOW-GROUND FIRE HYDRANTS & FITTINGS

C2.3.4.1 SANS 1128 / SANS 1200 LF 8.3.2 – Supply and Installation of Below-Ground Hydrants
Covers supply and installation of below-ground fire hydrants with multi-drilled 80 mm inlet flange, bayonet outlet, and flanged outlets drilled to SABS 1128 specifications. Hydrants must be compatible with existing mains.

C2.3.4.2 SANS 1200 GA 8.3.5 – Hydrant Valve Box and Frame (Heavy Duty Cover "FH")
Supply and installation of robust valve boxes and frames to house the hydrants. Includes heavy-duty cast iron covers marked "FH" in accordance with municipal standards.

C2.3.4.3 SANS 1200 LF 8.3.2 – Pipework Connections and Specials
Supply and installation of ductile iron or HDPE pipe connections, couplings, reducers, tees, and related specials, fully compatible with existing reticulation.

C2.3.4.4 SANS 1200 GA 8.3.2 – Concrete Thrust Blocks
Construction of thrust blocks at hydrant positions and tees, including supply of formwork, placement, curing, and compliance with structural requirements.

C2.3.4.5 SANS 1200 LF 8.3.6 – Corrosion Protection to Buried Fittings
Application of bitumen wrap or epoxy coating to all buried fittings and metallic joints to prevent long-term corrosion.

C2.3.4.6 MLM Standard / SANS 1186 – Hydrant Marker Posts
Supply and installation of reflective hydrant marker posts coded to Midvaal Local Municipality standards for rapid identification during emergencies.

C2.3.4 CONSTRUCTION OF CEMENT BRICK WALL CHAMBER & LID

C2.3.4.1 SANS 1200 GA 8.3.1 / LB 8.3.1 – Excavation for Chamber Foundations
Covers supply and installation of below-ground fire hydrants with multi-drilled 80 mm inlet flange, bayonet outlet, and flanged outlets drilled to SABS 1128 specifications. Hydrants must be compatible with existing mains.

C2.3.4.2 SANS 1200 LB 8.3.2 – Concrete Blinding Layer
Supply and installation of robust valve boxes and frames to house the hydrants. Includes heavy-duty cast iron covers marked "FH" in accordance with municipal standards.

C2.3.4.3 SANS 1200 LF 8.3.2 – Pipework Connections and Specials
Supply and installation of ductile iron or HDPE pipe connections, couplings, reducers, tees, and related specials, fully compatible with existing reticulation.

C2.3.4.4 SANS 227 / SANS 1200 LB 8.3.3 – Cement Brick Masonry Walls
Construction of thrust blocks at hydrant positions and tees, including supply of formwork, placement, curing, and compliance with structural requirements.

C2.3.4.5 SANS 1200 GA / LB – Below-Ground Hydrant Valve Box with Lid
Supply and installation of below-ground hydrant valve boxes with red lids, compliant with municipal and SANS requirements, positioned for secure and easy access.

C2.3.5 REINSTATEMENT OF SURFACES

C2.3.4.1 SANS 1200 A 8.3.8/ C2.1.8.1 /– Reinstatement of Paving Blocks

Includes relaying of paving blocks with bedding and compaction after completion of works. All reinstated paving to match existing finishes.

C2.3.4.1 SANS 1200 GA 8.3.9 /C2.1.7 – Reinstatement of Concrete Surfaces

Removal and reinstatement of sidewalks or slabs in 25–30 MPa reinforced concrete, including compaction, curing, and surface finishing.

C2.3.4.1 SANS 1200 A 8.3.8/ C2.1.8.2 – Reinstatement of Gravel, Shoulder, and Grass Areas

Includes top soiling, filling, compaction, and grassing of areas disturbed during construction. All surfaces to be restored to original condition or better.

MIDVAAL
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VOLUME 1

PART 3: SCOPE OF WORK

TABLE OF CONTENTS

PAGE (S)

C3 SCOPE OF WORK 1

DEFINITIONS 2

ABBREVIATIONS 3

PORTION 1: PROJECT SPECIFICATION 5

PS1..... DESCRIPTION OF THE WORKS 5
PS1.1 Employer's Objectives 5
PS1.2 Overview of the Works 5
PS1.3 Location of the Works 5
PS1.4 Temporary Works 5

PS2..... ENGINEERING 6
PS2.1 Drawings 6

PS3..... PROCUREMENT 7
PS3.1 Preferential Procurement Procedures 7
PS3.2 Sub-contracting 7

PS4..... CONSTRUCTION 8
PS4.1 Applicable Standards 8
PS4.2 Particular generic specifications 9
PS4.3 Plant and materials 30
PS4.4 Construction equipment 30
PS4.5 Existing services 30
PS4.6 Site establishment, facilities available and required 30
PS4.7 Site usage 30
PS4.8 Permits and wayleaves 30
PS4.9 Alterations, additions, extensions and modifications to existing works 30
PS4.10 Inspection of adjoining properties 31
PS4.11 Water, sanitation and electricity for construction purposes 31
PS4.12 Building in Pipework 31
PS4.13 Testing, disinfecting and scouring 31
PS4.14 Work on live mains 32
PS4.18 Laying and Joints 32
PS4.19 Backfill 33

PS5..... MANAGEMENT OF THE WORKS 35
PS5.1 Applicable SANS 1921 Standards 35
PS5.2 Programming 35

PS5.3 Sequence of the works 35
PS5.4 Software application for programming 35
PS5.5 Methods and procedures 35
PS5.6 Quality plans and control 35
PS5.7 Accommodation of traffic on public roads occupied by the Contractor 35
PS5.8 Other contractors on site 36
PS5.9 Testing, completion, commissioning and correction of defects 36
PS5.10 Recording of Weather and Abnormal Rainfall 36
PS5.11 Format of communications 38
PS5.12 Key personnel 38
PS5.13 Management meetings 38
PS5.14 Forms for contract administration 38
PS5.15 Daily records 38
PS5.16 Bonds and guarantees 38
PS5.17 Payment certificates 38
PS5.18 Permits 38

PS6..... FEATURES REQUIRING SPECIAL ATTENTION 39
PS6.1 Security 39
P6.2 Operation of valves 39
PS6.3 Work outside normal working hours 39
PS6.4 Sanitary facilities 39
PS6.5 Community liaison and community relations 39
PS6.6 Notices and warning to consumers 39
PS6.7 Continuity of service supply to customers 40
PS6.8 Conditions and procedures for service agencies 40
PS6.9 Generic labour intensive specifications 40
PS6.10 Acceptance of works and causes for rejection 40

PS7..... HEALTH AND SAFETY FOR CONSTRUCTION WORK 41

PS8..... ENVIRONMENTAL MANAGEMENT PLAN 43

PORTION 2: VARIATIONS AND ADDITIONS TO THE STANDARDISED SPECIFICATIONS 44
SANS 1200A: CIVIL ENGINEERING CONSTRUCTION: PRELIMINARY AND GENERAL 44
VARIATIONS 44
ADDITIONS 45
SANS 1200DA: CIVIL ENGINEERING CONSTRUCTION: EARTHWORKS (Small Works) 46
VARIATIONS 46
ADDITIONS 47
SANS 1200DB: CIVIL ENGINEERING CONSTRUCTION: EARTHWORKS (PIPE TRENCHES)..... 49
VARIATIONS 49

ADDITIONS 49

SANS 1200C: CIVIL ENGINEERING CONSTRUCTION..... 51

VARIATIONS 51

ADDITIONS 51

SANS 1200L: CIVIL ENGINEERING CONSTRUCTION: MEDIUM-PRESSURE PIPELINES..... 53

VARIATIONS 53

ADDITIONS 55

C3 SCOPE OF WORK

GENERAL

This section specifies and describes the supplies, services and engineering and construction works which are to be provided and any other requirements and constraints relating to the manner in which the contract work is to be performed.

SCOPE

The Scope of the Work is set out in two portions:

Portion 1: PROJECT SPECIFICATION covers a general description of the project, the facilities available and the requirements to be met.

Portion 2: VARIATIONS AND ADDITIONS TO THE STANDARDISED SPECIFICATIONS covers variations to the standardised specifications and particular specifications, which are applicable to the contract.

Should any requirement of the Project Specification conflict with any requirement of the standardised or particular specifications, the requirements of the Project Specifications shall prevail.

DEFINITIONS

For the purpose of this Contract the following shall have the associated meaning:

a) Unless inconsistent with the context, an expression which denotes:
   i) any gender includes the other genders;
   ii) a natural person includes a juristic person and vice versa; and
   iii) the singular includes the plural and vice versa.

b) '***Service Provide***r' shall mean either a consultant or contractor appointed to provide a particular service, i.e. investigations, design, labour provision and/or construction.

ABBREVIATIONS

For the purpose of this Contract the following abbreviations shall have the associated meaning:

ASTM	: American Society for Testing and Materials
BEE	: Black Economic Empowerment
BS	: British Standard
CCD	: Charge-coupled Device
CD	: Compact Disk
CE	: Civil Engineering Works
CIDB	: Construction Industry Development Board
CLO	: Community Liaison Officer
COP	: Code of Practice for Work within the Road Reserve
DS	: Downstream
DVD	: Digital Versatile Disk
ECSA	: Engineering Council of South Africa
EDA	: Enterprise Declaration Affidavit
ELM	: Emfuleni Local Municipality
EMP	: Environmental Management Plan
EPWP	: Expanded Public Works Programme
Ext	: Extension
FH	: Fire Hydrant
GCC	: General Conditions of Contract
GIS	: Geographic Information System
ISO	: International Organisation for Standardisation
Kl	: Kilolitres
l	: Litres
LOS	: Level of Service
Ml	: Megalitres
MLM	: Midvaal Local Municipality
Mod AASHTO	: Modified American Association of State Highway and Transportation Officials
PTFE	: Polytetrafluoroethylene
SABS	: South African Bureau of Standards
SANS	: South African National Standard

SBR : Strene-butadiene Rubber

SD : Standard Definition

SDR : Standard Dimension Ratio

SOP : Standard Operating Procedure

WRC : Water Research Commission

uPVC : Unplasticised Polyvinyl Chloride

US : Upstream

VAT : Value Added Tax

PORTION 1: PROJECT SPECIFICATION

PS1 DESCRIPTION OF THE WORKS

PS1.1 Employer's Objectives

The Employer's primary objective is to ensure an effective, efficient, and sustainable water supply within its jurisdiction. To achieve this, MLM must promptly attend to all water breakages and supply interruptions.Additionally, the Employer aims to curb illegal use and vandalism of the fire hydrant network by replacing exposed above-ground hydrants with secure below-ground alternatives.

The objectives include:

- Enhancing the security and integrity of fire hydrant infrastructure.
- Minimising water losses caused by unauthorised use or vandalism.
- Maintaining operational readiness for firefighting services.
- Ensuring minimal service disruption during replacement works.
- Compliance with the Occupational Health and Safety Act during all operations.
- Engagement of EPWP labour in line with municipal job creation objectives.

PS1.2 Overview of the Works

The project requires (at a minimum) the implementation of the following items:

- Site Clearance
- Identify, exposure of existing pipelines and telecommunications cables
- Bulk excavation and stockpile material
- Construction/Install of fire hydrants and its appurtenances.
- Removing existing fire hydrants on existing infrastructure
- Connect new fire hydrants to existing infrastructure
- Compact soil in layers
- Reinstalment of surfaces

This description of the works is not necessarily complete and shall not limit the work to be carried out by the Contractor under this contract.

Approximate quantities of each type of work are given in the applicable section's schedule of Bill of Quantities (BOQ).

The successful tenderer must take note that the standard specifications on which this contract is based are the SANS 1200 and the National Building Regulations SANS 10400.

PS1.3 Location of the Works

The works are located within the Employer's supply and operational area. The exact location of the works is included under Part 4: Site Information and will be identified on each particular Works Order.

PS1.4 Temporary Works

Temporary works shall:

a) include the works required to locate, verify and protect existing services within the works area.
b) include the works required to confirm pipe diameters and material where fitting installations and replacements are proposed;
c) be such to ensure no or limited interruption to vehicular and pedestrian traffic; and
d) be such as to allow the continued or uninterrupted supply of water.

The Contractor shall further note that no stockpiling of materials, plant, excavated material or any other construction related infrastructure shall NOT be allowed in locations that may interfere with the operations of the Employer and the public in general.

PS2 ENGINEERING

PS2.1 Drawings

Typical detail drawings are provided in Volume 2 for tender purposes.

Description	Drawing No.
Below Ground Fire Hydrant Installation	DRG.FH-001
Below Ground Fire Hydrant Installation Detailed	DRG.FH-002

Upon receiving the instruction to proceed with construction the Contractor will receive three sets of construction drawings for the execution of the works.

Only figured dimensions shall be used and drawing shall not be scaled unless required by the Engineer. The Engineer will provide the dimensions that may have been omitted from the drawings.

PS3 PROCUREMENT

PS3.1 Preferential Procurement Procedures

The Contractor's attention is drawn to the following returnable schedule contained in Part T2:

a) Empowerment and Preferential Procurement

This schedule contains all requirements with regard to preferential procurement.

PS3.2 Sub-contracting

The Contractor is:

a) not obliged to utilise any sub-contractors specifically nominated by the Employer.
b) required to utilise local sub-contractors for the completion of unskilled labour-based sections of the works, where practical.
c) responsible for all work executed on his behalf or under his supervision and/or management by all sub-contractors, including nominated sub-contractors.

***NOTA BENE**: The Employer shall not negotiate directly with sub-contractors and all problems relating to payments, programming, workmanship, etc., are matters between the Contractor and his sub-contractors.*

PS4 CONSTRUCTION

PS4.1 Applicable Standards

PS4.1.1 National standards

The Standard Specifications for all associated civil work applicable to this Contract shall be:

SANS Description

1. SANS 164 Plugs, socket-outlets and couplers for industrial purposes*
2. SANS 241 South African Standard Specification for drinking water
3. SANS 1373 Chain-link fencing and its wire accessories*
4. SANS 10299 Development, maintenance and management of groundwater resources*
5. SANS 10306 The management of potable water in distribution systems*
6. SANS 10400 Application of the National Building Regulations
7. SANS ISO 5667-2 Water quality sampling, part2: Guidance on sampling techniques*
8. OW 371 Specification of Materials and Methods to be used. Fourth revision, October 1993.**
9. Standard Specification for the Electrical Equipment and Installation for Mechanical Services, Issue VIII December 1984**
10. Standard Electrical Specifications, January 1984, GPS 24-0367**
11. Department of Water Affairs and Forestry, Department of Health and the Water Research Commission - Department of Quality of Domestic Water Supplies

* Not issued with this document, but available at the Contractor's expense from the SA Bureau of Standards, Private Bag X191, PRETORIA, 0001.
** Not issued with this document but available from the Director General, Department of Public Works, Private Bag X65, PRETORIA 0001, or any office of the Regional Representative of this Department.

The standard specifications on which this section of the contract is based are the **South African Bureau of Standards Standardized Specifications for Civil Engineering Construction SANS 1200**.
Although not bound in nor issued with this Document, he following Sections of the Standardized Specifications of SANS 1200 shall form part of this Contract:

1. SANS 1200 A GENERAL
2. SANS 1200 AA GENERAL (SMALL WORKS)
3. SANS 1200 AB ENGINEERS OFFICE
4. SANS 1200 AD GENERAL (SMALL DAMS)
5. SANS 1200 AH GENERAL (STRUCTURAL)
6. SANS 1200 C SITE CLEARANCE
7. SANS 1200 D EARTHWORKS
8. SANS 1200 DA EARTHWORKS (SMALL WORKS)
9. SANS 1200 DB EARTHWORKS (PIPE TRENCHES)
10. SANS 1200 DE SMALL EARTH DAMS
11. SANS 1200 DK GABIONS AND PITCHING
12. SANS 1200 DM EARTHWORKS (ROADS, SUBGRADE)
13. SANS 1200 DN EARTHWORKS (RAILWAY SIDINGS)
14. SANS 1200 G CONCRETE (STRUCTURAL)
15. SANS 1200 GA CONCRETE (SMALL WORKS)
16. SANS 1200 GB CONCRETE (ORDINARY BUILDINGS)
17. SANS 1200 GE PRECAST CONCRETE (STRUCTURAL)
18. SANS 1200 GF PRESTRESSED CONCRETE
19. SANS 1200 H STRUCTURAL STEELWORK
20. SANS 1200 HA STRUCTURAL STEELWORK (SUNDRY ITEMS)
21. SANS 1200 HC CORROSION PROTECTION OF STEELWORK
22. SANS 1200 L MEDIUM-PRESSURE PIPE LINES
23. SANS 1200 LB BEDDING (PIPES)
24. SANS 1200 LC CABLE DUCTS
25. SANS 1200 LD SEWERS
26. SANS 1200 LE STORMWATER DRAINAGE
27. SANS 1200 M ROADS (GENERAL)
28. SANS 1200 ME SUBBASE
29. SANS 1200 MF BASE
30. SANS 1200 MFL BASE (LIGHT PAVEMENT STRUCTURES)
31. SANS 1200 MG BITUMINOUS SURFACE TREATMENT
32. SANS 1200 MH ASPHALT BASE AND SURFACING)

33. SANS 1200 MJ SEGMENTED PAVING
34. SANS 1200 MK KERBING AND CHANNELLING
35. SANS 1200 MM ANCILLARY ROADWORKS

PS4.1.2 Other Standards

Other Standard Specifications for applicable to this Contract shall be:

a) South African Road Traffic Signs Manual, Chapter 13.

b) ASTM C150/C150M-09 Standard Specification for Portland Cement.
c) ASTM E23 - 07ae1 Standard Test Methods for Notched Bar Impact Testing of Metallic Materials.

PS4.2 Particular generic specifications

PS4.2.1 Minimum health and safety requirements

The following requirements shall be deemed minimum compliance requirements to ensure the health and safety of the public and workers during the execution of the Contract:

PS4.2.1.1 Road safety equipment

Work units or teams shall be provided with:

a) an amber-flashing beacon, which shall comply with and be operated in accordance with any governing road vehicle lighting regulations or similar.

b) **appropriate sized and quantity of road signs, including delineators and cones which shall be displayed at the works area in accordance with the South African Road Traffic Signs Manual, Chapter 13**.

c) bright coloured overalls, fluorescent over-jackets and belts for each team member for use at all working times during the day or night.

