



TENDER REFERENCE: HS 09-2025/26

THE CONSTRUCTION OF 6KM ROAD AND STORMWATER NETWORK AND ONE BRIDGE (BRIDGE NO 3) ALONG BATHLAPING STREET IN OLIEVENHOUTBOSCH EXTENSION 60 - PHASE 1 FOR A PERIOD OF 36 MONTHS

VOLUME 1

A Tender for category 8CE or higher CIDB registered contractors

ISSUED BY:	PREPARED BY:
The Divisional Head Supply Chain Management 320 Madiba Street, Pretoria PO Box 440 Pretoria 0001 Tel: (012) 358 8100	Group Head Human Settlements Department 320 Madiba Street, Pretoria PO Box 440 Pretoria 0001 Contact: Mr Derrick Mpotaringa Tel: (012) 358 2327 Email: DerrickMP@tshwane.gov.za

Registered Name of Tenderer:	
Trading Name of Tenderer:	
Registration No. of Entity:	
Postal address of Tenderer:	
Contact Person:	City Of Tshwane Vendor No:
Tel. No.:	E-mail Address:
Cell No.:	Fax No:
CIDB CRS Number(s) :	

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T1.1 TENDER NOTICE AND INVITATION TO TENDER

HS 09 2025/26
CITY OF TSHWANE
HUMAN SETTLEMENTS DEPARTMENT



THE CONSTRUCTION OF 6KM ROAD AND STORMWATER NETWORK AND ONE BRIDGE (BRIDGE NO 3) ALONG BATHLAPING STREET IN OLIEVENHOUTBOSCH EXTENSION 60 - PHASE 1 FOR A PERIOD OF 36 MONTHS

Tenders are hereby invited for the above tender.

Tenderers should have a CIDB contractor grading designation of **8CE** or higher.

The tender documents will be available on the City of Tshwane and national treasury official website (www.tshwane.gov.za) or www.etenders.gov.za

Tenders will be evaluated on the basis of awarding points for the **90/10 Preference** Point System will be applied to this tender.

A **COMPULSORY CLARIFICATION MEETING** with a representative of the Employer will take place in **Extension 60, Legare Street, Olievenhoutbosch Coordinates: -25.914609, 28.120642** on **14 May 2026 at 10h00.**

The lowest or any tender will not necessarily be accepted, and the Municipality reserves the right to accept any tender as a whole or in part or no tender.

Tenders must remain valid for a period of **90 days**

The validity period for the tender after closure is 90 days. The city shall have right and power to extend any tender validity period beyond any initial validity period set and subsequent extensions. SCM shall ensure that an extension of validity is requested in writing from all bidders before the validity expiry date. Extension of validity shall be finalised while the quotations/bids are still valid.

The closing time for receipt of tenders is **25 May 2026 at 10:00.** Tenders will be received on the closing date and time shown, must be enclosed in sealed envelopes bearing the applicable tender heading and reference number, as well as the closing time and due date, and must be addressed to the Divisional Head, SUPPLY CHAIN MANAGEMENT, PRETORIA, 0001 and must be submitted in the tender box situated at **Tshwane House, 320 Madiba street, Pretoria.** Tenders will be opened at the latter address at the time indicated.

“Note: Bidders are required to submit electronic copies of the bid either by memory stick/USB flash drive together with the hard copy of the Bid/Proposals”

TECHNICAL ENQUIRIES: Employer: Mr Derrick Mpotaringa
Tel (Office): (012) 358 2327
E-Mail: DerrickMP@tshwane.gov.za

SUPPLY CHAIN EQUITIES: Employer: Ms. Maureen P. Radingoana
Telephone: 012 358 1686
E mail: MaureenR@TSHWANE.GOV.ZA

PORTION 1: TENDER

PART T1: TENDER PROCEDURES

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T1.1 TENDER DATA

The conditions of tender are the Standard Conditions of Tender as contained in **Annexure C of Standard for Uniformity in Engineering and Construction Works Contracts (Board Notice 423 Government Gazette No 42622 of 8 August 2019)**, bound into Section T1.2

The Standard Conditions of Tender makes several references to the Tender Data. The Tender Data shall have precedence in the interpretation of any ambiguity or inconsistency between it and the Standard Conditions of Tender to which it mainly applies.

CLAUSE NUMBER	TENDER DATA
C.1.1 Actions	The Employer is City of Tshwane Metropolitan Municipality
C.1.2 Tender Documents	<p><u>Volume 1: Tender Document</u></p> <p>THE TENDER</p> <p>Part T1: Tendering Procedures</p> <p>T1.1 – Tender data T1.2 – Standard Conditions of Tender</p> <p>Part T2: Returnable documents</p> <p>T2.1 – List of returnable documents T2.2 – Returnable schedules</p> <p>THE CONTRACT</p> <p>Part C1: Agreements and contract data</p> <p>C1.1 – Form of offer and acceptance C1.2 – Contract data C1.3 – Form of guarantee C1.4 – Guarantee or Cash deposit C1.5 – Health and safety agreement C1.6 – Adjudicators contract</p> <p>Part C2: Pricing data</p> <p>C2.1 Pricing assumptions C2.2 Pricing schedule</p> <p>Part C3: Scope of work</p> <p>C3 – Scope of work</p> <p>Part C4: Site information</p> <p>C4 – Site information</p> <p><u>Volume 2: Tender Drawings</u></p>
C.1.3 Interpretation	Add the following new clause:
C.1.34	<i>The tender documents have been drafted in English. The contract arising from the invitation to tender shall be interpreted and construed in English</i>
C.1.4 Communication and Employer's Agent	<p>Agent: Damaris Holdings Pty Ltd</p> <p>Address: 14 Lemonwood Street, Eco Park Estate, Highveld, Centurion, 0157</p> <p>Tel: 012-993 0152</p> <p>E-Mail: info@damarisholdings.co.za</p>
	<p>CHS Agent: Takusa Consulting & Services Cc</p> <p>Address: 65 Bram Fischer Drive Robindale, 2191</p> <p>Tel: 011 549 5613</p>

CLAUSE NUMBER	TENDER DATA																				
	E-Mail: engage@takusaconsulting.co.za																				
C.2.1 Eligibility	<p>Only those tenderers who are registered with the CIDB or are capable of being so prior to the evaluation of submissions, in a contract grading designation equal to or higher than a contractor grading designation determined in accordance with the sum tendered for a 8CE or higher class of construction work, are eligible to submit tenders.</p> <p>Joint Ventures are eligible to submit tenders provided that:</p> <ul style="list-style-type: none"> every member of a joint venture is registered with the CIDB not later than 21 working days from the closing date for tenderers; the lead partner has a contractor grading designation in the 7CE or higher class of construction work; and <p>The combined contractor grading designation calculated in accordance with the Construction Industry Development Regulations is equal to or higher than a contractor designation in accordance with the sum tendered for a 8CE or higher class of construction work or a value determined in accordance with Regulation 25(1B) or 25(7A) of the Construction Industry Development Regulations.</p> <p>C.2.1.1 Only tenderers who meet the mandatory requirements as follows:</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td colspan="2">1) Tendering company</td> </tr> <tr> <td colspan="2" style="height: 20px;"></td> </tr> <tr> <td style="text-align: center;">Mandatory criteria</td> <td style="text-align: center;">Supporting evidence</td> </tr> <tr> <td>CIDB Grading of 8CE or Higher</td> <td>Valid CIDB grading certificate</td> </tr> <tr> <td>Tenderer's banking rating level C for a value of R20m.</td> <td>Bank Rating Certificate</td> </tr> <tr> <td>Company Experience: Proof of 1 or more relevant projects (Bridges, Roads & Stormwater projects)</td> <td>Appointment letter, approved Completion Certificate and a *Reference letter. (see RD.C.13)</td> </tr> <tr> <td colspan="2"> <p>Relevant project(s) consists of</p> <p>I.I. Road and Stormwater Infrastructure Project: At least one road and stormwater infrastructure project with a minimum contract value of R60 million.</p> <p style="text-align: center;">AND</p> <p>II. Bridge Project: At least one reinforced concrete bridge project with a minimum contract value of R15 million.</p> <p>* Reference letter (see RD.C.13) should indicate the project scope, value of work done</p> </td> </tr> <tr> <td colspan="2">2) Key Personnel</td> </tr> <tr> <td style="text-align: center;">Mandatory criteria</td> <td style="text-align: center;">Supporting evidence</td> </tr> <tr> <td> <p>Contracts Manager Minimum Qualification: BSc, BEng, or BTech in Civil Engineering (NQF Level 7), accredited by SAQA. Professional Registration:</p> </td> <td>Certified copy of qualification, SACPCMP/ECSA registration and detailed CV indicating years of experience are compulsory</td> </tr> </table>	1) Tendering company				Mandatory criteria	Supporting evidence	CIDB Grading of 8CE or Higher	Valid CIDB grading certificate	Tenderer's banking rating level C for a value of R20m.	Bank Rating Certificate	Company Experience: Proof of 1 or more relevant projects (Bridges, Roads & Stormwater projects)	Appointment letter, approved Completion Certificate and a *Reference letter. (see RD.C.13)	<p>Relevant project(s) consists of</p> <p>I.I. Road and Stormwater Infrastructure Project: At least one road and stormwater infrastructure project with a minimum contract value of R60 million.</p> <p style="text-align: center;">AND</p> <p>II. Bridge Project: At least one reinforced concrete bridge project with a minimum contract value of R15 million.</p> <p>* Reference letter (see RD.C.13) should indicate the project scope, value of work done</p>		2) Key Personnel		Mandatory criteria	Supporting evidence	<p>Contracts Manager Minimum Qualification: BSc, BEng, or BTech in Civil Engineering (NQF Level 7), accredited by SAQA. Professional Registration:</p>	Certified copy of qualification, SACPCMP/ECSA registration and detailed CV indicating years of experience are compulsory
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CLAUSE NUMBER	TENDER DATA	
	<p>Registration with the Engineering Council of South Africa (ECSA) as a Professional Engineer or Professional Engineering Technologist, OR Registration with the South African Council for the Project and Construction Management Professions (SACPCMP) as a Professional Construction Project Manager or Professional Construction Manager. Experience Requirements: Minimum of 5 years' experience in roads and stormwater infrastructure; and Minimum of 2 projects in any reinforced concrete projects.</p>	
	<p>Construction Manager Minimum Qualification: National Diploma (NQF Level 6) in Civil Engineering, or a higher qualification in Civil Engineering, accredited by SAQA. Experience Requirements: Minimum of 5 years' experience in roads and stormwater infrastructure; and Minimum of 2 projects in any reinforced concrete projects.</p>	<p>Certified copy of qualification and detailed CV indicating years of experience are compulsory.</p>
	<p>Construction Supervisor 1 Minimum Qualification: Artisan/Certificate (NQF Level 4) Minimum of 3 years' experience in roads and stormwater projects.</p>	<p>Certified copy of qualification and detailed CV indicating years of experience are compulsory.</p>
	<p>Construction Supervisor 2 Minimum Qualification: Artisan/Certificate (NQF Level 4) Minimum of 2 projects in any reinforced concrete projects</p>	<p>Certified copy of qualification and detailed CV indicating years of experience are compulsory.</p>
	<p>Construction Health and Safety Officer Qualification: National Diploma/ NQF 6 in Health & Safety. Professional registration with the South African Council for the Project and Construction Management Professions (SACPCMP) Minimum 3 years post registration experience as a Construction Health and Safety Officer.</p>	<p>Certified copy of qualification, SACPCMP registration and detailed CV indicating years of experience are compulsory.</p>

CLAUSE NUMBER	TENDER DATA		
	<table border="1" style="width: 100%;"> <tr> <td style="width: 50%; padding: 5px;"> <p>Dedicated Environmental Officer (DEO) Qualification: National Diploma/ (NQF Level 6) in environmental or natural sciences. Minimum 2 years post qualification experience as a DEO.</p> </td> <td style="width: 50%; padding: 5px;"> <p>Certified copy of qualification and detailed CV indicating years of experience are compulsory.</p> </td> </tr> </table>	<p>Dedicated Environmental Officer (DEO) Qualification: National Diploma/ (NQF Level 6) in environmental or natural sciences. Minimum 2 years post qualification experience as a DEO.</p>	<p>Certified copy of qualification and detailed CV indicating years of experience are compulsory.</p>
<p>Dedicated Environmental Officer (DEO) Qualification: National Diploma/ (NQF Level 6) in environmental or natural sciences. Minimum 2 years post qualification experience as a DEO.</p>	<p>Certified copy of qualification and detailed CV indicating years of experience are compulsory.</p>		
<p>C.2.2 Cost of Tendering</p>	<p>The employer will not compensate the tenderer for any costs incurred in attending interviews or making any submissions in the office of the employer.</p>		
<p>C.2.5 Reference Documents</p>	<p>Add the following:</p> <p>Unless specified otherwise in this document, the following standards and conditions of contract will be applicable under this Contract:</p> <ul style="list-style-type: none"> • The document “Standard Specifications for Municipal Civil Engineering Works, Third Edition, 2005” issued by the Divisional Head: Roads and Stormwater of the City of Tshwane. The drawings “Roads and transport department: Standard construction details and design standards for roads and stormwater drainage infrastructure, 2023” issued by the Divisional Head: Roads and Stormwater of the City of Tshwane. This document is obtainable free of charge on the website www.tshwane.gov.za. • The latest print version as current at 30 days before close of tenders of the document “General Conditions of Contract for Construction Works 3rd Edition, 2015” including corrections thereto as current at 30 days before close of tenders, as published by the <i>South African Institution of Civil Engineering</i>. The document may be purchased in hard copy from the <i>South African Institution of Civil Engineering</i> or may be purchased online as an electronic reference document in PDF format by following the relevant links on www.saice.org.za. The corrections may be downloaded from the SAICE website www.saice.org.za. 		
<p>C.2.7 Clarification meeting</p>	<p>The arrangements for a compulsory briefing meeting are as stated in the tender notice and invitation to tender</p> <p>Confirmation of attendance will be recorded on site in the attendance register to be signed by all tenderers. Addenda will be issued to and tenders received from those tendering entities appearing on the attendance register.</p> <p>Tender documents will be made available in the City of Tshwane website (www.tshwane.gov.za).</p>		
<p>C.2.8 Seek clarification</p>	<p>Replace the clause with the following:</p> <p><i>Request clarification of the tender documents, if necessary, by notifying the employer at least <u>7 (seven) working days</u> before the closing time stated in the tender data.</i></p>		

CLAUSE NUMBER	TENDER DATA
C.2.9 Insurance	<p>Add the following to the clause</p> <p><i>Accept that the submission of a tender shall be construed as an acknowledgement by the tenderer that he is satisfied with, where applicable, the insurance cover the Employer will affect under the contract.</i></p>
C.2.12 Alternative offers	<p>Alternative tender offers will not be considered.</p>
C.2.13 Submitting a tender offer	<ul style="list-style-type: none"> The tender offer shall be completed in non-erasable black ink <p>Any entry made by the tenderer in the document which the tenderer desires to change, shall not be erased or painted out. A line shall be drawn through the incorrect entry and the correct entry shall be written above in non-erasable black ink and the full signature of the tenderer shall be placed next to the correction.</p>
C.2.13.2 C.2.13.3	<p>Replace the contents of the clause with the following:</p> <p><i>Return all volumes of the tender document to the Employer after completion of the relevant sections of each volume in their entirety, either electronically (if they were issued in electronic format) or by writing in black ink.</i></p> <p><i>All volumes are to be left intact in original format and no pages shall be removed or re-arranged</i></p> <p>Parts of each tender offer communicated on paper shall be submitted as an original, plus a scanned copy in PDF format on a Universal Serial Bus (USB) flash drive.</p> <p>In addition to the hard copy submission, each tenderer is required to submit a soft copy of the fully completed and signed tender submission document. This is to be on a USB Flash Drive attached to the original tender submission documents, adequately identifiable as belonging to the tenderer, in a PDF format scanned at 400 DPI, and in full colour.</p>
C.2.13.4	<p>Add the following to the clause</p> <p><i>Only authorised signatories may sign the original and all copies of the tender offer where required.</i></p> <p><i>In the case of a ONE-PERSON CONCERN submitting a tender, this shall be clearly stated.</i></p> <p><i>In the case of a COMPANY submitting a tender, include a copy of a resolution by its board of directors authorising a director or other official of the company to sign the documents on behalf of the company.</i></p> <p><i>In the case of a CLOSE CORPORATION submitting a tender, include a copy of a resolution by its members authorising a member or other official of the corporation to sign the documents on each member's behalf.</i></p> <p><i>In the case of a PARTNERSHIP submitting a tender, all the partners shall sign the documents, unless one partner or a group of partners has been authorised to sign on behalf of each partner, in which case proof of such authorisation shall be included in the Tender.</i></p>

CLAUSE NUMBER	TENDER DATA
	<p><i>In the case of a JOINT VENTURE/CONSORTIUM submitting a tender, include <u>a resolution of each company</u> of the joint venture together with a <u>resolution by its members</u> authorising a member of the joint venture to sign the documents on behalf of the joint venture.</i></p> <p><u>Accept that failure to submit proof of authorisation to sign the tender shall result in the tender offer being regarded as non-responsive.</u></p>
C.2.13.5	<p>The identification details are:</p> <p>Tender/Reference: HS 09-2025/26</p> <p>Tender Description: THE CONSTRUCTION OF 6KM ROAD AND STORMWATER NETWORK AND ONE BRIDGE (BRIDGE NO 3) ALONG BATHLAPING STREET IN OLIEVENHOUTBOSCH EXTENSION 60 FOR A PERIOD OF 36 MONTHS - PHASE 1</p> <hr/> <p>Closing Time: 10:00</p> <p>Closing Date: 25 May 2026</p> <p>Each tender shall be enclosed in a sealed envelope, bearing the correct identification details and shall be submitted (HAND DELIVERED) at:</p> <p>TSHWANE HOUSE (TENDER BOX AT) 320 Madiba Street PRETORIA CBD 0002</p> <p>Please ensure that all required compliance documents are included upon submission as no additional documents will be requested from bidders after closing.</p>
C.2.13.9	Telephonic, telegraphic, telex, facsimile or e-mailed offers will not be accepted
C.2.13.10	<p>Add the following sub- clause C.2.13.10:</p> <p><i>Accept that all conditions, which are printed or written upon any stationery used by the Tenderer for the purpose of or in connection with the submission of a tender offer for this Contract, which are in conflict with the conditions laid down in this document shall be waived, renounced and abandoned.</i></p>
C.2.14 Information and data to be completed in all respects	<p>Add the following to the clause:</p> <p><i>The Tenderer is required to enter information in the following sections of the document:</i></p> <p>Section T2.2 : Returnable Schedules</p> <p>Section C1.1 : Form of Offer and Acceptance</p> <p>Section C1.2 : Contract Data (Part 2)</p> <p>Section C2.2 : Pricing Schedule</p>

CLAUSE NUMBER	TENDER DATA
	<p><i>The above sections shall be signed by the Tenderer (and witnesses where required). Individual pages should only be initialled by the successful Tenderer and by the witnesses after acceptance by the Employer of the Tender Offer.</i></p> <p><i>The Tenderer shall complete and sign the Form of Offer prior to the submission of a Tender Offer.</i></p> <p><i>The Schedule of Deviations (if applicable) shall be signed by the successful Tenderer after acceptance by the Employer of the Tender Offer.</i></p> <p><i>Accept that failure on the part of the Tenderer to submit any one of the Returnable Documents listed in Part T2 – Returnable Documents within the period stipulated, shall be just cause for the Employer to consider the tender offer as being regarded as non-responsive.</i></p> <p><i>Accept that the Employer shall in the evaluation of tender offers take due account of the Tenderer's past performance in the execution of similar engineering works of comparable magnitude, and the degree to which he possesses the necessary technical, financial and other resources to enable him to complete the Works successfully within the contract period. Satisfy the Employer and the Engineer as to his ability to perform and complete the Works timeously, safely and with satisfactory quality, and furnish details in Part T2 – Returnable Documents.</i></p> <p><i>Accept that the Employer is restricted in accordance with clause 5 (1) of the Construction Regulations, 2014, to only appoint a contractor whom he is satisfied has the necessary competencies and resources to carry out the work safely. Accept that submitting inferior and inadequate information relating to health and safety (as required in clause 2.23) shall be regarded as justifiable and compelling reasons not to accept the Tender Offer of the Tenderer scoring the highest number of tender evaluation points.</i></p>
C.2.15 Closing time	The closing time for submission of tender offers is stated in the tender notice and invitation to tender.
C.2.16 Tender offer validity C.2.16.5	<p>The tender offer validity period is 90 days. CoT shall have right and power to extend any tender validity period beyond any initial validity period set and subsequent extensions. SCM shall ensure that an extension of validity is requested in writing from all bidders before the validity expiry date. Extension of validity shall be finalised while the quotations/bids are still valid.</p> <p>Add the following new clause</p> <p><i>If the tender validity period expires on a Saturday, Sunday or public holiday, the tender offer shall remain valid and open for acceptance until closure of business on the following working day.</i></p>
C.2.16.6	<p>Add the following new clause:</p> <p><i>Accept that should the Tenderer unilaterally withdraw his tender during the tender validity period, the Employer shall, without prejudice to any other rights he may have, be entitled to accept any less favourable tender for the Works from those received, or to call for fresh tenders, or to otherwise arrange for execution of the Works, and the Tenderer shall pay on demand any additional expense incurred by the Employer on account of the adoption of the said courses, as well as either the difference in cost between the tender withdrawn (as corrected in terms of clause 3.9 of the Conditions of Tender) and any less favourable tender accepted by the Employer,</i></p>

CLAUSE NUMBER	TENDER DATA
	<i>or the difference between the tender withdrawn (as corrected) and the cost of execution of the Works by the Employer as well as any other amounts the Employer may have to pay to have the Works completed</i>
C.2.19 Inspections, tests and analysis	Add the following at the end of the clause: <i>....or upon written request.</i>
C.2.20 Submit securities, bonds, policies, etc.	The tenderer is required to submit with his tender a letter of intent from an approved insurer undertaking to provide the performance bond to the format included in Section C1.3 of Part C1 Agreements and Contract Data of this document.
C.2.23 Certificates	Refer to Part T2 of this procurement document for a list of the documents that are to be returned with the tender.
C.2.24 <i>Conditions Associated with the Granting of Preferences</i>	Add the following new clause <i>The Tenderer, undertakes to:</i> a) <i>engage one or more Targeted Enterprises / Targeted Labour in accordance with the provisions of the SANS 1914 as varied in the Procurement Section of the Scope of Works;</i> b) <i>deliver to the Employer, within 5 working days of being requested in writing to do so, a Targeted Enterprise Declaration Affidavit in respect of all Targeted Enterprises engaged at prime contract level to satisfy Contract Participation Goal requirements;</i> c) <i>accept the sanctions set out in the Scope of Works should such conditions be breached.</i>
C.2.25 <i>Canvassing and obtaining of additional information by tenderers</i>	Add the following new clause <i>The Tenderer shall not make any attempt either directly or indirectly to canvass any of the Employers' officials or the Employer's agent in respect of his tender, after the opening of the tenders but prior to the Employer arriving at a decision thereon.</i> <i>The Tenderer shall not make any attempt to obtain particulars of any relevant information, other than that disclosed at the opening of tenders.</i>
C.2.26 <i>Prohibitions on awards to persons in service of the state</i>	Add the following new clause <i>The Employer is prohibited to award a tender to a person -</i> a) <i>who is in the service of the state; or</i> b) <i>if that person is not a natural person, of which any director, manager, principal shareholder or stakeholder is a person in the service of the state; or</i> c) <i>a person who is an advisor or consultant contracted with the municipality or municipal entity.</i> <i>In the service of the state means to be -</i> a) <i>a member of:-</i> • <i>any municipal council;</i>