PS4.2.1.2 Works site safety

The works are to be executed in areas with high volume pedestrian and vehicular traffic. The Contractor shall ensure that:

a) the workspace required to successfully complete installations shall be kept at a minimum. Thus, plant and equipment not used is to be removed from the work site to minimize disruption to the customer, other traffic and the general public.
b) the working area shall be free of debris when the Contractor leaves the site at the end of the day or each shift.
c) open chambers, machinery and standing equipment are to be protected to ensure the safety and convenience of traffic, the general public or other at all times.

PS4.2.2 Traffic control

Traffic (human and vehicular) control and signage shall be in accordance to the South African Road Traffic Signs Manual, Chapter 13. And at minimum include:

a) a traffic control plan with detailed diagrams showing the location of all traffic control devices and the length of time for all lane closures, as well as location of any flaggers, as necessary.

b) one lane of traffic in each direction must be maintained at all times and local streets may only be closed with prior approval of the Engineer.

c) provision and maintenance of lights, guards, fencing and watching when and where necessary or required for the protection of the Works and the materials and equipment utilized therefore or for the safety and convenience of the public or others.

d) the name and number of the Contractor representatives responsible for traffic control shall be made available to solve traffic problems at each works site location.

PS4.2.3 Metric measurement

All survey recorded dimensions of infrastructure shall be in metric units, including for conduits, chambers.

PS4.2.4 Site preparation

Prior to any Works commencement the Contractor shall photograph or video tape entire work area. One copy of which shall be given to the Engineer's authorized representative and one copy shall remain with Contractor for a period of 52 weeks following the issue of a Completion Certificate. This record shall be used to establish accountability for damages during the execution of the Contract.

No alterations beyond what is required for Works are to be made. Contractor shall confine all activities to designated work areas, to the absolute minimum required.

PS4.2.5 HDPE pipes

PS4.2.5.1 Pipe colour

Pipe shall conform to the following:

a) Pipe shall only be black.
b) Colour shall homogeneous throughout.

PS4.2.6 Pipe handling and storage

Pipe shall be handled and stored in accordance with manufacturer's specifications and these specifications, including:

a) Pipes shall be stored on flat level ground or the storage base shall be made level to ensure pipes are stacked level and vertical. Pipes shall be kept securely anchored to prevent movement using timber, timber wedges or sand bags. Pipes shall be placed on timber bearers not more than 1.5m apart. Where pipes are stacked, timber bearers shall be placed between each layer of pipes. It shall also be ensured that the weight of upper units do not cause deformation to pipe in lower units.
b) Plastic pipes shall be stored away from contact with chemicals or ground contaminated with chemicals.
c) Care shall be taken to prevent scoring and scratching of plastic pipes.
d) Rubber rings for pipe joints shall be stored in a cool area, preferably 20°C or less and away from direct sunlight. They shall be protected to ensure that there is no contact with petroleum products. SBR rings shall also be stored away from sources of ozone such as fluorescent lights and electric motors.
e) Plastic pipes, and steel pipes with bituminous coatings shall be stored in a shaded area at all times. Where permanent storage structures are not available, pipes shall be stored under shade-cloth canopies manufactured from shade-cloth with shade cover rated at a minimum of 80%, protecting the pipes from direct sunlight from all angles.

PS4.2.7 Inspection of pipes and fittings

Pipe components shall be checked for damage and flaws immediately before installation, where:

a) plastic pipes and fittings shall be checked for gouges, cracks, holes, flattening and indentations.

b) rubber rings shall be checked for tears or any other damage or flaws before making each joint.

Damaged or flawed pipes and fittings shall only be used if approved by the Engineer. Pipes and fittings considered unsuitable for use by the Engineer shall be removed from the site at the Contractor's expense. The Engineer may approve the repair of any damage where the pipe or joint may be repaired without affecting its performance.

PS4.2.8 Cutting of plastic pipes

a) Pipes shall at all times be cut square to the barrel of the pipe. For:
   i) rubber ring and solvent cement jointed pipe, the deviation from square shall not be in excess of 5mm.
   ii) butt or electro-fusion jointed PE pipes the deviation from square shall not be in excess of 1mm.
b) Jagged edges shall be removed from pipe ends.
c) Cut edges of rubber ring or solvent cemented plastic pipes shall be bevelled in accordance with the manufacturer's instructions.

PS4.2.9 Acceptability of cuts or gouges

Cuts or gouges that reduce the pipe wall thickness in excess of 10% is not acceptable and shall be cut out and discarded (properly disposed from the site).

PS4.2.10 Encountering of water during operations

The Contractor is to provide and maintain a water removal system that has sufficient capacity to remove all encountered water, during Works operations. Such system(s) shall ensure that soil particle removal is kept at a minimum.

PS4.2.11 Site restoration

The Contractor, following all Works completion, shall disassemble all equipment and restore the site to original condition. Any noticeable surface defects, due to the executed Works, shall be repaired by the Contractor.

All excavations shall be backfilled and compacted to minimum density of 95% MOD ASSHTO, unless otherwise instructed by the Engineer or his duly authorized representative.

PS4.2.12 Locating of services

The Contractor shall locate all services, known and unknown, within the vicinity of the ordered Works, using specialist equipment and if required exposing such by means of hand excavation. This shall be limited to where ordered Works may result in damage of such services, typically as may be the case with the installation of a new meter and/or fitting or repositioning of an existing meter and/or fitting.

PS4.2.13 Excavation

All secondary mains, erf connection, meter and fitting excavations shall be with SANS 1200DB but performed by hand, unless the Contractor can demonstrate to the satisfaction of the Engineer or his duly authorized representative that hand excavation is impossible and/or impractical.

PS4.2.14 Replacement of an existing meter or fitting

In-situ replacement of an existing meter or valve or fitting shall occur where such has been identified as defunct and the Contractor ordered to execute its replacement. The Works shall include removing the defunct meter or valve or fitting, cleaning existing pipework and fittings and installation of replacement meter or fitting.

New and existing pipe(s) and fitting(s) shall be properly bedded as per SANS 1200LB on a Class B bedding and excavations shall be backfilled and compacted to minimum 90% MOD AASHTO.

During the replacement activity any defunct meter, valves, pipes, fittings, surface box or chamber, within the Works area and forming part of the Employer's infrastructure shall be identified by the Contractor and prior written approval shall be obtained for its replacement.

Testing of the complete connection affected by the ordered Works shall be in accordance to SABS 1200L sub-clause 7.3.

PS4.2.15 Chamber frame and cover replacement

The Contractor shall replace an existing chamber frame and cover with a new frame and cover, including: removing the existing frame and cover, cleaning of frame and cover, check integrity of existing brickwork, removing loose brickwork, preparing area to patch brickwork or concrete, and placing and leveling the new frame and cover in mortar per the standard detail drawings.

PS4.2.16 Spoiling of material

No indiscriminate spoiling of material by the Contractor shall be allowed. All surplus or unsuitable material shall be spoiled at a site located by the Contractor, deemed by the Engineer as compliant with legislative requirements.

PS4.2.17 Chamber appurtenances

PS4.2.17.1 Frames and covers

Chamber frames and covers shall conform to the applicable standard SANS 558 requirements, however such covers and frames shall:

a) be blue polymer reinforced concrete castings for water;
b) be for the appropriate duty (for the installation location; i.e. light, medium and heavy) watertight type and bolt-hinged lid as noted on the standard detail drawings;
c) have a cover and seat that shall have machined bearing surfaces to prevent rocking and rattling;
d) have the Employer's brand (logo only) cast on;
e) be solid; and
f) have a concealed pick hole for all water chambers.

PS4.2.17.2 Chamber step irons

Chamber step irons shall conform to the applicable standard SANS requirements, but shall be:

a) spaced at 300mm centres;
b) distanced not exceed 600mm between the top of casting and the first step; and
c) plastic or similar approved.

PS4.2.18 Chamber bedding

a) Precast chamber forms

Precast chamber form bases shall be bedded on granular material or acceptable undisturbed foundation material.

b) Cast-in-place chambers
Concrete bases shall be poured on 50mm leveling screed.

PS4.2.19 Concrete, formwork and reinforcement

NOTA BENE: *All in situ concrete work (mass and reinforced) shall comply with SANS 1200G ("8.Measurement and Payment" is not applicable) supplemented by the clauses in this section. Where:*

- *SANS 1200G and the clauses in this section are in conflict, the clauses in this section shall take precedence.*
- *the term "plain concrete" appears in SANS 1200G it shall be read as "mass concrete".*

PS4.2.19.1 Cement

Cement shall be Portland cement (or similarly approved) complying with the requirements of SANS 50197-1/EN 197-1 or SANS 5831.

Samples of cement from any one, or from every consignment, may be required by the Engineer or his duly authorized representative for test purposes. Cement in any consignment from which a sample may have been taken for testing shall not be used until it has been approved. Allowance shall be made for possible delay in that tests may take 10 days to carry out.

Bags of cement shall be stacked in a waterproof, solidly constructed shed with a central door and a floor rendered damp-proof with a tarpaulin. The bags of cement shall be closely stacked (but not against walls) in order to reduce air circulation in such a manner that the cement is used in the order in which it was received, *i.e. first in first out*.

Unless otherwise specified in the these documents the use of ordinary Portland cement blended with ground granulated blast furnace slag complying with SANS 1491, or ordinary Portland Cement blended with Pulverised Fly Ash complying with SANS 50197-1/EN 197-1 shall be allowed in certain instances as an alternative, after acceptance of tender offer, but only with the approval of and at the sole discretion of Engineer. If not so specified in the documents the Contractor must demonstrate a saving in favour of the Employer together with this alternative.

PS4.2.19.2 Sand (Fine aggregate)

The fine aggregate shall comply with the requirements of SANS 1083. Other aggregates may be approved if they have a satisfactory history and/or test results.
No aggregate may be used until it has been approved. Samples having a mass of 25kg (16,5l) of the aggregate proposed to be used may be required by the Engineer or his duly authorized representative for test purposes. Samples having a mass of 25kg shall be forwarded every 3 months during concreting work and also if the source of supply is changed. Allowance must be made for possible delay in that the tests may take 14 days to carry out.

PS4.2.19.3 Stone (Coarse aggregate)

a) The coarse aggregate shall comply with the requirements of SANS 1083. No aggregate may be used until it has been approved. Samples having a mass of 25kg (16,5l) of the aggregate it is proposed to use may be required by the Engineer or his duly authorized representative for test purposes. Samples shall be forwarded every 3 months during concreting work and also if the source of supply is changed. Allowance must be made for possible delay in that the tests may take 14 days to carry out.
NOTA BENE: Certain fine grained sand and stone originating from the Beaufort Series and Karoo Systems which are known by reputation, local experience or tests, to exhibit excessive shrinkage when used in concrete, may be deemed unacceptable by the Engineer or his duly authorized representative.

b) A certificate of proof is required from the Contractor that the aggregates are not alkali-reactive. The cost of testing and certification are to be borne by the Contractor.

PS4.2.19.4 Concrete

Concrete shall be of the classes given in the following table. The proportions of the ingredients and the nominal size of the coarse aggregate for each class shall be as laid down therein:

Class	Cement	Aggregate			Strength (MPa)
	Part	Fine	Coarse	Size	
		Part	Part		
A	1	4	8	50	10
B	1	3	6	38	15
C	1	3	6	19	15
D	1	2	4	38	25
E	1	2	4	19	25
F	1	1 ½	3	19	30

G	1	1	2	19	40

The strength given in the above table shall be the minimum required at 28 days. Unless otherwise specified Class B concrete shall be used for mass concrete and Class E concrete for reinforced concrete.

Maximum concrete slumps acceptable for different types of construction concrete are as follows:
a) Vibrated reinforced concrete = 50mm
b) Un-vibrated reinforced concrete = 75mm
c) Mass concrete = 75mm
When so required by the Engineer or his duly authorized representative, and whilst concreting is in progress, the consistency of the mixture shall be ascertained by means of the slump test as later described herein.

PS4.2.19.5 Volume batching

The coarse and fine aggregate shall be measured by volume and, unless otherwise directed, cement shall be measured by mass: the volume of a 50 kg bag of cement shall be taken as 33l. Suitable measuring boxes for the coarse and fine aggregates shall be provided to the approval of the Engineer or his duly authorized representative.

The proportions given above are approximate only, and should the Engineer or his duly authorized representative consider that the voids in the coarse aggregate require more or less matrix than is formed by the proportions specified, he may vary the quantities of coarse and fine aggregates to obtain the required density and workability of the concrete, provided that the proportion of cement to the total volume of the aggregate shall not be less than that specified.

When the sand is not completely dry, allowance must be made for bulking due to the moisture content. The amount of bulking shall be determined by the Contractor in the presence of the Engineer or his duly authorized representative.

The amount of water shall never exceed 34l to every bag of cement used, including the water contained in the sand.

Effective screens shall be provided to protect the mixing of concrete during windy weather.

PS4.2.19.6 Weigh batching

The proportioning of the coarse and fine aggregates by mass shall be permitted, providing the method used is approved by the Engineer or his duly authorized representative.

a) All requests received by the Engineer or his duly authorized representative to make use of weigh batching shall be submitted to the Structural Engineer for approval.

b) If the weigh batching process is preferred to volume batching, the proposed mix proportions are to be equivalent to the relevant volumetric mixes as documented previously herein and be based on a minimum cement content.

c) The following procedures must be complied with:
   i) The Contractor must timeously obtain written approval for the use of weigh batching and submit all information as set out below, with his application.
   ii) The mix transformation from volume to weigh batching shall be carried out at an approved laboratory.
   iii) Weigh batching equipment must be calibrated and a certificate of accuracy must be submitted before such equipment may be used. On contracts of long duration and/or requiring large quantities of concrete, new calibration certificates may be required every four months.
   iv) The cement to aggregate ratio by volume for the following mixes shall apply:
      - Class C (15 MPa) - c/a = 1:9
      - Class E (25 MPa) - c/a = 1:6
      - Class F (30 MPa) - c/a = 1:4.5
      - Class G (40 MPa) - c/a = 1:3

   v) The following cement/water ratios by mass must also be complied with:
      - Class C (15 MPa) - c/w = 1.30 to 1.35
      - Class E (25 MPa) - c/w = 1.65 to 1.80
      - Class F (30 MPa) - c/w = 1.90 to 2.05
      - Class G (40 MPa) - c/w = 2.30 to 2.50

PS4.2.19.7 Ready mixed concrete

Any application to use ready mixed concrete shall be submitted by the Contractor at an early stage for approval by the Structural Engineer. Only suppliers on the Employer's approved list shall be considered.
New applications must be submitted to the Employer, well in advance.

PS4.2.19.8 Strength concrete

The Contractor shall be responsible for the design of strength concrete and for the measurement of the constituent materials to produce concrete that complies with the specified requirements.

a) Trial mixes

The Contractor shall ensure that samples of the constituent materials of the concrete, together with evidence that they comply with the provisions, are supplied for approval in good time and provide the Engineer or his duly authorized representative with:

i) a statement from an approved independent laboratory of the results of tests; or
ii) an authoritative and acceptable report, or record of the previous use of and experience with, the material concerned.

The cement, types of aggregate and their origins shall not be changed throughout the duration of the Contract without giving prior notification to the Engineer who shall verify that the above requirements are complied with and that the important qualities of the concrete shall not be impaired.

b) Consistency

Unless otherwise indicated by the general workability of the concrete, method of transportation, conditions of placement or otherwise specified by the Engineer, the suggested slump values, for different mixes of concrete shall be as specified in this document.

c) Workability

Ensure that the concrete is of such workability that it can be readily compacted into the corners of the formwork and around reinforcement without segregation of the materials and without excessive "bleeding" of free water at the surface.

PS4.2.19.9 Expansion alkali-aggregate reaction

The use of some local aggregates may lead to an expansive alkali-aggregate reaction if the concrete in the structure shall be exposed to continual dampness, or shall be subject to alternate wetting and drying.
Alkali reactive aggregates, i.e. certain granites, quartzites and Malmesbury hornfels (shale), shall not be used in conjunction with high alkali cement for concrete in any part of the works. Where a high alkali cement shall be one in which the equivalent alkali content exceeds 0,60% by mass of the cement.
If the Contractor chooses to use one of the aggregates stated above in lieu of stone as described in this document he shall:

a) ensure that no high alkali cement is delivered to the site. Any such high alkali cement shall be rejected and the cost of its removal and replacement with cement having an acceptable alkali content shall be borne by him.
b) provide certificates stating the alkali content of each delivery of cement to the site, based on tests carried out at a laboratory approved by the Engineer. The cost of testing, including sampling, transporting of samples and issuing of certificates, shall be borne by him.
c) be entitled to use an approved brand of cement as a means of ensuring that the permissible alkali content is not exceeded. Where he shall make allowance for the higher price of such approved brand, if he chooses to use this method.

PS4.2.19.10 Pumping of concrete

The placing of concrete by pumping in any section of the works shall be subject to the written approval of the Engineer or his duly authorized representative. The Contractor shall furnish full details regarding the mix proportions of the concrete that he intends to place by pumping.

PS4.2.19.11 Admixtures to concrete

The use of admixtures in concrete shall only be considered should special circumstances warrant this and only with the prior written approval of the Engineer. The Contractor shall provide the following information:

a) the trade name of the mixture, its source and the manufacturer's recommended method of use;
b) typical dosage rates and possible detrimental effects of both under and over dosage; and
c) the expected average air content of freshly mixed concrete containing an admixture which causes air to be entrained when used at the manufacturer's recommended rate of dosage.