CLAUSE NUMBER	TENDER DATA
	<ul style="list-style-type: none"> • any provincial legislature; or • the National Assembly or the National Council of Provinces; <p>b) a member of the board of directors of any municipal entity;</p> <p>c) an official of any municipality or municipal entity;</p> <p>d) an employee of any national or provincial department;</p> <p>e) provincial public entity or constitutional institution within the meaning of the Public Finance Management Act, 1999 (Act No.1 of 1999);</p> <p>f) a member of the accounting authority of any national or provincial public entity; or</p> <p>g) an employee of Parliament or a provincial legislature.</p> <p>In order to give effect to the above, the questionnaire for the declaration of interests in the tender of persons in service of state in part T2 of this procurement document must be completed.</p>
<p>C.2.27 Awards to close family members of persons in the service of the state</p>	<p>Add the following new clause</p> <p>Accept that the notes to the Employer’s annual financial statements must disclose particulars of any award of more than R2000 to a person who is a spouse, child or parent of a person in the service of the state (defined in clause F2.25), or has been in the service of the state in the previous twelve months, including -</p> <p>a) the name of that person;</p> <p>b) the capacity in which that person is in the service of the state; and</p> <p>c) the amount of the award.</p> <p>In order to give effect to the above, the questionnaire for the declaration of interests in the tender of persons in service of state in Part T2 of this procurement document must be completed.</p>
<p>C.2.28 Vendor registration</p>	<p>Add the following new clause</p> <p>The contractor will required registering as a supplier/ service provider on the City of Tshwane’s vendor register before any payment can be done.</p> <p>If the tenderer is already registered as a vendor, it is required to record the vendor number in space provided on the cover page of this Tender document.</p> <p>Vendor registration documents are available from the Procurement Advice Centre or can be downloaded from http://www.tshwane.gov.za/procurement.cfm</p> <p>All parties of a joint venture or consortium submitting a tender shall comply with the requirements of this clause.</p>
<p>C.2.29 Tax</p>	<p>Add the following new clause</p> <p>National Treasury SCM Instruction no. 7 of 2017/18 clause 4 application during SCM Processes state that:</p> <p>The designated official(s) must verify the tenderer’s tax compliance status prior to the finalisation of the award of the tender or price quotation.</p>

CLAUSE NUMBER	TENDER DATA									
	<p><i>Where the recommended tenderer is not tax compliant, the tenderer should be notified of their non-compliant status and the tenderer must be requested to submit to the municipality or municipal entity, within 7 working days, written proof from South African Revenue Services of their tax compliance status or proof from SARS that they have made an arrangement to meet their outstanding tax obligations. The proof of tax compliance status submitted by the tenderer to the municipality or municipal entity must be verified via the Central Supplier Database or eFiling</i></p> <p><i>Accept that the tenderer will be rejected if such tenderer fails to provide proof of tax compliance status in terms of clause 4.2 of National Treasury SCM Instruction no. 7 of 2017/18</i></p>									
<p>C.3.1 Respond to requests from the tenderer</p> <p>C.3.1.1</p>	<p>The employer will respond to requests for clarification up to 7 (seven) working days before the tender closing time.</p>									
<p>C.3.11 Evaluation of tender offers</p> <p>C.3.11.1 General</p>	<p>All tenderers who submitted responsive tenders will be evaluated</p> <p>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 C.3.11.2, C.3.11.3 and C3.11.4 below supported by proof/ documentation stated in the conditions of this tender.</p> <p>STAGES OF EVALUATION</p> <p>The following stages of evaluation will be applicable for this tender</p> <p>Stage 1: Administrative Compliance Stage 2: Mandatory Requirements Stage 3: Functionality Criteria Stage 4: Preference Points System 90/10</p>									
<p>C.3.11.2 Method of Evaluation</p>	<p>The following tender will be evaluated in four (4) Stages namely:</p> <p>STAGE 1: ADMINISTRATIVE COMPLIANCE</p> <table border="1"> <thead> <tr> <th>Compulsory Returnable Documentation (Submission of these are compulsory)</th> <th>Submitted (YES or NO)</th> <th>Checklist (Guide for Bidder and the Bid Evaluation Committee)</th> </tr> </thead> <tbody> <tr> <td> a) To enable The City to verify the bidder's tax compliance status, the bidder must provide; <ul style="list-style-type: none"> • A copy of their Tax Clearance Certificate (TCS); or • Indicate their tax compliance status PIN. </td> <td></td> <td> TCS must be in the same business name as the bidding company. TCS must be valid. Tax status must be compliant before the award. </td> </tr> <tr> <td> b) A copy of their Central Supplier Database (CSD) registration; or indicate their </td> <td></td> <td> CSD must be valid. </td> </tr> </tbody> </table>	Compulsory Returnable Documentation (Submission of these are compulsory)	Submitted (YES or NO)	Checklist (Guide for Bidder and the Bid Evaluation Committee)	a) To enable The City to verify the bidder's tax compliance status, the bidder must provide; <ul style="list-style-type: none"> • A copy of their Tax Clearance Certificate (TCS); or • Indicate their tax compliance status PIN. 		TCS must be in the same business name as the bidding company. TCS must be valid. Tax status must be compliant before the award.	b) A copy of their Central Supplier Database (CSD) registration; or indicate their		CSD must be valid.
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CLAUSE NUMBER	TENDER DATA	
	NB: Bidders must ensure that the directors, trustees, managers, principal	corrections, no pencil, no other colour ink, or non-
	<p>shareholders, or stakeholders of this company, declare any interest in any other related companies or business, whether or not they are bidding for this contract. <u>See Question 3.14 of MBD 4. Failure to declare interest will result in a disqualification</u></p>	<p>submission of the above, will be considered)?</p>
	<p>f) Audited Financial Statements for the most recent three (3) years or Audited Financial Statements from date of existence for companies less than three years old.</p> <p>NB: The bidder must submit signed audited annual financial statements for the most recent three years, or if established for a shorter period, submit audited annual financial statements from date of establishment. If the bidder is exempted or not required by law to prepare signed annual financial statements for auditing purposes, then the bidder must submit proof from an "independent accounting professional as defined in regulation 26 of Companies Regulation, 2011, stating that the bidder is exempt or not required by law to prepare audited financial statements.</p>	<p>Applicable for tenders above R10m in conjunction with MBD 5)</p> <p>Are Audited financial statements provided (Audited financials must be signed by auditor) Or proof from an "independent accounting professional as defined in regulation 26 of Companies Regulation, 2011, stating that the bidder is not required by law to prepare audited financial statements.</p>
	<p>g) Joint Ventures (JV) – (Only applicable when the bidder tenders as a joint venture) Where the bidder bids as a joint venture (JV), the required or relevant documents as per (a) to (f) above must be provided for all JV parties. In addition to the above the bidder must submit a Joint Venture (JV) agreement signed by the relevant parties.</p>	
	<p>NB: It is a condition of this bid that the successful bidder will continue with the same Joint Venture (JV) for the duration of the contract unless prior approval is obtained from the City.</p>	<p>If applicable. JV agreement provided? JV agreement complete and relevant? Agreement signed by all parties? All required documents as per (i.e. a to f) must be provided for all partners of the JV.</p>
	<p>h) Bidder attended a compulsory briefing session where applicable</p>	<p>A compulsory briefing register must be signed by the bidder.</p>

CLAUSE NUMBER	TENDER DATA																			
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	<p>i) Pricing schedule (All items must be quoted for in pricing schedule and if not, all items are quoted the bidder will be disqualified). Unless the tender is awarded per item or per section where the bidder only quoted the items or sections, they are interested in.</p>	<p>Incomplete pricing schedule results in totals being incomparable. Bidder must be disqualified.</p> <p>Bidder will be disqualified should they make corrections on the price schedule without attaching a signature thereto.</p> <p>Bidder will be disqualified should they use tippex/ correction ink, on the price schedule.</p>																		
	<p>STAGE 2: MANDATORY REQUIREMENTS</p> <p>Bidders who do not meet all the mandatory requirements are going to be disqualified or not evaluated further</p> <p>The following information must be provided:</p> <table border="1" style="width: 100%;"> <tr> <td colspan="2">1)Tendering company</td> </tr> <tr> <td colspan="2"> </td> </tr> <tr> <td style="text-align: center;">Mandatory criteria</td> <td style="text-align: center;">Supporting evidence</td> </tr> <tr> <td>CIDB Grading of 8CE or Higher</td> <td>Valid CIDB grading certificate</td> </tr> <tr> <td>Tenderer’s banking rating level C for a value of R20m.</td> <td>Bank Rating Certificate</td> </tr> <tr> <td>Company Experience: Proof of 1 or more relevant projects (Bridges, Roads & Stormwater projects)</td> <td>Appointment letter, approved Completion Certificate and a *Reference letter. (see RD.C.13)</td> </tr> <tr> <td colspan="2"> <p>Relevant project(s) consists of</p> <p>I. Road and Stormwater Infrastructure Project: At least one road and stormwater infrastructure project with a minimum contract value of R60 million.</p> <p>AND</p> <p>II. Bridge Project: At least one reinforced concrete bridge project with a minimum contract value of R15 million.</p> <p>* Reference letter (see RD.C.13) should indicate the project scope, value of work done</p> </td> </tr> <tr> <td colspan="2">2) Key Personnel</td> </tr> <tr> <td style="text-align: center;">Mandatory criteria</td> <td style="text-align: center;">Supporting evidence</td> </tr> </table>		1)Tendering company				Mandatory criteria	Supporting evidence	CIDB Grading of 8CE or Higher	Valid CIDB grading certificate	Tenderer’s banking rating level C for a value of R20m.	Bank Rating Certificate	Company Experience: Proof of 1 or more relevant projects (Bridges, Roads & Stormwater projects)	Appointment letter, approved Completion Certificate and a *Reference letter. (see RD.C.13)	<p>Relevant project(s) consists of</p> <p>I. Road and Stormwater Infrastructure Project: At least one road and stormwater infrastructure project with a minimum contract value of R60 million.</p> <p>AND</p> <p>II. Bridge Project: At least one reinforced concrete bridge project with a minimum contract value of R15 million.</p> <p>* Reference letter (see RD.C.13) should indicate the project scope, value of work done</p>		2) Key Personnel		Mandatory criteria	Supporting evidence
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CLAUSE NUMBER	TENDER DATA	
	<p>Contracts Manager Minimum Qualification: BSc, BEng, or BTech in Civil Engineering (NQF Level 7), accredited by SAQA. Professional Registration: Registration with the Engineering Council of South Africa (ECSA) as a Professional Engineer or Professional Engineering Technologist, OR Registration with the South African Council for the Project and Construction Management Professions (SACPCMP) as a Professional Construction Project Manager or Professional Construction Manager. Experience Requirements: Minimum of 5 years' experience in roads and stormwater infrastructure; and Minimum of 2 projects in any reinforced concrete projects.</p>	<p>Certified copy of qualification, SACPCMP/ECSA registration and detailed CV indicating years of experience are compulsory</p>
	<p>Construction Manager Minimum Qualification: National Diploma (NQF Level 6) in Civil Engineering, or a higher qualification in Civil Engineering, accredited by SAQA. Experience Requirements: Minimum of 5 years' experience in roads and stormwater infrastructure; and Minimum of 2 projects in any reinforced concrete projects.</p>	<p>Certified copy of qualification and detailed CV indicating years of experience are compulsory.</p>
	<p>Construction Supervisor 1 Minimum Qualification: Artisan/Certificate (NQF Level 4) Minimum of 3 years' experience in roads and stormwater projects.</p>	<p>Certified copy of qualification and detailed CV indicating years of experience are compulsory.</p>
	<p>Construction Supervisor 2 Minimum Qualification: Artisan/Certificate (NQF Level 4) Minimum of 2 projects in any reinforced concrete projects</p>	<p>Certified copy of qualification and detailed CV indicating years of experience are compulsory.</p>
	<p>Construction Health and Safety Officer Qualification: National Diploma/ NQF 6 in Health & Safety. Professional registration with the South African Council for the Project and Construction</p>	<p>Certified copy of qualification, SACPCMP registration and detailed CV indicating years of experience are compulsory.</p>

CLAUSE NUMBER	TENDER DATA				
	Management Professions (SACPCMP) Minimum 3 years post registration experience as a Construction Health and Safety Officer.				
	Dedicated Environmental Officer (DEO) Qualification: National Diploma/ (NQF Level 6) in environmental or natural sciences. Minimum 2 years post qualification experience as a DEO.	Certified copy of qualification and detailed CV indicating years of experience are compulsory.			
	STAGE 3: FUNCTIONALITY CRITERIA Only tenderers who obtain a minimum of 70 points in respect of the following criteria will be considered for the next stage of evaluation. Bidders that do not achieve a minimum 70 points out of 100 points will not be evaluated further.				
		A	B	C	
	Functionality and Quality Criteria – Tender Rating Matrix	Tenderer Rating (0–5)	Weighting	Maximum Score	
	Company work experience as per FORM RD.D.3 Bridge, Roads and Stormwater Infrastructure	Roads and Stormwater Infrastructure Projects – Successfully completed road and stormwater infrastructure projects with a minimum contract value of R60 million (appointment letters, completion certificates and reference letters to be provided)			
		Two (2) Roads and Stormwater qualifying projects	5	6	30
		One (1) Roads and Stormwater qualifying project (minimum requirement)	4		
		Bridge Project Experience: Successfully completed reinforced concrete bridge project(s) with a minimum contract value of R15 million (appointment letters, completion certificates and reference letters to be provided)			
		Three (3) or more reinforced concrete bridge qualifying projects	5	4	20
			Tenderer Score (A × B)		

CLAUSE NUMBER	TENDER DATA					
		Two (2) reinforced concrete bridge qualifying projects	4			
		One (1) reinforced concrete bridge qualifying project (minimum requirement)	3			
		TOTAL SCORE FOR TENDERER EXPERIENCE			50	
	Functionality Criteria – Tender Rating Matrix		A	B	C	
			Tenderer rating (Score 0-5)	Weighting	Maximum score to be achieved	Tenderer Score = (A x B
	Key Project Personnel as per Form RD.D.3 Contracts Manager	Contracts Manager Minimum of 5 years' experience in roads and stormwater infrastructure; AND Minimum of 2 projects in any reinforced concrete projects. Specific Experience: Attach a CV detailing relevant experience				
		Bridge, Roads and Stormwater: More than 5 years experience in roads and stormwater infrastructure projects	5	2	10	
		Five (5) years experience in roads and stormwater infrastructure projects (minimum requirement)	4			
Structural Engineering Experience: Minimum of 2 projects experience in any reinforced concrete projects. Reinforced concrete bridge experience will be an added advantage						
Four (4) or more projects experience in any reinforced concrete projects	5					

CLAUSE NUMBER	TENDER DATA									
		Three (3) projects experience in any reinforced concrete projects	4	1	5					
		Two (2) projects experience in any reinforced concrete projects (minimum requirement)	3							
	Key Project Personnel as per Form RD.D.3 Construction Manager	Site Agent				<p>Construction Manager Minimum of 5 years' experience in roads and stormwater infrastructure; AND Minimum of 2 projects in reinforced concrete projects. Specific Experience: Attach a CV detailing relevant experience</p>				
						More than 5 years experience in roads and stormwater infrastructure projects	5			
						Five (5) years experience in roads and stormwater infrastructure projects (minimum requirement).	4	1	5	
		<p>Structural Engineering Experience: Minimum of 2 projects experience in any reinforced concrete projects. Reinforced concrete bridge experience will be an added advantage</p>								
		Four (4) or more projects experience in any reinforced concrete projects	5	1	5					
		Three (3) projects experience in any reinforced concrete projects	4							
		Two (2) projects experience in any reinforced concrete projects (minimum requirement)	3							

CLAUSE NUMBER	TENDER DATA					
	<p style="text-align: center;">Key Project Personnel as per Form RD.D.3 Construction Supervisor 1</p>	<p>Construction Supervisors 1 Minimum Qualification: Artisan/Certificate. Minimum 3 years experience: Attach a CV detailing experience in the position of Construction supervisor. Experience on Roads, Stormwater.</p>	1	5		
		<p>(4) or more years relevant experience</p>				5
		<p>Three (3) years relevant experience (minimum requirement)</p>				4
	<p style="text-align: center;">Key Project Personnel as per Form RD.D.3 Construction Supervisor 2</p>	<p>Construction Supervisors 2 Minimum Qualification: Artisan/Certificate, Minimum 2 projects: Attach a CV detailing experience in the position of Construction supervisor. Experience on reinforced concrete projects Reinforced concrete bridge experience will be an added advantage</p>	1	5		
		<p>Four (4) or more projects experience in any reinforced concrete projects</p>				5
		<p>Three (3) projects experience in any reinforced concrete projects</p>				4
		<p>Two (2) projects experience in any reinforced concrete projects (minimum requirement)</p>				3

CLAUSE NUMBER	TENDER DATA				
	<p style="text-align: center;">Key Project Personnel as per Form RD.D.3 Construction Health and Safety Officer</p>	<p>Construction Health & Safety Officer (CHSO) Minimum 3 years relevant experience post registration as CHS Officer Specific Experience: Attach a CV detailing experience. Experience on Bridges, Roads and Stormwater Infrastructure Projects will be an added advantage.</p>	2	10	
<p>5 years or more post-registration experience.</p>		5			
<p>4 years post-registration experience</p>		4			
<p>3 years post-registration experience (minimum requirement)</p>		3			
		<p>Dedicated Environmental Officer (DEO) Minimum 2 years relevant experience post qualification as a DEO. Specific Experience: Attach a CV detailing relevant experience in the position of a DEO. Experience on Bridges, Roads and Stormwater Infrastructure Projects will be an added advantage.</p>	1	5	
<p>Four (4) or more years post-qualification experience</p>	5				
<p>Three (3) years post-qualification experience.</p>	4				
<p>Two (2) years post-qualification experience (minimum requirement)</p>	3				

CLAUSE NUMBER	TENDER DATA														
	<p>STAGE 4: PREFERENCE POINT SYSTEM</p> <p>The preferential point system used will be the 90/10 points system in terms of the Preferential Procurement Policy Framework Act, 2000 (Act 5 of 2000) Regulations 2022</p> <ul style="list-style-type: none"> • 90 points for price • 10 points for specific goals <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left;">Specific goals</th> <th style="text-align: left;">90/10 preference point system</th> </tr> </thead> <tbody> <tr> <td> BB-BEE score of companies <ul style="list-style-type: none"> • Level 1 • Level 2 • Level 3 • Level 4 • Level 5 • Level 6 • Level 7 • Level 8 • Non-compliant </td> <td> <ul style="list-style-type: none"> • 4 Points • 3.5 Points • 3 Points • 2.5 Points • 2 Points • 1.5 Points • 1 Point • 0.5 Points • 0 Points </td> </tr> <tr> <td>EME and/ or QSE</td> <td>1 Point</td> </tr> <tr> <td>At least 51% of Women-owned companies</td> <td>1 Point</td> </tr> <tr> <td>At least 51% owned companies by People with disability</td> <td>1 Point</td> </tr> <tr> <td>At least 51% owned companies by Youth</td> <td>1 Point</td> </tr> <tr> <td>Local Economic Participation <ul style="list-style-type: none"> • City of Tshwane • Gauteng • National </td> <td> 2 Points 1 Point 1 Point </td> </tr> </tbody> </table>	Specific goals	90/10 preference point system	BB-BEE score of companies <ul style="list-style-type: none"> • Level 1 • Level 2 • Level 3 • Level 4 • Level 5 • Level 6 • Level 7 • Level 8 • Non-compliant 	<ul style="list-style-type: none"> • 4 Points • 3.5 Points • 3 Points • 2.5 Points • 2 Points • 1.5 Points • 1 Point • 0.5 Points • 0 Points 	EME and/ or QSE	1 Point	At least 51% of Women-owned companies	1 Point	At least 51% owned companies by People with disability	1 Point	At least 51% owned companies by Youth	1 Point	Local Economic Participation <ul style="list-style-type: none"> • City of Tshwane • Gauteng • National 	2 Points 1 Point 1 Point
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C.3.13	Acceptance of Tender Offer	<p>Tender offers will only be accepted if:</p> <ol style="list-style-type: none"> a.) the tenderer has complied in full with all the eligibility criteria; b.) the tenderer is able to provide proof of tax compliance status in terms of clause 4.2 of National Treasury SCM Instruction no. 7 of 2017/18; c.) the tenderer is not in arrears for more than 3 months with municipal rates and taxes and municipal service charges; d.) 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; e.) the tenderer has not: <ol style="list-style-type: none"> i) abused the Employer’s Supply Chain Management System; or
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Part T1: Tender Procedures

	<p>ii) failed to perform on any previous contract and has been given a written notice to this effect.</p> <p>f.) 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 and persons in the employ of the state are permitted to submit tenders or participate in the contract;</p> <p>g.) the tenderer is registered and in good standing with the compensation fund or with a licensed compensation insurer.</p> <p>h.) the employer is reasonably satisfied that the tenderer has in terms of the Construction Regulations, 2014, issued in terms of the Occupational Health and Safety Act, 1993, the necessary competencies and resources to carry out the work safely.</p>
<p>C 3.16 Registration of the award</p>	<p>Add the following to the clause:</p> <p>Notice of non-acceptance of the tender will not be sent to individual unsuccessful tenderers. Particulars of the accepted tender can be obtained from the Employer’ Agent.</p>
<p>C 3.17 Provide Copies of Contract</p>	<p>One signed copy of the contract shall be provided by the Employer to the successful Tenderer.</p>

T1.2 STANDARD CONDITIONS OF TENDER

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C.1 General

C.1.1 Actions

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

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

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

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

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

C.1.2 Tender Documents

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

C.1.3 Interpretation

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

C.1.3.2 These conditions of tender, the tender data and tender schedules which are only required for tender evaluation purposes, shall not form part of any contract arising from the invitation to tender.

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

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

- i) someone in a position of trust has competing professional or personal interests which make it difficult to fulfil 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;

C.1.4 Communication and Employer's agent

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

C.1.5 Cancellation and re-invitation of tenders

C.1.5.1 An organ of state may, prior to the award of the tender, cancel the 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;
- (c) no acceptable tenders are received; or
- (d) there is a material irregularity in the tender process.

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

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

C.1.6 Procurement procedures

C.1.6.1 General

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

C.1.6.2 Competitive negotiation procedure

C.1.6.2.1 Where the tender data require that the competitive negotiation procedure is to be followed, tenderers shall submit tender offers in response to the proposed contract in the first round of submissions. Notwithstanding the requirements of C.3.4, the Employer shall announce only the names of the tenderers who make a submission. The requirements of C.3.8 relating to the material deviations or qualifications which affect the competitive position of tenderers shall not apply.

C.1.6.2.2 All responsive tenderers, or 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 C.2.17, the Employer may request that tenders be clarified, specified and fine-tuned in order to improve a tenderer's competitive position provided that such clarification, specification, fine-tuning or additional information does not alter any fundamental aspects of the offers or impose substantial new requirements which restrict or distort competition or have a discriminatory effect.

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

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

C.1.6.3 Proposal procedure using the two stage-system

C.1.6.3.1 Option 1

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

C.1.6.3.2 Option 2

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

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

C.2 Tenderer's obligations

C.2.1 Eligibility

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

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

C.2.2 Cost of tendering

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

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

C.2.3 Check documents

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

C.2.4 Confidentiality and copyright of documents

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

C.2.5 Reference documents

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

C.2.6 Acknowledge addenda

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

C.2.7 Clarification meeting

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

C.2.8 Seek clarification

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

C.2.9 Insurance

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

C.2.10 Pricing the tender offer

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

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

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

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

C.2.11 Alterations to documents

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

C.2.12 Alternative tender offers

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

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

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

C.2.13 Submitting a tender offer

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

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

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

C.2.13.4 Sign the original and all copies of the tender offer where required in terms of the tender data. The Employer will hold all authorized signatories liable on behalf of the tenderer. Signatories for tenderers

proposing to contract as joint ventures shall state which of the signatories is the lead partner whom the Employer shall hold liable for the purpose of the tender offer.

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

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

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

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

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

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

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

C.2.15 Closing time

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

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

C.2.16 Tender offer validity

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

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

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

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

C.2.17 Clarification of tender offer after submission

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

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

C.2.18 Provide other material

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

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

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

C.2.19 Inspections, test and analysis

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

C.2.20 Submit securities, bonds and policies

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

C.2.20.1 Letter of Good Standing

Upon the finalisation of the contract, the Employer will request proof of compliance with the Department of Labour : Letter of good standing with compensation fund, the confirmation will form part of the contract.

C.2.21 Check final draft

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

C.2.22 Return of other tender documents

If so instructed by the Employer, return all retained tender documents within 28 days after the expiry of the validity period stated in the tender data.

C.2.23 Certificates

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

C.3 The Employer's undertakings

C.3.1 Respond to requests from the tenderer

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

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

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

C.3.2 Issue addenda

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

C.3.3 Return late tender offers

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

C.3.4 Opening of tender submissions

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

C.3.4.2 Announce at the meeting held immediately after the opening of tender submissions, at a venue indicated in the tender data, the name of each tenderer whose tender offer is opened and, where applicable, the

total of his prices, number of points claimed for its BBBEE status level and time for completion for the main tender offer only.

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

C.3.5 Two-envelope system

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

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

C.3.6 Non-disclosure

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

C.3.7 Grounds for rejection and disqualification

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

C.3.8 Test for responsiveness

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

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

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

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

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

C.3.9 Arithmetical errors, omissions and discrepancies

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

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

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

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

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

- a) If bills of quantities or pricing schedules apply and there is an error in the line item total resulting from the product of the unit rate and the quantity, the line item total shall govern and the rate shall be corrected. Where there is an obviously gross misplacement of the decimal point in the unit rate, the line item total as quoted shall govern, and the unit rate shall be corrected.
- 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.

C.3.10 Clarification of a tender offer

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

C.3.11 Evaluation of tender offers

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

Conditions of tender are by definition the document that establishes a tenderer's obligations in submitting a tender and the Employer's undertakings in soliciting and evaluating tender offers. Such conditions establish the rules from the time a tender is advertised to the time that a contract is awarded and require Employers to conduct the process of offer and acceptance in terms of a set of standard procedures

The CIDB Standard Conditions of Tender are based on a procurement system that satisfies the following system requirements:	
Requirement	Qualitative interpretation of goal
Fair	The process of offer and acceptance is conducted impartially without bias, providing simultaneous and timely access to participating parties to the same information.
Equitable	Terms and conditions for performing the work do not unfairly prejudice the interests of the parties.
Transparent	The only grounds for not awarding a contract to a tenderer who satisfies all requirements are restrictions from doing business with the employer, lack of capability or capacity, legal impediments and conflicts of interest.
Competitive	The system provides for appropriate levels of competition to ensure cost effective and best value outcomes.
Cost effective	The processes, procedures and methods are standardized with sufficient flexibility to attain best value outcomes in respect of quality, timing and price, and least resources to effectively manage and control procurement processes.

The activities associated with evaluating tender offers are as follows:

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

C.3.11.1 General

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

C.3.12 Insurance provided by the Employer

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

C.3.13 Acceptance of tender offer

Accept the tender offer, if in the opinion of the Employer, it does not present any unacceptable commercial 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.

C.3.14 Prepare contract documents

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

- a) addenda issued during the tender period,
- b) inclusion of some of the returnable documents, and
- c) other revisions agreed between the Employer and the successful tenderer.

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

C.3.15 Complete adjudicator's contract

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

C.3.16 Registration of the award

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

C.3.16.2 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.

C.3.17 Provide copies of the contracts

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

C.3.18 Provide written reasons for actions taken

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

PART T2: RETURNABLE DOCUMENTS

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T2.1 LIST OF RETURNABLE DOCUMENTS

RD.A MANDATORY RETURNABLE DOCUMENTS

Note: *Failure to submit, fully complete and sign the applicable documents and submit all required attachments will result in the tender offer being disqualified from further consideration*

Document Name	Reference	Confirmation of Document Included (Tenders may use this column to confirm documents have been completed and included in the tender)
Compulsory Enterprise Questionnaire	Form RD.A.1	
MBD 4: Declaration of interest in tender of persons in service of state	Form RD.A.2	
MBD 8: Declaration of tenderer’s past supply chain management practises	Form RD.A.3	
MBD 9: Certificate of independent tender determination	Form RD.A.4	
Certificate of authority of signatory	Form RD.A.5	
Certificate of authority of signatory for joint ventures and consortia	Form RD.A.6	

RD.B RETURNABLE DOCUMENTS REQUIRED FOR PREFERENTIAL PROCUREMENT EVALUATION PURPOSES

Note: *Failure to submit, fully complete and sign the applicable documents and submit all required attachments will result in the tender offer being awarded 0 (zero) preference points*

Document Name	Reference	Confirmation of Document Included (Tenders may use this column to confirm documents have been completed and included in the tender)
Valid B-BBEE Status Level of Contributor Certificate	Form RD.B.1	
MBD 6.1: Preference points claim form in terms of the Preferential Procurement Regulations, 2022	Form RD.B.2	
B-BBEE Exempted Micro Enterprise – Sworn Affidavit	Form RD.B.3	
Promotion of local enterprises (Local Economic Participation)	Form RD.B.4	
Certified copy of Identity Document/s proof of ownership (Sworn affidavit for B-BBEE qualifying small enterprise or Exempt Micro Enterprises, CIPC registration or any other proof of ownership)	Form RD.B.5	
Medical Certificate with doctor’s details (Practice Number, Physical Address and contact numbers) proof of ownership (Sworn affidavit for B-BBEE qualifying small enterprise or Exempt Micro Enterprises, CIPC registration or any other proof of ownership)	Form RD.B.6	

RD.C ADDITIONAL RETURNABLE DOCUMENTS REQUIRED FOR TENDER EVALUATION PURPOSES

Note: *Failure to submit, fully complete and sign the applicable documents and submit all required attachments will result in the tender offer being disqualified from further consideration*

Document Name	Reference	Confirmation of Document Included (Tenders may use this column to confirm documents have been completed and included in the tender)
Proof of registration on CSD with National Treasury	RD.C.1	
MBD 5: Declaration for procurement above R10 million (all applicable taxes included)	RD.C.2	
Proof of Registration with CIDB	RD.C.3	
Compliance with OHSA (Act 85 of 1993)	RD.C.4	
Record of services provided to organs of state	RD.C.5	
Schedule of plant and equipment	RD.C.6	
Status of concern submitting tender	RD.C.8	
Classification of business	RD.C.9	
Letter of intent to provide a performance bond	RD.C.10	
Proof of Registration with Engineering Council of South Africa (ECSA)	RD.C.11	
Proof of Registration with South African Council of Project and Construction Management Professions (SACPCMP)	RD.C.12	
Client's Reference Letter	RD.C.13	
Bank Rating Certificate	RD.C.14	

RD.D OTHER DOCUMENTS REQUIRED FOR FUNTIONALITY EVALUATION PURPOSES AND THAT WILL FORM PART OF THE CONTRACT

Note: *Failure to submit, fully complete and sign the applicable documents and submit all required attachments will result in the tender offer being disqualified from further consideration*

Document Name	Reference	Confirmation of Document Included (Tenders may use this column to confirm documents have been completed and included in the tender)
Record of addenda to tender documents	RD.D.1	
Mandatory requirements	RD.D.2	
Schedule of Tenderer's experience	RD.D.3	
Curriculum vitae of key personnel	RD.D.4	
Summary of Tenderer's Experience	RD.D.5	
Data provided by the contractor	Section C1.2	
Data provided by the contractor	Section C1.2	

T2.2 RETURNABLE SCHEDULES

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FORM RD.A.1 COMPULSORY ENTERPRISE QUESTIONNAIRE

The following particulars must be furnished. In the case of a joint venture, separate enterprise questionnaires in respect of each partner must be completed and submitted.			
Section 1: Name of Enterprise:			
Section 2: VAT registration number, if any:			
Section 3: CIDB registration number, if any:			
Section 4: CSD number:			
Section 5: Particulars of sole proprietors and partners in partnerships:			
Name*		Identity Number*	Personal Income Tax Number*
<i>* Complete only if sole proprietor or partnership and attach separate page if more than 3 partners</i>			
Section 6: Particulars of companies and close corporations			
Company registration number:			
Close corporation number:			
Tax reference number:			
Section 7: MBD4 issued by National Treasury must be completed for each tender and be attached as a tender requirement.			
Section 9: MBD8 issued by National Treasury must be completed for each tender and be attached as a tender requirement.			
Section 10: MBD9 issued by National Treasury must be completed for each tender and be attached as a tender requirement.			
The undersigned, who warrants that he / she is duly authorised to do so on behalf of the enterprise:			
i) authorizes the employer to verify the tenderers tax clearance status from the South African Revenue Services that it is in order;			
ii) confirms that the neither the name of the enterprise or the name of any partner, manager, director or other person, who wholly or partly exercises or may exercise, control over the enterprise appears on the Register of Tender Defaulters established in terms of the Prevention and Combating of Corrupt Activities Act of 2004;			
iii) confirms that no partner, member, director or other person, who wholly or partly exercises, or may exercise, control over the enterprise appears, has within the last five years been convicted of fraud or corruption;			
iv) confirms that I / we are not associated, linked or involved with any other tendering entities submitting tender offers and have no other relationship with any of the tenderers or those responsible for compiling the scope of work that could cause or be interpreted as a conflict of interest; and			
v) confirms that the contents of this questionnaire are within my personal knowledge and are to the best of my belief both true and correct.			
Signed:		Date:	
Name:		Position	
<i>Enterprise Name:</i>			

FORM RD.A.2 MBD 4: DECLARATION OF INTEREST

1. No bid will be accepted from persons in the service of the state¹.
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 in relation to the evaluating/adjudicating authority.

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

3.1 Full name of bidder or his/her representative:

3.2 Identity Number:

3.3 Position occupied in Company:
(director, trustee, shareholder²)

3.4 Company Registration Number:

3.5 Tax Reference Number:

3.6 VAT Registration Number:

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

3.8 Are you presently in the service of the state?

YES	NO
-----	----

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

- (a) a member of –
 - (i) any municipal council;
 - (ii) any provincial legislature; or
 - (iii) the national Assembly or the national Council of provinces;
- (b) a member of the board of directors of any municipal entity;
- (c) an official 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.

If yes, furnish particulars _____

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

YES	NO
-----	----

If yes, furnish particulars _____

3.10 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 yes, furnish particulars _____

3.11 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 yes, furnish particulars _____

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

YES	NO
-----	----

If yes, furnish particulars _____

3.13 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 yes, furnish particulars _____

3.14 Do you or any of the directors, trustees, managers, principal 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 yes, furnish particulars _____

5. No bid will be accepted from persons in the service of the state³.
6. 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 in relation to the evaluating/adjudicating authority.

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

- 3.1 Full name of bidder or his/her representative: _____
- 3.2 Identity Number: _____
- 3.3 Position occupied in Company: (Director, trustee, shareholder⁴) _____
- 3.4 Company Registration Number: _____
- 3.5 Tax Reference Number: _____
- 3.6 VAT Registration Number: _____
- 3.7 The names of all directors / trustees / shareholders members, their individual identity numbers and state employee numbers must be indicated in paragraph 4 below.

³ MSCM Regulations: "in the service of the state" means to be –

- (a) a member of –
 - (i) any municipal council;
 - (ii) any provincial legislature; or
 - (iii) the national Assembly or the national Council of provinces;
- (b) a member of the board of directors of any municipal entity;
- (c) an official 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

⁴ 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.

3.8 Are you presently in the service of the state?

YES	NO
-----	----

If yes, furnish particulars _____

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

YES	NO
-----	----

If yes, furnish particulars _____

3.10 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 yes, furnish particulars _____

3.11 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 yes, furnish particulars _____

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

YES	NO
-----	----

If yes, furnish particulars _____

3.13 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 yes, furnish particulars _____

3.14 Do you or any of the directors, trustees, managers, principal 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 yes, furnish particulars _____

FORM RD.A.3 MBD 8: DECLARATION OF TENDER'S PAST SUPPLY CHAIN MANAGEMENT PRACTISES

1. This municipal tender document must form part of all tenders 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 tender of any tenderer may be rejected if that tenderer, or any of it's directors have:
 - a. abused the municipality's/municipal entity's supply 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. wilfully neglected, reneged on or failed to comply with any government, Municipal or other public sector contract during the past five years; or
 - d. been listed in the Register for Tender Defaulters in terms of Section 29 of the Prevention and Combating of Corrupt Activities Act, 2004 (Act 12 of 2004).
4. In order to give effect to the above, the following questionnaire must be completed and submitted with the tender:

Item	Question	Response	
4.1	Is the tenderer, any of it's directors listed on the National Treasurer's database as a company or persons prohibited from doing business with the public sector? (Companies for persons who are listed on this database were informed in writing of this restriction by the National Treasury after the <i>audi alteram partem</i> rule was applied) If so, furnish particulars:	YES	NO
4.2	Is the tenderer or any of it's directors listed on the Register for Tender Defaulters in terms of Section 29 of the Prevention and Combating of Corrupt Activities Act, 2004 (Act 12 of 2004)? (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.) If so, furnish particulars:	YES	NO
4.3	Was the tenderer or any of its directors convicted by a court of law (including a court of law outside the Republic of South Africa) for fraud or corruption during the past five years? If so, furnish particulars:	YES	NO
4.4	Does the tenderer or any of its directors owe any municipal rates and taxes or municipal charges to the municipality/municipal entity, or to any other municipality/municipal entity, that is in arrears for more than three months? If so, furnish particulars:	YES	NO

Item	Question	Response	
4.5	Was any contract between the tenderer and the municipality/municipal entity or any other organ of state terminated during the past five years on account of failure to perform on or comply with the contract? If so, furnish particulars:	YES	NO

The undersigned, who warrants that he / she is duly authorised to do so on behalf of the enterprise, confirms that the contents of this schedule are within my personal knowledge and are to the best of my belief both true and correct.

I accept that, in addition to cancellation of a contract, action may be taken against me should this declaration prove to be false.

Person authorized to sign the tender:

Full name (in BLOCK letters): _____

Signature: _____

Date: _____

FORM RD.A.4 MBD 9: CERTIFICATION OF INDEPENDENT TENDER DETERMINATION

1. This Municipal Bidding Document (MBD) must form part of all bids ⁵invited.
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 tendering (or bid rigging⁶). Collusive tendering is a *per 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 tender of any tenderer if that tenderer 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 tendering process or the execution of the contract.
4. This will serve as a certificate of declaration that would be used by institutions to ensure that, when tenders are considered, reasonable steps are taken to prevent any form of tender-rigging.
5. In order to give effect to the above, the attached Certificate of Tender Determination must be completed and submitted with the tender.

⁵ Includes price quotations, advertised competitive bids, limited bids and proposals.

⁶ 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.

CERTIFICATE OF INDEPENDENT TENDER DETERMINATION

I, the undersigned, in submitting the accompanying tender:

HS 09 2025/26 : TENDER FOR THE CONSTRUCTION OF 6KM ROAD AND STORMWATER NETWORK AND ONE BRIDGE (BRIDGE NO 3) ALONG BATHLAPING STREET IN OLIEVENHOUTBOSCH EXTENSION 60- PHASE 1 FOR A PERIOD OF 36 MONTHS

in response to the invitation for the tender made by

City of Tshwane Metropolitan Municipality

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

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

1. I have read and understand the contents of this certificate;
2. I understand that the accompanying tender will be disqualified if this certificate is found not to be true and complete in every aspect;
3. I am authorised by the tenderer to sign this certificate, and to submit the accompanying tender, on behalf of the tenderer;
4. Each person whose signature appears on the accompanying tender has been authorised by the tenderer to determine the terms of, and to sign, the tender, on behalf of the tenderer;
5. For the purposes of this Certificate and the accompanying tender, I understand that the word "competitor" shall include any individual or organization, other than the tenderer, whether or not affiliated with the tenderer who:
 - a. Has been requested to submit a tender in response to this tender invitation, based on their qualifications, abilities or experience; and
 - b. Could potentially submit a tender in response to this tender invitation, based on their qualifications, abilities or experience; and provides the same goods and services as the tenderer and/or is in the same line of business as the tenderer.
6. The tenderer has arrived at the accompanying tender independently form, and without consultation, communication, agreement or arrangement with any competitor. However, communication between partners in a joint venture or consortium⁷ will not be construed as collusive tendering.
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 of services 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 tender;
 - e. The submission of a tender which does not meet the specifications and conditions of the tender; or
 - f. Tendering with the intention not to win the tender.
8. In addition, there have been no consultations, communications, agreements or arrangement with any competitor regarding the quality, quantity, specifications and conditions or delivery particulars of the products or services to which this tender invitation relates.
9. The terms of the accompanying tender have not been, and will not be, disclosed by the tenderer, directly or indirectly, to any competitor, prior to the date and time of the official tender opening or to the awarding of the contract.
10. I am aware that, in addition and without prejudice to any other remedy provided to combat any restrictive practises related to tenders and contracts, tenders 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

⁷ 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.

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.

The undersigned, who warrants that he / she is duly authorised to do so on behalf of the enterprise, confirms that the contents of this schedule are within my personal knowledge and are to the best of my belief both true and correct.

Person authorized to sign the tender:

Full name (in BLOCK letters): _____

Signature: _____

Date: _____

FORM RD.A.5 CERTIFICATE OF AUTHORITY OF SIGNATORY

RESOLUTION of the a meeting of the *Board of Directors/Members/Partners of

(Legally correct full name and registration number, if applicable, of the enterprise)

Held at: _____ (place)

On: _____ (date)

RESOLVED that:

- The enterprise submits a tender to the Tshwane Metro Municipality in respect of the following project:

Tender Number:	HS 09 – 2025/26:
Tender Description:	THE CONSTRUCTION OF 6KM ROAD AND STORMWATER NETWORK AND ONE BRIDGE (BRIDGE NO 3) ALONG BATHLAPING STREET IN OLIEVENHOUTBOSCH EXTENSION 60 FOR A PERIOD OF 36 MONTHS - PHASE 1

- *Mr/Ms: _____
 in *his/her capacity as _____

and who will sign as follow:

Proof signature	Proof signature
-----------------	-----------------

be, and is hereby authorised to sign the tender, and any and all other documents and/or correspondence in connection with and relating to the tender for the enterprise mentioned above

NAME	CAPACITY	SIGNATURE

<p>Note:</p> <ol style="list-style-type: none"> *Delete which is not applicable. IMPORTANT: This resolution <u>must</u> be signed by all the directors/members/ partners of the tendering enterprise. Should the number of directors/members/partners exceed the space available above, additional names and signatures must be supplied on a separate page. 	<p>Enterprise stamp</p>
--	-------------------------

FORM RD.A.6 CERTIFICATE OF AUTHORITY OF SIGNATORY FOR JOINT VENTURES AND CONSORTIA

*Joint venture/consortium name: _____

We, the undersigned, are submitting this tender in a *joint venture/consortium and hereby authorise *Mr/Ms
 _____ authorised signatory of the enterprise
 _____ acting in the capacity of lead partner

to sign the tender, and any and all other documents and/or correspondence in connection with and relating to the tender for the *joint venture/consortium mentioned above.

Registered name of enterprise	Registration number	% of contract value	Address	Duly authorised signatory	Mark with (x) for lead partner

Note:

- *Delete which is not applicable.
- IMPORTANT: This resolution must be signed by all the parties of the joint venture/consortium and every duly authorised signatory for each party to the joint venture/consortium must complete a Form RD.C.15.
- Should the number of directors/members/partners exceed the space available above, additional names and signatures must be supplied on a separate page.

FORM RD.B.1 VALID B-BBEE STATUS LEVEL OF CONTRIBUTOR CERTIFICATE

Submit B-BBEE Verification Certificate from a Verification Agency accredited by the South African Accreditation System (SANAS) or a Registered Auditor approved by the Independent Regulatory Board of Auditors (IRBA) or an Accounting Officer as contemplated in the Close Corporation Act (CCA).

NOTE:

1. Attach original copy of B-BBEE Verification Certificate to this page.
2. In the case of a joint venture / consortium parties must each attach original copy of their B-BBEE Verification Certificates.

FORM RD.B.2 MBD 6.1: PREFERENCE POINTS CLAIM FORM IN TERMS OF THE PREFERENTIAL PROCUREMENT REGULATIONS 2022

This preference form must form part of all tenders invited. It contains general information and serves as a claim form for preference points for Broad-Based Black Economic Empowerment (B-BBEE) Status Level of Contribution.

NB BEFORE COMPLETING THIS FORM, TENDERERS MUST STUDY THE GENERAL CONDITIONS, DEFINITIONS AND DIRECTIVES APPLICABLE IN RESPECT B-BBEE, AS PRESCRIBED IN THE PREFERENTIAL PROCUREMENT REGULATIONS, 2022

1. GENERAL CONDITIONS

1.1 The following preference point systems is applicable to this tender:

- The 90/10 system for requirements with a Rand value above R50 million (**all applicable taxes included**).

1.2 The value of this tender is estimated to *exceed* R50 million and therefore the **90/10** system shall be applicable.

1.3 Preference points for this tender shall be awarded for:

- (b) Price; and
- (b) B-BBEE Status Level of Contribution

1.3.1 The points for this tender are allocated as follows:

	POINTS
PRICE	90
SPECIFIC GOALS	10
Total points for Price and SPECIFIC GOALS	100

1.4 Failure on the part of a tenderer to fill in and/or to sign this form and submit a B-BBEE Verification Certificate from a Verification Agency accredited by the South African Accreditation System (SANAS) or a Registered Auditor approved by the Independent Regulatory Board of Auditors (IRBA) or an Accounting Officer as contemplated in the Close Corporation Act (CCA) together with the tender, will be interpreted to mean that preference points for B-BBEE status level of contribution are not claimed.

1.5 Blank or incomplete particulars or insufficient documentary proof thereof, or failure to sign the declaration, will be construed to mean that the tenderer is not claiming preference points, in which case no points will be awarded for HDI.

2. DEFINITIONS

2.1 **all applicable taxes** includes value-added tax, pay as you earn, income tax, unemployment insurance fund contributions and skills development levies.

2.2 **B-BBEE** means broad-based black economic empowerment as defined in Section 1 of the Broad-Based Black Economic Empowerment Act.

2.3 **B-BBEE Status Level of Contributor** means the B-BBEE status received by a measured entity based on its overall performance using the relevant scorecard contained in the Codes of Good Practice on Black Economic Empowerment, issued in terms of Section 9(1) of the Broad-Based Black Economic Empowerment Act, 2003 (Act No. 53 of 2003).

2.4 **Broad-Based Black Economic Empowerment Act** means the Broad-Based Black Economic Empowerment Act, 2003 (Act No. 53 of 2003).

2.5 **comparative price** means the price after the factors of a non-firm price and all unconditional discounts that can be utilized have been taken into consideration.

2.6 **consortium or joint venture** means an association of persons for the purpose of combining their expertise, property, capital, efforts, skills and knowledge in an activity for the execution of a contract.

- 2.7 contract** means the agreement that results from the acceptance of a tender by an organ of state.
- 2.8 EME** means any enterprise with an annual total revenue of R5 million or less.
- 2.9 firm price** means the price that is only subject to adjustments in accordance with the actual increase or decrease resulting from the change, imposition, or abolition of customs or excise duty and any other duty, levy, or tax, which, in terms of the law or regulation, is binding on the contractor and demonstrably has an influence on the price of any supplies, or the rendering costs of any service, for the execution of the contract.
- 2.10 functionality** means the measurement according to predetermined norms, as set out in the tender documents, of a service or commodity that is designed to be practical and useful, working or operating, taking into account, among other factors, the quality, reliability, viability and durability of a service and the technical capacity and ability of a bidder.
- 2.11 non-firm prices** means all prices other than **firm** prices.
- 2.12 person** includes a juristic person.
- 2.13 rand value** means that total estimated value of a contract in South African currency, calculated at the time of tender invitations and includes all applicable taxes and excise duties.
- 2.14 sub-contract** means the primary contractor's assigning or leasing or making out work to, or employing another person to support such primary contractor in the execution of part of a project in terms of the contract.
- 2.15 tender** means a written offer in a prescribed or stipulated form in response to an invitation by an organ of state for the provision of goods, works or services works or goods, through price quotations, advertised competitive bidding processes or proposals.
- 2.16 total revenue** bears the same meaning assigned to this expression in the Codes of Good Practice on Black Economic Empowerment, issued in terms of section 9(1) of the Broad-Based Black Economic Empowerment Act and promulgated in the Government Gazette on 9 February 2007.
- 2.17 trust** means the arrangement through which the property of one person is made over or bequeathed to a trustee to administer such property for the benefit of another person.
- 2.17 trustee** means any person, including the founder of a trust, to whom property is bequeathed in order for such property to be administered for the benefit of another person.

3. ADJUDICATION USING A POINT SYSTEM

- 3.1. The tenderer obtaining the highest number of total points will be awarded the contract.
- 3.2. Preference points shall be calculated after prices have been brought to a comparative basis taking into account all factors of non-firm prices and all unconditional discounts.
- 3.3. Points scored will be rounded off to 2 (two) decimal places.
- 1.3 In the event that two or more tenders have scored equal total points, the successful tender must be the one scoring the highest number of preference points for B-BBEE.
- 2.3 However, when functionality is part of the evaluation process and two or more tenders have scored equal points including equal preference points for B-BBEE, the successful tender must be the one scoring the highest score for functionality.
- 3.3 Should two or more bids be equal in all respects, the award shall be decided by the drawing of lots.

4. POINTS AWARDED FOR PRICE

THE 90/10 PREFERENCE POINT SYSTEM

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

90/10

Where

- = Points scored for price of tender under consideration
- = Rand value of tender under consideration
- Pmin = Price of lowest acceptable tender

5. POINTS AWARDED FOR B-BBEE STATUS LEVEL OF CONTRIBUTION

5.1 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.

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

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

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

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

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.)

90/10:

The specific goals allocated points in terms of this tender	Number of points allocated (90/10 system) (To be completed by the organ of state)
BB-BEE score of companies	
Level 1	4 Points
Level 2	3.5 Points
Level 3	3 Points
	2.5 Points

Level 4	2 Points
Level 5	1.5 Points
Level 6	1 Points
Level 7	0.5 Point
Level 8	0 Points
Non-compliant	
EME and/or QSE	1
At least 51% Women owned companies	1
At least 51% owned companies by People with disability	1
At least 51% owned companies by Youth	1
Local Economic Participation	
City of Tshwane Participants	2
Gauteng Participants	1
National participants	1

DECLARATION WITH REGARD TO COMPANY/FIRM

5.3 Name of company/firm:

5.4 Company registration number:

5.5 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]

5.6 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:

- iv) The information furnished is true and correct;
- iv) The preference points claimed are in accordance with the General Conditions as indicated in paragraph 1 of this form;
- iv) 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.