PS4.2.19.12 Slump test

The apparatus and the method of determination of the slump of freshly mixed concrete shall comply with SANS 5862-1.

a) Apparatus

i) A mould in the form of a frustum of a cone and having the following nominal internal dimensions:
   - Bottom diameter : 200mm
   - Top diameter : 100mm
   - Height : 300mm

   The mould shall:
   - be of a metal (other than brass or aluminum) of side thickness at least 1.6 mm and shall have a smooth internal surface.
   - have suitable base plate and handles to facilitate lifting it from the test specimen in a vertical direction.

ii) The tamping bar shall have a nominal diameter of 16mm, a length of 600mm and with sharp corner rounded off at one end.

b) Procedure:
The test shall be carried out in an area that is free from vibration and shocks. Ensure that the internal surfaces of the mould are free from set concrete and are clean and dry.
Place the mould with the bottom on a smooth, horizontal, rigid, non-absorbent surface and hold the mould firmly in place while it is being filled as follows:

i) in four layers, each thickness approximately one-quarter of the height of the mould. Tamp each layer with 25 strokes uniformly spaced over the cross-section of the mould. Tamp the bottom layer throughout its depth and ensure that when tamping the second and subsequent layers the strokes penetrate into the underlying layer.

ii) after the top layer has been tamped, strike off the concrete level so that the mould is exactly filled. Clean off any concrete that may have leaked out between the mould and the supporting base-plate surface. Remove the mould from the concrete immediately by slowly and carefully raising it in a vertical direction. This shall allow the concrete to subside.
   Immediately measure the slump, to the nearest 5mm, by determining the difference between the height of the mould and the height of the specimen.
   Regard the test as invalid, if a slump specimen collapses or shears off laterally, discard the result and repeat the test.

PS4.2.19.13 Concrete cubes

The apparatus for making and testing of concrete cubes shall comply with SANS 5863.
a) Apparatus
Cubic metal moulds shall:

- be steel;
- be machined and adequately strengthened to resist distortion;
- have an internal distance between faces of 150mm;
- be constructed so as to facilitate the easy removal without damage of the moulded specimen; and
- have a metal base plate which shall be attached to the mould by springs or screws.

When assembling the mould for use, the joints between the sections of the mould, the contact surfaces between the bottom of the mould and the base plate, and the internal faces of the assembled mould shall be thinly coated with a grease or oil that shall prevent leakage of water through the joints and adhesion of the concrete to the mould.

The tamper must be a steel bar of length 400mm and mass 1.8kg, and having a 25mm square ramming face.

b) Sampling and making cubes
Sampling shall comply with SANS 5861-2.

One set of 3 cubes shall be required for every 40m^3, or part thereof, of concrete cast. The sample taken from a batch of concrete and sufficient to make 3cubes shall be placed in a tray or on a platform and mixed thoroughly.

The moulds shall each be filled in 3 layers of approximately 50mm thick concrete. Each layer shall be compacted with the tamping rod, with at least 35 blows to give full compaction of the concrete.

After the top layer has been compacted, strike off the surface of the concrete with a trowel, level with the top of the mould.

Any small hollows shall be filled in with additional concrete. Cement/sand slurry shall not be worked into the surface.

At this stage, the identity of each sample shall be placed on the moulded cube, by means of a label of absorbent material and not by scouring of the surface of the concrete.

c) Curing cubes on site
Cover the test cubes in their moulds with an impervious sheet or wet sacking and store indoors in a place that is free from vibration, excessive draughts, cold and direct sunlight.

After 24 hours the cubes shall be demoulded, remarked with a waterproof crayon or marker and placed in a curing tank for 7 days before being transported to the laboratory.

The Contractor shall supply the curing tank which shall incorporate a thermostat to control the water temperature at 22 to 25°C and shall be kept within a building.

d) Testing of cubes
The testing of all concrete cubes shall be done in accordance with SANS 5863 by a laboratory approved by the Engineer.

A suitable testing machine of sufficient capacity having an accuracy and repeatability that comply with the requirements for Grade A machines of BS 1610 "Method for the load verification of testing machines" shall be used to test the compressive strength of each cube.

The Contractor is responsible for the provision of the cube moulds and for timeous delivery of the cubes to the laboratory.

PS4.2.19.14 Concrete quality
Should the Contractor dispute any results obtained from concrete test cubes, the concrete represented by the cubes shall be considered acceptable if the Contractor, at his own cost, proves to the satisfaction of the Engineer that the estimated actual strength of cores taken from the structure (by an approved independent testing laboratory and determined in accordance with SANS 5865 is not less than the specified strength. If the concrete fails to meet the strength criteria stipulated, the Engineer may at his sole discretion and in addition to the options listed in SANS 1200G:
a) accept the concrete subject to approved remedial measures being undertaken by the Contractor at his own cost; or
b) permit the concrete to remain, subject to reduced payment for lower strength concrete.

PS4.2.19.15 Concreting
It is essential that the Contractor representative who has charge of the construction of all concrete work, whether reinforced or not, shall be skilled in this class of work, and shall personally supervise the whole construction, paying special regard to:
a) the quality, testing and mixing of the materials;
b) the laying of the material in place and the thorough compaction of the concrete to ensure solidity and freedom from voids;
c) the construction and removal of formwork; and
d) the sizes and positions of the reinforcement.

Particular care shall be taken to work concrete against formwork and around reinforcement. Internal vibrators may be used with the approval of the Engineer or his duly authorized representative but external vibrators which act only on the formwork WILL NOT be permitted.

Concrete to be reinforced shall be deposited in such quantities as shall permit of it being properly compacted around the reinforcement.

The placing of concrete shall be completed within ½ hour after mixing or within ½ hour after agitating and within 2,5 hours after mixing in the case of ready mixed concrete. Under no circumstances shall concrete be incorporated into the work after it has attained its initial set.

Care shall be taken to prevent, as far as possible, the formation of laitance or scum. Laitance is to be understood to mean the scum of strengthless and inert material which forms on the surface of concrete.

Concrete shall not be dropped into position from a height greater than 2.5m unless prior approval is obtained from the Engineer.

If an inclined chute is used for transporting concrete, it shall be of such slope as shall ensure a continuous flow of concrete without the use of an excessive quantity of water and without segregation of the aggregates. The chute

must be flushed out and properly cleaned before and after each working period. All waste from flushing shall be discharged outside the formwork.

In beams, each portion of a successive layer shall be placed as soon as the concrete below has been properly worked around reinforcement and against formwork. Concreting shall be carried forward in irregular steps, that is to say, one layer shall not be completed over the whole section before the succeeding layer is commenced. Concreting of slabs and beams shall, as far as possible, be carried forward in one operation. When concreting has to be interrupted the concrete shall be left with a level, rough top surface with ends vertical. The concrete shall not be merely sloped down.
On resuming concreting, the old surface shall be roughened and all laitance thoroughly and carefully removed before any new concrete is deposited. This must be carried out by brushing the surface of the concrete while it is still green. Great care must be taken to avoid any weakness at the junction of old and new concrete, and the old surface shall be coated with a thin layer of cement and sand mortar, in the same proportions as that of the adjoining concrete.
While the concrete is setting it shall not be disturbed or shaken by traffic, either on the concrete itself or upon adjoining formwork.

No holes in concrete elements shall be patched or filled in without inspection, instruction and approval of the Engineer or his duly authorized representative.

No concreting shall be carried out when the air temperature is below 4°C when it is rising and 8°C when it is falling.

Before concreting is commenced the Contractor shall give the Engineer or his duly authorized representative 24 hours notice of his intention to do so. On sites further than 200km from the Engineer or his duly authorized representative, 48 hours notice must be given.

Concrete surface beds, excluding heavy industrial floors etc. shall be Class C concrete and shall be laid in suitable size panels not exceeding 20m^2 in area and with the length of any panel not exceeding 4.5m.

Where concrete beams are supported on concrete columns, the columns are to be concreted up to the underside of such concrete beams and then concreted up to the top of the beams, integral with the beams.

NOTA BENE: Any finish applied to the surface of concrete floors, is to be understood as being additional to the thickness of the concrete described or shown on the drawings.

PS4.2.19.16 Curing of concrete

After the concrete has been placed, all exposed surfaces shall be kept continuously damp for at least
10 days by methods as may be approved by the Engineer or his duly authorized representative, such as covering with approved building paper, or by means of wet canvas, wet sacks, wet sand, by continuous hosing or ponding with water.

PS4.2.19.17 Concrete lintels (cast in-situ)

Concrete lintels cast *in-situ* shall be of Class E concrete, reinforced with steel reinforcement as well as of depths specified in the table hereunder. Each lintel shall be the full thickness of walls into which they are cast and 450mm longer than width of openings.

Clear or daylight span	Depth in brick courses	Reinforcement
< 1m	3	Nil
≥ 1m ≤ 1.5m	3	One 12mm diameter mild steel rod, 40mm up from bottom, for each half brick width of soffit.
> 1.5m ≤ 2m	4	One 16mm diameter mild steel rod, 40mm up from bottom, for each half brick width of soffit.
> 2m	To detail	To detail.

PS4.2.19.18 Building on concrete footings and beams

No brickwork, stone walling or other structure shall be built on concrete footings until at least 3 days after placement of the concrete in the case of mass concrete footings and after 7 days in the case of reinforced concrete footings or as may otherwise be directed by the Engineer or his duly authorized representative.

No brickwork, stone walling or other structure shall be built on reinforced concrete beams or similar members until the formwork and all propping or supports have been removed.

PS4.2.19.19 Slip joints between concrete and brickwork
Slip joints shall be provided between brickwork and concrete slabs and beams by levelling up and trowelling smooth the bearing surfaces of brickwork with 3:1 cement mortar and covering the bearings before the concrete is cast, with two layers of one side smooth tempered hardboard, with the smooth sides in contact.

The ends and sides of beams and edges of concrete slabs shall be separated from the brickwork with 13 mm thick bitumen impregnated softboard or expanded polyethylene strips placed vertically against the brickwork before the concrete is cast.

Similar slip joints shall be provided between brickwork and concrete lintels cast *in situ,* but without softboard or expanded polyethylene strips at ends.

PS4.2.19.20 Movement joints
All movement joints are to be filled in with approved bitumen impregnated softboard or expanded polyethylene strip unless otherwise specified or detailed on drawings. Form similar movement joints where pathways adjoin structures externally.

PS4.2.19.21 Cutting, punching or hacking concrete
No reinforced concrete shall be cut or hacked without the approval of the Engineer or his duly authorized representative.

PS4.2.19.22 Forming key to concrete for plaster and other finishes
Where rough formwork has been used, surfaces of concrete to receive plaster and other finishes, shall, immediately after the formwork has been removed, be well wetted and wire brushed whilst the concrete is still green and then slushed over with 2:1 cement grout to form a key for the finish, all to the approval of the Engineer or his duly authorized representative. The slushing is to be allowed to set hard before the finish is applied.

Where smooth formwork is used, surfaces of the concrete to receive plaster and other finishes shall be hacked, on the distinct understanding that hacking of concrete shall be at no extra cost.

Surfaces of concrete receiving plaster or other finishes shall not be plastered or finished until the Engineer or his duly authorized representative has signified his opinion that the surfaces are suitable to receive plaster or other finishes.

PS4.2.19.23 Sleeves pieces
Where it is necessary to leave plugs or holes in beams, slabs or any other reinforced concrete, all such plugs or holes must be situated in positions approved by the Engineer or his duly authorized representative before concreting. Where it is necessary to carry pipes, bolts, wires or any other fittings through reinforced concrete members, approved pipe sleeves must be provided and placed in position before concreting.

Where waste, ventilation, water, heating or other pipes less than 100mm diameter pass through concrete slabs and beams, uPVC (class 16) sleeve pieces of diameters shown or required shall be cast into such concrete slabs and beams.
Chases shall be formed in edges of slabs or slots shall be formed in the slabs, of sizes required, where two or more pipes pass through together.

All necessary bolts, plugs, brackets, cramps, etc. shall be cast into the concrete as the work proceeds.

PS4.2.19.24 Ties
Where brickwork abuts against concrete, the brickwork is to be tied to the concrete with galvanized hoop-iron ties 1.6mm thick by 3mm wide and approximately 600mm long to every third course of brickwork with one end of each tie cast approximately 150mm deep into the concrete. Where such fixing is impossible, i.e. where steel formwork is used, the ties are to be gun-nailed against concrete with steel nails not less than 38mm long.

PS4.2.19.25 Bagged finish to concrete
Concrete surfaces to receive bagged finish shall be prepared by removing sharp projections and making good defects with 3:1 cement mortar. Finish by rubbing over the whole area with wet rough sacking and cement grout to obtain an even surface.

PS4.2.19.26 Power floated finish
Power floated finish to floors or slabs means that surfaces shall be floated mechanically to a smooth and even finish before the concrete has set. Small areas inaccessible to the machine are to be floated by hand. Under no circumstances is cement mortar to be added while floating the concrete.

PS4.2.19.27 "No-fines" concrete

"No-fines" concrete, for grading flat concrete roofs and the like to falls, shall be in the proportion of 12 parts 19 iron cubical stone to 1 part cement mixed with 20l water per bag of cement and be laid to falls of not less than 15mm per linear metre for mastic asphalt and not less than 20mm per linear metre for sheet roof covering. For heavy load applications special mix designs may be required.

a) Fillets against upstands
Form triangular fillets, size 75 x 75mm, in corners with walls, kerbs, etc. neatly mitred at angles, stopped where necessary and finished smooth ready to receive waterproofing.

b) To raised floors, bases and other
"No-fines" concrete for raised floors, bases, etc. shall be in the proportions specified. Finish smooth with 3:1 sand/cement screed to receive waterproofing.

PS4.2.19.28 Cellular concrete

Cellular concrete, for grading flat concrete roofs and the like to falls, shall be laid in situ in required layers; the bottom layer having a density of 400kg/m^3, dressed to falls by varying the thickness, and a 20mm thick top layer having a density of 960kg/m^3.

PS4.2.19.29 Formwork

Formwork shall include all shuttering, casing and centring of material required for the laying and forming of concrete floors, slabs, beams, lintels, walls, steps, columns, piers, pilasters and any other concrete work requiring moulds or forms and shall embrace all cleats, battens, fillets, wedges, struts, trestles, braces, props, shores and other requirements of material for keeping all in correct position. All materials used for formwork must be suitable and substantial and all joints must be tight enough to prevent leakage of liquid matrix.

All formwork must be designed by the Contractor and if requested to do so, he must submit fully detailed and dimensioned working drawings to the Engineer or his duly authorized representative for checking purposes. Acceptance of the proposals shall not relieve the Contractor of his responsibility for the safety and stability thereof nor for any loss or damage arising out of defective design, materials and/or workmanship.

The formwork must be so constructed that its partial removal can be carried out to the satisfaction of the Engineer or his duly authorized representative and in such stages as are required by the working conditions. As far as possible, wedges and clamps must be used in preference to nails. All formwork in its various sections for floors, beams, etc. must be so arranged that the whole may be raised or lowered either independently or together with other sections by means of wedges or other approved methods.

Immediately before concreting is begun, the formwork in contact with the concrete must be thoroughly cleaned, wetted and kept damp whilst the concrete is being placed.

Great care must be taken to keep the formwork wedged up to its correct height and this must be checked by taking levels immediately before concreting is commenced and immediately after it has been completed.

All beams shall have a camber of 6mm to every 3m of length.
The minimum periods that the formwork to the various parts of the structure is to remain in position after concreting shall be as stated in the following table:

Description	Normal cement		Rapid hardening cement	
	Weather		Weather	
	Normal	Cold	Normal	Cold
Beam sides, walls, unloaded columns	2 days	4 days	1 days	2 days
Slabs with props left under	4 days	7 days	2 days	4 days
Beam soffits with props left under including ribbed Slabs	7 days	12 days	3 days	5 days
Removal of slab props	10 days	17 days	5 days	9 days
Removal of beam props	14 days	28 days	7 days	12 days

When determining the stripping time for formwork the weather shall be considered to be "normal" when the temperature is above 18°C and "cold" when the temperature is between 5°C and 10 °C, these being the average daily temperatures of the atmosphere adjacent to the concrete. When the average daily temperature lies between

the above values for "normal" and "cold" weather the minimum period for stripping of formwork shall be determined by the Engineer or his duly authorized representative.

Notwithstanding the above minimum periods, formwork may be struck immediately, once the concrete in the various parts of the concrete work has attained the crushing strengths required by the Engineer or his duly authorized representative. The crushing strengths must be determined by proper tests, which shall be carried out by the Contractor.

No formwork of any nature shall be struck, either after the elapse of the minimum periods stated in the above table or on the attainment of the required crushing strengths of the concrete, without the prior consent of the Engineer or his duly authorized representative. Such consent shall not absolve the Contractor of his responsibility for the safety of the works.

In structures having either in whole or in part, two or more reinforced concrete floors, props shall be provided under the soffits of any beam or slab of any floor which is being used to support the formwork and wet concrete of the floor above, all to the approval of the Engineer or his duly authorized representative. The props shall not be removed until the formwork supporting the concrete of the floor above has been struck.

Under no circumstances shall steel formwork be oiled where concrete is to receive plaster.

PS4.2.19.30 Smooth formwork

Smooth formwork shall be any material approved by the Engineer or his duly authorized representative which is to be used to leave concrete surfaces smooth when removed and where no other finish is to be applied.

PS4.2.19.31 Reinforcement rods

a) Mild steel

Mild steel shall comply with the requirements of SANS 920, Type A or B.

b) High tensile steel

High tensile steel shall comply with the requirements of SANS 920, Type C or D.

PS4.2.19.32 Concrete reinforcement

a) Rod reinforcement

Bending and hooking of rods shall be done in accordance with SANS 282. Rods shall be bent cold in an effective bending machine, or properly designed rod-bender using a steady pressure and not by hammering.

Diameters, lengths and positions of rods as shown on the drawings must be strictly adhered to. Joints in rods in beams, stairs, etc. shall be permitted only where shown on drawings.

Before being placed in position, the rods shall be thoroughly cleaned of all grease, dirt, bituminous material, scale and loose rust.

All distribution rods shall be straight and shall extend at least 150mm into beams or other support. Unless otherwise shown on the drawings, all joints in reinforcing rods shall be lapped 40 times the diameter of the rod. The laps shall be securely tied with 1.25mm diameter annealed mild steel binding wire.

Reinforcement for piles, column footings, columns and walls shall be tied at every intersection, or as directed or shown on drawings, with similar binding wire. Reinforcement in beams shall be tied at alternate intersections in a diamond pattern, unless circumstances demand every intersection.

Great care must be taken to retain the reinforcement in its correct position during the entire period of concreting. Blocks of fine concrete, size approximately 40 x 40mm, or plastic spacers, shall be provided on the formwork to soffits of beams to ensure than the rods are retained in position and that the correct concrete covering to the main reinforcing rods is provided. The blocks shall be of thickness required and shall be placed under the main reinforcing rods at approximately 600mm centres.
Reinforcement in the top of slabs and the like shall be retained in position by means of cradles (stools), formed of steel reinforcing rod as follows:

- R10 for height range 100-300mm and maximum width of 300mm.
- R12 for height range 310-500mm and maximum width of 45 mm.

Recommended spacing of supports for horizontal bars in slabs:

- not further than 600mm apart (cradles ±1000 mm c/c in both directions) for bar diameters up to 12mm.
- not further than 1,000mm apart (cradles ±1 500 mm c/c in both directions) for bar diameters of 16mm and over.

Stools are to be placed on the bottom layer of reinforcement, securely retained in position and with correct concrete cover as specified. Cradles are to be securely wired to the slab reinforcement with binding wire. Beam rods in different layers shall be separated by means of steel spacer bars of suitable diameters and lengths.

Double mats in concrete walls shall be kept in their respective positions by means of suitable steel clips.

Recommended spacing of supports for vertical bars in walls:
- 1,000mm centres in both directions for bars up to 12mm diameter; and
- 1,500mm centres in both directions for bars of 16mm diameter and over.

Supports can be spaced more closely by the design Engineer, depending upon the circumstances.
All stirrups shall be properly fastened to the rods so as to retain their relative positions during the entire period of concreting.

Welding of main rods shall not be permitted unless approval has been given by the
Engineer or his duly authorized representative. Spot welding in lieu of wiring may be used to secure rods and stirrups in position.

The concrete covering the main reinforcement, unless otherwise specified, shall not be less than that stated in the following table:

Position	**Amount of cover**
Soffit of slabs	**The diameter of the main rods, but never less than 15mm (mm)**
End of beams	40
Soffits of beams	40
Sides of beams	40
Sides of columns	40
Slab underground	40
Concrete walls	25
Walls exposed to ground	40
Ground beams	40
Foundations	75
Water retaining structures and within 1 km from coast	50

In cases not included in the above table the cover shall be not less than 25mm. Depending on the condition of exposure and fire resistance requirements, concrete cover can be varied by the Engineer but in no case shall the concrete cover be less than the diameter of the rod to be covered.

The cover shall be measured from the face of the concrete to the outside of main reinforcement nearest the face of the concrete, and shall exclude plaster and similar finishing materials.

Three samples of each diameter of reinforcing rods, each approximately 600mm long, must be taken from each consignment of rods of similar diameter, for testing. If any sample is found unsatisfactory, the whole consignment of rods from which the samples were taken shall be rejected.

Top reinforcement in cantilever slabs to be kept in position with a first row of stools or chairs
300mm from the beam or support, and thereafter at a maximum of 40 bar diameters under each bar.

The cover blocks, spacers, bars and stools or chairs are to be placed and/or wired in position by the steel fixer.

Welded steel fabric reinforcement
All welded steel fabric reinforcement shall comply with the requirements of SANS 1024. The preferred dimensions are as follows:

1	**2**	**3**	**4**	**5**	**6**
Fabric Reference number	**Nominal pitch of wires**	**Nominal diameter of wires**		**Nominal mass***	
	Longitudinal (mm)	**Cross (mm)**	**Longitudinal (mm)**	**Cross (mm)**	**kg/m2**
617	200	200	10.0	10.0	6.17
500	200	200	9.0	9.0	5.00
395	200	200	8.0	8.0.	3.95

311	200	200	7.1	7.1	3.11
245	200	200	6.3	6.3	2.45
193	200	200	5.6	5.6	1.93
100	200	200	4.0	4.0	1.00
772	100	200	10.0	7.1	7.72
655	100	200	9.0	7.1	6.55
517	100	200	8.0	6.3	5.17
433	100	200	7.1	6.3	4.33
341	100	200	6.3	5.6	3.41
289	100	200	5.6	5.6	2.89
278	100	300	6.3	4.0	2.78
226	100	300	5.6	4.0	2.26
133	100	300	4.0	4.0	1.33

*These mass values are based on the wires having mass of 0,00785 kg/mm2 per metre of length.

The actual mass of the fabric should not differ from the nominal value by more than 6%.

PS4.2.20 Precast concrete

PS4.2.20.1 Materials

Cement, water, aggregates and reinforcement shall be as described under the concrete section.

PS4.2.20.2 Concrete, formwork and reinforcement

PS4.2.20.3 Concrete

Concrete shall be as described under the applicable concrete section(s). Unless otherwise specified a Class E concrete shall be used but with coarse aggregate of an appropriate size.

PS4.2.20.4 Mould units

The whole of this work is to be carried out by a specialist, who has appropriately skilled workers in this class of work.

All materials and finishes are to be to the approval of the Engineer or his duly authorized representative.

The moulds are to be properly constructed in the best and most up to date practice, made up in suitable sections with all necessary reinforcement, cramps, bands, bolts, etc. for fastening together and are to be constructed so that castings can be easily removed and the moulds re-used without distorting.

Those sections of the moulds which shall produce the finished faces of the units are to be specially prepared, perfectly smooth, except where the finish is of exposed aggregate, true to shape and coated with a suitable solution which shall prevent units adhering to the moulds, while not in any way discolouring the finished surfaces.

All cast units are to be properly cured and no units are to be fixed or built in until 28 days after casting.

Units are to be properly protected from the elements while curing and are to be kept wet for at least 10 days after casting by frequent spraying with clean water.

Form all necessary checkings, mortices, lugs, etc. for cramps and dowels when casting.

PS4.2.20.5 Smooth finish

Where described as "finished smooth from the mould" such surfaces shall have a layer composed of 1 part (volume) cement and 4 parts (volume) clean fine sand, packed against the faces of the mould before placing the concrete backing. The concrete backing shall be deposited into the moulds in a wet state (not dry pressed) whilst the facing is still wet.

Projections shall be rubbed off and faces shall be of even colour and free from blemishes, cracks and other imperfections. Salient angles shall be arris rounded.

PS4.2.20.6 Sizes

Sizes given are approximate, the Contractor shall be responsible for ascertaining the exact sizes based on actual measurements.

PS4.2.20.7 Reinforcement
Unspecified reinforcement required for manufacturing, handling and erection purposes and for reinforcing projecting and other unwieldy portions of blocks shall be provided by the Contractor at his discretion, but such action shall be highlighted to the Engineer.

PS4.2.20.8 Bedding, joint and pointing
Blocks shall be bedded and jointed solidly in cement mortar composed of 3 parts (volume) of sand and 1 part (volume) of cement and shall be pointed with slightly keyed joints.

PS4.2.21 Masonry
(Including brickwork and stone masonry)
NOTA BENE: Where sizes in descriptions are given in brick units, "one brick" shall represent the length and "half brick" the width of a brick.

PS4.2.21.1 Cement
Cement shall be as specified in the concrete section.

PS4.2.21.2 Sand
Sand shall comply with the requirements of SANS 1090, unless specialist advice is obtained. A sample of 25kg must be delivered to an approved laboratory for testing purposes.

PS4.2.21.3 Burnt clay bricks
a) Burnt clay bricks shall comply with the requirements of SANS 227, and shall be equal in all respects to the selected samples.
b) Clay bricks for foundations shall be as described in (a) above, but extra hard burnt.
c) Where bricks with holes are used, the holes in such bricks must only be filled in solid with mortar where specifically specified.
d) All bricks that do not carry the SABS Mark, must be tested by an approved laboratory.

PS4.2.21.4 Firebricks
Firebricks shall be of well burnt refractory fireclay, resistant to spalling and cracking and of same size as ordinary bricks.

PS4.2.21.5 Local stone
Local stone shall be from an approved quarry, free from defects and to the satisfaction of the Engineer or his duly authorised representative.

PS4.2.21.6 Freestone
All freestone shall be the best and most durable of its kind, free from vents, loose beds, oxide veins and other imperfections to the satisfaction of the Engineer or his duly authorised representative and shall be set on its natural quarry bed.

PS4.2.21.7 Mortar tests
a) Sampling
The frequency of sampling shall be decided by the Representative/Agent. Sufficient mortar shall be taken from each of the points of laying to prepare a composite sample to make a set of three mortar cubes.

b) Moulding
Cube moulds with a nominal size of 100mm, that comply with SANS 5863 must be used.
Fill each mould with mortar in three equal layers and compact each layer by means of a tamper. The tamper must be made of hard wood with a flat tamping surface with nominal dimensions of 50 x 25mm and shaped to provide a round stem of approximately 25mm diameter and long enough to afford sufficient hand grip. Immerse the tamper in water for 15 minutes before use.
Each layer of mortar must be compacted by means of 8 evenly spaced pressing strokes of the tamper. After the final layer has been tamped, the excess mortar must be struck off level with the top edges of the moulds.

c) Curing
Cover the test cubes (in their moulds) with an impervious sheet followed by wet matting, sacks or similar material, and store them in a place free from vibration, excessive draughts and direct sunlight.
After 24 hours mark each cube so that it can be identified. After 48 hours the cubes shall be removed from their moulds and placed into water in a curing tank at 22 to 25 °C for a minimum period of 7 days before they are

transferred to the approved testing laboratory. Ensure that loss of moisture is prevented during transportation and that they are well protected against damage.

d) Testing of cubes
The testing of all mortar cubes shall be done by a laboratory approved by the Engineer and in accordance with SANS 5863.

PS4.2.21.8 Cement mortar
Cement mortar shall be composed of 6 parts (by volume) of sand and 1 part (by volume) of cement. The material shall be mixed dry until of uniform colour and then water added and the mixture turned over until the ingredients are thoroughly incorporated. Cement mortar shall be produced in such quantities as can be used before commencing to set as no cement mortar that has once commenced to set shall be used in any way.

Care shall be taken in mixing cement mortar to remove from the mixing machine or platform any old mortar that has already set as such mortar may not be incorporated into any new batch.

Mortar should achieve the minimum required strength (in MPa) for the classes of mortar as set out in the National Building Regulations.

PS4.2.21.9 Compo mortar
Compo mortar shall be composed of 6 parts (by volume) of sand — depending on the quality of the sand available, 1 part of lime and 1 part of cement (by volume). The lime and sand shall be mixed dry, then mixed wet, before the cement is added, approximately ½ hour before using and the adding of the necessary additional water as required.

Compo mortar shall be produced in such quantities as can be used before commencing to set, as no compo mortar that has once commenced to set shall be used in any way.

Mortar should achieve the minimum required strength (in MPa) for the classes of mortar as set out in the National Building Regulations.

PS4.2.21.10 Brickwork
Brickwork shall be:
a) wherever practicable, built in English bond. No false headers shall be used and none but whole bricks employed, except where legitimately required to form bond.
b) built level and plumb with mortar as specified.
c) laid on a solid bed of mortar and all joints thoroughly grouted up solid throughout the whole width of each course.
d) carried up in a uniform manner, no one portion being raised more than 1.2m above another at any one time.

Clay bricks shall be well saturated with water, in the stack or dump, approximately 2 hours before being used. The tops of walls left unfinished shall be well wetted before work recommences.

NOTA BENE: *Cement or concrete bricks shall not be wetted.*

All rough and fair cutting, cutting of splays, skewbacks, chamfers, etc. shall be properly performed.
Form or leave all necessary openings for pipes etc. and make good after pipes etc. are fixed in position.

PS4.2.21.11 Brickwork in cement mortar
a) All brickwork below damp course level, all isolated piers three bricks wide and under, half brick thick walls and chimney stacks above ceiling level, shall be built in cement mortar as specified.
b) Brick arches and brick lintels shall be built in cement mortar as specified, but in the proportion of 3:1.

NOTA BENE: *This clause is essential where compo mortar has been specified.*

PS4.2.21.12 Mortar joints
Mortar joints to brickwork generally shall be 10mm in thickness with level bedding joints.
The joints in brickwork:
a) receiving plaster, tiling or similar finishes shall be raked out whilst the mortar is soft to form key for the plaster or mortar backing. The depth of the raking out shall depend on the condition of the bricks; i.e. the rougher the bricks on face the shallower the raking out and the smoother the bricks the deeper the raking out.
b) shall be flushed off where walls are to be bagged, in readiness for the bagging.

PS4.2.21.13 Grout in joints in brick foundation walls
All joints in brick foundation walls shall be grouted in solid with 3:1 liquid cement mortar to obviate any crevices for ant (termite) tracks.

PS4.2.21.14 Brickwork thicknesses
Walls built in two or three half brick thicknesses shall only be built where bonded brickwork (as specified) proves impractical or where required due to the prescribed bond of faced brickwork, all tied together with metal ties in accordance with SANS 28, of the Butterfly Types only, of sufficient length to allow not less than 75mm of each end to be built into brickwork. Ties shall be evenly spaced at not more than 1m apart to every third course and staggered.

PS4.2.21.15 Brickwork in linings
Brick linings to concrete shall be tied thereto with 4mm diameter galvanized crimped wire ties bent at ends and of necessary length to allow 75mm to be cast into concrete and 75mm of the other end to be built into brickwork and evenly spaced at not more than 1m apart to every third course and staggered.

PS4.2.21.16 Half brick thick walls
Half brick thick walls shall be built in cement mortar (as specified) and reinforced with 75mm wide brick reinforcement (as specified), 1 row to every 8 course in height, and built 100mm into main connecting walls. The reinforcement shall be lapped 150mm at end joints, where these are necessary, and 75mm at angles.

Brickwork shall be built level and plumb.

PS4.2.21.17 Beam filling
Beam filling shall be half brick thick, built up in mortar as used in the walls below, cut in between roof timbers and carried hard up to underside of roof covering and flushed up with mortar.

PS4.2.21.18 Reinforced brick lintels
Reinforced brick lintels shall be built with sound machine made bricks in 3:1 cement mortar with all vertical and horizontal joints filled solid with mortar throughout the required number of courses and to a distance of at least 330mm on either side of the clear opening.

The number of courses in lintels over the various size openings shall be as specified in the table hereunder and reinforcing steel wires or rods shall be built into the first horizontal joint over the bottom course to the number specified in the following table:

Clear or daylight span	Number of courses	Reinforcement
< 1m	4	One row 75mm wide brick reinforcement as described below, for each brick width of soffit.
≥ 1m ≥ 1.5m	6	Ditto
> 1.5m ≤ 2m	7	Three 6.3mm diameter mild steel rods for each half brick width of soffit.
> 2m ≤ 3m	8	Ditto

Brick reinforcement shall be of hard drawn mild steel comprising two 2.8mm diameter main wires spaced 75mm apart and 2.5mm diameter cross wires spaced at not exceeding 300mm apart, welded to main wires.

The reinforcing wires and rods shall be of length at least equal to the width of the clear opening plus 330mm at each end. The reinforcement shall be evenly spaced in the brick joints with the outer wires or rods having at least 20mm cover from face of brickwork.

Brick lintels in 270mm thick cavity walls shall be built with inner face of outer thickness, for a depth of three courses above soffit, covered with sheeting as for dampcourse, the full length of lintels, and space between the two thicknesses for the depth of the sheeting filled in solid with Class E concrete.
Where cavities continue above lintels, the sheeting shall be taken up and turned on to top of first course of brickwork to inner thickness of wall above the concrete filling in lintels. The sheeting is not required in lintels protected from the weather.
The lintels, except where built over pressed steel door frames and the like, shall be supported on temporary turning pieces of suitable and substantial construction left in position for at least 14 days for long spans (1 to 3m).

PS4.2.21.19 Hollow tile lintels
Hollow tile lintels shall be formed with approved 300 x 220 x 110mm burnt clay hollow tiles each having not more than 3 cavities. The tiles shall be set end to end and the cavities filled up solid with Class E concrete.

Lintels shall have bearings of not less than 220mm on walls at ends.

The lintels over the various size openings shall be reinforced as specified in the following table:

Clear or daylight span	Reinforcement
≤ 1m	One12mm diameter mild steel rod in upper and lower cavities
> 1m ≥ 1.5m	One16mm diameter mild steel rod in upper and lower cavities

The reinforcing rods shall be placed 12mm from top and bottom edges of concrete filling to upper and lower cavities respectively.
Lintels over openings not exceeding 1m wide in 1 brick thick walls shall be on flat and in all other cases shall be on edge using 2 or more lintels in walls 1 brick thick and over, built side by side, to make up the thickness of walls.

Lintels in 270mm thick cavity walls shall be in two 110mm thicknesses with inner face of outer thickness covered with sheeting as for damp-course, the full length and depth of lintel, and the space between the two thicknesses filled in solid with Class E concrete. Where cavities continue above lintels the sheeting in lintels shall be taken up and turned on to top of first course of brickwork to inner thickness of wall.

Lintels shall be made not less than 21 days before building in and shall be cured for at least 14 days by being kept damp in a shaded position.

The lintels shall be hoisted into position and bedded and grouted in solid in cement mortar.

PS4.2.21.20 Pre-stressed lintels

Pre-stressed lintels shall be vibrated concrete reinforced with stressed high tensile steel wires, or of burnt clay blocks with similar reinforcing wires embedded in grooves in the blocks in 1:3, cement:sand mortar, or of other approved form of construction.
Concrete in lintels shall attain a crushing strength of at least 34MPa at 28 days for ordinary and at 7 days for rapid hardening cement.

The reinforcing wires shall be of ductile high tensile steel wire not less than 4mm diameter and of tensile strength of at least 1,350MPa and shall be stressed to not less than 850MPa.

The lintels may be in a single width to the thickness of wall or may be in two widths, placed side by side, and shall have a depth of not less than 60mm. Top surface of lintels shall be suitably roughened, indented or shaped to give a good bond between the lintels and the mortar for the first course of brickwork above,

Lintels shall have bearings of not less than 225mm on walls at each end.