NAME:

(in BLOCK letters)

CAPACITY:
(of authorized agent)

SIGNATURE:
(of authorized agent)

SIGNED at _____ on this _____ day of _____

WITNESSES:
(Full name in BLOCK letters and signature)

1.

2.

FORM RD.B.3 B-BBEE EXEMPTED MICRO ENTERPRISE – SWORN AFFIDAVIT

I, the undersigned

Full Name & Surname																		
Identity Number								-						-			-	

Hereby declare under oath as follow:

- The contents of this statement are to the best of my knowledge a true reflection of the facts.
- I am a member / director / owner of the following enterprise and am duly authorised to act on its behalf.

Enterprise Name	
Trading Name	
Registration Number	
Enterprise Address	

3. I hereby declare under oath that:

- The enterprise is _____ % black owned;
- The enterprise is _____ % black woman owned;
- Based on the audited management accounts and other information available on the _____ financial year, the income did not exceed R 10,000,000 (ten million rands);
- Please confirm on the below the B-BBEE level contributor, by ticking the applicable box.

100% Black owned	Level One (135% B-BBEE procurement recognition)	
More than 51% Black owned	Level Two (125% B-BBEE procurement recognition)	
Less than 51% Black owned	Level Four (100% B-BBEE procurement recognition)	

- The entity is an empowering supplier in terms of the dti Codes of Good Practice
- I know and understand the contents of the contents of this affidavit and I have no objection to take the prescribed oath and consider the oath binding on my conscience and on the owners of the enterprise which I represent in this matter.
- The sworn affidavit will be valid for a period of 12 (twelve) month from the date signed by the commissioner.

Deponent Signature:	Date:
Commissioner of oaths (Signature and stamp)	

FORM RD.B.4 PROMOTION OF LOCAL ENTERPRISES

The City of Tshwane has mandated the promotion of local enterprises. To comply with this the tenderer must provide proof of the type of business unit and whether the unit resides within the Tshwane and will be scored as follow:

90/10 preference point system applies:

	Promotion of local enterprises
No Response (score 0)	The tenderer did not respond or comply with this evaluation schedule. A score of 0 will also be awarded for any misrepresentation made in this regard,
Satisfactory (score 1)	The tenderer operates a head office or fully staffed office or his sole office outside the boundaries of Gauteng Province. (I.e. no business unit or office resides within the boundaries of Tshwane Metropolitan Municipality)
Good (score 1)	The tenderer's office resides within the boundaries of Gauteng Province. (I.e. no business unit or office resides within the boundaries of Tshwane Metropolitan Municipality)
Very good (score 2)	The tenderer's office resides within the boundaries of the Tshwane Metropolitan Municipality.

Municipal Rates & Taxes not older than three months from tender advertisement date or Valid Lease Agreement should be attached as evidence.

(If necessary the tenderer will be requested to present the office / business unit to officials of the City)

The undersigned, who warrants that he / she is duly authorized to do so on behalf of the enterprise, confirms that the contents of this schedule are within my personal knowledge and are to the best of my belief both true and correct.	
<u>Person authorized to sign the tender:</u>	
Full name (in BLOCK letters):	_____
Signature:	_____
Date:	_____

The undersigned, who warrants that he / she is duly authorized to do so on behalf of the enterprise, confirms that the contents of this schedule are within my personal knowledge and are to the best of my belief both true and correct.	
<u>Person authorized to sign the tender:</u>	
Full name (in BLOCK letters):	_____
Signature:	_____
Date:	_____

FORM RD.B.5 AT LEAST 51% WOMEN OWNED COMPANIES AND AT LEAST 51% OWNED COMPANIES BY YOUTH

The City of Tshwane has mandate for the promotion At least 51% Women owned companies and At least 51% owned companies by youth. To comply with this the tenderer must provide Certified copy of Identity Document/s that proof that company is 51% owned by Women or youth

	promotion At least 51% Women owned companies and At least 51% owned companies by youth
No Response (score 0)	The tenderer did not respond or comply with this evaluation schedule. A score of 0 will also be awarded for any misrepresentation made in this regard,
Good (score 1)	Certified copy of Identity Document/s that proof that company is 51% owned by Women and proof of ownership (Sworn affidavit for B-BBEE qualifying small enterprise or Exempt Micro Enterprises, CIPC registration or any other proof of ownership
Good (score 1)	Certified copy of Identity Document/s that proof that company is 51% owned by youth and proof of ownership (Sworn affidavit for B-BBEE qualifying small enterprise or Exempt Micro Enterprises, CIPC registration or any other proof of ownership

(If necessary the tenderer will be requested to present the office / business unit to officials of the City)

The undersigned, who warrants that he / she is duly authorized to do so on behalf of the enterprise, confirms that the contents of this schedule are within my personal knowledge and are to the best of my belief both true and correct.	
Person authorized to sign the tender:	
Full name (in BLOCK letters):	_____
Signature:	_____
Date:	_____

FORM RD.B.6 AT LEAST 51% OWNED COMPANIES BY PEOPLE WITH DISABILITY

The City of Tshwane has mandate for the promotion of At least 51% owned companies by People with disability. To comply with this the tenderer must provide Medical Certificate with doctor’s details (Practice Number, Physical Address and contact numbers that proof that company is 51% owned by People with disability

	Promotion of At least 51% owned companies by People with disability
No Response (score 0)	The tenderer did not respond or comply with this evaluation schedule. A score of 0 will also be awarded for any misrepresentation made in this regard,
Good (score 1)	Medical Certificate with doctor’s details (Practice Number, Physical Address and contact numbers and proof of ownership (Sworn affidavit for B-BBEE qualifying small enterprise or Exempt Micro Enterprises, CIPC registration or any other proof of ownership

(If necessary the tenderer will be requested to present the office / business unit to officials of the City)

The undersigned, who warrants that he / she is duly authorized to do so on behalf of the enterprise, confirms that the contents of this schedule are within my personal knowledge and are to the best of my belief both true and correct.	
<u>Person authorized to sign the tender:</u>	
Full name (in BLOCK letters):	_____
Signature:	_____
Date:	_____

FORM RD.C.1 PROOF OF REGISTRATION ON CSD WITH NATIONAL TREASURY

1. Attach original or certified copy of CSD registration certificate to this page.
2. In the case of a joint venture / consortium (excluding consulting engineering partners) the joint venture / consortium must attach original or certified copy of their CSD registration certificate to this page.

FORM RD.C.2 MBD 5: DECLARATION FOR PROCUREMENT ABOVE R10 MILLION

1. The tenderer is required by law to prepare annual financial statements for auditing their audited annual financial statements:

- i) for the past three years; or
- ii) Since the establishment if established during the past three years.

Indicate whether these have been included in the tender:

YES	NO
-----	----

2. Does the tenderer have any undisputed commitments for municipal services towards a municipality or other service provider in respect of which payment is overdue for more than 30 days?

YES	NO
-----	----

If so, state particulars _____

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

YES	NO
-----	----

If so, state particulars _____

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

YES	NO
-----	----

If so, state particulars _____

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

YES	NO
-----	----

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

<p>The undersigned, who warrants that he / she is duly authorised to do so on behalf of the enterprise, confirms that the contents of this schedule are within my personal knowledge and are to the best of my belief both true and correct.</p> <p>I accept that the state may act against me should this declaration prove to be false.</p> <p><u>Person authorized to sign the tender:</u></p> <p>Full name (in BLOCK letters): _____</p> <p>Signature: _____</p> <p>Date: _____</p>

FORM RD.C.3 PROOF OF REGISTRATION WITH THE CIDB

1. Attach original or certified copy of CIDB registration certificate to this page.
2. In the case of a joint venture / consortium (excluding consulting engineering partners) parties must each attach original or certified copy of their CIDB registration certificate.

Firm	CRS Number	CIDB Grading	Lead Partner (Indicate with X)
Combined CIDB Grading for Joint Venture / Consortium:			

(Calculator is available at <https://registers.cidb.org.za/common/jvcalc.asp>)

The undersigned, who warrants that he / she is duly authorised to do so on behalf of the enterprise, confirms that the contents of this schedule are within my personal knowledge and are to the best of my belief both true and correct.

Person authorized to sign the tender:

Full name (in BLOCK letters): _____

Signature: _____

Date: _____

FORM RD.C.4 COMPLIANCE WITH OHSA (ACT 85 OF 1993)

Tenderers are required to satisfy the employer and the engineer as to their ability and available resources to comply with the above by answering the following questions and providing the relevant information required below.

(Tick applicable box)

1. Are your company familiar with the OHSA (ACT 85 of 1993) and its Regulations?	YES	NO
2. Who will prepare your company's Health and Safety Plan? Provide a copy of the person/s curriculum vitae/s or company profile.		
3. Do your company have a health and safety policy? If YES provide a copy.	YES	NO
4. How is this policy communicated to your employees? Provide supporting documentation.	YES	NO
5. Do your company keep record of safety aspects of each site where work is performed? If YES what records are kept?	YES	NO
6. Do your company conduct monthly safety meetings? If YES, who is the chairperson of the meeting, and attend these meetings?	YES	NO
7. Do your company have a safety officer in its employment, responsible for overall safety of your company? If YES, explain his duties and provide a copy of his CV	YES	NO
8. Do your company have trained first aid employees? If YES, indicate who.	YES	NO
9. Do your company have a safety induction training programme in place? If YES, provide a copy.	YES	NO
10. Does your company conduct medical surveillance for its employees?	YES	NO

The undersigned, who warrants that he / she is duly authorised to do so on behalf of the enterprise, confirms that the contents of this schedule are within my personal knowledge and are to the best of my belief both true and correct.

Person authorized to sign the tender:

Full name (in BLOCK letters): _____

Signature: _____

Date: _____

FORM RD.C.5 RECORD OF SERVICES PROVIDED TO ORGANS OF STATE

Tenderers are required to complete this record in terms of the Supply Chain Management Regulations issued in terms of the Municipal Finance Management Act of 2003.

Include only those contracts where the tenderer identified in the signature block below was directly contracted by the employer. Tenderers must not include services provided in terms of a sub-contract agreement.

Where contracts were awarded in the name of a joint venture and the tenderer formed part of that joint venture, indicate in the column entitled "Title of the contract for the service" that was in joint venture and provide the name of the joint venture that contracted with the employer. In the column for the value of the contract for the service, record the value of the portion of the contract performed (or to be performed) by the tender.

Complete the record or attach the required information in the prescribed tabulation

ALL SERVICES COMMENCED OR COMPLETED TO AN ORGAN OF STATE IN THE LAST FIVE YEARS				
	Organ of state, i.e. national or provincial department, public entity, municipality or municipal entity.	Title of contract for the service	Value of contract for service incl. VAT (Rand)	Date completed (State current if not yet completed)
1.				
2.				
3.				
4.				
5.				
6.				
7.				
8.				

(Attach additional pages if more space is required.)

The undersigned, who warrants that he / she is duly authorised to do so on behalf of the enterprise, confirms that the contents of this schedule are within my personal knowledge and are to the best of my belief both true and correct.

Person authorized to sign the tender:

Full name (in BLOCK letters): _____

Signature: _____

Date: _____

FORM RD.C.6 SCHEDULE OF PLANT AND EQUIPMENT

The following are lists of the major items of relevant equipment that I/we presently own/lease and will have available for this contract or will hire/acquire for this contract as proof of the requirements for Clause C.3.13 b) of the Conditions of Tender

Major equipment owned/leased that is immediately available for the execution of the works	
Quantity	Description, size, capacity etc.

(Attach additional pages if more space is required)

Major equipment that will be hired or acquired for the execution of the works	
Quantity	Description, size, capacity etc.

(Attach additional pages if more space is required)

The undersigned, who warrants that he / she is duly authorised to do so on behalf of the enterprise, confirms that the contents of this schedule are within my personal knowledge and are to the best of my belief both true and correct.

Person authorized to sign the tender:

Full name (in BLOCK letters): _____

Signature: _____

Date: _____

FORM RD.C.8 STATUS OF CONCERN SUBMITTING TENDER

1. General

State whether the tenderer is a company, a closed corporation, a partnership, a sole practitioner, a joint venture/consortium or a co-operative

Public Company	<input type="checkbox"/>
Private Company	<input type="checkbox"/>
Closed Corporation	<input type="checkbox"/>
Partnership	<input type="checkbox"/>
Sole Proprietary	<input type="checkbox"/>
Joint Venture / Consortium	<input type="checkbox"/>
Co-operative	<input type="checkbox"/>

(Mark the appropriate option)

2. Information to be provided

If the Tendering Entity is a:		Documentation to be submitted with the tender
1	<u>Closed Corporation</u> , incorporated under the Close Corporation Act, 1984, Act 69 of 1984	CIPRO CK1 or CK2 (Certified copies of the founding statement) and list of members
2	<u>Private Company</u> incorporated with share capital, under the companies Act, 1973, Act 61 of 1973 (Including Companies incorporated under Art 53 (b))	Certified copies of: a) CIPRO CM 1 - Certificate of Incorporation b) CIPRO CM 29 – Contents of Register of Directors, Auditors and Officers c) Shareholders Certificates of all Members of the Company, plus a signed statement of the Company's Auditor, certifying each Member's ownership/shareholding percentage relative to the total.
3	<u>Private Company</u> incorporated with share capital, under the companies Act, 1973, Act 61 of 1973 in which any, or all, <u>shares are held by another</u> Closed Corporation or company with, or without, share capital.	Certified copies of documents referred to in 1 and/or 2 above in respect of all such Closed Corporations and/or Companies
4	<u>Public Company</u> incorporated with share capital, under the companies Act, 1973, Act 61 of 1973 (Including Companies incorporated under Art 21)	A signed statement of the Company's Secretary confirming that the Company is a public Company.
5	<u>Sole Proprietary</u> or a <u>Partnership</u>	Certified copy of the Identity Document of: a) such Sole Proprietary, or b) Each of the Partners in the Partnership Certified copy of the Partnership agreement.
6	<u>Co-operative</u>	CIPRO CR2 - Certified copies of Company registration document.

If the Tendering Entity is a:		Documentation to be submitted with the tender
7	<u>Joint Venture / Consortium</u>	All the documents (as described above) as applicable to each partner in the joint venture / consortium as well as a certified copy of the joint venture / consortium agreement.

<p>Note:</p> <ol style="list-style-type: none"> 1. If the shares are <u>held in trust</u> provide a copy of the Deed of Trust (only the front page and pages listing the trustees and beneficiaries are required) as well as the Letter of Authority as issued by the Master of the Supreme Court wherein trustees have been duly appointed and authorised 2. Include a certified copy of the <u>Certificate of Change of Name (CM9)</u> if applicable.
--

3. Registered for VAT proposes in terms of the Value-Added Tax Act (89 of 1991)

Yes	<input type="checkbox"/>
No	<input type="checkbox"/>

(Make an X in the appropriate space)

REGISTRATION NO: _____

FORM RD.C.9 CLASSIFICATION OF BUSINESS

1. The Small Businesses are defined in the National Small Business Act, 1996 (Act 102 of 1996).
 2. Information furnished with regard to the classification of Small businesses
- (b.) Indicate whether the company/entity is defined as a small, medium or micro enterprise by the National Small Business Act.

YES	NO
-----	----

(Tick appropriate box)

- (c.) If the response to 2.(a.) is **YES**, the following must be completed:

- i. Sector/sub-sector in accordance with the Standard Industrial classification:

- ii. Size or class:

- iii. Total full-time equivalent of paid employees:

- iv. Total annual turnover:

- v. Total gross asset value (fixed property excluded):

(A schedule indicating the different sectors is attached to this form.)

- (d.) The tenderer should substantiate the information provided by submitting the following documentation:

- i. A letter from the tenderer's auditor or an affidavit from the South African Police Services confirming the correctness of the abovementioned information,
- ii. Company profile indicating the tenderer's staff compliment, and
- iii. 3 year financial statement or since their establishment if established during the past 3 years.

SCHEDULE OF SECTORS

SIZE OF CLASS	THE TOTAL FULL-TIME EQUIVALENT OF PAID EMPLOYEES	TOTAL TURNOVER	TOTAL GROSS ASSET VALUE (FIXED PROPERTY EXCLUDED)
AGRICULTURE			
Medium	100	R 5 mil	R 5 mil
Small	50	R 3 mil	R 3 mil
Very Small	10	R 500 000	R 500 000
Micro	5	R 200 000	R 100 000
MINING AND QUARRYING			
Medium	200	R 39 mil	R 23 mil
Small	50	R 10 mil	R 6 mil
Very Small	20	R 4 mil	R 2 mil
Micro	5	R 200 000	R 100 000
MANUFACTURING			
Medium	200	R 51 mil	R 19 mil
Small	50	R 13 mil	R 5 mil
Very Small	20	R 5 mil	R 2 mil
Micro	5	R 200 000	R 100 000
ELECTRICITY, GAS & WATER			
Medium	200	R 51 mil	R 19 mil
Small	50	R 13 mil	R 5 mil
Very Small	20	R 5.1 mil	R 1.9 mil
Micro	5	R 200 000	R 100 000
CONSTRUCTION			
Medium	200	R 26 mil	R 5 mil
Small	50	R 6 mil	R 1 mil
Very Small	20	R 3	R 500 000
Micro	5	R 200 000	R 100 000
RETAIL AND MOTOR TRADE & REPAIR SERVICES			
Medium	200	R 39 mil	R 6 mil
Small	50	R 19 mil	R 3 mil
Very Small	20	R 4 mil	R 600 000
Micro	5	R 200 000	R 100 000
WHOLESALE TRADE, COMMERCIAL AGENTS AND ALLIED SERVICES			
Medium	200	R 64 mil	R 10 mil
Small	50	R 32 mil	R 5 mil
Very Small	20	R 6 mil	R 600 000
Micro	5	R 200 000	R 100 000
CATERING, ACCOMMODATION AND OTHER TRADE			
Medium	200	R 13 mil	R 3 mil
Small	50	R 6 mil	R 1 mil
Very Small	20	R 5.1 mil	R 1.9 mil
Micro	5	R 200 000	R 100 000
TRANSPORT, STORAGE & COMMUNICATIONS			
Medium	200	R 26 mil	R 6 mil
Small	50	R 13 mil	R 3 mil
Very Small	20	R 3 mil	R 600 000
Micro	5	R 200 000	R 100 000
FINANCE & BUSINESS SERVICES			
Medium	200	R 26 mil	R 5 mil
Small	50	R 13 mil	R 3 mil
Very Small	20	R 3 mil	R 500 000
Micro	5	R 200 000	R 100 000
COMMUNITY, SOCIAL AND PERSONAL SERVICES			
Medium	200	R 13 mil	R 6 mil

Small	50	R 6 mil	R 3 mil
Very Small	20	R 1mil	R 600 000
Micro	5	R 200 000	R 100 000

FORM RD.C.10 LETTER OF INTENT TO PROVIDE A PERFORMANCE BOND

It is hereby agreed that a Performance Bond drafted **exactly** as set out in the attached examples (See Section C1.3: Form of Guarantee) will be provided by the Surety named below:

Name of Surety (Bank or Insurer)

Address:

Signed:

Name:

Capacity:

On behalf of Tenderer (name of tenderer)

Date:

CONFIRMED BY Surety's Authorised representative

Signature(s):

Name (print):

Capacity

On behalf of Surety (Bank or Insurer)

Date:

FORM RD.C.13 CLIENT'S REFERENCE LETTER

The following template **MUST** be used by contractors as **REFERENCE LETTER** for the completed projects in order for points to be awarded.

Name of Client : _____

Client's Address : _____

Contractor Name : _____

Project Name : _____

Project scope : _____

Type and magnitude of road and stormwater project: _____

Type and span of bridge project: _____

Project Site Location: _____

Services Rendered: _____

Value of Roads and Stormwater works : _____ (VAT Exc.)

Value of Bridge works : _____ (VAT Exc.)

I certify that the above information is true:

Client's Representative

Signature

Tel:

Date

Email Address



FORM RD.C.14 BANK RATING CERTIFICATE

Notes to tenderer:

1. The tenderer shall attach to this form a letter from the bank at which he declares he conducts his account. The contents of the bank's letter must state the rating that it, in addition to the information required below, accords to the tenderer for the business envisaged by this tender. Failure to provide the required letter within the tender submission may render the tenderer's offer unresponsive in terms of tender condition C3.11
2. The tenderer's banking details as they appear below shall be completed.
3. In the event that the tenderer is a joint venture enterprise, details of all the members of the joint venture shall be similarly provided and attached to this form.
4. The information as supplied will be used to calculate the tenderer's functionality score as per Clause C3.11.2 of the tender data.

The tenderer shall provide the following:

- i) Name of Account Holder:.....
- ii) Account Number:
- iii) Bank Name:
- iv) Branch Number:
- v) Bank and branch contact details:

The undersigned, who warrants that he / she is duly authorised to do so on behalf of the enterprise, confirms that the contents of this schedule are within my personal knowledge and are to the best of my belief both true and correct.	
<u>Person authorized to sign the tender:</u>	
Full name (in BLOCK letters):	_____
Signature:	_____
Date:	_____

FORM RD.D.1 RECORD OF ADDENDA TO TENDER DOCUMENTS

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

	DATE	REFERENCE	TITLE
1			
2			
3			
4			
5			
6			
7			
8			
9			
10			

The undersigned, who warrants that he / she is duly authorised to do so on behalf of the enterprise, confirms that the contents of this schedule are within my personal knowledge and are to the best of my belief both true and correct.

Person authorized to sign the tender:

Full name (in BLOCK letters): _____

Signature: _____

Date: _____

FORM RD.D.2 MANDATORY REQUIREMENTS

The experience of the tenderer or joint venture partners in the case of an unincorporated joint venture consortium, in similar projects shall be evaluated. Proof of experience (Appointment letters and Completion certificates) will influence the scoring on listed projects.

NOTE: The General Conditions of Contract prohibit the sub-contracting of the whole of the Contract.

The scoring of the Tenderer’s experience shall be for a similar project (Roads and Stormwater or Stormwater Infrastructure Projects) as follows:

1)Tendering company	
Mandatory criteria	Supporting evidence
CIDB Grading of 8CE or Higher	Valid CIDB grading certificate
Tenderer’s banking rating level C for a value of R20m.	Bank Rating Certificate
Company Experience: Proof of 1 or more relevant projects (Bridges, Roads & Stormwater projects)	Appointment letter, approved Completion Certificate and a *Reference letter. (see RD.C.13)
<p>Relevant project(s) consists of</p> <p>I.I. Road and Stormwater Infrastructure Project: At least one road and stormwater infrastructure project with a minimum contract value of R60 million.</p> <p>AND</p> <p>II. Bridge Project: At least one reinforced concrete bridge project with a minimum contract value of R15 million.</p> <p>* Reference letter (see RD.C.13) should indicate the project scope, value of work done</p>	
2) Key Personnel	
Mandatory criteria	Supporting evidence
<p>Contracts Manager Minimum Qualification: BSc, BEng, or BTech in Civil Engineering (NQF Level 7), accredited by SAQA. Professional Registration: Registration with the Engineering Council of South Africa (ECSA) as a Professional Engineer or Professional Engineering Technologist, OR Registration with the South African Council for the Project and Construction Management Professions (SACPCMP) as a Professional Construction Project Manager or Professional Construction Manager. Experience Requirements:</p>	<p>Certified copy of qualification, SACPCMP/ECSA registration and detailed CV indicating years of experience are compulsory</p>

<p>Minimum of 5 years' experience in roads and stormwater infrastructure; and Minimum of 2 projects in any reinforced concrete projects.</p>	
<p>Construction Manager Minimum Qualification: National Diploma (NQF Level 6) in Civil Engineering, or a higher qualification in Civil Engineering, accredited by SAQA. Experience Requirements: Minimum of 5 years' experience in roads and stormwater infrastructure; and Minimum of 2 projects in any reinforced concrete projects.</p>	<p>Certified copy of qualification and detailed CV indicating years of experience are compulsory.</p>
<p>Construction Supervisor 1 Minimum Qualification: Artisan/Certificate (NQF Level 4) Minimum of 3 years' experience in roads and stormwater projects.</p>	<p>Certified copy of qualification and detailed CV indicating years of experience are compulsory.</p>
<p>Construction Supervisor 2 Minimum Qualification: Artisan/Certificate (NQF Level 4) Minimum of 2 projects in any reinforced concrete projects</p>	<p>Certified copy of qualification and detailed CV indicating years of experience are compulsory.</p>
<p>Construction Health and Safety Officer Qualification: National Diploma/ NQF 6 in Health & Safety. Professional registration with the South African Council for the Project and Construction Management Professions (SACPCMP) Minimum 3 years post registration experience as a Construction Health and Safety Officer.</p>	<p>Certified copy of qualification, SACPCMP registration and detailed CV indicating years of experience are compulsory.</p>
<p>Dedicated Environmental Officer (DEO) Qualification: National Diploma/ (NQF Level 6) in environmental or natural sciences. Minimum 2 years post qualification experience as a DEO.</p>	<p>Certified copy of qualification and detailed CV indicating years of experience are compulsory.</p>

The undersigned, who warrants that he / she is duly authorized to do so on behalf of the enterprise, confirms that the contents of this schedule are within my personal knowledge and are to the best of my belief both true and correct.