The number of reinforcing wires in lintels for the various wall thicknesses and spans shall be not less than specified in the table hereunder, and brick courses over lintels of the number indicated in the table and for the full length of lintels shall be built in 3:1 cement mortar with all joints filled solid with mortar:

Nominal wall thickness (mm)	Clear or daylight span	Number of wires (in total number of lintels used)	Number of brick courses over lintel
90 – 110	≤ 1.8m	2	3
90 – 110	> 1.8m ≤ 3m	3	4
180 – 230	≤ 1.8m	6	4
180 – 230	> 1.8m ≤ 3m	6	5
270	≤ 1.8m	7	4
270	> 1.8m ≤ 3m	7	5
340	As described for 1 of 230mm plus 1 of 110 mm, or 3 of 110 mm		

Lintels in 270mm thick cavity walls shall be in 2 widths with joint between the two arranged directly over the window or frame below, and the brickwork above shall be built in 2 x ½ brick thickness with inner face of the outer thickness covered with sheeting as for damp-course, the full length and depth of lintels, and taken down between the 2 widths of pre-stressed lintels. The cavity to height of lintel courses shall be filled with Class E concrete, and where cavities continue above the lintel courses the sheeting shall be taken up and turned on to top of first course of brickwork to inner thickness of wall above the lintel course. The sheeting is not required in lintels protected from the weather.

PS4.2.21.21 Bagged finish to brickwork
Bagging to walls is to be carried out after the mortar in joints has set. The wall surfaces shall be rubbed over with wet rough sacking until all joints and crevices are filled up and an even surface is obtained. Cement grout shall be added if necessary to fill up the joints and crevices.

PS4.2.21.22 Raking out for and pointing flashings
Brick joints shall be raked out where required for fixing cover flashings and flashings, which shall be pointed in 3:1 cement mortar.

PS4.2.21.23 Mastic pointings
Where steel door and window frames are specified to be pointed with mastic compound they shall be pointed all round externally with an approved waterproofing compound of such composition that it shall not stain surrounding surfaces and that it shall adhere steadfastly, remain plastic without sagging or running, be capable of accommodating any normal movement of the joint sealed, and shall receive paint without "bleeding". The pointing material shall be forced into the joints, which shall have been previously prepared to receive same, by means of a pressure gun or by other suitable method, all in accordance with the manufacturer's instructions.

PS4.2.21.24 Building in
Ends of timbers, holdfasts, cramps, gratings, air bricks, dowels, etc. shall be built-in in cement mortar.
Door and window frames, lift door frames and the like shall be set up in position for building in and securely strutted to prevent distortion whilst the brickwork, lintels, etc. are being built.

Pressed steel door frames and lift door frames shall be grouted in solid at back with cement mortar as the work proceeds.

Wood slips, fixing bricks, hoop iron roof ties, etc. shall be built in as the work proceeds.

PS4.2.21.25 Bedding
All door, window and similar frames shall be bedded and pointed in 1:3 (cement:sand) cement mortar. All wall and floor plates shall be set true and level and bedded in 1:6 (cement:sand) cement mortar.

PS4.2.21.26 Pointing of brickwork
Clean and point at the end of each working day all exposed masonry work including nail holes, existing brickwork shall be pointed, thus Pointing, repairing eroded and cracked mortar joints, shall be executed on existing and new brick where and when shown by the Engineer or his duly authorized representative. All disintegrated joints (erosions and/or cracks) shall be cleaned of all existing mortar for the full depth of the deterioration but not less than to a depth of 25mm. All joints shall be:
a) brushed and washed (under pressure) clean prior pointing;
b) kept wet during pointing; and
c) pointed to the full depth of the cut, tooled to match existing.

Steel door and window frames shall be carefully pointed all round and made perfectly watertight.

Joints greater than 25mm shall be stage-pointed.

PS4.2.21.27 Faced brickwork
Faced brickwork shall be built fair and pointed with a keyed or recessed joint as specified. Keyed joint shall mean that the joints are to be pointed with a round jointing tool, well pressed into the joints as the work proceeds.

“Recessed joint” shall mean that the joints are to be square recessed to a depth of approximately 6mm formed with a rectangular jointing tool well pressed into the joints as the work proceeds.

Facing bricks shall be sorted by the brick manufacturer at his yard or by the Contractor on the site to ensure that proper mixing of the bricks within the colour range of each type of facing brick being used is obtained. Sudden changes in the general colour of face work in any 1 type of facing brick shall not be acceptable.

PS4.2.21.28 Fibre cement sills
Sills shall where in any way possible be in single lengths, cut between reveals, fitted with fixing lugs and solidly bedded in 1:3 (cement:sand) cement mortar with a slight projection beyond the finished wall face below.

Internal sills shall be level. External sills shall be set sloping on cut brickwork.

PS4.2.21.29 Patching brickwork
Patching of existing walls and closing of openings shall be as shown. All brick shall be keyed to the existing or stepped every course with all surfaces flush with the existing surface and all joints kept on line.

PS4.2.21.30 Protect face brickwork
All face brickwork, stonework, tiling, etc. liable to damage shall be covered up and protected during the progress of the remaining work and any damage done shall be made good to the satisfaction of the Engineer or his duly authorized representative.

All face brickwork, stonework, tiling, etc. shall be cleaned down as the work proceeds and shall be covered up with paper, pasted on, or by other approved means where necessary to prevent soiling of the surfaces during the progress of the remaining work. At completion of the works the coverings shall be removed and the surfaces again cleaned down to the satisfaction of the Engineer or his duly authorized representative.

PS4.2.21.31 Cleaning
On completion of the work all masonry must be carefully cleaned down, removing all large particles of mortar with a putty knife or chisel. If acid is required for the removal of mortar stains (see note below), it shall be hydrochloric (muriatic) and not stronger than one volume of the commercial acid to nine volumes of water. Before the acid solution is applied, the surface should be thoroughly soaked with clear water, otherwise the mortar stain may be drawn into the pores causing a permanent dulling of the rich natural masonry colors. The acid solution should be applied with a long-handled stiff fiber brush, with proper precautions as to covering of clothing, hands and arms to prevent burns. It should not be placed over an area greater than 1.5 to 2.0m^2 before the wall is again thoroughly washed down, or preferably hosed, with clear water immediately after cleaning. It is important to remove all trace of the acid before it attacks the mortar joint. All frames, trim, sills, or other installations adjacent to the masonry must be carefully protected against contact with the acid solution.

All paving shall be thoroughly cleaned off after laying to remove all traces of mortar and other substances, covered up and protected from damage during the progress of the works and again
cleaned off at completion.

Any detergent or other materials used in the cleaning down of face brickwork etc. shall be of such nature that it shall not harm adjoining paint and other finishings in any way.

***NOTA BENE**: Whenever possible, smooth, light colored units should be scrubbed with warm water and soap powder in lieu of acid cleaning.*

PS4.2.22 General product requirements
PS4.2.22.1 Local content
Preference shall be given to materials fully manufactured in South Africa with South African raw materials.

PS4.2.22.2 Site service
The manufacturer shall be expected to supply samples free of any other additional charge, and the services of a qualified technical representative on all of the building sites pertaining to the particular contract in order to train the placing team in the correct application methods of the product during initial placing upon 1 week's notice.

Circumstances may necessitate follow-up inspections.

PS4.2.22.3 Shelf life
The shelf life of the offered product shall be stated and the expiry date displayed on each bag. The Contractor shall ensure that the product supplied shall survive the Contract Period, or replace the product at his cost.

PS4.2.22.4 References
The Contractor shall submit names and locations of projects in South Africa where the offered product has been in successful use for a period of at least 5 years under similar conditions and at similar rates. The Contractor shall:

i) make arrangements with the project owners for access for such visits, if the Engineer or his duly authorized representative wish to inspect such reference project sites.
ii) provide an acceptable alternative at the same accepted financial rate of the original proposed product, should the Engineer or his duly authorized representative find the product unacceptable.

PS4.2.22.5 Approved products
Only products that have been tested and which have been approved by the SABS shall qualify.

PS4.2.22.6 Application rates
As specified by the manufacturer.

PS4.2.22.7 Control testing
The Contractor shall be required to conduct control testing as and when requested by the Engineer or his duly authorized representative, proving the quality of the product used.

PS4.2.23 Specific work-related instructions
PS4.2.23.1 Return of removed meters and fittings
On completion of the ordered Works, the Contractor shall return all removed meter and/or fittings to the Employer's Ffennel Road Depot Laboratory, and all other fittings are to be returned to the applicable area depot.

PS4.2.23.2 Avoidance of contamination
The Contractor shall:
a) take reasonable care to avoid contamination of the mains whilst works are executed.
b) not stack pipes in the street or stormwater channels or surface watercourses or such place that may result in its contamination.

The open ends of all new pipes shall be protected to prevent entry of foreign materials or particles to the satisfaction of the Engineer or his duly authorised representative, until such pipes are connected to the existing operational main or lead and commissioned.

PS4.2.23.3 Damage to persons and property
The Contractor shall (except if and so far as the Contract provides otherwise) indemnify and defend at his own expense the Employer, its officers, agents, employees and servants from and against all suits, claims, demands, proceedings, and liability of any nature or kind, including costs and expenses, for injuries or damages to any person or any property whatsoever which may arise out of or in consequence of acts or omissions of the Contractor or his agents, employees, servants or sub-contractors in the execution of the Contract. The provision of this clause shall extend to suits, claims, demands, proceedings and liability in the nature of workmen's compensation claims and arising out of the use of patented inventions and devices. Provided always that nothing herein contained shall be deemed to render the Contractor liable for or in respect of or with respect to:
a) The right of the Employer to construct the Works or any part thereof on or through any land.
b) Interference whether temporary or permanent with any right of water or other easement which is the unavoidable result of the construction of the Works in accordance with the Contract.
c) Death, injuries or damage to persons or property resulting from any act or neglect of the Employer, his agents, servants or other contractors, done or committed during the validity of the Contract.

PS4.2.23.4 Interference with property access and traffic
All operations necessary for the execution of the Works and for the Construction of any Temporary Works shall, so far as compliance with the requirements of the Contract permits, be carried on so as not to interfere unnecessarily or improperly with the public convenience, or the access to, use and occupation of, public or private roads and footpaths to or of properties whether in the possession of the Employer or of any other person. The Contractor shall hold harmless and indemnify the Employer in respect of all claims, demands, proceedings, damages, costs, charges and expenses whatsoever arising out of or in relation to any such matters in so far as the Contractor is responsible therefore.

PS4.2.23.5 Contractor to keep site clean
During the progress of the Works, the Contractor shall keep the Site reasonably free from all unnecessary obstruction and shall store or dispose of any Constructional Plant and surplus materials and clear away and remove from the Site any rubbish or Temporary Works no longer required.

PS4.2.23.6 Clearance of site on practical completion
On the practical completion of the Works, the Contractor shall clear away and remove from the Site all Constructional Plant surplus materials, rubbish and Temporary Works of every kind and leave the whole of the Site and Works clean and in a workmanlike condition to the satisfaction of the Engineer or his duly authorized representative.

PS4.2.23.7 Testing
Testing of the various parts of the works shall be in accordance to the relevant standard specifications, or as required by the material manufacturer.

PS4.2.23.8 Contractor's responsibility

The Contractor shall be held responsible for damage to street or road surfaces, kerbing, storm water drainage channels (gutters), existing utilities, etc. that result from his negligence during the implementation of all works. The Contractor shall repair, at his cost, any damage resulting there from, which shall be subject to approval by the owner of such asset and the Engineer or his duly authorized representative.

PS4.2.23.9 No disturbance

The Contractor shall be required to perform Works at all surface boxes and chambers with limited and approved disturbance to the existing service provision.

PS4.3 Plant and materials

The Contractor is required to provide all plant and materials necessary to carry out the works as specified and required. No additional allowances other than those already specified in the Schedule of Rates shall be allowed for with respect to plant and materials.

PS4.4 Construction equipment

See clause PS4.3.

PS4.5 Existing services

The Contractor:

a) must make provision for the possible existence of numerous services (e.g.: Stormwater, Sewer, Eskom, City Power, Egoli Gas, Rand Water, Telkom, and the like) within and in close proximity to the work areas.
b) is to obtain way leaves indicating the location of existing services from all affected service providers prior to the commencement of construction. The Contractor is to comply with the conditions of the way leaves received from the various service providers.
c) is to ensure the protection and integrity of all existing services exposed and encountered through the course of construction activities. Adequacy in terms of protection of existing services shall be at the discretion of the Engineer. The Contractor is to make good the protection of and any breakages to existing services. The Contractor is to record on as built drawings the location of existing services or services which have been relocated during Contract Period.
d) must inform the relevant service provider immediately (within 2 hours of incident) such that procedures for the reinstatement of the service can be effected, should he damage or break an existing service (whether known or unknown).
e) is responsible to provide his own equipment in order to determine the location of existing services.

NOTA BENE: Drawings indicating other existing services in the vicinity of the Works are not guaranteed as being accurate, as all other services may not have been recorded or properly recorded. It shall remain the responsibility of the Contractor to perform preoperational work, to locate existing services in advance of the commencement of the Works.

PS4.6 Site establishment, facilities available and required

As the works areas are diverse and spread throughout the Midvaal Local Municipality, no provision has been made for site establishment. Storage and transport of fittings, materials and equipment shall be the responsibility of the Contractor.

Site will be established as per scope of work issued to the contractor, after the set scope is completed, the contractor will have to de-establish site.

PS4.7 Site usage

Site usage shall be limited to hours as specified in the Contract Data.

PS4.8 Permits and wayleaves

The Contractor shall be required to obtain permits and wayleaves from all the applicable service providers within the jurisdiction of the Midvaal Local Municipality.

PS4.9 Alterations, additions, extensions and modifications to existing works

The Contractor is required to verify the accuracy of all drawings and levels provided by the Engineer prior to commencing with any construction activities

PS4.10 Inspection of adjoining properties

The Contractor shall carry out inspections and evidence collection, as he deems appropriate, of properties adjoining the works to ensure that in the event of a claim arising from any of the owners of the adjoining properties for damage to property and the like, the Contractor has substantial evidence to support or refute such claims. The Contractor accepts full liability and responsibility for damage which he causes to adjoining properties as well as any costs involved in refuting or processing such claims.

PS4.11 Water, sanitation and electricity for construction purposes

PS4.11.1 Water

The Contractor shall make his own arrangements with the Midvaal Local Municipality to obtain a potable water metered standpipe connection for which at least 14 days' notice shall be given. The size of the connection provided will be as specified in the Water and Sanitation By-laws.

PS4.11.2 Sewer

The Contractor shall provide, maintain, move to positions as required and finally remove proper sanitary accommodation at each work front. Sanitary accommodation shall be properly screened and its use strictly enforced.

The situation of sanitary accommodation prescribed in terms of the Sanitary General By-Laws shall be approved by the Engineer as being convenient for the person for whose use it is intended. The sanitary accommodation provided must be adequately ventilated, properly disinfected and kept in a thoroughly clean condition at all times.

The Contractor shall bear all costs associated with the provision of sanitary accommodation. Compensation for these costs will be made under the relevant item in the Schedule of Quantities.

PS4.11.3 Power

The Contractor shall make arrangements with the relevant authority for the supply and distribution of power for purposes of this Contract, the cost of which shall be deemed to be included in the rates inserted in the Schedule of Quantities.

Power used for carrying out of the works in accordance with these Specifications will not be subject to measurement or payment.

PS4.11.4 Survey control and setting out of the works

The Contractor is to confirm the levels and coordinates of all benchmarks prior to commencing with construction.

PS4.12 Building in Pipework

Where pipework is to pass through or be set into concrete work, any external coating on the portion of pipe within the concrete work shall be removed, and the surface thoroughly cleaned.
The pipework shall be set into exact position in the shutters before the concrete is paced and the concrete thoroughly compacted and worked around the pipework. Alternatively, at the discretion of the Engineer and at no extra cost unless specifically provided for in the Bill of Quantities, holes may be left in the concrete into which the pipework shall be set, whereupon the space around the pipework shall be caulked with mortar having just sufficient water to ensure cohesion and water tightness and thereafter the caulking shall be properly cured. Pipework for final alignment may only be built into concrete by the alternative method.

PS4.13 Testing, disinfecting and scouring

This clause must be read in conjunction with clause 5.10 of SABS 1200L. Before trenches are filled in over joints, all pipelines are to be hydraulically tested by the Contractor to a pressure fixed by the Engineer, but not exceeding 75% of the pipe test pressure at the factory. All such tests are to be carried out in the presence of the Engineer at such times and in such sections as the Engineer may direct. The Engineer shall be given not less than three days' notice of readiness to test.

The Contractor shall provide the force pumps, pressure gauge, all necessary tools and fittings and the labour required for testing. He shall ensure that all valves in the section under the test are properly secured and closed and that no pipe or fitting will move.

The section to be tested shall be filled with water, care being taken that all air is expelled. The test pressure shall then be applied slowly by means of the force pump and shall be maintained by continuous pumping for at least 30 minutes or such longer period as may be necessary to permit thorough examination of all joints and fittings. There

shall be no perceptible leak throughout the whole length under test and the amount of water pumped into the pipeline to maintain the test pressure shall not exceed one litre per hour per 10mm diameter of pipe per kilometre of length being tested. Any defect revealed by the test shall be made good and the section shall be re-tested until a satisfactory test is obtained.

The length of pipe laid but not satisfactorily tested shall not exceed 600 metres, except with the permission of the Engineer.

Should the Engineer not be satisfied with the care taken by the Contractor in cleaning out the pipework before laying and excluding foreign material, the Contractor shall, after completion of testing, scour out the pipelines to remove foreign matter to the satisfaction of the Engineer. Thereafter disinfect the pipelines by filling them with heavily chlorinated water containing not less than 10 p.p.m. (parts per million by weight) of available chlorine, which shall be kept in the ice for 24 hours. The Contractor shall provide the necessary chlorine (Chlorine gas, chlorinated lime, calcium hypochlorite or other approved compound), all plant equipment and labour required to introduce the chlorine into the pipelines and do everything necessary for disinfecting the pipelines and refilling them with potable water. On completion of disinfecting the pipelines shall be scoured out, using at least twice the volume of water contained in the pipe work.

On completion, the pipelines shall be left full.

Only potable water obtained from an approved source shall be used for filling, testing, disinfecting and scouring the pipelines.

PS4.14 Work on live mains

The Council will provide guidance and assistance of a practical nature for the Contractor in matters related to the closing down and recharging of the existing water system when it is necessary for him to work on the system.

The Contractor shall give 24 hours written notice to the Engineer of his intention to operate on the live water system, stating fully the proposed plan for isolating, draining, cutting, connecting, recharging and opening up the mains.

The Contractor shall also provide each affected consumer with at least 24 hours written notice in advance of his intention to close the system down. The total period of shut down including drainage and re-charging may not exceed 4 hours. All such work must be carried out between the hours of 8 a.m. and 4 p.m. The extent and frequency of the shutdown must be to the satisfaction of the Engineer.