Person authorized to sign the tender:

Full name (in BLOCK letters): _____

	Signature: _____
	Date: _____

FORM RD.D.3 SCHEDULE OF TENDERERS EXPERIENCE

The experience of the tenderer or joint venture partners in the case of an unincorporated joint venture consortium, in similar projects shall be evaluated. Proof of experience (Appointment letters and Completion certificates) will influence the scoring on listed projects.

NOTE: The General Conditions of Contract prohibit the sub-contracting of the whole of the Contract.

The scoring of the Tenderer’s experience shall be for a similar project (Water and Sewer Reticulation Infrastructure Projects) as follows:

Previous Project Description:

- A maximum of 50 points will be allocated for similar projects over the project values as specified.

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

	Employer, contact person and telephone number (Project will be rejected without current accurate contact data)	Description of contract – of similar nature for each project (points to be allocated for each project of similar nature and scope ref C3.11)	Date completed	Points/ contract To be completed by Evaluator
1	Employer: _____ Contact Person: _____ Tel: _____			
2	Employer: _____ Contact Person: _____ Tel: _____			
3	Employer: _____ Contact Person: _____ Tel: _____			
4	Employer: _____ Contact Person: _____ Tel: _____			
5	Employer: _____ Contact Person: _____ Tel: _____			
MAXIMUM TOTAL POINTS TENDERERS TOTAL			(50)	

KEY PERSONNEL

The Tenderer shall schedule the following Key Personnel who would be assigned to this Contract. The Contractor shall be contractually obliged to make these personnel available for the duration of the Contract, failing which alternative personnel of equal or higher qualification may be accepted by the employer.

POSITION	NAME	YEARS OF EXPERIENCE	NUMBER OF PROJECTS COMPLETED OF SIMILAR NATURE	Points/ contract To be completed by Evaluator
Contracts Manager				
Construction Manager				
Construction Supervisor 1				
Construction Supervisor 2				
Dedicated Environmental Officer				
Construction Health & Safety Officer				
MAXIMUM TOTAL POINTS TENDERERS TOTAL				(50)

The Tenderer shall complete a CV for each of the Key Personnel in Form RD.D.4 accompanied by the valid and certified proof of Qualifications, Professional Registrations, and Proof of Identity for all personnel

FORM RD.D.4 CURRICULUM VITAE OF KEY PERSONNEL

Note: This form should be completed for each key person listed in Form RD.D.4(attach a comprehensive C.V, and proof of Registration).

Name:		Date of birth:	
Profession:		Nationality:	
Qualifications:			
Professional membership:			
Number of years post registration experience:			
Name of employer (firm):			
Current position:		Years with firm:	
Employment record: (list in chronological order starting with earliest work experience)			
Experience record pertinent to project scope:			
Certification:			
I, the undersigned, certify that to the best of my knowledge and belief, this data correctly describes me, my qualifications, and my experience.			
_____		_____	
<i>(Signature of person named in schedule)</i>		Date:	

FORM RD.D.5

SUMMARY OF TENDERER'S EXPERIENCE SCORE

CRITERIA	REFERENCE	MAX POINTS	TENDERER'S SCORE
Tenderers Experience			
Schedule of Tenderer's Experience	RD.D.3	50	
Total		50	
Key Personnel			
Contracts Manager	RD.D.3	15	
Construction Manager	RD.D.3	10	
Construction Supervisor 1	RD.D.3	5	
Construction Supervisor 2	RD.D.3	5	
Construction Health and Safety Officer	RD.D.3	10	
Dedicated Environmental Officer	RD.D.3	5	
Total		50	
GRAND TOTAL		100	
Min Points		70	

A minimum of **70 points** will be required to remain in the tender process.

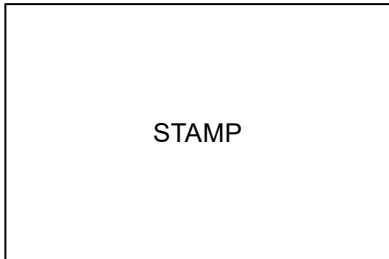
PORTION 2: CONTRACT

PART C1: AGREEMENTS AND CONTRACT DATA

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C1.1 FORM OF OFFER AND ACCEPTANCE



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

Contract No: HS 09-2025/26: THE CONSTRUCTION OF 6KM ROAD AND STORMWATER NETWORK AND ONE BRIDGE (BRIDGE NO 3) ALONG BATHLAPING STREET IN OLIEVENHOUTBOSCH EXTENSION 60 FOR A PERIOD OF 36 MONTHS - PHASE 1

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 returnable schedules, and by submitting this Offer has accepted the Conditions of Tender.

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

THE OFFERED TOTAL OF PRICES INCLUSIVE OF VALUE ADDED TAX IS

R	<i>(in figures)</i>	
<hr/>		<i>(in words)</i>
<hr/>		
<hr/>		

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.

Part C1: Agreements and Contract Data

NAME(s): (BLOCK LETTERS)

CAPACITY of authorized agents:

SIGNATURE(s) of authorized agents:

SIGNED at on this day of

WITNESSES: (Full name – BLOCK LETTERS – and signature)

1.

2.

ACCEPTANCE

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

The terms of the contract, are contained in

Part T1	Tendering Procedures
Part T2	Returnable Documents
Part C1	Agreements and Contract Data, (which includes this Agreement)
Part C3	Scope of Work
Part C4	Site Information

and drawings and documents or parts thereof, which may be incorporated by reference into Parts C1 to C4 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.

The Tenderer shall within two weeks after receiving a letter of acceptance, contact the Employer's agent (whose details are given in the Contract Data) to arrange the delivery of guarantees, proof of insurance and any other documentation to be provided in terms of the Conditions of Contract identified in the Contract Data. Failure to fulfil any of these obligations in accordance with those terms shall constitute a repudiation of this Agreement.

Notwithstanding anything contained herein, this Agreement comes into effect on the date when the Tenderer receives one fully completed original copy of this document, including the Schedule of Deviations (if any). Unless the Tenderer (now Contractor) within five days of the date of such receipt notifies the Employer in writing of any reason why he cannot accept the contents of this Agreement, this Agreement shall constitute a binding contract between the parties¹.

Part C1: Agreements and Contract Data

¹ As an alternative, the following wording may be used:

Notwithstanding anything contained herein, this agreement comes into effect two days after the submission by the Employer of one fully completed original copy of this document including the schedule of deviations (if any), to a courier-to-counter delivery / counter-to-counter delivery / door-to-counter delivery / door-to-door delivery / courier service (delete that which is not applicable), provided that the Employer notifies the Tenderer of the tracking number within 24 hours of such submission. Unless the Tenderer (now Contractor) within seven days of the date of such receipt notifies the Employer in writing of any reason why he cannot accept the contents of this Agreement, this Agreement shall constitute a binding contract between the parties.

NAME(s): (BLOCK LETTERS)	.....	.....	
CAPACITY of authorized agents:	.....	.....	
SIGNATURE(s) of authorized agents:	.....	.....	
SIGNED at	.....	on this	.....	day of	.....
WITNESSE(s): (Full name – BLOCK LETTERS – and signature)					
1.	.....	.....	.....	.....	.....
2.	.....	.....	.....	.....	.....

SCHEDULE OF DEVIATIONS

Notes:

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

4.1	Subject	.....
	Details	.....
4.2	Subject	.....
	Details	.....
4.3	Subject	.....
	Details	.....
4.4	Subject	.....
	Details	.....
4.5	Subject	.....
	Details	.....

By the duly authorised representatives signing this agreement, the Employer and the Tenderer agree to and accept the foregoing Schedule of Deviations as the only deviations from the 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 this process of offer and acceptance.

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

Part C1: Agreements and Contract Data

FOR AND ON BEHALF OF THE **TENDERER:**

NAME(s): (in block letters)

CAPACITY of authorized agents:

SIGNATURE(s) of authorized agents:

SIGNED at on this day of

WITNESSES: (Full name – in block letters – and signature)

1.

2.

FOR AND ON BEHALF OF THE **EMPLOYER:**

NAME(s): (in block letters)

CAPACITY of authorized agents:

SIGNATURE(s) of authorized agents:

SIGNED at on this day of

WITNESSES: (Full name – in block letters – and signature)

1.

2.

C1.2 CONTRACT DATA

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C.1.2.1 GENERAL CONDITIONS OF CONTRACT

The conditions of contract applicable to this contract shall be the **General Conditions of Contract for Construction Works, Third Edition (2015)** of the South African Institution of Civil Engineering (SAICE), read together with the Variations and Additions to the Conditions of Contract as well as the Data provided by Employer.

Should there be any contradicting conditions/statements between these Conditions of Contract and any other part of the tender documents/specifications, the Employer's Agent will give clarity on which version applies to this contract. For pricing purposes, the Contractor must take the least favourable meaning into consideration when tendering, no claims will be considered attributable to the contradicting conditions/statements.

Tenderers, contractors and subcontractors shall obtain their own copies of the document **General Conditions of Contract for Construction Works, Third Edition (2015)** for tendering purposes and for use for the duration of the contract from the Secretary of the South African Institution of Civil Engineering, Private Bag X200, Halfway House, Midrand, 1685 and shall bear all expenses in this regard.

C1.2.2 VARIATIONS AND ADDITIONS TO THE CONDITIONS OF CONTRACT

The following variations and additions to the General Conditions of Contract for Construction Works, Third Edition (2015), shall apply to this contract:

CLAUSE / SUB-CLAUSE	VARIATION / ADDITION
1.1	<p>Add the following definitions:</p> <p><i>1.1.1.13 The Defects Liability Period is 365 Days (12 months) from the date of the Completion Certificate</i></p> <p><i>1.1.1.14.1 The starting/ commencement date is the date of the site handover.</i></p> <p><i>1.1.1.14.2 The time for achieving Practical Completion is 36 months from date of commencement.</i></p> <p><i>1.1.1.15 The name of the Employer is:</i></p> <p style="padding-left: 40px;"><i>City of Tshwane, represented by the Group Head, Human Settlements Department, and / or any other person or persons duly authorised thereto by the Employer in writing.</i></p> <p><i>1.1.1.16 The name of the Employer's Agent is:</i></p> <p style="padding-left: 40px;"><i>Damaris Holdings CC, acting through a principal or an official authorised thereto in writing.</i></p> <p><i>1.1.1.17 The name of the OHS / CHS's Agent is:</i></p> <p style="padding-left: 40px;"><i>Takusa Consulting and Services Cc, acting through a OHS / CHS Agent official authorised thereto in writing.</i></p> <p><i>1.1.1.26 The pricing strategy of a re-measurable Contract shall apply</i></p>
1.2.1	<p>Add the following to the clause:</p> <p><i>1.2.1.2 The address of the Employer is:</i></p> <p style="padding-left: 40px;"><i>Postal address:</i> <i>P O Box 440</i> <i>PRETORIA</i> <i>0001</i></p> <p style="padding-left: 40px;"><i>Details of the Project Manager:</i></p> <p style="padding-left: 40px;"><i>Physical address:</i> <i>Human Settlements Department</i> <i>1st floor Tshwane House</i> <i>320 Madiba Street</i> <i>Pretoria</i> <i>0002</i></p> <p style="padding-left: 40px;"><i>Contact numbers:</i> <i>Telephone: 012 358 2327</i> <i>Fax: NA</i> <i>e-mail address: DerrickMP@tshwane.gov.za</i></p>

Part C1: Agreements and Contract Data

CLAUSE / SUB-CLAUSE	VARIATION / ADDITION
1.2.2	<ul style="list-style-type: none"> • <i>The Employer has authorised the Group Head to act on his behalf in respect of this Contract, save for such duties or functions:</i> • <i>which other holders of office ex officio execute on behalf of the Employer; or</i> • <i>for which the Group Head has no authority and the Employer's approval is required before execution thereof.</i> • The Group Head is: <i>Ms. Nonto Memela</i> <i>Human Settlements Department</i>
3.2.3	<p><i>The Employer's Agent is required in terms of his appointment by the Employer to obtain the specific approval of the Employer for any variations to the Scope of Work which may increase the contract sum.</i></p>
4.3	<p>Add the following new sub-clause:</p> <p>1.3.3 <i>Wages and conditions of work:</i></p> <p style="margin-left: 40px;">i. <i>For conventional construction works the Basic Conditions of Employment Act of 1997 (Act No 75 of 1997) shall apply and the minimum employment conditions which will apply shall be guided by the latest Sectoral Determination: Civil Engineering Sector published from time to time.</i></p> <p style="margin-left: 40px;">ii. <i>Basic Conditions of Employment Act of 1997 (Act No 75 of 1997) as per Government Notice R63 of 25 January 2002, shall apply to works described in the Scope of Work as being labour intensive and which are undertaken by unskilled or semi-skilled workers.</i></p> <p>Add the following new sub-clause:</p> <p>4.3.4 <i>Notwithstanding any actions which the Employer may take, the Contractor accepts sole liability for due compliance with the relevant duties, obligations, prohibitions, arrangements and procedures imposed by the Occupational Health and Safety Act, 1993 (Act 85 of 1993), and all its regulations, including the Construction Regulations, 2014, for which he is liable as mandatory. By entering into this Contract it shall be deemed that the parties have agreed in writing to the above provisions in terms of Section 37(2) of the Act. The Contractor shall sign the Occupational Health and Safety Agreement for Contract Work in the City of Tshwane Metropolitan Municipality included in section C1.5.</i></p> <p>Add the following new sub-clause:</p> <p>4.3.5 <i>The Employer retains an interest in all inquiries conducted under this Contract in terms of Section 31 and/or 32 of the Occupational Health and Safety Act, 1993 (Act 85 of 1993) and its Regulations following any incident involving the Contractor and/or Sub-Contractor and/or their employees. The Contractor shall notify the Employer in writing of all investigations, complaints or criminal charges which may arise pursuant to work performed under this Contract in</i></p>

Part C1: Agreements and Contract Data

CLAUSE / SUB-CLAUSE	VARIATION / ADDITION
	<p><i>terms of the Occupational Health and Safety Act, 1993 (Act 85 of 1993) and Regulations.</i></p>
<p>5.3.1</p>	<p><i>The documentation required before commencement with Works execution are:</i></p> <ul style="list-style-type: none"> • <i>A signed copy of the Form of Offer and Agreement between the Employer and the Contractor for the Works to be completed by the Contractor in terms of the contract.</i> • <i>A permit or notification of construction works in terms of Regulations 3(1) and (2) of the Construction Regulations 2014.</i> • <i>Health and Safety Plan (Refer to Clause 4.3) approved by Safety Agent, Safety File approved by Safety Agent and/or CoT OHS Department.</i> • <i>A signed Agreement between the Employer and the Contractor for the Works to be completed by the Contractor in terms of the provisions of Section 37(2) of the Occupational Health and Safety Act (Act No.85 of 1993) and the Construction Regulations promulgated thereunder (Refer to Clause 4.3) use latest 2014.</i> • <i>Proof of payment to the Employer, that the Contractor has paid all contributions required in terms of the Compensation for Occupational Injuries and Diseases Act, No. 130 of 1993 (Refer to Clause 4.3).</i> • <i>Initial programme (Refer to Clause 5.6)</i> • <i>Security (Refer to Clause 6.2)</i> • <i>Insurance (Refer to Clause 8.6)</i> • <i>Initial Cashflow Projections for the approval by Engineer</i> <p><i>Additional documentation required before commencement with Works execution are:</i></p> <ul style="list-style-type: none"> • <i>Quality Control Site Books, such as Site Diary, Compaction Control Tests, Levels, Concrete Tests, Site Instructions, Plant and Equipment, Labour for approval by Employer's Agent / Representative and acknowledgement to adhere to Engineer's QMS</i> • <i>Construction Method Statements</i> • <i>Staff CVs for approval by Employer and Employer's Agent as per contract specification (Part T1.2-Tender Data, Clause C2.1)</i> • <i>SMME Management and Monitoring plan for CoT approval. The SMME Management Plan shall entail breakdown of the scope of works to be executed by local SMMEs, SMME selection approach, management and skills transfer approach, number of local SMMEs to be engaged on the project</i>
<p>5.3.2</p>	<p><i>The time to submit the documentation required before commencement with Works execution is 21 days.</i></p>
<p>5.4.2.1</p>	<p><i>Section of the pipeline is in a private and business property therefore working areas needs to be barricaded and signs erected to limit access to the construction working areas.</i></p>
<p>5.5.1</p>	<p><i>The estimated construction period is 36 months from date of commencement based on the engineer's estimates.</i></p>
<p>5.8.1</p>	<p><i>The non-working days are Saturdays and Sundays</i></p> <p><i>The special non-working Days are:</i></p> <p style="text-align: center;"><i>Statutory public holidays; and</i></p>

CLAUSE / SUB-CLAUSE	VARIATION / ADDITION
	<p><i>All annual year-end shutdown periods as recommended by the South African Federation of Civil Engineering Contractors, and which commence before the Completion Date.</i></p>
5.12	<p>Add the following new sub-clause</p> <p><i>5.12.5 Critical path provision</i></p> <p><i>A delay in so far as extension of time is concerned, will be regarded as a delay only if, on a claim by the Contractor in accordance with the General Conditions of Contract, the Engineer rules that all progress on an item or items of work on the critical path of the approved programme for the execution of the Works by the Contractor, has been brought to a halt. Delays on normal working days only, based on a working week, of five normal working days, will be taken in account for the extension of time.</i></p> <p>Add the following new sub-clause</p> <p><i>5.12.6 Extension of time due to abnormal rainfall</i></p> <p><i>Extension of time due to abnormal rainfall shall be determined by means of Method 1, if rainfall records and/or values derived from rainfall records are supplied in the Scope of Work, otherwise Method 2 shall apply.</i></p> <p><u>Method 1: Rainfall formula method</u></p> <p><i>The rainfall records and/or values derived from rainfall records from a suitable rainfall station near the Site, which are supplied in the Project Specifications, shall be considered suitable for the determination of extension of time due to abnormal rainfall in accordance with this method.</i></p> <p><i>Extension of time arising from abnormal rainfall, shall be calculated separately for each calendar month or part thereof for the full period of completion of the Contract, including any extension thereof, in accordance with the rainfall formula given below:</i></p> $V = (N_w - N_n) + \frac{(R_w - R_n)}{X}$ <p><i>If V is negative and its absolute value exceeds N_n, then V shall be equal to minus N_n.</i></p> <p><i>If V is positive and greater than the number of calendar days in the calendar month under consideration, V shall be taken as equal to the number of calendar days in the relevant calendar month.</i></p> <p><i>The symbols shall have the following meaning:</i></p> <p><i>V = Extension of time in calendar days in respect of the calendar month under consideration</i></p> <p><i>N_w = Actual number of days during the calendar month on which a rainfall of Y mm or more has been recorded.</i></p> <p><i>R_w = Actual rainfall in mm for the calendar month under consideration.</i></p> <p><i>N_n = Average number of days as derived from existing rainfall records, on which a rainfall of Y mm or more has been recorded for the calendar</i></p>

CLAUSE / SUB-CLAUSE	VARIATION / ADDITION
	<p><i>month. Rainfall records and/or the derived values of N_n will be provided in the Specifications.</i></p> <p><i>R_n = Average rainfall in mm for the calendar month, as derived from existing rainfall records. Rainfall records and/or the derived values of R_n will be provided in the Project Specifications.</i></p> <p><i>X = 20 unless otherwise provided in the Project Specifications</i></p> <p><i>Y = 10 unless otherwise provided in the Project Specifications</i></p> <p><i>The total extension of time shall be the algebraic sum of the monthly totals for the period under consideration. However, if the grand total is negative the time for completion shall not be reduced on account of abnormal rainfall. Extension of time for parts of a month shall be calculated by pro rata values of N_n and R_n being used.</i></p> <p><i>The factor $(N_w - N_n)$ shall be considered to represent a fair allowance for variations from the average number of days during which rainfall exceeds Y mm and wet conditions prevented or disrupted work.</i></p> <p><i>The factor $\frac{(R_w - R_n)}{X}$ shall be considered to represent a fair allowance for variations from the allowance for variations from the average number of days when wet conditions further to that allowed for the factor $(N_w - N_n)$, prevented or disrupted work during the calendar month.</i></p> <p><i>Accurate rain gauging shall be taken at a suitable point on Site and the Contractor shall, at his own expense, take all necessary precautions to ensure that the rain gauges cannot be interfered with.</i></p> <p><i>This formula does not take into account further on concurrent delays which could be caused by other abnormal climatic conditions such as floods, which have to be determined separately in accordance with Sub-Clause (42.5 Critical Path Provision) hereof.</i></p> <p><i><u>Method 2: Expected delay method</u></i></p> <p><i>The Contractor shall make provision in his programme for the execution of the Works, for an expected delay of "n" normal working days (based on a working week of five normal working days) due to normal rainfall, for which he will not receive any extension of time.</i></p> <p><i>Unless otherwise provided in the Project Specifications, the value of "n" shall be taken as equal to the tendered time for completion of the Works in months, rounded off to an integer.</i></p> <p><i>Extension of time during normal working days will be granted to the degree to which actual delays as determined in accordance with Sub-Clause (42.5 Critical Path Provision) hereof, exceed the number of "n" normal working days.</i></p> <p><i>The value of "n" does not take into account further or concurrent delays which are caused by other abnormal climatic conditions such as floods, which have to be determined separately in accordance with Sub-Clause (42.5 Critical Path Provision) hereof.</i></p>
5.13.1	<i>The penalty for failing to complete the Works is R20 000(excluding VAT) per calendar day.</i>

Part C1: Agreements and Contract Data

CLAUSE / SUB-CLAUSE	VARIATION / ADDITION
5.16.3	<i>The latent defect period is 10 years, commencing on the day after the date of certification of Final Approval Certificate.</i>
6.1	<p>Add the following new sub-clause:</p> <p>6.1.2 <i>Payment for works identified in the Scope of Work as being labour-intensive shall only be made in accordance with the provisions of the Contract if the works are constructed strictly in accordance with the provisions of the Scope of Work. Any non-payment for such works shall not relieve the Contractor in any way of his obligations either in contract or in delict.</i></p> <p>Add the following new sub-clause</p> <p>6.1.3 <i>The Contractor shall be paid at Pretoria in the currency of the Republic of South Africa only at the Office of the Chief Financial Officer of the CITY OF TSHWANE, unless otherwise stated in the Data provided by Employer.</i></p>
6.2.1	<p><i>The form of Security for this Contract will be a Performance Guarantee.</i></p> <p><i>This Performance Guarantee is to be 10% of the Contract Value.</i></p>
6.5.1.2.3	<i>The percentage allowance to cover overhead charges is 10%.</i>
6.8.2	<p><i>The values of the certificates issued shall be adjusted in accordance with the Contract Price Adjustment Schedule with the following values:</i></p> <p><i>The values of the coefficients are:</i> <i>a = 0.10</i> <i>b = 0.35</i> <i>c = 0.25</i> <i>d = 0.30</i></p> <p><i>The site or largest part thereof shall be deemed to be located in the national province of Gauteng</i></p> <p><i>The applicable industry for the Producer Price index for materials is Building and Construction Civil Engineering.</i></p> <p><i>The area for the Producer Price Index for fuel is Witwatersrand.</i> <i>The base month is the month before the month in which the tenders close.</i></p>
6.10.1.5	<i>The percentage advance on materials not yet built into the Permanent Works is 80%. Proof of ownership is required.</i>
6.10.3	<i>The percentage retention money is 10 % of the Certificate Value.</i>
6.10.3	<i>The limit of retention money is 5% of the Contract Sum.</i>
8.6	8.6.1 For contracts above R20 million, the contractor is to choose between the following options and submit proof of the documentation requested:

CLAUSE / SUB-CLAUSE	VARIATION / ADDITION				
	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 50%;">OPTION A</th> <th style="width: 50%;">OPTION B</th> </tr> </thead> <tbody> <tr> <td> <p><u>The Contractor's own Public Liability Insurance Policy and/or Contractors All Risk Policy only applicable for Service Contracts</u></p> <p>Contractor to insure the following:</p> <p>a) All Risk Insurance cover with regard to all Plant and Materials and Equipment, owned, leased or hired by the Contractor that are used in the execution of the contract for the full replacement value thereof.</p> <p>b) Motor Vehicle and Liability Insurance cover indicating the registration numbers of the vehicles owned, leased or hired by the Contractor that are used in the execution of the contract to the amount of at least R5-million per claim with the number of claims unlimited.</p> <p>c) SASRIA cover for motor vehicles and Plant and Materials and Equipment owned, leased or hired by the Contractor that are used in the execution of the contract for the full replacement value thereof.</p> <p>d) In respect of Plant and Materials and Equipment and Motor Vehicles brought onto 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 Materials and Equipment and Motor Vehicles.</p> <p>e) Proof must also be submitted that the Contractor complies with the conditions of the following legislation:</p> <ol style="list-style-type: none"> 1. Compensation for Occupational Injuries and diseases, 1993. </td> <td> <p><u>The City of Tshwane's Public Liability for Contractors Policy or Principal Controlled Contractors All Risk Policy for all contracts including Service Contracts</u></p> <p>The City of Tshwane to only insure the works by the Contractor.</p> <p>The Contractor/Sub-contractor must obtain for the duration of the contract until the issuing of the Defects Certificate or the end of the Maintenance Period, the following insurance policies in the name of the Contractor (including all Subcontractors whether nominated or otherwise) at an insurance company within 21 (twenty-one) days of the notification of acceptance of the tender and must pay all premiums and supply proof thereof to the relevant Project Manager 30 (thirty) days before the inception of the contract, that the policies have been taken out and that all premiums have been paid:</p> <p>Contractor to insure the following:</p> <p>a) All Risk Insurance cover with regard to all Plant and Materials and Equipment owned, leased or hired by the Contractor that are used in the execution of the contract for the full replacement value thereof.</p> <p>b) Motor Vehicle and Passenger Liability Insurance cover indicating the registration numbers of the vehicles owned, leased or hired by the Contractor that are used in the execution of the contract to the amount of at least R10-million per claim with the number of claims unlimited.</p> <p>c) SASRIA cover for motor vehicles and Plant and Materials and Equipment owned, leased or hired by the</p> </td> </tr> </tbody> </table>	OPTION A	OPTION B	<p><u>The Contractor's own Public Liability Insurance Policy and/or Contractors All Risk Policy only applicable for Service Contracts</u></p> <p>Contractor to insure the following:</p> <p>a) All Risk Insurance cover with regard to all Plant and Materials and Equipment, owned, leased or hired by the Contractor that are used in the execution of the contract for the full replacement value thereof.</p> <p>b) Motor Vehicle and Liability Insurance cover indicating the registration numbers of the vehicles owned, leased or hired by the Contractor that are used in the execution of the contract to the amount of at least R5-million per claim with the number of claims unlimited.</p> <p>c) SASRIA cover for motor vehicles and Plant and Materials and Equipment owned, leased or hired by the Contractor that are used in the execution of the contract for the full replacement value thereof.</p> <p>d) In respect of Plant and Materials and Equipment and Motor Vehicles brought onto 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 Materials and Equipment and Motor Vehicles.</p> <p>e) Proof must also be submitted that the Contractor complies with the conditions of the following legislation:</p> <ol style="list-style-type: none"> 1. 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CLAUSE / SUB-CLAUSE	VARIATION / ADDITION	
	<p>2. Unemployment Insurance Act, 1996.</p> <p>3. The Contractor shall in respect of the Site of the contract works appoint in writing a competent person to meet the requirements</p>	<p>Contractor that are used in the execution of the contract for the full replacement value thereof.</p>
	<p>of the Health and Safety Act, No 85 of 1993 as amended.</p> <p>f) Public Liability insurance cover in the name of the contractor. The minimum limit of indemnity for any one event is R5- million and the number of claims will be unlimited.</p> <p>g) The insurance period must be specified in the Insurance Policy.</p> <p>h) The rights and interests of the City of Tshwane must be noted in the Insurance Policy in the form of an endorsement.</p>	<p>d) In respect of Plant and Materials and Equipment and Motor Vehicles brought onto the Site by or on behalf of Subcontractors, the Contractor shall be deemed to have complied with the provisions of this Sub-Clause by ensuring that such Subcontractors have similarly insured such Plant and Materials and Equipment and Motor Vehicles.</p> <p>e) Without limiting the Contractor's obligation in terms of the Contract, the Contractor will effect and maintain for the duration of the contract period until the issuing of the Defects Certificate or the end of the Maintenance Period insurance against all accidents or misfortunes including accidental loss of or damage to tangible property (except the Works, Plant and Materials and Equipment) and liability for accidental death of or bodily injury to or illness or disease contracted by any person (not an employee of the Contractor) occurring during the Period of Insurance and arising out of or in connection with the performance of the Insured Contract at the Contract Site as defined in the Schedule at any insurance company or under the policy effected by the Employer within 30 (thirty) days before the inception of the contract. The minimum limit of indemnity for any one event is R5-million and the number of claims will be unlimited.</p> <p>f) Proof must also be submitted that the Contractor complies with the conditions of the following legislation:</p> <ol style="list-style-type: none"> 1. Compensation for Occupational Injuries and diseases, 1993. 2. Unemployment Insurance Act, 1996. 3. The Contractor shall in respect

CLAUSE / SUB-CLAUSE	VARIATION / ADDITION
	<p>of the Site of the contract works appoint in writing a competent person to meet the requirements of the Health and Safety Act, No 85 of 1993 as amended.</p>
	<p>8.6.1.2 <i>The Employer's insurer will indemnify the Contractor against all sums for which the Contractor shall become legally liable towards third party claimants to pay for and in consequence of:</i></p> <p>a) <i>Accidental death of or bodily injury to or illness or disease contracted by any person (excluding employees of the Contractor/Sub-contractor);</i></p> <p>b) <i>Accidental physical loss or damage to tangible property occurring during the Period of Insurance and arising out of or in connection with the performance of the Insured Contract at the Contract Site as defined in the Schedule. The minimum limit of indemnity for any one event is R10-million in respect of contracts with a contract value of up to R50-million (excluding VAT).</i></p> <p>8.6.2 <i>Insurance Premium payable</i> <i>The Employer will pay the insurance premium for the works damage and public liability insurance cover. The insurance premium will be calculated based on the approved Capital Budget per financial year and the insurance premium will be charged out to the relevant departments by the Section: Insurance and Risk Management.</i></p> <p>8.6.3 <i>Additional insurance by the Employer</i> <i>The Employer shall be free to effect at his own cost any additional insurance, which he deems necessary in own interest to cover loss or damage not insured in terms of the insurance policies of Sub-Clause 1 of this Clause.</i></p> <p>8.6.4 <i>Additional insurance by Contractor/Sub-contractor</i> <i>The Contractor and Sub-contractor shall be free to effect and maintain at their own cost any additional insurance which the Contractor/Sub-contractor deem necessary to cover damage, loss or injury not insured in terms of the insurance effected by the Employer's insurer. The cost of the additional insurance will be for the account of the Contractor/Sub-contractor.</i></p> <p>8.6.5 <i>Contractor satisfied with insurance</i> <i>The submission of a tender shall be construed as acknowledgement by the Contractor that he is satisfied with the insurance cover effected by the Employer.</i></p> <p>8.6.6 <i>Contractor to observe conditions</i> <i>The Contractor shall give all notices and observe all conditions and requirements imposed by the relevant insurance policies, which shall be binding on the Contractor.</i></p> <p>8.6.7 <i>Contractor to Insure</i> <i>The Contractor must obtain for the duration of the contract until the issuing of the Defects Certificate or the end of the Maintenance Period, the following insurance policies at an insurance company within 21 (twenty-one) days of the notification of acceptance of the tender and must pay all premiums and supply proof thereof to the relevant Project Manager, 30 (thirty) days before the inception of the contract, that the policies have been taken out and that all premiums have been paid:</i></p> <p>a) <i>All Risk Insurance cover with regard to all Plant and Materials and Equipment, owned, leased or hired by the Contractor that are used in the execution of the contract for the full replacement value thereof.</i></p> <p>b) <i>Motor Vehicle and Liability Insurance cover indicating the registration numbers of the vehicles owned, leased or hired by the Contractor that are used in the</i></p>

CLAUSE / SUB-CLAUSE	VARIATION / ADDITION
	<p><i>execution of the contract to the amount of at least R10-million per claim with the number of claims unlimited.</i></p> <p><i>c) SASRIA cover for motor vehicles and Plant and Materials and Equipment owned, leased or hired by the Contractor that are used in the execution of the contract for the full replacement value thereof.</i></p> <p><i>d) In respect of Plant and Materials and Equipment and Motor Vehicles brought onto the Site by or on behalf of Subcontractors, the Contractor shall be deemed to have complied with the provisions of this Sub-Clause by ensuring that such Subcontractors have similarly insured such Plant and Materials and Equipment and Motor Vehicles.</i></p> <p><i>e) Proof must also be submitted that the Contractor complies with the conditions of the following legislation:</i></p> <p><i>i. Compensation for Occupational Injuries and diseases, 1993.</i></p> <p><i>ii. Unemployment Insurance Act, 1996.</i></p> <p><i>iii. The Contractor shall in respect of the Site of the contract works appoint in writing a Section 16 appointee to meet the requirements of the Health and Safety Act, No. 85 of 1993 as amended.</i></p> <p><i>f) The Project Manager involved must furnish the required insurance documentation 30 (thirty) days before the inception of the contract to the Section: Insurance and Risk Management.</i></p> <p><i>g) In addition to any statutory obligations and/or requirements contained in the General Conditions of Contract, the Contractor shall notify the Employer and the Project Manager of every occurrence within 48 (forty-eight) hours giving the circumstances, nature and an estimate of the loss or damage.</i></p> <p><i>h) The Project Manager will be responsible too complete and submit the relevant claim documentation for each incident within 30 (thirty) days after the incident occurred to the Section: Insurance and Risk Management. Should the incident be reported by the Project Manager more than 30 (thirty) days after the incident occurred to the Section: Insurance and Risk Management, the claim will only be considered if the claim documentation is accompanied by a letter from the relevant Strategic Executive Officer motivating the reason(s) for the late reporting of the incident, but the Project Manager must take note the Insurer might repudiate the loss if it is found that the insurers rights have been compromised as a result of the late reporting.</i></p> <p><i>i) The following documentation must be included with the claim documentation:</i></p> <p><i>a. Photos of damages caused or suffered as proof or substantiation of the claims.</i></p> <p><i>j) In the event of Insured Property being damaged during the Contract Works beyond economical repair, the property must be safeguarded and be handed over to the Employer's insurer for salvage.</i></p> <p><i>k) The Section: Insurance and Risk Management will inform the Employer's insurer of the incident. The Contractor/Subcontractor shall afford all reasonable access to the Site to the Employer, the Project Manager, the Employer's insurers and/or representatives for the purpose of assessment of any loss or damage.</i></p> <p>8.6.8 Reporting of catastrophic incidents</p> <p><i>In the event of an occurrence, which is likely to give rise to a claim, under the insurance policy effected by the Employer, with an estimated loss or damage of more than R250 000,00, the Contractor and the Project Manager will adhere to the following procedures:</i></p> <p><i>a) In addition to any statutory obligations and/or requirements contained in the General Conditions of Contract, the Contractor shall notify the Employer and the</i></p>

CLAUSE / SUB-CLAUSE	VARIATION / ADDITION
	<p><i>Project Manager of every occurrence within 24 (twenty-four) hours giving the circumstances, nature and an estimate of the loss or damage.</i></p> <p>b) <i>The Project Manager must notify the Section: Insurance and Risk Management on the same day that the Contractor has notified the Project Manager of the incident.</i></p> <p>c) <i>The Section: Insurance and Risk Management will notify the Employer’s insurer of the incident. The Contractor shall afford all reasonable access to the Site to the Employer, the Project Manager, the Employer’s insurers and/or representatives for the purpose of assessment of any loss or damage</i></p> <p>d) <i>The Project Manager will be responsible to complete and submit the relevant claim documentation for each incident within 30 (thirty) days after the incident occurred to the Section: Insurance and Risk Management. Should the incident be reported by the Project Manager more than 30 (thirty) days after the incident occurred to the Section: Insurance and Risk Management, the claim will only be considered if the claim documentation is accompanied by a letter from the relevant Group Head motivating the reason(s) for the late reporting of the incident. Should the relevant claim documentation not be submitted within 30 (thirty) days, the claim will be repudiated.</i></p> <p>8.6.9 <i>Reporting of crime related incidents</i></p> <p><i>All crime related incidents, losses or shortages irrespective of the value, must be reported within 24 (twenty-four) hours by the person who was involved or who has discovered the incident to the nearest South African Police Services (SAPS) station. The name of the Police Station, Investigation Officer and the Case number must be obtained and stated on the Contractor Claim Form. Should the incident not be reported to the SAPS, the claim will be repudiated.</i></p> <p>8.6.10 <i>Claim documentation</i></p> <p><i>The Project Manager must obtain all relevant information from the Contractor and complete the Contractor Claim Form, included in this report as Annexure B that is available on the Intranet. The project number must be stated on the Contractor Claim Form.</i></p> <p><i>The Project Manager must submit with the Contractor Claim Form a detailed cost sheet indicating the estimate of the loss or damage.</i></p> <p><i>Any misrepresentation, mis-description or non-disclosure of material facts, at the option of the insurers, can result in claims submitted being declared null and void.</i></p> <p>8.6.11 <i>Authorization of claim forms</i></p> <p><i>It is imperative that a formally delegated official or his nominee of the Employer should authorize the Contractor Claim forms as proof of the appropriate authorization, verification and approval of claims submitted. The Group Head must provide an authorization letter to the Section: Insurance and Risk Management stating the names and the specimen signatures of the delegated official or his nominee within 30 (thirty) days from approval of this report by Council. Should the delegated official or his nominee not sign the relevant claim form, the claim will be repudiated as this may lead to inappropriate independent verification of the validity of claims, thereby increasing the risk of insurance fraud and consequent reputation damage to the Employer.</i></p>

CLAUSE / SUB-CLAUSE	VARIATION / ADDITION
	<p>8.6.12 <i>Contractor to pay deductibles</i></p> <p><i>Any claim in terms of the insurance affected by the Employer shall be subject to the Contractor being responsible for the payment of the amount stated in the Annexure to the Policies as being the deductible (first amount payable or Excess) as defined in the Certificate of Insurance issued by the Employer's insurer in terms of the Policy.</i></p> <p>8.6.13 <i>Settlement of claims</i></p> <p><i>All incidents reported to the Section: Insurance and Risk Management in respect of an occurrence, which is likely to give rise to a claim will be forwarded to the Employer's insurer who will take the necessary actions for the settlement of any such claims.</i></p> <p><i>The Contractor shall negotiate for the settlement of claims with the Employer or the Employer's insurer through the Section: Insurance and Risk Management. The Employer's Chief Financial Officer will authorize all settlements of claims. Should action for the settlement of any such claim to the satisfaction of the Project Manager not be taken by the Contractor within 30 (thirty) days after receipt of such claim by the Contractor, the Employer or the Employer's insurer may settle any such claim, after giving the Contractor notice of its intention to do so; provided that no such claim shall be settled by the Employer or the Employer's insurer without first consulting the Contractor.</i></p> <p><i>The foregoing provisions of this Sub-Clause shall apply mutatis mutandis to any such claim received by the Contractor directly</i></p> <p><i>Add the following Clause:</i></p> <p><i>Pricing of Standing Time</i></p> <p><i>The Contractor shall price the standing time items included in the Pricing Data and set out all labour and equipment he proposes to use in the execution of the Contract and their respective daily rates in a Schedule attached to the Bill of Quantity of this tender.</i></p> <p><i>These rates shall only be subject to escalation if the Contract is subject to escalation, failing which they will be fixed for the duration of the Contract including any extension of time that may be granted in accordance with the provisions of the Contract.</i></p> <p><i>Contractor's Plant:</i></p> <p><i>The standing time rates shall be the total cost to the Employer in respect of any standing time incurred by the Contractor and shall include for all Contractor's profits, overheads, transport to site, establishment on site, removal from site, supervision, hire rates, fuel, oil, maintenance and servicing, associated items such as slings, jackets, etc. test certificates, operator costs (including overtime and Sunday time), accommodation, travelling, subsistence and other costs relative to the employment by the Contractor of the personnel.</i></p> <p><i>Contractor's Labour:</i></p>

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CLAUSE / SUB-CLAUSE	VARIATION / ADDITION
	<p><i>The standing time rates shall be the total cost to the Employer in respect of standing time of labour and shall include for all Contractor's profits, overheads, establishments, supervision, wages, accommodation, travelling, subsistence and other costs relative to the employment by the Contractor of the categories of labour detailed, and for hand and small tools such as cutting and welding torches, angles grinders, drilling machines, etc. and consumables normal to the trade or labour category.</i></p>
11.2	<p><i>Where the Contractor has not inserted rates for specific labour or plant, that could have reasonably have been foreseen at tender stage, the Employer's Agent – in agreement with the employer shall have the sole discretion, in the event of such foreseeable labour and plant becoming necessary, to set a rate that is in his opinion the most appropriate for such labour or tradesmen.</i></p> <p><i>No additional Preliminary and General costs shall be paid for standing time as these costs shall be deemed to be covered for in the rates and prices for Preliminary and General items. If the contract duration is extended, then the Preliminary and General charges shall be adjusted accordingly as stated in the General Condition of Contract only if the motivation is recommended by the engineer and approved by the client.</i></p>
11.3	<p><i>The payment of any standing time by the Employer shall be subject to the Contractor demonstrating that it has a valid claim in terms of Clause 10.1 of the GCC.</i></p>

C1.2.3 DATA PROVIDED BY THE EMPLOYER

CLAUSE/OPTION		DATA	
1.1.1.13	The Defects Liability period is:	12 (twelve) months from the date of the Certificate of Completion.	
1.1.1.14 .1	Start/ commencement date	The starting/commencement date is the date of the site handover.	
1.1.1.14 .2	The time for achieving Practical Completion is:	36 months from date of commencement as allocated by the Employer.	
1.1.1.15	The name of the Employer is:	City of Tshwane Metropolitan Municipality.	
1.1.1.26	The Pricing Strategy is:	Re-measurable Contract	
1.2.1.2	The address of the Employer is:	Physical Address:	Human Settlements Department 1st floor Tshwane House 320 Madiba Street Pretoria 0002
		Postal Address:	P O Box 440 PRETORIA 0001
		E-Mail Address:	DerrickMP@tshwane.gov.za
1.1.1.16	The name of the Employer's Agent is:	Damaris Holdings	
1.2.1.2	The address of the Employer's Agent is:	Physical Address:	28 Emerald Close, 14 Lemonwood Street Ecopark,Highveld Pretoria 0157
		Postal Address:	28 Emerald Close, 14 Lemonwood Street Ecopark,Highveld Pretoria 0157
		E-Mail Address:	info@damarisholdings.co.za
1.1.1.17	The name of the CHS Agent is:	Takusa Consulting and Services CC	
1.2.1.2	The address of the CHS Agent is:	Physical Address:	65 Bram Fischer Drive, Robindale, 2191
		Postal Address:	65 Bram Fischer Drive, Robindale, 2191
		E-Mail Address:	engage@takusaconsulting.co.za
3.1.3		<ul style="list-style-type: none"> • The Employer's Agent is required to obtain approval of the Employer: <ul style="list-style-type: none"> ▪ for expenditure on the Contract to exceed the Contract Price; ▪ prior to the execution of any of the following duties of functions: 	

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		CLAUSE	DUTY/FUNCTION
		3.2.4	Authorization to Employer's Agent Representative or any other person
		3.3.1	Nomination of person as Employer's Agent Representative
		4.10.1	Approval to use the Site for any other purpose such as housing
		5.3.1	Delivery of the written notice to commence the execution of the works
		5.6.3	Approval of programme of construction
		5.7.2	Permission to carry out work by day and by night
		5.8.1.1	Approval to work on special non-working days and between sunset and sunrise
		5.9.7	Approval of Contractor's designs
		5.11	Suspension of progress of the Works
		5.13.2	Reduction of penalty for delay
		5.14.2	The issue of a Certificate of Practical Completion
		5.14.4	The issue of a Certificate of Completion
		5.16.1	The issue of a Final Approval Certificate
		6.3.1	Variation Orders in respect of variations which are not small
		6.6	Instruction to expend on Provisional and Prime Cost Sums
		6.11	Adjustment of Preliminary and General allowances
		7.8.1	Order to execute work of repair, etc, during the Defects Liability Period
		7.8.2	Determination of value of repair work
		8.2.2.2	Order to repair and make good damage arising from any excepted risk
5.16.3	The latent defect period is:	10 years, commencing on the day after the date of certification of Final Approval Certificate.	
6.2.1	Type of security for due performance:	<ul style="list-style-type: none"> Guarantee from approved financial institution or cash deposit. The Form of Guarantee is to contain the wording of the pro forma document included as C1.3 contained herein. 	
	Liability of performance guarantee	The liability of the guarantee shall be 10% of the contract value	
6.2.2	Retention money guarantee	N/A	
6.8.2	Adjustment in rates and/or prices	<ul style="list-style-type: none"> The value of the certificates issued shall be adjusted in accordance with the Contract Price Adjustment Schedule with the following values:. <p>"L" is the "Labour Index" and shall be Gauteng, under CPI as published by Statistics South Africa.</p>	

Part C1: Agreements and Contract Data

		<p>“P” is the “Plant Index” and shall be Plant and equipment, under Mining and construction plant and equipment price index as published by Statistics South Africa.</p> <p>“M” is the “Material Index” and shall be Civil Engineering – total, under Civil engineering material price indices as published by Statistics South Africa.</p> <p>“F” is the “Fuel Index” and shall be Diesel, under PPI as published by Statistics South Africa.</p> <table border="1"> <thead> <tr> <th>Coefficient</th> <th>Description</th> <th>Value</th> </tr> </thead> <tbody> <tr> <td>x</td> <td>Portion not subject to adjustment</td> <td>0.10</td> </tr> <tr> <td>a</td> <td>Labour</td> <td>0.10</td> </tr> <tr> <td>b</td> <td>Civil Engineering Plant</td> <td>0.35</td> </tr> <tr> <td>c</td> <td>Materials</td> <td>0.25</td> </tr> <tr> <td>d</td> <td>Fuel</td> <td>0.30</td> </tr> </tbody> </table> <p>(Coefficients a, b, c and d must sum to one)</p> <ul style="list-style-type: none"> • The urban area nearest the Site is Tshwane. • The base month is the month prior to the closing of the procurement process required for a financial offer. 	Coefficient	Description	Value	x	Portion not subject to adjustment	0.10	a	Labour	0.10	b	Civil Engineering Plant	0.35	c	Materials	0.25	d	Fuel	0.30
Coefficient	Description	Value																		
x	Portion not subject to adjustment	0.10																		
a	Labour	0.10																		
b	Civil Engineering Plant	0.35																		
c	Materials	0.25																		
d	Fuel	0.30																		
6.8.3	Price adjustment for variations in the cost of special materials																			
6.10.1.5	The percentage advance on materials not yet built into the Permanent Works is:	80% (Eighty percent)																		
6.10.3	Percentage retention is:	10% (ten percent) exclusive of VAT																		
	The limit of retention money is:	5% of the contract sum																		
8.6	Insurance of the Works and Public Liability Insurance	<p>The Employer shall arrange this insurance.</p> <p>A copy of the policy and the list of excesses may be obtained from</p> <p>Contractors All Risk and Liability Insurance Ms. Morongwa Mokoena (Tel: 012 358 1126) morongwam@tshwane.gov.za Mrs Ronett Marlow-Reid (Tel: 012 358 1131) ronettm@tshwane.gov.za Mr Lawrence Matjila (Tel: 012 358 1374) lawrencem@tshwane.gov.za</p>																		
	The value of plant and materials supplied by the Employer to be included in the insurance sum is:	R 0 (zero)																		
	Responsibility for payment of deductibles in respect of Insurance of Works as well as Public Liability Insurance:	Deductibles are the responsibility of the Contractor																		
	Construction Plant:	Contractor to insure. Policy to be approved by Employer																		

Part C1: Agreements and Contract Data

10.5	Determination of disputes	Ad-hoc Adjudicator
10.5.3	Number of Adjudication Board members to be appointed:	One
10.6	Disagreement with Adjudication Board's decision, refer matters to:	Court proceedings

Part C1: Agreements and Contract Data

C1.2.4 DATA PROVIDED BY THE CONTRACTOR

CLAUSE/OPTION		DATA		
1.1.1.9	The name of the Contractor is:			
1.2.1.2	The address of the Contract is:	• Physical Address:		
		• Postal Address:		
		• Facsimile:		
		• E-Mail Address:		
6.2.1	The security to be provided by the Contractor shall be	Performance guarantee 10% of the contract value		
6.8.3	Price adjustments for variations in the cost of special materials (if applicable)	The variation in cost of special materials is:		
		Type of material	Unit	Base Rate or Price

C1.3 FORM OF GUARANTEE

WHEREAS

The City of Tshwane Metropolitan Municipality
(hereinafter referred to as the "Council"),

enters into a Contract (No _____) with

(hereinafter referred to as the "Contractor")

for _____

AND WHEREAS in terms of the General Conditions of the Contract the Contractor is required to furnish an acceptable independent guarantee for the due and proper fulfilment by him of all his duties and obligations in terms of the said contract.

NOW THEREFORE we the undersigned _____
_____ (full names of authorized agent(s))

and acting in my/our capacity as _____

and _____

and as such duly authorized thereto, do hereby bind the said _____

(hereinafter referred to as the "Guarantor") as surety and co-principal Debtor *in solidum* for the sum of

R _____ (_____)

for the due and proper fulfilment by the Contractor of all or any of his duties and obligations in terms of the said Contract. The guarantee shall not be interpreted as accessory to the contract between Council and the Contractor.

The Guarantor further undertakes, in the event of the Contractor failing duly and properly to fulfil any of his duties and obligations in terms of the said Contract, or if the Contractor is placed under provisional liquidation or in the event of termination of the Contract by the Council in terms of the General Conditions of Contract, to pay to the Council the said sum of

R _____ (_____)

or such portion thereof as may be required by the Council, immediately upon receiving written demand from the Council which written demand shall be addressed to the Guarantor at (*domicilium* address)

Part C1: Agreements and Contract Data

The Guarantor further hereby renounces the benefits of the legal exceptions:

Exceptio non numerate pecuniae

Exception non causa debiti

Beneficium de duobus vel pluribus reis debendi

Beneficium ordinis deu excussionis

Beneficium divisionis

and all other defence which could be pleaded against the validity of this guarantee, with the meaning and effect of which it declares itself to be fully acquainted.

This undertaking shall remain in full force and effect up to and including the date of issue of the Certificate of Completion, as provided for in the General Conditions of Contract, unless the Guarantor is advised in writing by the Council 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. Notwithstanding the aforesaid, the Council may at its' sole discretion elect to have the amount provided for under this guarantee, paid out directly to it in the case of breach of contract by the Contractor by giving the Guarantor written notice to that effect, notwithstanding the fact that the Council may decide not to institute any further legal action against the Contractor.

This document is not negotiable or transferable.

FOR AND ON BEHALF OF THE BANKER/INSURER:

BANKER/INSURER:

NAME:

(in BLOCK letters)

CAPACITY:

(of authorized agent)

SIGNATURE:

(of authorized agent)

SIGNED at _____

on this _____

day of _____

WITNESSES:

(Full name in BLOCK letters and signature)

1. _____

2. _____

ANNEXURE

List of some institutions from which contract /deposit guarantees can be accepted. The contractor can utilize other institutions as long as they are registered with the NCR.

ABSA Bank
Credit Agricole Indosuez (South Africa Branch)
Development Bank of South Africa
FirstRand Bank
ING Bank N.V. (South Africa Branch)
Investec Bank
Landbank
National Housing Finance Co.
Nedcor Bank
South African Reserve Bank
Standard Bank
AIG South Africa
Credit Guarantee Insurance Co
Emerald Insurance Company
Federated Employers Mutual Assurance Co
Global Insurance Company
Guardrisk Insurance Company
Hannover Re:
Home Loan Guarantee Company
Lion of Africa Insurance Company
Metropolitan Life
Metropolitan Odyssey Ltd
MUA Insurance
Mutual & Federal Insurance Company
Rand Mutual Assurance Company
Regent Insurance Company
SA Eagle Insurance Company
Lombard Insurance.

C1.4 HEALTH AND SAFETY AGREEMENT

Article of Agreement in terms of Section 37(2) of the Occupational Safety Act, 1993 between

CITY OF TSHWANE

(Hereinafter referred to as the "EMPLOYER")

AND

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

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

CONTRACT NO: HS 09 – 2025/26: THE CONSTRUCTION OF 6KM ROAD AND STORMWATER NETWORK AND ONE BRIDGE (BRIDGE NO 3) ALONG BATHLAPING STREET IN OLIEVENHOUTBOSCH EXTENSION 60 FOR A PERIOD OF 36 MONTHS - PHASE 1

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

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

NOW THEREFORE the parties agree as follows:

- (a) The CONTRACTOR undertakes to acquaint the appropriate officials and employees of the CONTRACTOR with all relevant provisions of the ACT and the regulations promulgated in terms thereof.
- (b) The CONTRACTOR undertakes that all relevant duties, obligations and prohibitions imposed in terms of the ACT and Regulations will be fully complied with. Provided that should the EMPLOYER prescribe certain arrangements and procedures, that same shall be observed and adhered to by the CONTRACTOR, his officials and employees. The CONTRACTOR shall bear the onus of acquainting himself/herself/itself with such arrangements and procedures.
- (c) The CONTRACTOR hereby accepts sole liability for such due compliance with the relevant duties, obligations, prohibitions, arrangements and procedure, if any, imposed by the ACT and Regulations and the EMPLOYER expressly absolves the EMPLOYER from itself being obliged to comply with any of the aforesaid duties, obligations, prohibitions, arrangements and procedure as the case may be.
- (d) The CONTRACTOR agrees that any duly authorised officials of the EMPLOYER shall be entitled, although not obliged, to take such steps as may be necessary to ensure that the CONTRACTOR has complied with the undertakings as more fully set out in paragraphs 1 and 2 above, which steps may include, but shall not be limited to, the right to inspect any appropriate site or premises occupied by the CONTRACTOR, or to inspect any appropriate records held by the CONTRACTOR or to take such steps it may deem necessary to remedy the default of the CONTRACTOR at the cost of the CONTRACTOR.

Part C1: Agreements and Contract Data

- (e) The CONTRACTOR shall be obliged to report forthwith to the EMPLOYER any investigations, complaint or criminal charge which may arise as a consequence of the provisions of the ACT and Regulations, pursuant to work performed in terms of this agreement, and shall, on written demand, provide full details in writing of such an investigation, complaint or criminal charge as the case may be

FOR AND ON BEHALF OF THE CONTRACTOR:

NAME:

(in BLOCK letters)

CAPACITY:

(of authorized agent)

SIGNATURE:

(of authorized agent)

SIGNED at _____ on this _____ day of _____

WITNESSES:

(Full name in BLOCK letters and signature)

1. _____

2. _____

FOR AND ON BEHALF OF THE EMPLOYER:

NAME:

(in BLOCK letters)

CAPACITY:

(of authorized agent)

SIGNATURE:

(of authorized agent)

SIGNED at _____ on this _____ day of _____

WITNESSES:

(Full name in BLOCK letters and signature)

1. _____

2. _____

Part C1: Agreements and Contract Data

C1.5 ADJUDICATOR'S AGREEMENT

This agreement is made on the _____ day of _____ between:

_____ (name of company / organisation)

of _____

_____ (address) and

_____ (name of company / organisation)

of _____

_____ (address)

(the Parties) and

_____ (name of Adjudicator)

of _____

_____ (address)

(the Adjudicator).

Disputes or differences may arise/have arisen¹ between the Parties under a Contract dated _____ and known as _____

and these disputes or differences shall be/have been² referred to adjudication in accordance with the CIDB Adjudication Procedure, (hereinafter called "the Procedure") and the Adjudicator may be or has been requested to act.

IT IS NOW AGREED as follows:

- 1 The rights and obligations of the Adjudicator and the Parties shall be as set out in the Procedure.
- 2 The Adjudicator hereby accepts the appointment and agrees to conduct the adjudication in accordance with the Procedure.
- 3 The Parties bind themselves jointly and severally to pay the Adjudicator's fees and expenses in accordance with the Procedure as set out in the Contract Data.
- 4 The Parties and the Adjudicator shall at all times maintain the confidentiality of the adjudication and shall endeavour to ensure that anyone acting on their behalf or through them will do likewise, save with the consent of the other Parties which consent shall not be unreasonably refused.
- 5 The Adjudicator shall inform the Parties if he intends to destroy the documents which have been sent to him in relation to the adjudication and he shall retain documents for a further period at the request of either Party.

¹ Delete as necessary

² Delete as necessary

Part C1: Agreements and Contract Data

SIGNED by:

SIGNED by:

SIGNED by:

Name: _____

Name: _____

Name: _____

who warrants that he /she is duly authorised to sign for and on behalf of the first Party in the presence of

who warrants that he / she is duly authorised to sign for and on behalf of the second Party in the presence of

the Adjudicator in the presence of

Witness

Witness:

Witness:

Name: _____

Name _____

Name: _____

Address: _____

Address: _____

Address: _____

Date: _____

Date: _____

Date: _____

Contract Data

1	The Adjudicator shall be paid at the hourly rate of R _____ in respect of all time spent upon, or in connection with, the adjudication including time spent travelling.
2	The Adjudicator shall be reimbursed in respect of all disbursements properly made including, but not restricted to: (a) Printing, reproduction and purchase of documents, drawings, maps, records and photographs. (b) Telegrams, telex, faxes, and telephone calls. (c) Postage and similar delivery charges. (d) Travelling, hotel expenses and other similar disbursements. (e) Room charges. (f) Charges for legal or technical advice obtained in accordance with the Procedure.
3	The Adjudicator shall be paid an appointment fee of R _____. This fee shall become payable in equal amounts by each Party within 14 days of the appointment of the Adjudicator, subject to an Invoice being provided. This fee will be deducted from the final statement of any sums which shall become payable under item 1 and/or item 2 of the Contract Data. If the final statement is less than the appointment fee the balance shall be refunded to the Parties.
4	The Adjudicator is/is not ³ currently registered for VAT.
5	Where the Adjudicator is registered for VAT it shall be charged additionally in accordance with the rates current at the date of invoice.
6	All payments, other than the appointment fee (item 3) shall become due 7 days after receipt of invoice, thereafter interest shall be payable at 5% per annum above the Reserve Bank base rate for every day the amount remains outstanding.

³ Delete as necessary

Contract No: HS 09-2025/26: THE CONSTRUCTION OF 6KM ROAD AND STORMWATER NETWORK AND ONE BRIDGE (BRIDGE NO 3) ALONG BATHLAPING STREET IN OLIEVENHOUTBOSCH EXTENSION 60 FOR A PERIOD OF 36 MONTHS - PHASE 1

Part C2: Pricing Data

CITY OF TSHWANE
HUMAN SETTLEMENTS DEPARTMENT

CONTRACT NO: HS 09 2025/26

**THE CONSTRUCTION OF 6KM ROAD AND STORMWATER
NETWORK AND ONE BRIDGE (BRIDGE NO 3) ALONG
BATHLAPING STREET IN OLIEVENHOUTBOSCH EXTENSION 60
FOR A PERIOD OF 36 MONTHS - PHASE 1**

PART C2: PRICING DATA

PRICING DATA

INDEX

Section	Description	Page No
C2.1	PRICING INSTRUCTIONS	C2.1
C2.2	BILL OF QUANTITIES	C2.2

CITY OF TSHWANE
HUMAN SETTLEMENTS DEPARTMENT

CONTRACT NO: HS 09 2025/26

THE CONSTRUCTION OF 6KM ROAD AND STORMWATER NETWORK AND ONE BRIDGE (BRIDGE NO 3) ALONG BATHLAPING STREET IN OLIEVENHOUTBOSCH EXTENSION 60 FOR A PERIOD OF 36 MONTHS - PHASE 1

C2.1 PRICING INSTRUCTIONS

C2.1 PRICING INSTRUCTIONS

1. General

1.1 This section provides the tenderer with guidelines and requirements with regard to the completion of the Bill of Quantities. The Schedule **shall be completed in non-erasable black ink** and the tenderer is referred to the Tender Specifications in regard to the correction of errors.

1.2 The Bill of Quantities shall be read with all the documents which form part of this Contract.

1.3 The following words shall have the meanings hereby assigned to them:

Unit: The unit of measurement for each item of work in terms of the Specifications and the Project Specifications.

Quantity: The number of units of work for each item.

Rate: The payment per unit of work at which the tenderer tenders to do the work.

Amount: The product of the quantity and the rate tendered for an item.

Lump sum: An amount tendered for an item, the extent of which is described in the Bill of Quantities, the Specifications and the Project Specifications, but the quantity of work of which is not measured in any units.

1.4 Reference shall be made to the General and Special Conditions of Contract regarding Provisional and Prime Costs Sums.

2. Pay Items

2.1 The method of measurement published by the City of Tshwane in section 001 clause 04 and the clauses titled "Measurement and Payment" in the various sections of the Standard Specifications for Municipal Civil Engineering Works, Third Edition 2005, is applicable, subject to the variations and amendments contained in section C3.5.

2.2 Descriptions in the Bill of Quantities are abbreviated and comply generally with those in the Standard Specifications. The measurement and payment clause of each Standard 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 Standard Specification, or the Scope of Work, conflict with the terms of the Bill of Quantities, the requirements of the Standard Specification or Scope of Work, as applicable, shall prevail.

2.3 The item numbers appearing in the Bill of Quantities refer to the corresponding item number in the standard specifications or as amended in the Scope of Work. In the latter case, the item number is prefixed with the letter "B". The same applies to new clauses added to the standard

Part C2: Pricing Instructions

- specifications.
- 2.4 Those parts of the contract to be constructed using labour-intensive methods have been marked in the bill of quantities with the letter LI in a separate column filled in against every item so designated. The works, or parts of the works so designated are to be constructed using labour-intensive methods only. The use of plant to provide such works, other than plant specifically provided for in the scope of work, is a variation to the contract. The items marked with the letters LI are not necessarily an exhaustive list of all the activities which must be done by hand, and this clause does not over-ride any of the requirements in the generic labour intensive specification in the Scope of Works.
- 2.5 Payment for items which are designated to be constructed labour-intensive (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.
- 2.6 Unless otherwise stated, items are measured net in accordance with the drawings, and no allowance is made for waste.
- 2.7 The quantities set out in the Bill of Quantities are the estimated quantities of the Works, but the Contractor will be required to undertake whatever quantities may be directed by the Engineer from time to time. The Contract Price for the completed contract shall be computed from the actual quantities of work done, valued at the relevant unit rates and prices.
- 2.8 The units of measurement described in the Bill of Quantities are metric units. Abbreviations used in the Bill of Quantities are as follows:

mm	=	millimetre	h	=	hour
m	=	metre	kg	=	kilogram
km	=	kilometre	t	=	ton (1000kg)
m ²	=	square metre	no.	=	number
m ² .pass	=	square meter pass	sum	=	lump sum
ha	=	hectare	MN	=	meganewton
m ³	=	cubic metre	MN.m	=	meganewton-metre
m ³ .km	=	cubic metre-kilometre	PC sum	=	Prime Cost sum
ℓ	=	litre	P/sum	=	Provisional sum
			L/Sum	=	Lump Sum
kℓ	=	kilolitre	%	=	Per cent
MPa	=	megaspascal	kW	=	kilowatt
PS	=	Pipe Special number	V	=	Valve number

3. Rates

- 3.1 The prices and rates to be inserted in the Bill of Quantities are to be full inclusive prices for the work described under the several items. Such prices and rates shall cover all costs and expenses that may be required in and for the execution of the work described, and shall cover the cost of all general risks, liabilities, and obligations set forth or implied in the documents on which the tender is based, as well as overhead charges and profit. Reasonable prices shall be inserted as these will be used as a basis for assessment of payment for additional work that may have to be carried out.
- 3.2 A price or rate is to be entered against each item in the Bill of Quantities, whether the quantities are stated or not. An item against which no price is entered or where a word or phrase such as "included" or "provided elsewhere" will be accepted as a rate of nil (R0,00) having been entered against such items and covered by the other prices or rates in the Schedule.
- Any work executed to which such a pay item applies, shall be measured under the appropriate items in the Bill of Quantities and valued at a rate of nil (R0,00). The rate of nil shall be valid irrespective of any change in the quantities during the execution of the Contract.
- 3.3 The Tenderer shall fill in a rate against all items.
- 3.4 The Tenderer shall not group together a number of items and tender one rate for such group of items.
- 3.5 All rates and sums of money quoted in the Bill of Quantities shall be in rands and whole cents. Fractions of a cent shall be discarded.
- 3.6 All prices and rates entered in the Bill of Quantities must be excluding VAT. VAT will be added last on the summary page of the Bill of Quantities.
- 3.7 Should excessively high unit prices be tendered, such prices may be of sufficient importance to warrant rejection of a tender by the Employer.

CORRECTION OF ENTRIES MADE BY TENDERER

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

CITY OF TSHWANE
HUMAN SETTLEMENTS DEPARTMENT

CONTRACT NO: HS 09 – 2025/26

**THE CONSTRUCTION OF 6KM ROAD AND STORMWATER
NETWORK AND ONE BRIDGE (BRIDGE NO 3) ALONG
BATHLAPING STREET IN OLIEVENHOUTBOSCH EXTENSION 60
FOR A PERIOD OF 36 MONTHS - PHASE 1**

C2.2 BILL OF QUANTITIES

Part C2: Bill of Quantities

SIGNATURE OF PERSON AUTHORISED TO SIGN TENDER:

DATE :

PARTICULARS OF PERSON AUTHORISED TO SIGN THE TENDER:

Name: _____

Tel no: _____

ID no: _____

ROADWORKS

SECTION 001

ITEM	DESCRIPTION	UNIT	LI	QTY	RATE	AMOUNT R
001	GENERAL REQUIREMENTS AND CHARGES					
001.01	Preliminary and general charges					
001.01.01	Fixed charges	L/Sum		1.0		
B 001.01.02	Time-related charges including provision of key personnel required for the supervision and management of the project.Key personnel include the Contracts Manager, Construction Manager, 2xConstruction Supervisors	month		36.0		
001.04.04	Compliance with the Occupational Health and Safety Act and applicable regulations (Refer to Item B 17.02 & Annexure D of the Particular Specification & variations)					
001.04.01	Provision of a Health and Safety plan	L/Sum		1.0		
001.04.02	Provision of Health and Safety file	L/Sum		1.0		
B001.04.04	Provision of a safety officer (full-time)	month		36.0		
B 001.04.05	Provision of Health and Safety Training	L/Sum		1.0		
001.04.06	Provision of personal protective clothing and equipment	L/Sum		1.0		
001.04.07	Provision of safety fences, signs and barricades	L/Sum		1.0		
01.04.08	Other obligations:					
B 01.04.08.01	Compliance with Environmental Management Plan	Lump Sum		1.0		
B 01.04.08.02	Provision of a Dedicated Environmentist Officer (DEO).	Month		36		
B 01.04.08.03	Appointment of Local Security Company (Grade C at night and Grade D/E during the day)	month		36.0		
B 01.04.08.04	Provision for training of targeted labourers for EPWP	Prov Sum		1.0	300 000.00	
	(i) Overheads, charges and profit on items B 01.04.08.04 above	%				
B 01.04.08.05	Cost of medical certificates and medical surveillance					
	(i) Initial (baseline) medical examinations	No		100.0		
	(ii) Exit medical examinations	No		100.0		
Total Carried Forward						

ROADWORKS

SECTION 001

ITEM	DESCRIPTION	UNIT	LI	QTY	RATE	AMOUNT R
Brought Forward						
B001.05	(a) Community Liaison Officer- T5	Prov Sum		1.0	828 000.00	
	(b) Handling cost and profit in respect of subitem B001.05 (a) above	%				
B001.06	Employment of Student Trainee NQF Level 6	Prov Sum		1.0	720 000.00	
	(i) Overheads, charges and profit on item B 01.04.08.06 above	%				
B001.07	The construction of new survey beacons and protection of existing survey beacons					
	(a) Provisional sum for new survey beacons to be constructed and/or for existing survey beacons to be replaced and/or protected during construction	Prov Sum		1.0	150 000.00	
	(b) Handling costs and profit in respect of subitem (a) above	%			-	
B001.08	Finishing the road and road reserve:					
	(i) Single carriageway road	m	LI	12 000.0		
B001.09	Protection, Removal, Realignment and Replacement of Services					
	(a) Provisional sum for existing services to be located, relocated and/or protected/repared during construction	Prov Sum		1.0	500 000.00	
	(b) Handling costs and profit in respect of subitem (a) above	%				
B001.10	DAYWORKS					
	Unskilled Labour	hr		1		
	Semi-skilled Labour	hr		1		
	Carpenter	hr		1		
	Driver (LDV, machines, trucks, etc.)	hr		1		
	Foreman	hr		1		
	Plumber	hr		1		
	Electrician	hr		1		
	Welder	hr		1		
	PLANT					
	Tenderers to insert the hire rate at which each item will be charged that will cover all relevant costs of plant hire, including operating crew					
	Lowbed transport of plant to and from site	km		1		
	Excavator (medium), between 93kW & 200kW	hr		1		
Total Carried Forward						

ROADWORKS

						SECTION 001
ITEM	DESCRIPTION	UNIT	LI	QTY	RATE	AMOUNT R
Brought Forward						-
	Tractor loader backhoe (TLB)	hr		1		
	Front end wheel loaders	hr		1		
	Generator 5Kw	hr		1		
	Trucks (6 cub or equivalent)	hr		1		
	Tip trucks (10 Cub or equivalent)	hr		1		
	Water pump 75mm diameter	hr		1		
	Plate compactor	hr		1		
	Light delivery vehicles (1t or equivalent)	km		1		
	Self propelled vibrating roller, 9 ton	hr		1		
	Walk behind roller 60 or similar	hr		1		
	Plate compactor	hr		1		
	Compressor 400 cuft/min - with 2 breakers	hr		1		
	Concrete mixer - 360l capacity	day		1		
	Materials supplied by the Contractor:					
	Sand (Building)	m³		1		
	Sand (River)	m³		1		
	50kg pocket of Cement	No.		1		
	Dump Rock 150mm	m³		1		
	Crusher Run 28mm	m³		1		
	G5 material	m³		1		
	G2 material	m³		1		
	HDPE WATER PIPES					
	20 mm dia HDPE PE100 PN6 water pipe	m		1		
	25 mm dia HDPE PE100 PN6 water pipe	m		1		
	32 mm dia HDPE PE100 PN6 water pipe	m		1		
	40 mm dia HDPE PE100 PN6 water pipe	m		1		
	50 mm dia HDPE PE100 PN6 water pipe	m		1		
	63 mm dia HDPE PE100 PN6 water pipe	m		1		
	75 mm dia HDPE PE100 PN6 water pipe	m		1		
	90 mm dia HDPE PE100 PN6 water pipe	m		1		
	110 mm dia HDPE PE100 PN6 water pipe	m		1		
	160 mm dia HDPE PE100 PN6 water pipe	m		1		
	200 mm dia HDPE PE100 PN6 water pipe	m		1		
	250 mm dia HDPE PE100 PN6 water pipe	m		1		
Total Carried Forward						

ROADWORKS

						SECTION 001
ITEM	DESCRIPTION	UNIT	LI	QTY	RATE	AMOUNT R
Brought Forward						
	315 mm dia HDPE PE100 PN6 water pipe	m		1		
	uPVC SEWER PIPES					
	110 mm dia uPVC Sewer Pipe Class 34 (SN4)	m		1		
	110 mm dia uPVC Sewer Pipe Class 51 (SN8)	m		1		
	160 mm dia uPVC Sewer Pipe Class 34 (SN4)	m		1		
	160 mm dia uPVC Sewer Pipe Class 51 (SN8)	m		1		
	200 mm dia uPVC Sewer Pipe Class 34 (SN4)	m		1		
	200 mm dia uPVC Sewer Pipe Class 51 (SN8)	m		1		
	250 mm dia uPVC Sewer Pipe Class 34 (SN4)	m		1		
	250 mm dia uPVC Sewer Pipe Class 51 (SN8)	m		1		
	315 mm dia uPVC Sewer Pipe Class 51 (SN8)	m		1		
	375 mm dia uPVC Sewer Pipe Class 51 (SN8)	m		1		
	400 mm dia uPVC Sewer Pipe Class 51 (SN8)	m		1		
	450 mm dia uPVC Sewer Pipe Class 51 (SN8)	m		1		
	CONCRETE SEWER PIPES					
	300 mm dia Concrete Pipe Class 50D	m		1		
	300 mm dia Concrete Pipe Class 75D	m		1		
	300 mm dia Concrete Pipe Class 100D	m		1		
	375 mm dia Concrete Pipe Class 50D	m		1		
	375 mm dia Concrete Pipe Class 75D	m		1		
	375 mm dia Concrete Pipe Class 100D	m		1		
	450 mm dia Concrete Pipe Class 75D	m		1		
	450 mm dia Concrete Pipe Class 100D	m		1		
	525 mm dia Concrete Pipe Class 100D	m		1		
	600 mm dia Concrete Pipe Class 100D	m		1		
	4000mm x 1500mm Rectangular Portal Culvert	m		1		
Total Carried Forward To Summary						