Included in the reasons for a shut-down as required by the Contractor will be the cutting out or installing of a valve or fitting, the cutting and plugging of a main, the installation of temporary mains or connections, and so on.

VALVE MATERIAL SPECIFICATION

Valve components shall be constructed of the material specified in the following tables, unless otherwise specified in the Project Specification:

Size DN mm	Pressure Rating kPa	Hydrauli Test Pressure kPa
40-600 mm	1600/2500/4000	2400/3750/6000

Component		Material Type	Material Specification
1	Main Valve Body & Cover	Ductile Iron	SABS 936 Grade 42
2	Diaphragm	Reinforced Rubber	EPDM
3	Stem Seat Disc Guide Cover Nuts, Bolts & Washes	Stainless Steel	316 Stainless Steel 316 Stainless Steel SABS 936 Grade 42 316 Stainless Steel
4	Pilots	Bronze with Stainless Steel Trim	ASTM B-62
5	Anti Cavitations Trim/V Part	Stainless Steel	BS 970 Part 4 Gr 316 S16

PS4.18 Laying and Joints

No installation of fire hydrants shall commence until the Engineer has approved the excavations, bedding, and chamber preparation. Hydrants shall not be installed in excavations containing free-standing water. All hydrants, valves, and fittings shall be set true to the lines, levels, and positions shown on the drawings or as directed by the Engineer, within the specified tolerances.

Open ends of pipes and fittings connected to the hydrants shall be securely closed at all times to prevent ingress of soil, debris, or other foreign matter. After installation, the hydrants and associated fittings shall be inspected by the Engineer for alignment, level, and correct positioning. Any defects or inaccuracies identified shall be rectified by the Contractor at his own cost.

All valves, hydrants, and fittings must be checked and confirmed to be in proper working condition before installation. They shall be correctly positioned as indicated on the drawings or as instructed by the Engineer, and where necessary, supported on approved bedding or concrete thrust blocks to ensure stability. Care shall be taken to avoid entry of loose material or foreign matter into hydrant connections or pipework during installation.

Backfilling shall only commence after the hydrants and pipe connections have been inspected and approved by the Engineer. Selected material shall be compacted evenly on all sides of the installation to ensure stability and protection.

Jointing of all pipework associated with the hydrants shall strictly follow the manufacturer's instructions, ensuring ends and joints are completely clean and free of grit prior to assembly.

PS4.19 Backfill

Following the inspection by the Engineer with respect to the grade, direction and line, as well as the successful testing of the pipeline, the Contractor shall promptly refill trenches and excavations.

Material and Method
The Contractor shall promptly refill trenches and excavations as soon as the works have been inspected, tested and passed by the Engineer.

The backfilling in contact with pipes and for a distance of 200mm above the barrels of the pipes shall consist of selected material from the excavations, free from excess clay, vegetable matter and stones. Shortages of selected material in any section of a trench shall be made up free of additional cost by borrowing from adjacent excavations containing a surplus of suitable material.

The selected material shall be brought up in 150mm layers, uniformly moistened to the optimum moisture content to attain the specified compaction and shall be thoroughly compacted round the pipes and joints. Special care shall be taken in filling joint holes and the selected material shall be firmly punned in, slightly moistened if required in order to ensure bearing for the length of each pipe.

Sufficient topsoil shall be set aside during excavation to form not less than the upper 150mm of backfill material for re-establishment of vegetation.

In no case shall any filling be deposited in water. Trenches shall be kept free of water until backfilling has been completed. From above the top of the selected backfilling, unselected excavated material, excluding stones larger than 150mm in any dimensions, shall be used for backfilling, which shall be compacted in layers not exceeding 150mm.

Only equipment approved by the Engineer shall be used for the compaction of the fill.

The superimposed loading resulting from the use of self-propelled or tractor-drawn compaction equipment shall not exceed the maximum external loading for any particular pipe in accordance with H20 Highway Loading as specified by the manufacturers.

The backfill shall be mounded to a height of 100mm above ground level with gaps allowed at regular intervals for cross drainage.

Immediately after completion of the backfilling all surplus materials shall be levelled off adjacent to the pipeline.

Any settlement during the excavation of the contract and the period of defects liability shall immediately be made good by the Contractor with topsoil of the same type as that adjacent to the trench.

The Contractor shall fill in with approved material and consolidate all cavities caused by slips, rain, floorings, etc. or any other cause whatever at his own expense, to the satisfaction of the Engineer.

The Contractor shall make good promptly, to the entire satisfaction of the Engineer at his own expense, during the whole period that the works are in his hands, including defects liability period and, as often as necessary, any settlement that may occur in the surface of roads, footpaths, private or public property, etc., caused by his trenches or excavations.

He shall be liable for any accidents caused thereby and repair at his own cost any damage caused to property by such settlement.

During the execution of the Contract, the Contractor shall maintain a regular patrol, particularly after rains, of all completed backfilled excavations, in order to locate any subsidence, which he shall make good

PS5 MANAGEMENT OF THE WORKS

PS5.1 Applicable SANS 1921 Standards

SANS 1921-1:2004: Construction and management requirements for works contracts Part 1: General engineering and construction works shall be applicable to this Contract

PS5.2 Programming

a) Planning

The Contractor shall ensure that he:

1) is well informed with regard to the Employer's overall implementation programme for the implementation of its prepayment programme and avail resources as required to efficiently complete each Works order; and
2) delivers good and services timeously as not to unnecessarily delay any other contractors, service providers and suppliers.

b) Programming

In order to ensure a clear understanding, at the inception of each Works Order, of the programming and documentation format requirements, the Contractor shall appoint a project programmer/ planner for liaison during the Contract. The Contractor shall for the Contract Period provide and regularly update (maximum monthly) a Contract/Works Order Programme.

PS5.3 Sequence of the works

The sequence of works to be executed shall be agreed between the Engineer and the Contractor.

Contractor shall address matters regarding the approval of his Health and Safety Plan, thereafter the works shall commence

PS5.4 Software application for programming

The construction programme shall be completed in Microsoft ® Project Standard 2007 or compatible software. The construction programme and updated versions thereof shall be made electronically available to the Engineer.

PS5.5 Methods and procedures

The methods and procedures for the execution of the works shall be in accordance with the standard specifications and the variations and additions thereto.

PS5.6 Quality plans and control

The Contractor shall be required to provide and maintain a quality plan to ensure that the quality of all work components is of a high standard.

PS5.7 Accommodation of traffic on public roads occupied by the Contractor

PS5.7.1 Accommodation of traffic

The Contractor shall ensure the safe accommodation of traffic at all areas where the work may impact traffic and shall provide all delineators, watching, lighting, signs and barricades required by the road authorities, and in **accordance with Chapter 13 of the South African Road Traffic Signs Manual**.

PS5.7.2 Access to properties

Adequate access shall at all times be maintained to public and private properties unless otherwise arranged and approved. Details of the proposed means of access shall be submitted before any such access is restricted. Claims arising from impeded access shall be the responsibility of the Contractor.
At least 7 days before commencing any work affecting access to a property, the Engineer and the occupier/owner of each such property shall be notified of the Contractor's intention to commence work, the date of commencement, expected duration and arrangements which shall be made regarding maintenance of access.

PS5.8 Other contractors on site

There may be other contractors working within the same area. As such, the Contractor is required to make adequate allowances for such possibilities. No claims with respect to works being carried out by other contractors shall be entertained by the Engineer.

PS5.9 Testing, completion, commissioning and correction of defects

The onus is on the Contractor to produce goods and services which shall conform in quality and in accuracy of detail to the requirements hereinafter specified. The Contractor must clearly understand that it is not the duty of the Engineer or his representative to act as foreman or surveyor on the Works.

The Contractor shall, at his own expense, provide experienced engineers, foremen and surveyors together with all transport, instruments and equipment for supervising, checking and controlling the work.

The act of passing any completed work or accepting materials or goods for payment by the Engineer shall not be construed as signifying approval or acceptance thereof. Failure on the part of the Engineer to reject any defective work or material or goods shall not in any way relieve the Contractor of his obligations under the Contract, nor prevent later rejection when such work or material is discovered.

The Contractor shall, when submitting any work to the Engineer for examination, satisfy himself by testing, measurement and otherwise as may be necessary that the work does in fact meet with the requirements of the Specifications. This information shall be submitted with the Contractor's request for examination and the Engineer shall be authorised to decide on the number and type of tests, measurements, etc. required to enable him to judge the quality of the work. The submission of this information shall in no way diminish the authority of the Engineer to conduct such tests as he may consider necessary in order to determine the quality of the work performed by the Contractor, nor shall he be bound to take account of the Contractor's tests, measurements, etc. should he consider these to be either incorrect or not representative.

Quality control and completion tests shall be in accordance with the relevant standard and amended specifications and additional specifications.

PS5.10 Recording of Weather and Abnormal Rainfall

If during the time for completion of the Works, or any extension thereof, should abnormal rainfall or wet conditions occur, then an extension of time in accordance with Clause 5.12.1 to 5.12.3 of the General Conditions of Contract shall be granted by the Employer, calculated on the critical path method. It shall be applied as follows:

A delay caused by inclement weather conditions will be regarded as a delay if, in the opinion of the Engineer, all progress on an item or items of work on the critical part of the working programme of the Contractor has been brought to 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 **10 (ten)** working days caused by normal rainy weather, for which he will not receive any extension of time.

Daily records of rainfall and activities within the critical parts affected shall be kept by the Contractor and signed by the Engineer's representative on the site. For this, accurate rain gauging shall be taken at a suitable point on the site, and the Contractor shall, at his own expense, take all necessary precautions to ensure that unauthorised persons do not interfere with the rain gauges. Failure to produce signed copies of the above records on a daily basis to the Engineer's representative on the site after the event having occurred will be deemed to be in breach of this Clause and will not be admissible for purposes of seeking an extension of time.

The Contractor shall be permitted to take his own rainfall measurements on site subject to the Engineer's approval, but access to the measuring gauge(s) shall be under the Engineer's control.

The Contractor is to provide and install all the necessary equipment for accurately measuring the rainfall as well as to provide, erect and maintain a security fence plus gate, padlock and keys at each measuring station, all at his own cost.

The values of Nn Rn, x and y for use in Clause 5.12.2.2 of the Special Conditions of Contract shall be as follows:
Source of Information : Weather Bureau, Department of Environment
Rainfall Station : Goudkoppies O475736A2, Lat 2616, Long 2755
Period : 1990 to 1999

Month	Nn	Rn	Month	Nn	Rn
January	10,9	116,1	July	0,2	0,7
February	6,8	84,9	August	0,9	3,9

March	8,5	112,8	September	2,7	16,5
April	2,8	24.9	October	7,2	92,5
May	1,5	18,3	November	9,8	88,0
June	0,5	1,6	December	11,6	130,9

Average Annual Rainfall 691,0
x = 20 mm
y = 10 mm

PS5.11 Format of communications
All communication shall be in writing and any verbal agreements shall only be binding once confirmed and agreed to in writing. Communication via, registered post, email or facsimile is acceptable.

PS5.12 Key personnel
PS5.12.1 General
The Contractor is to provide the Curriculum Vitae's of key personnel to be employed on the project as well as the person's position and responsibilities within the project team.

PS5.13 Management meetings
Fortnightly progress meetings shall be arranged and facilitated by the Engineer. Senior Contractor management staff attendance shall be compulsory.
The Contractor shall be required to provide reporting with regard to project progress, resources (human, plant and equipment), community issues, environmental and health and safety aspects.

PS5.14 Forms for contract administration
The Contractor shall maintain a file which shall contain project information related to project progress, resources (human, plant and equipment), community issues, environmental, health and safety aspects, penalties imposed, claims lodged and outcomes, disputes and resolutions, payment and variations.

PS5.15 Daily records
The Contractor shall keep daily site records as required by the Engineer or his representative and as specified herein. Daily records shall include, labour, plant, materials, rainfall, environmental issues, health and safety issues, daily diary and the like. Such records are the property of the Employer and shall be made available to the Engineer or his representative within 24 hours from being requested to do so.

PS5.16 Bonds and guarantees
The Contractor shall within 21 days from the date of Offer Acceptance by the Employer with a Surety Bond in the form of a Bank Guarantee, Bank Transfer or a Guarantee from an approved Insurance Company to the satisfaction of the Employer in the form included in the Tender Documents. The Bank Guarantee shall be for an amount equal to ten percent (10%) of the Tender Sum, for the due and punctual fulfilment and completion of all the Contractor's obligations under the Contract. No Extension of Time or any variation of the Contract nor the determination of the Contract by the Employer shall in any way impair or diminish or terminate any liability to the Employer under and by virtue of such Surety Bond. The cost of the Surety Bond to be so entered into shall be at the expense in all respects of the Contractor; the Surety Bond to be released upon issue of the Engineer's Certificate of Completion of the Works.
Should the Contractor, when notified of the acceptance of his offer, fail to provide an approved Surety Bond within 21 days, then the Employer may, at his sole discretion:

a. Grant the Contractor a further reasonable period in which to provide the bond; or
b. Withdraw his acceptance of the tender in which case the Contract shall be deemed to be void, but without prejudice to the Employer's rights to recover whatever damages he may have suffered by virtue of the Contractor's failure to fulfil his obligations.

PS5.17 Payment certificates
Payment certificates shall be submitted to the Engineer, in the format required on a monthly basis.

PS5.18 Permits
Refer to PS 4.8

PS6 FEATURES REQUIRING SPECIAL ATTENTION

PS6.1 Security

The Contractor shall be responsible to provide security on site(s):

a) as he deems necessary. The Employer shall not be held responsible for any loss or damage(s) suffered by the Contractor, his plant, equipment, materials, subcontractors or employees as a result of a security incident of any nature.

b) which have been identified, by the Engineer, as potential high risk areas requiring security during site visits for the duration of the contract. The Contractor shall arrange that the security meet with the Employer representative at a convenient and safe location and thereafter escort to the necessary areas.

P6.2 Operation of valves

Only employees of the Employer are permitted to operate primary and secondary water mains valves.

PS6.3 Work outside normal working hours

The Contractor is permitted to work outside of normal working hours only upon obtaining written permission from the Engineer. It is anticipated that all switch-over work (tying new infrastructure into existing) shall be completed during hours that shall not affect the supply of water to affected communities.

PS6.4 Sanitary facilities

The Contractor is required to supply adequate sanitary facilities for employees.

PS6.5 Community liaison and community relations

For the purpose of this project a community liaison officer may not be required; however the Contractor shall be required to inform the community with regards to his activities in particular where such activities may affect the service provision to the affected community (See PS6.6).

PS6.6 Notices and warning to consumers

The Contractor shall ensure he maintains service (water and/or sanitation) provision at all times whilst executing the works where:

a) The maximum amount of time of no service shall be 8 hours for any property. Any service disruption longer than 8 hours shall be temporary bypassed by methodologies approved by the Engineer or his duly authorized representative.

The Contractor must provide written notice to all consumers affected by the construction activities. The written notice shall outline the:

a) nature of the works;
b) expected inconvenience / disruption that the consumers can expect;
c) timeframes for construction; and
d) contact details in case of problems encountered.

PS6.7 Continuity of service supply to customers

The activities of the Contractor shall not unreasonably interfere with the service supply to customer and be executed outside the agreed and notice time frames.

Where the Contractor cannot reasonably re-establish services within times agreed and notice time frames he shall proceed to contact the affected customer and make alternative arrangements that shall be acceptable to the customer and the Employer.

The associated costs of any customer claim arising from a lack of service provision due to the Contractor's negligence or his disregard for the Employer's SOP or his disregard for the conditions of this Contract, whilst executing activities as per this Contract, shall be solely for his the account. The Engineer shall have the right to make equivalent monetary deductions from monies owed to the Contractor or from his Guarantee under this Contract and any other active contract(s) with the Employer.

PS6.8 Conditions and procedures for service agencies

The Contractor shall comply with the conditions and procedures of the various affected service agencies, as mandated in their associated wayleaves.

PS6.9 Generic labour intensive specifications

EPWP guidelines shall be applicable to this Contract.

PS6.10 Acceptance of works and causes for rejection

PS6.10.1 Acceptance of implemented and associated works

The Engineer or his duly authorized representative shall only accept works complying with the Employer's requirements and/or specifications.

PS7 HEALTH AND SAFETY FOR CONSTRUCTION WORK

Tendering Contractors are to prepare Health and Safety Plans. The legal imperatives for this requirement stem from the Construction Regulations (2003), and more specifically the following:

Regulation 4(1)(a): A client shall prepare a documented health and safety specification for the construction work, and provide any principal contractor who is making a bid or appointed to perform construction work for the client with the same

Regulation 4(1)(d): A client shall take reasonable steps to ensure that each principal contractor's health and safety plan is implemented and maintained on the construction site.

Regulation 4(2): A client shall discuss and negotiate with the principal contractor the contents of the health and safety plan and thereafter finally approve the health and safety plan for implementation.

Regulation 5(1): A principal contractor shall provide and demonstrate to the client a suitable and sufficiently documented health and safety plan, based on the client's documented health and safety specification.

PS7.1 Project-related Occupational Health and Safety Risks

According to the Construction Regulations (2003), a Health and Safety Plan "means a documented plan which addresses hazards identified and includes safe work procedures to mitigate, reduce or control the hazards identified". Apart from complying with the Health and Safety Specification, attention is drawn to the identification and assessment of risks. The tendering Contractors are required to consider *inter alia* the following risks (where applicable):

Project- and site-specific risks:

- Existing services;
- Third party exposures;
- Traffic control (heavy machinery);
- Operation of machinery;
- Use of portable electrical tools;
- Use of hand tools;
- Location of campsite;
- Overhead electricity cables;
- Excavation of trenches;
- Access to excavations;
- Safeguarding of deep excavations;
- Offloading of material;
- Storage of material;
- Storage of hazardous materials;
- Working in elevated positions;
- Arc welding;
- Handling of compressed gas cylinders;
- Electrical distribution boards; and
- Workshops.

Safe work and emergency procedures need to be prepared to address the abovementioned risks.

PS7.2 Guide to risk assessments

PS7.2.1 Nine steps to Effective Risk Assessments

Step 1 Identifying the current as well as emerging hazard, risks or exposures.

Step 2 Aim to identify major hazards, don't waste time on the minor and detail except if such hazard has the potential be repeat itself on a frequent basis.
Step 3 Involve as many people as possible in the ongoing risk assessment process especially those at risk.
Step 4 Gather all the information and analyze it.
Step 5 Look at what actually could or has occurred including non-routine operations.
Step 6 Use a systematic approach to ensure all hazards are adequately addressed.
Step 7 Assess the risks identified or the risk has occurred by taking into account the effectiveness of current as well as controls under consideration.
Step 8 Ensure the process is practical, realistic, cost and business effective.
Step 9 Always record the assessment in writing including i.e. assumptions, date and why a particular decision has been made.

PS7.2.2 How serious is it?

Probability

A Common
B Has Happened
C Could Happen
D Not Likely
E Practically impossible

Consequences

1 Fatality or permanent disability.
2 Major injury.
3 Average Lost Time Injury.
4 Minor Injury.
5 Medical Treatment or less.

Consequence	Probability A	B	C	D	E
1	1	2	3	4	5
2	2	3	4	5	6
3	3	4	5	6	7
4	4	5	6	7	8
5	5	6	7	8	9

Risk rating		Action
1 - 3 =	Serious	Immediate (within 1 week).
4 - 5 =	High	Within 1 month.
6 - 7 =	Moderate	> 4 weeks.
8 - 9 =	Acceptable	No action but will consider from time to time.

PS8 ENVIRONMENTAL MANAGEMENT PLAN

Environmental mitigation measures are actions needed to align a project implementation phase with environmental control principles, where potential impacts to the natural and social environment are prevented, minimised or remediated. Environmental safeguarding is governed by various sets of legislation, with the most noteworthy for this project constituting the National Environmental Management Act (No. 107 of 1998) and the National Water Act (No. 36 of 1998).

PORTION 2: VARIATIONS AND ADDITIONS TO THE STANDARDISED SPECIFICATIONS

SANS 1200A: CIVIL ENGINEERING CONSTRUCTION: PRELIMINARY AND GENERAL

VARIATIONS

Delete the following standard referenced clause:

Delete standard clause	Description	Comments
5.1.1	Setting out of the works	See clause PS 4.12: *Survey control and setting out of the works*
5.2	Watching, barricading, lighting and traffic crossings.	See clause PS 5.7 *Accommodation of traffic on public roads occupied by the Contractor*
8.8.4 (d)	Temporary protection, as required in terms of the project specification, of service.	Refer to SANS1200DB 8.3.5, It shall be deemed that the Contractor has allowed for all services protection under SANS1200DB 8.3.5 during all required construction activities.

Delete and replace the standard referenced clauses:

Delete standard clause	Replace with PSA...
5.4	**PROTECTION OF OVERHEAD AND UNDERGROUND SERVICES.** The Contractor shall be held responsible for any damage to known services (i.e. services that are within the Site of the Works and are shown on the drawings) and he shall take all necessary measures to protect them. All work or protective measures shall be subject to approval. In the event of a service being damaged, the Contractor shall immediately notify the authority concerned as well as the Engineer or his duly authorized representative. The Contractor shall not repair any such service unless instructed to do so. Where no underground services are shown on the drawings or scheduled but the possibility of their presence can reasonably be inferred, the Contractor shall, in collaboration with the Engineer or his duly authorized representative, ascertain whether any such services exist within the relevant section of the Site. The Contractor shall complete such investigation well in advance of the start of construction work in the said section and he shall make whatever arrangements are necessary for the protection, removal or diversion of the services before any construction work commences. As soon as any underground service not shown on the drawings is discovered, it shall be deemed to be a known service and the Contractor shall be held responsible for any subsequent damage to it. If such service is damaged during the course of its discovery, the cost of making good such damage shall be met by the Employer unless he establishes that the Contractor did not exercise reasonable diligence and that the damage was avoidable. Where the authority concerned elects to carry out on its own account any alterations or protective measures, the Contractor shall co-operate with and allow such authority reasonable access and sufficient space and time to carry out the required work. Permanent alterations to or permanent diversion of services necessitated by the execution of the Works and authorized shall be paid for in terms of the conditions of contract, but no such work shall be paid for if it has not been previously inspected and if proper written instructions have not been given.
5.8	**GROUND AND ACCESS TO WORKS.** The Contractor shall: a) occupy only such ground as is necessary to carry out the work. b) provide and maintain such access, if not already existent, to the various sections of the Works as he requires for the proper execution of the work.

	c) restore, to a condition at least equivalent to their original condition, all fences and other structures that have been damaged or interfered with.
8.2.2	**TIME-RELATED ITEMS** No payment shall be made for time-related items, as such is to be included in the pricing for the works.

ADDITIONS

Add the following clauses:

Standard clause	**Add PSA…**
5.2	*…at the end of the existing clause(s):* The Contractor shall comply with the requirements of the COP and PS 5.7. This clause shall be applicable for all other parts/sections of the works. The complete closure of any road shall not be permitted without the prior written consent of the Engineer or his duly authorised representative.
	… new clause: **5.9 Dealing with traffic** The Contractor shall comply with the requirements of the COP and PS 5.7. This clause shall be applicable for all other standard parts/sections of the works. **The complete closure of any road shall not be permitted without the prior written consent of the Engineer or his duly authorised representative.**

SANS 1200DA: CIVIL ENGINEERING CONSTRUCTION: EARTHWORKS (Small Works)

VARIATIONS

Delete the following standard referenced clause:

Delete standard clause	Description	Comments
5.1.8	Road Traffic Control	The Contractor shall comply with the requirements of the COP, PS 5.7 and PSA 5.9
5.2.6.2	Overhaul	Overhaul is not applicable.

Delete and replace the standard referenced clauses:

Delete standard clause	Replace with PSDA...
5.1.1.1	**5.1.1.1 Barricading and lighting** Delete the existing clause and replace with the following: In terms of the applicable regulation of the Machinery and Occupational Safety Act, 1983 (Act 6 of 1983) every excavation by which the safety of persons may be endangered, shall a) be adequately protected by a rubber mesh barrier / fence of height at least 1.2m and be placed as close to the excavation as practicable; b) Provide red warning lights at night. It shall be the responsibility of the Contractor to ensure that the barricades and lights remain functional at all times.
5.2.6.1	**5.2.6.1 Freehaul** All distances applicable are considered as free haul distances and no additional payment shall be applicable.
8.3.1 (c): (3) and (4)	**8.3.1 Excavation** c) Extra-over for: 3) Boulder excavation Unit: m^3
8.3.3	**8.3.3 Overhaul** Overhaul are not applicable hence all distances applicable are considered as free haul distances and no additional payment shall be applicable.

ADDITIONS

Add the following clauses:

<table>
<tr><th>Standard clause</th><th>Add PSDA …..</th></tr>
<tr><td></td><td>
3.4 CLASSIFICATIONS FOR HAND EXCAVATION

Classification of material for various types of hand excavation shall be based on the results of a dynamic cone pentronometer. The category of material shall be determined by testing the material at regular intervals and at various depths along the centre line of the trench. A minimum of 5 tests shall be done at each location and the average number of blows of the tests shall be used to determine the category of material.

The interval between test locations shall be determined by the variation of material type but shall not exceed 50m. The depth of testing shall be determined by the variation of material type and can increase or decrease in hardness with increasing depth of excavation. Table PSDB 3.8 indicates the categories:
TABLE PSDA: 3.4 CLASSIFICATIONS FOR HAND EXCAVATION
<table>
<tr><th rowspan="2">Category of Material</th><th colspan="2">Consistency</th><th colspan="2">DCP Blows to Penetrate 100mm</th></tr>
<tr><th>Granular</th><th>Cohesive</th><th>Granular</th><th>Cohesive</th></tr>
<tr><td><u>Soft</u>
Soft excavation shall be excavation in material that can be efficiently removed from the trench using a pick and shovel but not requiring prior breaking using mechanical equipment such as pavement breakers</td><td>Up to medium dense</td><td>Firm to stiff</td><td>0-6</td><td>1-5</td></tr>
<tr><td><u>Intermediate</u>
Intermediate excavation shall be excavation in material that require loosening with a hand spike (gwala) before being removed from the trench</td><td>Dense</td><td>Stiff to very stiff</td><td>7-15</td><td>6-8</td></tr>
<tr><td><u>Hard</u>
Hard excavation shall be excavation in material that requires prior breaking using mechanical equipment, such as pavement breakers with clay spades, before being removed from the trench.</td><td>Very dense</td><td></td><td>16-50</td><td>-15</td></tr>
<tr><td><u>Rock</u>
Rock excavation shall be excavation in material other than described above which by nature of the material requires prior breaking using mechanical equipment, such as pavement breakers with moil points, before being removed from the trench</td><td>-</td><td>-</td><td>>50</td><td>>15</td></tr>
</table>
</td></tr>
<tr><td></td><td>5.1.1.2 Safeguarding of excavations
g) The Contractor shall programme his activities in such a way that long sections of trenches do not lie open for undue periods of time, as it poses a security risk. The chambers shall be constructed as soon as possible after excavation and then backfilled. Under no circumstances shall excavations be left open for more than 1 week.</td></tr>
<tr><td></td><td>5.2.2 Excavation
h) Where the chambers are to be constructed in surfaced roads the Contractor shall neatly cut four parallel grooves into and through the asphalt before excavating between the grooves. The cost of</td></tr>
</table>

	this operation, where not scheduled separately it shall be deemed to have been included in the general rates for excavation. i) The Contractor shall maintain the bottoms of completed excavation in good condition. Excavation bottoms that are softened or eroded through stormwater, seepage water or otherwise, must be rectified by removal of the softened material and its replacement with approved material firmly compacted in layers not exceeding 150mm in compacted thickness or with 10MPa concrete where directed, at the Contractor's cost. The placing of hardcore or concrete screed shall be entirely at the Contractor's cost in any section of the work where softening of floors has been due to the method of excavation or inadequate provision for drainage. Bottoms of excavation in bad or waterlogged ground shall be excavated and replaced with hardcore filling, a hardcore base and/or a 20 MPa concrete screed as directed. i) Hardcore filling shall consist of 75 – 150 mm stone well rammed and compacted. ii) Hardcore base shall consist of 50 – 75 mm stone laid and compacted across the full width of the trench. Preparation of excavation bottoms shall be included in the schedule rates for excavation. Approved granular material imported to the site, or hardcore base, hardcore filling or concrete screed, used on trench floors shall be paid for separately, where such is not as a result of the Contractor's negligence.
	5.2.7 Backfilling In addition to the existing clauses, backfilling work shall be carried out in accordance with the COP.
	5.2.8 Disposal of unsuitable and surplus excavation material Excavated material that is unsuitable or has become surplus because of bulking, displacement by the chamber and/or pipework and importation shall be disposed of at approved tipping sites to be located by the Contractor. All unsuitable material shall be spoiled within 48 hours of excavation failing which the Engineer or his duly authorised representative shall be entitled to suspend work under the Contract. The prior approval of the Engineer must be obtained before surplus material may be deposited, spread and levelled at agreed sites within the area of the works.
	5.2.9 Construction in Headings Generally in soft material the buttresses and portions of ground left for the purpose of supporting the sides of the excavations or headings providing access to private properties, shall be broken down as the refilling and compaction proceeds.
	5.2.10 Compaction of areas subject to traffic loads In areas subject to traffic loading and in constructed footways compaction shall be done in accordance with the requirements specified in this Project Specification and the COP requirements.
	5.2.11 Kerbing Where the Contractor has, in the process of excavating, removed kerbing, of all types of shape and all material, he shall re-instate such kerbing to its original condition with regard to alignment (vertically and horizontally). This may include cleaning, but not patching. All kerbing damaged during the removal process shall be replaced at the cost of the Contractor.

SANS 1200DB: CIVIL ENGINEERING CONSTRUCTION: EARTHWORKS (PIPE TRENCHES)

VARIATIONS

Delete the following standard referenced clause:

Delete standard clause	Description	Comments
5.1.3	Accommodation of Traffic and Access to Properties	The Contractor shall comply with the requirements of the COP, PS 5.7 and PSA 5.9

Delete and replace the standard referenced clauses:

Delete standard clause	Replace with PSDB...

ADDITIONS

Add the following clauses:

Standard clause	Add PSDB…..
	PSDB8.3.1.1 Saw cut, remove and dispose of existing asphalt The rate shall cover saw, cut, removal, handling, transport and proper off-site site disposal of all types of existing asphalt and stone crush base up to a maximum thickness of 200 mm. **Unit: m^2** **PSDB8.3.1.2 Saw cut, remove and dispose of concrete (un-reinforced)** The rate shall cover saw, cut, removal, handling, transport and proper off-site disposal of existing un-reinforced concrete of maximum thickness 300 mm. **Unit: m^2** **PSDB8.3.1.3 Saw cut, remove and dispose of concrete (reinforced)** The rate shall cover saw, cut, removal, handling, transport and proper off-site disposal of existing reinforced concrete of maximum thickness 300 mm. **Unit: m^2** **PSDB8.3.1.4 Remove and temporarily store of paving block units** The rate shall cover removal, handling, transport and proper storage of all types of existing paving block units for later re-instatement. **Unit: m^2** **PSDB8.3.1.5 Remove and temporarily store of grass sods** The rate shall cover removal, handling, transport and proper storage and maintenance of existing grass in sods for later re-instatement. **Unit: m^2** **PSDB8.3.1.6 Remove and temporarily store all types of kerbing** The rate shall cover removal, handling, transport and proper storage of all types of existing kerbing for later re-instatement. **Unit: m** **PSDB 8.3.6 Finishing** **General** The width of any trench through an area grassed or paved with bricks or pre-cast concrete units shall be the minimum practicable width, which in the opinion of the Engineer is sufficient. In the case of blocks this minimum area will be the minimum area over which units (whether bricks or pre-cast units) can be removed without requiring cutting. The Contractor's rate for supply and lay of asphalt must provide for all plant, labour and material costs associated with the work, including inter alia: The cost of the asphalt and foamed concrete, the collection, transport to site and placing in accordance with the SANS 1200MH specifications. All wastage and overbreak re-instatement costs, including the purchase of the asphalt and foamed concrete.

	Add the following new clauses: **PSDB 8.3.6.1a Re-instatement of asphalt surfaces** The rate shall cover supplying, loading, transporting and re-instatement all layers complete to previous levels (or levels to suite proper stormwater drainage), and surfacing **Unit: m^2** **PSDB 8.3.6.1b Re-instatement of concrete, complete** The rate shall cover loading, transporting and re-instatement complete to previous levels (or levels to suite proper stormwater drainage), and surface finish of 15 MPa (minimum) un-reinforced concrete strength. The reinstated concrete shall also not exceed 300 mm but shall not be less than 50 mm.) **Unit: m^2** **PSDB 8.3.6.1c Re-instatement of paving blocks, complete** The rate shall cover loading, transporting and re-instatement complete with bricks/pre-cast unit-receival area preparation, compaction (minimum 90%Mod AASHTO density), levelling, 20 mm river sand bedding, laying bricks/units, plaster sand jointing, and compaction. **Unit: m^2** **PSDB 8.3.6.1d Re-instatement of grass sods, complete** The rate shall cover loading, transporting, and re-instatement complete with grass area including preparation, compaction, levelling, laying sods, topsoiling, and watering (water not from property supply). **Unit: m^2** **PSDB 8.3.6.1e Re-instatement of all types of kerbing, completing** The rate shall cover loading, transporting and re-instatement complete with sand-cement bedding, laying units, motar jointing, haunching, and backfilling, compaction (minimum 90 % Mod AASHTO density) and levelling behind kerbs. **Unit: m** **PSDB 8.3.6.1f Re-instatement Top soil** The rate shall cover loading, transporting, and re-instatement of all topsoil area, including preparation, compaction and levelling **Unit: m^2**

SANS 1200C: CIVIL ENGINEERING CONSTRUCTION

VARIATIONS

Delete the following standard referenced clause: None

Delete standard clause	Description	Comments

Delete and replace the standard referenced clauses:

Delete standard clause	Replace with PSC...
5.3 (d)	**CLEARING** (d) the removal of all rocks and boulders of any size that are lying on the surface to be cleared or exposed during clearing operations.

ADDITIONS

Add the following clauses: None

Standard clause	Add PSC…
	8.2.5 Take down existing walls and fences The rate shall cover the cost of taking down existing fences (including any gates), on-loading, transporting, and off-loading, storing and maintaining or spoiling for the following: Unit: m^2
	8.2.11 Removal of man-made surfaces The rate shall cover all plant, labour, material, saw cutting (asphalt and concrete), breaking up, lifting, loading, transportation, off-loading surfacing and storing (where applicable). Unit: m^2 a) Roadways, Asphalt and other layers i) Asphalt (≤ 50mm thick) and including base, sub-base and subgrades layers up to 800mm deep. ii) Asphalt (> 50 ≤ 100mm thick) and including base, sub-base and subgrades layers up to 800mm deep. b) Footways and driveways i) Asphalt ≤ 50mm thickness ii) Asphalt > 50 ≤ 100mm thickness iii) Interlocking concrete segmental paving blocks (all colours) iv) Concrete slabs (450 X 450mm) v) Brick paving vi) Unreinforced concrete ≤75mm thick vii) Reinforced concrete ≤75mm thick viii) Grassing ix) Kerbing (all types of kerbing) …….. (Unit: m)

Standard clause	**Add PSC…**
8.2.12.2	**Backfilling and reinstatement footways** Unit:m² Using removed materials: a) Interlocking concrete segmental paving blocks (all colours) b) Concrete slabs (450 X 450mm) c) Brick paving d) Grassing e) Kerbing

SANS 1200L: CIVIL ENGINEERING CONSTRUCTION: MEDIUM-PRESSURE PIPELINES

VARIATIONS

Delete the following standard referenced clause:

Delete standard clause	Description	Comments

Delete and replace the standard referenced clauses:

Delete standard clause	Replace with PSL...
3.2	AC PIPES AND SPECIALS. AC pipes or specials shall not be used on this Contract, however erf connection saddles on existing AC secondary mains or specials for altering FC pipes shall be supplied by the Employer. Where: a) in the opinion Engineer, repair or alteration to the AC is required as a negligence of the Contractor, the cost of the materials and Works implementation shall be for the expense of the Contractor. b) so deemed the Engineer may instruct the replacement of a section of the existing AC pipes, which shall be addressed as a variation to the Works.
3.4.3	Pipes of a nominal bore over 150mm Steel pipes of nominal bore over 150mm shall comply with the applicable requirements of SANS 719, Grade B. The wall thickness of pipes shall: **Range (mm)** — **Nominal bore wall thickness (mm)** 150 — 4 200 — 4.5 250 — 5 300 — 6 400 — 6 500 — 8 600 — 10 > 600 ≤ 900 — 10.0 ≤ 1,000 — 12.0
3.7.2	Polyethelene Pipes Polyethylene pipes and fittings shall comply with the relevant requirements of SANS 4437, SANS 10112 and SANS 14236, and shall be Class 16 HDPE type IV plain ended pipes, unless otherwise indicated by the Engineer.
3.8.3	Flanges and Accessories Each flanged pipe and fitting shall be supplied complete with one set of bolts, nuts and washers and one insertion piece of the appropriate diameter and made of a material suitable for the maximum test pressure. The drilling of steel and CI flanges shall conform to the requirements of SANS 1123 (table 1600/3), as applicable, appropriate to the class of pipe specified, except that a) in the case of flanges for hydrant and air valve matching tees, the drillings shall conform to the drilling of the valve supplied ; and b) in the case of CI flanges, where M27 and M33 bolts are specified in BS 4504 : Part 1, M24 and M30 bolts respectively shall be used as specified in SANS 1123.
3.9.4	Flexible couplings All cast iron, mild steel and galvanised iron fittings, valves, hydrants and all detachable couplings shall be wire brushed to remove all foreign particles including: rust, dust, sand and mud. A thin film of petro-primer (or similar approved) shall be applied to the entire surface.

Delete standard clause	**Replace with PSL...**
	Petro-mastic (or similar approved) shall be packed around the coupling or fitting to provide an even contour ensuring that no air is entrapped. The mastic shall be prepared to completely cover all nuts, washers and bolts. A sufficiently wide wrap of petro-tape (or similar approved) shall be applied over the entire fitting overlapping by approximately 25%. The wrap shall then be smoothed by hand following the contour of the fitting, eliminating all air that may be entrapped under the tape. An outer layer of 150 micron layflat sheeting of sufficient width shall then be applied over the entire fitting with a 50% overlap. The end of the sheeting shall be secured to the existing pipe by means of adhesive tape.
3.11.3	Concrete Unless otherwise required in terms of the project specifications, concrete shall comply with SANS 1200G or SANS 1200GA.

ADDITIONS

Add the following clauses:

Standard clause	Add PSL...
3.8	3.8.8 Jointing of shouldered-end pipes and fittings Joints in uPVC and medium steel shouldered-end pipes and fittings shall conform to SANS 815-1 and SANS 815-2, where fittings shall be cast or steel vitaulic clamps (or similar approved).
3.8	3.8.9 Jointing of HDPE pipes Jointing of HDPE pipes shall be by means: a) heat fusion welded, butt-welded for pipes greater than and equal to 75mm diameter, in accordance with SANS specification. The internal butt-welds shall not protrude by more than 4mm.
3.8	3.8.10 Welding Welding shall be Grade B spiral steel continuously welded pipe. The qualification of welders shall be in accordance with the relevant clauses of the above standards, and specifically SANS 044 Part III and shall be Grade 1 welders. Grade 2 welder shall be permitted only with the Engineer or his duly authorised representative's approval. The Contractor shall provide evidence, acceptable to the Engineer or his duly authorised representative, that welding procedures and welders have been tested in accordance with the requirements of AWS D1.1.

MIDVAAL
LOCAL MUNICIPALITY

VOLUME 1

PART 4: SITE INFORMATION

TABLE OF CONTENTS

PAGE (S)

C4 SITE INFORMATION 1

C4.1 ..... GENERAL 1

C4.2 ..... SITE LOCATION 1

C4.3 ..... ACCESS TO SITE AND RESTRICTIONS 1

C4.4 ..... EXISTING SERVICES, SERVITUDES AND WAYLEAVES 1

C4.5 ..... SECURITY 1

C4.6 ..... NATURE OF GROUND AND SUBSOIL CONDITION 1

C4.7 ..... HYDROLOGICAL REPORT AND FLOODLINES 2

C4 SITE INFORMATION

C4.1 GENERAL

This section describes the site at the time of tender to enable the tenderer to price his tender and to decide upon his method of working and programming and risks.

C4.2 SITE LOCATION

The site is located in Midvaal Local Municipality jurisdiction

C4.3 ACCESS TO SITE AND RESTRICTIONS

Although the works are located on sites within the Employer's property and/or reserve, the Contractor shall have to obtain permission from various authorities in order to completed excavations to execute the works required as part of this Contract. Any other permission as may become necessary shall be the responsibility of the Contractor to obtain.

Having been granted access to works areas by the Employer, other service authorities and private owners, the Contractor shall adhere to any agreed conditions of access and ensure the works area is left in a condition similar to when it was first accessed.

C4.4 EXISTING SERVICES, SERVITUDES AND WAYLEAVES

For detailed specification the Contractor shall refer to clauses PS1.5 (Temporary Works), PS4.5 (Existing services), and PS4.8 (Permits and wayleaves).

C4.5 SECURITY

The Contractor shall be responsible for the security of his personnel, materials, equipment and construction plant on and around the site of the Works and for the security of his camp (if applicable). The Employer in this regard will consider no claims.

Refer to clause PS6.1 (Security)

C4.6 NATURE OF GROUND

The Contractor must ascertain himself with the site conditions of the pipeline route. Site inspection is compulsory; however, by virtue of submitting the tender, it will be assumed that the contractor has familiarized himself with the conditions on site. The Contractor must ascertain himself with the following conditions on site before tendering:

1. Condition of the existing services.
2. Positioning (Alignment and depth as well as type of service) of existing services.
3. Existing underground services in the area that may include: Telkom/Fibre, Electrical (both municipal and Eskom), Potable water reticulation mains, Effluent drainage mains as well as stormwater drainage systems.
4. Existing surface services in the area that may include: Telkom, Electrical (both municipal and Eskom), Potable water reticulation mains, Effluent drainage manholes as well as stormwater drainage roadside furniture.
5. Work space constraints.

The project site is fairly flat with an estimated gradient in the order of 1:160 (0.6%) draining with the exception of a stream (name) towards the Duncanville area.

Site has been classified as a D4 zone for Dolimite thereby indicating a high risk of sinkhole and doline formation with respect to water ingress. It is mainly made up of soft to intermediate material up 1.5m and hard material below 1.5m

C4.7 HYDROLOGICAL REPORT AND FLOODLINES

There are no supporting documents available with regard hydrological and floodline aspects.

MIDVAAL
LOCAL MUNICIPALITY

VOLUME 1

ANNEXURES

SATISFACTORY LETTERS

TABLE OF CONTENTS

PAGE (S)

ANNEXURE A: SATISFACTORY LETTER 1

ANNEXURE B: SATISFACTORY LETTER 2

ANNEXURE C: SATISFACTORY LETTER 3

SATISFACTORY LETTER -ANNEXURE A

TO: MIDVAAL LOCAL MUNICIPALITY

I, the undersigned being duly authorized to do so, hereby furnish a reference to Midvaal Local Municipality relative to bid **8/2/2/452 – ONCE-OFF SUPPLY AND INSTALLATION OF BELOW-GROUND FIRE HYDRANTS WITH CIVIL WORKS AND REINSTATEMENTS TO REPLACE EXISTING ABOVE-GROUND FIRE HYDRANTS IN MIDVAAL LOCAL MUNICIPALITY.**

Name of bidder: .....

Description of service provided: .....

.....

Project value: .....

Duration / time when the above was provided: .....

(dd/mm/yyyy – dd/mm/yyyy)

Was their performance satisfactory? **Yes / No**

If No, please furnish details: .....

.....

Was the product offered complying with the specifications? **Yes / No**

If No, please furnish details: .....

.....

Will you recommend this supplier to anyone without reservations? **Yes / No**

Rate this supplier out of a possible score of 05, with 05 being excellent and 1 being unacceptable: .....

Name of authorized person: ..... **Signature:** .....

Telephone: ..... **E-mail:** .....

Date: .....

Completed on behalf of (Name of Institution)

.....

OFFICIAL INSTITUTION STAMP

***NB**: This document must be completed in full and stamped by the referee and it to be included in the bid submission. Failure to adhere to this requirement will result in the bidder not being allocated*

SATISFACTORY LETTER -ANNEXURE B

TO: MIDVAAL LOCAL MUNICIPALITY

I, the undersigned being duly authorized to do so, hereby furnish a reference to Midvaal Local Municipality relative to bid **8/2/2/452 – ONCE-OFF SUPPLY AND INSTALLATION OF BELOW-GROUND FIRE HYDRANTS WITH CIVIL WORKS AND REINSTATEMENTS TO REPLACE EXISTING ABOVE-GROUND FIRE HYDRANTS IN MIDVAAL LOCAL MUNICIPALITY.**

Name of bidder: .....

Description of service provided: .....

.....

Project value: .....

Duration / time when the above was provided: .....

(dd/mm/yyyy – dd/mm/yyyy)

Was their performance satisfactory? **Yes / No**

If No, please furnish details: .....

.....

Was the product offered complying with the specifications? **Yes / No**

If No, please furnish details: .....

.....

Will you recommend this supplier to anyone without reservations? **Yes / No**

Rate this supplier out of a possible score of 05, with 05 being excellent and 1 being unacceptable: .....

Name of authorized person: ..... **Signature:** .....

Telephone: ..... **E-mail:** .....

Date: .....

Completed on behalf of (Name of Institution)

.....

OFFICIAL INSTITUTION STAMP

NB: *This document must be completed in full and stamped by the referee and it to be included in the bid submission. Failure to adhere to this requirement will result in the bidder not being allocated*

SATISFACTORY LETTER -ANNEXURE C

TO: MIDVAAL LOCAL MUNICIPALITY

I, the undersigned being duly authorized to do so, hereby furnish a reference to Midvaal Local Municipality relative to bid **8/2/2/452 – ONCE-OFF SUPPLY AND INSTALLATION OF BELOW-GROUND FIRE HYDRANTS WITH CIVIL WORKS AND REINSTATEMENTS TO REPLACE EXISTING ABOVE-GROUND FIRE HYDRANTS IN MIDVAAL LOCAL MUNICIPALITY.**

Name of bidder: .....

Description of service provided: .....

.....

Project value: .....

Duration / time when the above was provided: .....

(dd/mm/yyyy – dd/mm/yyyy)

Was their performance satisfactory? **Yes / No**

If No, please furnish details: .....

.....

Was the product offered complying with the specifications? **Yes / No**

If No, please furnish details: .....

.....

Will you recommend this supplier to anyone without reservations? **Yes / No**

Rate this supplier out of a possible score of 05, with 05 being excellent and 1 being unacceptable: .....

Name of authorized person: ..... **Signature:** .....

Telephone: ..... **E-mail:** .....

Date: .....

Completed on behalf of (Name of Institution)

.....

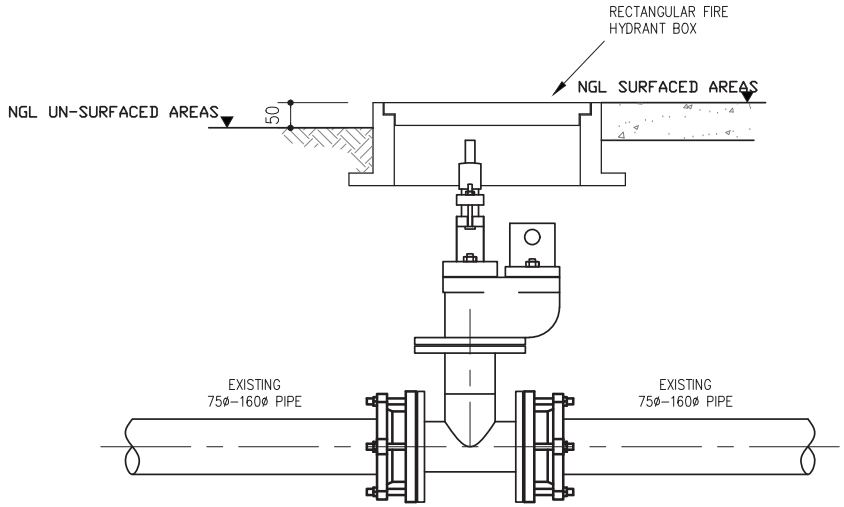
OFFICIAL INSTITUTION STAMP

NB: *This document must be completed in full and stamped by the referee and it to be included in the bid submission. Failure to adhere to this requirement will result in the bidder not being allocated*

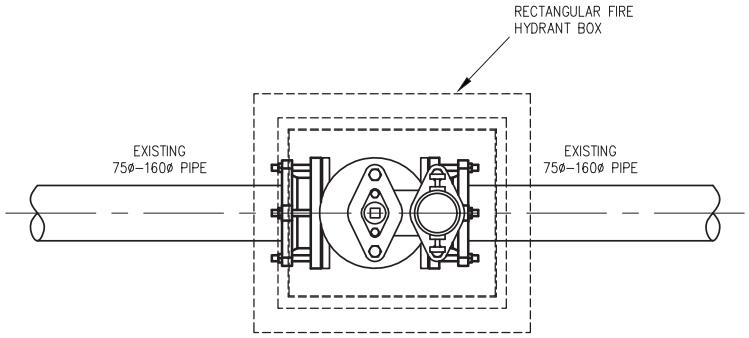
MIDVAAL
LOCAL MUNICIPALITY

VOLUME 1

DRAWINGS



SECTIONAL ELEVATION
SCALE 1:10



SECTIONAL PLAN
SCALE 1:10

PROPOSAL
DRAWING

0 10 20 30 40 50 60 70 80 90 100
100mm ON ORIGINAL PLAN AT SCALE 1:1

REVISIONS

CLIENT

MIDVAAL
LOCAL MUNICIPALITY

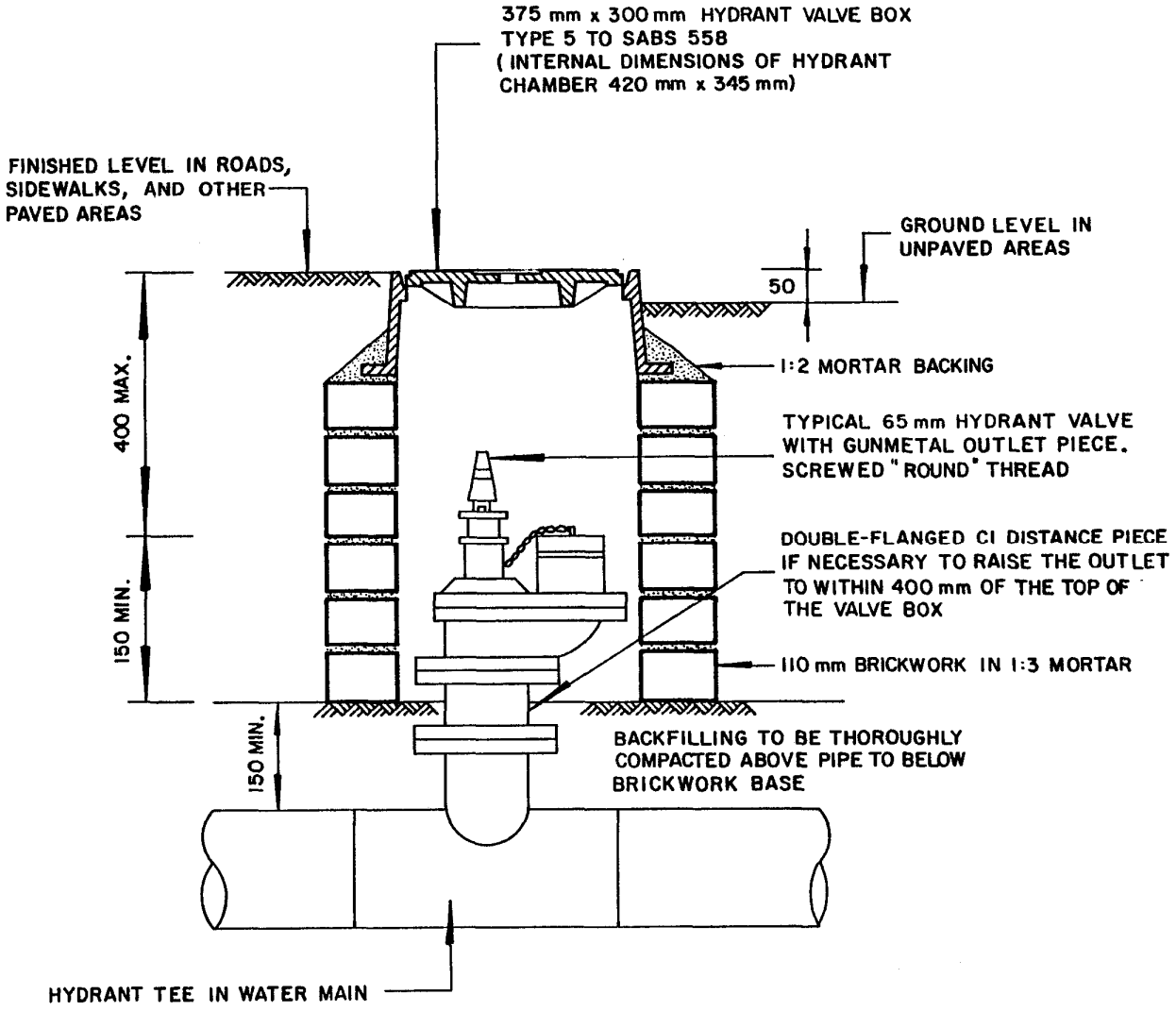
DRAWN | CHECKED | DESIGNED

PROJECT

DESCRIPTION
BELOW GROUND FIRE
HYDRANT INSTALLATION

SCALE AS SHOWN | SHEET SIZE A3 | DATE

PROJECT NO | DRG. NO | REV
DRG.FH-001



NOTE

a) Test completed chamber with hydrant standpipe after fitting cover in position.

b) See 5.6.2.

Dimensions in millimetres

Drawing L–2 - Detail of Brick Hydrant Chamber