ROADWORKS

						ENGINEER'S ACCOMMODATION
ITEM	DESCRIPTION	UNIT	LI	QTY	RATE	AMOUNT R
002	ENGINEER'S ACCOMMODATION					
002.01	Services					
B 002.01.01	Services for Offices, Boardrooms, Ablutions, Kitchen and Laboratories	Month		36.0		
B 002.02	Treatment and maintenance of areas surrounding offices and laboratories, Office and laboratory accommodation	Month		36.0		
B 002.03	Provision of Offices, Boardroom and Ablutions Facilities	Month		36.0		
B 002.04	Provision of survey equipment and two (2) assistants	Day		60.0		-
Total Carried Forward To Summary						

ROADWORKS

						SITE CLEARING AND GRUBBING
ITEM	DESCRIPTION	UNIT	LI	QTY	RATE	AMOUNT R
101	SITE CLEARING AND GRUBBING					
101.01	Clearing and grubbing					
101.01.01	Areas	m ²	LI	20 000.0		
101.01.02	Strips (width indicated to be 3m)	m	LI	1 700.0		
101.04	Reclearing areas (only on the written instructions of the Engineer)					
101.04.01	Strips (width indicated to be 3m)	m	LI	1 200.0		
101.04.02	Areas not classified as strips	m ²	LI	8 500.0		
101.05	Removal and Disposal of specific elements					
101.05.02	Concrete or brick elements (reinforced or unreinforced)					
101.05.02.01	Concrete (reinforced or unreinforced) for manhole and headwall structures	m ³		500.0		
101.05.02.02	Brickwork	m ²		1 000.0		
Total Carried Forward To Summary						-

ROADWORKS

						ACCOMMODATION OF TRAFFIC
ITEM	DESCRIPTION	UNIT	LI	QTY	RATE	AMOUNT R
102	ACCOMMODATION OF TRAFFIC					
102.01	Accommodation of traffic and maintenance of bypasses	m		6 000.0		
102.02	Earthworks for bypasses					
102.02.01	Shaping of bypasses	m		3 000.0		
102.02.02	Cut and borrow to fill	m ³		400.0		
102.02.03	Cut to spoil	m ³		200.0		
102.03	Gravel wearing courses for bypasses	m ³		3 000.0		
102.04	Watering of bypasses	kℓ		1 100.0		
102.05	Blading of bypasses by motor grader					
	(b) Existing roads used as temporary deviations	km-pass		20.0		
102.14	Temporary traffic-control facilities:					
B102.14.01	Flagmen	man-day	LI	1 320.0		
102.14.02	Portable STOP and GO-RY signs	No		8.0		
102.14.03	Amber flicker lights	No		6.0		
102.14.04	Road signs, TR-series, 1 200 mm in diameter or 900 mm x 675mm if rectangular	No		45.0		
102.14.05	Road signs, TW-series, 1 524 mm sides	No		40.0		
102.14.06	Road signs, TG-series	m ²		25.0		
102.14.07	Danger plates and delineators					
	(i) Single	No		350.0		
	(ii) Mounted back to back	No		200.0		
102.14.08	Movable barricades (chevron and ROAD CLOSED types)	No		10.0		
Total Carried Forward						

ROADWORKS

						ACCOMMODATION OF TRAFFIC	
ITEM	DESCRIPTION	UNIT	LI	QTY	RATE	AMOUNT R	
Brought Forward							-
102.14.09	Traffic cones	No		70.0		-	
Total Carried Forward To Summary							-

ROADWORKS

						OVERHAUL
ITEM	DESCRIPTION	UNIT	LI	QTY	RATE	AMOUNT R
103	OVERHAUL					
B 103.01	Overhaul on material hauled outside the defined free-haul boundaries	m ³ -km		161 000.0		
Total Carried Forward To Summary						

ROADWORKS

						LANDSCAPING AND GRASSING
ITEM	DESCRIPTION	UNIT	LI	QTY	RATE	AMOUNT R
104.00	LANDSCAPING AND GRASSING					
104.01	Trimming:					
104.01.02	Hand trimming	m ²	LI	6 000.0		
104.03	Preparing areas for grassing and ground covers					
104.03.03	Topsoiling of borrow pits with topsoil obtained from	m ³	LI	3 600.0		
104.04	Grassing:					
104.04.04	Hydroseeding					
104.04.04.02	Hydroseeding	ha		2.9		
Total Carried Forward To Summary						

ROADWORKS

						SERVICE DUCTS
ITEM	DESCRIPTION	UNIT	LI	QTY	RATE	AMOUNT R
106.00	SERVICE DUCTS					
106.01	Bedding and backfilling up to 300mm above pipes					
106.01.01	Using selected excavated material	m³		120.0		
106.01.02	Using imported selected material	m³		240.0		
106.02	The casting of in situ concrete in bedding and the encasing of pipes (class 25/19 concrete)	m³		12.0		
106.04	Service duct pipes					
106.04.01	Ordinary pipes:					
106.04.01.01	110mm Diameter PVC pipes	m		800.0		
106.05	Duct markers (Concrete)	No		126.0		
Total Carried Forward To Summary						

ROADWORKS

						TRENCHING
ITEM	DESCRIPTION	UNIT	LI	QTY	RATE	AMOUNT R
202.00	TRENCHING					
202.01	Trench excavations					
202.01.01	Up to 1,0 m wide					
202.01.01.01	Up to 1,0 m deep	m ³	LI	240.0		
202.01.01.02	Over 1,0 m and up to 1,5 m deep	m ³	LI	360.0		
202.01.01.03	Over 1,5 m and up to 2.0 m deep	m ³		480.0		
202.01.01.04	Over 2,0 m and up to 2,5m deep	m ³		600.0		
202.01.01.05	Over 2,5 m and up to 3,0m deep	m ³		720.0		
202.01.02	Over 1,0 m and up to 2,0 m wide					
202.01.02.01	Up to 1,0 m deep	m ³	LI	720.0		
202.01.02.02	Over 1,0 m and up to 1,5 m deep	m ³	LI	3 408.0		
202.01.02.03	Over 1,5 m and up to 2,0 m deep	m ³		13 968.0		
202.01.02.04	Over 2,0 m and up to 2,5m deep	m ³		1 800.0		
202.01.02.05	Over 2,5 m and up to 3,0m deep	m ³		600.0		
202.02	Extra over items 202.01, 202.03, 202.04 and 202.09 for excavating in :-					
202.02.01	Intermediate material	m ³		1 035.6		
202.02.02	Hard material	m ³		1 728.0		
202.03	Excavations outside the normal trench profile	m ³		133.2		
B 202.04	Hand excavation (extra over item 202.01.01)	m ³	LI	387.6		
Total Carried Forward To Summary						

ROADWORKS

						MASS EARTHWORKS
ITEM	DESCRIPTION	UNIT	LI	QTY	RATE	AMOUNT R
203.00	MASS EARTHWORKS					
203.01	Excavation and borrow to fill class 2 - 4 roads					
203.01.01	(i) Compacted to 90% of modified AASHTO density	m ³		14 182.5		
	Class 5 roads					
	(ii) Compacted to 90% of modified AASHTO density	m ³		2 836.5		
203.01.02	Rock-fill processing and compaction	m ³		679.9		
203.03	Excavate and spoil of class 2 - 4 roads					
203.03.01	Soft material	m ³		5 301.6		
203.03.02	Intermediate material	m ³		2 246.4		
203.03.03	Hard material	m ³		2 041.2		
203.03.04	Boulder material class A	m ³		700.0		
203.03.05	Boulder material class B	m ³		700.0		
203.03	Excavate and spoil of Class 5 roads					
203.03.01	Soft material	m ³		4 803.6		
203.03.02	Intermediate material	m ³		3 202.8		
203.03.03	Hard material	m ³		1 680.0		
203.03.04	Boulder material class A	m ³		700.0		
203.03.05	Boulder material class B	m ³		700.0		
203.08	Preparation and compaction of construction bed material to 90% of modified AASHTO density (class 2 - 4 roads)	m ³		8 000.0		
Total Carried Forward						

ROADWORKS

						MASS EARTHWORKS
ITEM	DESCRIPTION	UNIT	LI	QTY	RATE	AMOUNT R
Brought Forward						
203.08	Preparation and compaction of construction bed	m³		2 400.0		
203.11	Finishing off slopes (class 2 - 4 roads)					
203.11.01	Excavation slopes	m²		4 033.4		
203.11.02	Fill slopes	m²		3 585.4		
203.11	Finishing off slopes (Class 5 roads)					
203.11.01	Excavation slopes	m²		600.0		
203.11.02	Fill slopes	m²		1 084.2		
203.14	Extra over item 203.01 for borrow material from sources to be supplied by the contractor					
	(a) class 2 - 4a, 4b (natural gravel G7 quality)	m³		259.0		
	(b) Class 5 roads (natural gravel G7 quality)	m³		1 981.5		

Total Carried Forward To Summary

ROADWORKS

SUBSURFACE DRAINS AND DRAINAGE BLANKETS

ITEM	DESCRIPTION	UNIT	LI	QTY	RATE	AMOUNT R
501.00	SUBSURFACE DRAINS AND DRAINAGE BLANKETS					
501.01	Crushed stone					
501.01.02	Single-sized crushed stone (19mm Nominal Size)	m ³	LI	2 533.9		
B501.02	Procuring of filter sand	m ³		60.0		
501.03	Placing of filter sand	m ³	LI	219.6		
501.04	Geotextiles (Bidim before filter material of similar approved)	m ²	LI	2 804.4		
501.05	Pipes in subsurface drains					
501.05.01	Unplasticized PVC pipes and fittings, normal duty, complete with couplings (110 mm internal dia. slotted not perforated)	m		2 700.0		
501.07	Concrete outlet structures for subsurface drains, including formwork (25 Mpa Concrete)	m ³		5.0		
501.08	Concrete caps for subsurface drain pipes	No		15.0		
Total Carried Forward To Summary						

ROADWORKS

PREFABRICATED CULVERTS AND STORMWATER SEWERS

ITEM	DESCRIPTION	UNIT	LI	QTY	RATE	AMOUNT R
502.00	PREFABRICATED CULVERTS AND STORMWATER SEWERS					
502.01	Backfilling with selected excavated material compacted to -					
502.01.01	90% of modified AASHTO density	m ³	LI	4 881.6		
502.01.02	93% of modified AASHTO density	m ³	LI	1 368.0		
502.02	Supplying and laying of concrete pipe culverts (type					
502.02.01	(Bedding, class or D-load indicated)					
502.02.01.01	(i) 450mm Ogee Class 100D	m		4 050.0		
502.02.01.02	(ii) 525mm Ogee Class 100D	m		150.0		
502.02.01.03	(iii) 600mm Ogee Class 100D	m		820.0		
502.02.01.04	(iv) 750mm Ogee Class 100D	m		120.0		
502.02.01.05	(v) 900mm Ogee Class 100D	m		50.0		
502.02.01.06	(vi) 1050mm Ogee Class 100D	m		250.0		
502.02.01.07	(vii) 1200mm Ogee Class 100D	m		Rate only		
502.10	Cast in situ concrete					
502.10.01	In class A bedding, blinding layers and encasing of					
502.10.01.01	In inlet and outlet structures, skewed ends,	m ³	LI	162.5		
502.13	Welded-steel fabric					
502.13.01	(Nominal longitudinal and cross pitch and nominal diameter of longitudinal and cross wires indicated)	kg	LI	150.0		
502.14	Reinforcement					
Total Carried Forward						

ROADWORKS

PREFABRICATED CULVERTS AND STORMWATER SEWERS

ITEM	DESCRIPTION	UNIT	LI	QTY	RATE	AMOUNT R
Brought Forward						
502.14.02	High-yield-stress steel	t	LI	2.700		
502.16	Manholes, catchpits, precast inlet and outlet structures and junction boxes complete					
502.16.01	Manholes (type and 1,0 m to 1.5 m deep)	No	LI	35.0		
	Manholes (type and 1,5 m to 2.0 m deep)	No	LI	50.0		
502.16.02	Catchpits ((1) Side drain catchpit)					
	(i) 1,0 m to 1.5 m deep	No	LI	25.0		
	(ii) 1,5 m to 2,0 m deep	No	LI	55.0		
	(iii) 2,0 m to 3,0 m deep	No	LI	22.0		
	Catchpits ((2) Side inlet catchpit)					
	(i) Up to 0.5 m deep	No	LI	1.0		
	(ii) 0.5 m to 1,0 m deep	No	LI	1.0		
	(iii) 1.0 m to 1,5 m deep	No	LI	5.0		
	(iv) 1.5 m to 2,0 m deep	No	LI	15.0		
502.17	Brickwork:					
502.17.02	230 mm thick	m ²	LI	1 238.6		
502.19	Benching	m ²	LI	196.0		
502.20	Accessories					
502.20.01	(a) Manhole covers including frames					
	(1) Type S1 (Side Outlets)	No		80.0		
	(2) Type D1 (Side Outlets)	No		90.0		
502.23	Cleaning of existing culverts	m ³		44.0		
B502.24	Removing and stacking existing prefabricated culverts					
	(i) 450mm Ogee Class 100D	m		250.0		
	(ii) 525mm Ogee Class 100D	m		Rate only		
	(iii) 600mm Ogee Class 100D	m		150.0		
Total Carried Forward						

ROADWORKS

PREFABRICATED CULVERTS AND STORMWATER SEWERS

ITEM	DESCRIPTION	UNIT	LI	QTY	RATE	AMOUNT R
Brought Forward						
	(iv) 750mm Ogee Class 100D	m		Rate only		
	(v) 900mm Ogee Class 100D	m		Rate only		
	(vi) 1050mm Ogee Class 100D	m		Rate only		
	(vii) 1200mm Ogee Class 100D	m		20.0		
B 502.25	Removing and re-laying existing pipes	m		250.0		
Total Carried Forward To Summary						

ROADWORKS

						KERBING AND CHANNELLING
ITEM	DESCRIPTION	UNIT	LI	QTY	RATE	AMOUNT R
503.00	KERBING AND CHANNELLING					
503.01	Concrete kerbing (Construct with Class 20/19 Concrete in alternate sections according to drawing no STD 007 1 of 2)					
503.01.01	Figure 7	m	LI	1 500.0		
503.01.02	400 Sloping kerb	m	LI	6 000.0		
503.01.03	500 Sloping kerb	m	LI	6 750.0		
503.01.04	Figure 12 (edge beam)	m	LI	3 200.0		
Total Carried Forward To Summary						

ROADWORKS

						OPEN DRAINS
ITEM	DESCRIPTION	UNIT	LI	QTY	RATE	AMOUNT R
504.00	OPEN DRAINS					
504.05	Construction of chutes, side drain channels, inlet and outlet structures, transition sections and auxillary structures					
504.05.01	Excavation	m ³	LI	901.1		
504.05.02	Preparation of excavations for concrete-lined open drains	m ²	LI	100.0		
504.05.03	Cast in situ concrete for the lining of open drains, or open drains constructed in concrete (concrete class 25/19 v-drain. Class U2 surface finish)	m ³	LI	250.0		
504.05.04	Formwork for cast in situ concrete (class F2 surface finish):					
504.05.04.01	To vertical sides of open drains (formwork on internal face only)	m ²	LI	660.0		
504.05.04.05	To inlet and outlet structures and non-standard sections, etc	m ²	LI	216.0		
504.05.05	Joints in the concrete lining of open drains					
504.05.05.01	Sealed joints in concrete linings of open drains (Polysulphide sealant)	m	LI	1 482.5		
504.05.06	Welded steel fabric					
504.05.06.01	Steel Mesh Ref 395	kg	LI	18 195.0		
504.06	Polyethylene sheeting (0,150mm thick) for concrete-lined open drains	m ²	LI	4 965.0		
Total Carried Forward To Summary						

ROADWORKS

						EROSION PROTECTION
ITEM	DESCRIPTION	UNIT	LI	QTY	RATE	AMOUNT R
505.00	EROSION PROTECTION					
505.01	Foundation trench excavation and backfilling					
505.01.02	In all other classes of material	m³	LI	231.0		
505.02	Surface preparation for the bedding of gabions	m²	LI	648.0		
505.06	Stone pitching					
505.06.01	Wired-and-grouted pitching	m²	LI	250.0		
B505.07	Riprap:					
B505.07.01	Grouted galvanized gabion mattress (using 80x100x2.7mm mesh with 1.0m diaphragm spacing, critical stone mass of 1.5kg with additional PVC coating)	m³	LI			
	(i) 2.0 m wide by 0.3 m high by 6.0 m long	m³	LI	216		
Total Carried Forward To Summary						

ROADWORKS

						GRAVEL PAVEMENT LAYERS
ITEM	DESCRIPTION	UNIT	LI	QTY	RATE	AMOUNT R
601.00	GRAVEL PAVEMENT LAYERS					
601.02	Gravel layers constructed from material obtained from borrow pits:					
	class 2 - 4 roads pavement layerworks:					
	Lower selected layer (G7)					
601.02.01	Subgrade					
601.02.01.02	Compacted to 93% of modified AASHTO density	m³		1 375.3		
	Upper selected layer (G5)					
601.02.01	Subgrade					
601.02.01.02	Compacted to 93% of modified AASHTO density	m³		1 096.2		
	Lower subbase layer (C4):					
601.02.02	Subbase					
601.02.02.01	Compacted to 95% of modified AASHTO density	m³		523.3		
	Upper subbase layer (C4):					
601.02.02	Subbase					
601.02.02.02	Compacted to 97% of modified AASHTO density	m³		523.3		
	Class 5 roads pavement layerworks:					
	Selected layer (G7)					
601.02.01	Subgrade					
601.02.01.03	Compacted to 95% of modified AASHTO density	m³		378.0		
	Subbase layer (C4):					
601.02.02	Subbase					
601.02.02.01	Compacted to 95% of modified AASHTO density	m³		360.9		
	Sidewalk					
Total Carried Forward						

ROADWORKS

						GRAVEL PAVEMENT LAYERS
ITEM	DESCRIPTION	UNIT	LI	QTY	RATE	AMOUNT R
Brought Forward						-
	Subbase layer:					
601.02.02	Subbase					
601.02.02.01	Compacted to 95% of modified AASHTO density	m ³		700.0		
601.06	Extra over Item 601.02 for borrow material from sources to be supplied by the contractor					
614.02.01	Lower selected layer: G7 quality material for the class 2 - 4 roads only	m ³		6 100.0		
614.02.02	Upper selected layer: G5 quality material for the class 2 - 4 roads only	m ³		5 600.0		
614.02.03	Selected layer: G7 quality material for class 5 roads	m ³		3 700.0		
614.02.04	Lower subbase layer: C4 quality material for the class 2 - 4 roads only	m ³		4 700.0		
614.02.05	Subbase layer: C4 quality material for the class 2 - 4 roads only	m ³		4 700.0		
614.02.06	Subbase layer: G5 quality material for class 5 roads	m ³		3 500.0		
614.02.07	Subbase layer: G5 quality material for the sidewalk	m ³		1 369.7		
	Stabilization of the subbase layers					
601/604.01	Chemical stabilization, extra-over unstabilized compacted layers (lower subbase layer for the class 2 - 4 roads)	m ³		4 700.0		
601/604.01	Chemical stabilization, extra-over unstabilized compacted layers (upper subbase layer for the class 2 - 4 roads)	m ³		4 700.00		
601/604.01	Chemical stabilization, extra-over unstabilized compacted layers (subbase layer for the class 5 roads)	m ³		2 165.3		
601/604.01	Chemical stabilization, extra-over unstabilized compacted layers (subbase layer for the sidewalk)	m ³		1 369.7		
601/604.02	Chemical stabilizing agent:					
601/604.02.01	Cement	t		1 623.6		
Total Carried Forward						

ROADWORKS

						GRAVEL PAVEMENT LAYERS
ITEM	DESCRIPTION	UNIT	LI	QTY	RATE	AMOUNT R
Brought Forward						-
601/604.05	Provision and application of water for curing	kl		487.5		-
Total Carried Forward To Summary						

ROADWORKS

							CRUSHED-STONE PAVEMENT LAYER
ITEM	DESCRIPTION	UNIT	LI	QTY	RATE	AMOUNT R	
602.00	CRUSHED-STONE PAVEMENT LAYERS						
602.01	Crushed-stone base constructed with material obtained from						
602.01.01	Commercial sources						
	class 2 - 4 base layer						
B 602.01.01.01	G1 material compacted to 86% apparent density	m³		5 150.0			
	Class 5 roads base layer						
B602.01.01.02	G2 material compacted to 100% modified AASHTO density	m³		5 795.0			
Total Carried Forward To Summary							

ROADWORKS

						STABILIZATION
ITEM	DESCRIPTION	UNIT	LI	QTY	RATE	AMOUNT R
604.00	STABILIZATION					
604.01	Chemical stabilization, extra over unstabilized compacted layers	m³		6 279.1		
604.02	Chemical stabilizing agent:					
604.02.01	Cement	t		506.4		
B604.05	Provision and application of water for curing	kl		847.7		
Total Carried Forward To Summary						

ROADWORKS

ITEM	DESCRIPTION	UNIT	LI	QTY	RATE	PRIME COAT AMOUNT R
605.00	PRIME COAT					
605.01	Prime coat:					
605.01.04	Invert bituminous emulsion	l		33 810.0		
605.02	Aggregate for binding	m ²		42 000.0		
Total Carried Forward To Summary						

ROADWORKS

ASPHALT BASE AND SURFACING

ITEM	DESCRIPTION	UNIT	LI	QTY	RATE	AMOUNT R
606.00	ASPHALT BASE AND SURFACING					
606.02	Asphalt surfacing (40mm thickness)					
606.02.01	Continuously graded (medium) (using 35/50 pen bitumen with maximum size of aggregate 13.2 mm)	m ²		46 200.0		
606.05	Tack coat of 30% stable-grade emulsion	l		32 340.0		
606.06	Binder variations					
606.06.01	Penetration grade bitumens	t		0.0	rate only	
606.08	Trial section (40mm thickness)	m ²		1 776.0		
606.09	100 mm cores in asphalt paving	No		35.0		
Total Carried Forward To Summary						

ROADWORKS

						SEGMENTED PAVING
ITEM	DESCRIPTION	UNIT	LI	QTY	RATE	AMOUNT R
609.00	SEGMENTED PAVING					
609.01	Construction of segmental block paving made from:-					
609.01.01	60 mm Type (S-A, S-B or S-C) 25 Mpa (Grey colour or similar approved) Interlocking paving blocks on 25 mm Riversand	m ²	LI	10 500.0		
Total Carried Forward To Summary						

ROADWORKS

						GUARDRAILS
ITEM	DESCRIPTION	UNIT	LI	QTY	RATE	AMOUNT R
611.00	GUARDRAILS					
611.01	Guardrails on timber posts					
611.01.01	Galvanized	m	LI	380.0		
611.04	End Units					
611.04.01	End wings	No	LI	4.0		
611.06	Reflector plates	No	LI	211.0		
Total Carried Forward To Summary						

ROADWORKS

						TRAFFIC SIGNS
ITEM	DESCRIPTION	UNIT	LI	QTY	RATE	AMOUNT R
612.00	TRAFFIC SIGNS					
612.01	Sign boards with painted background, symbols, lettering and borders in engineering-grade retro-reflective material with signboards constructed from -					
612.01.01	Aluminium sheet (2,0 mm thick)					
612.01.01.01	Area not exceeding 2 m ²	m ²		85.0		
612.01.01.02	Area exceeding 2 m ² but not 10 m ²	m ²		55.0		
612.02	Extra over item 612.01 for -					
612.02.01	Background of retro-reflective material of -					
612.02.01.02	High-intensity grade	m ²		45.0		
612.02.02	Lettering, symbols and borders of retro-reflective material of -					
612.02.02.02	Super-engineering grade	m ²		45.0		
612.03	Sign supports					
612.03.03	Timber (150mm dia. supports)	m		170.0		
612.05	Excavation and backfilling for sign supports	m ³	LI	42.0		
B 612.07	Extra over item 612,05 for cement-treated soil backfill	m ³	LI	37.0		
Total Carried Forward To Summary						

ROADWORKS

						TRAFFIC MARKINGS
ITEM	DESCRIPTION	UNIT	LI	QTY	RATE	AMOUNT R
613.00	TRAFFIC MARKINGS					
613.02	Retro-reflective road-marking paint:					
613.02.01	White lines (broken or unbroken)					
	(i) 100 mm wide	km		6.0		
	(ii) 150 mm wide	km		6.0		
	(iii) 200 mm wide	km		0.5		
	(iv) 500 mm wide STOP	km		0.3		
613.02.02	Yellow lines (broken or unbroken)					
	(i) 100 mm wide	km		12.0		
613.02.03	White lettering and symbols	m ²		24.0		
613.02.04	Yellow lettering and symbols	m ²		15.0		
613.02.05	Traffic-island markings (any colour)	m ²		35.0		
613.04	Variations in rate of application:					
613.04.01	White paint	l		70.0		
613.04.02	Yellow paint	l		40.0		
613.05	Roadstuds (100mm x 100mm x 20mm plastic stick-on type with 43 bead glass reflectors - Bi-directional (any colour)	No	LI	208.3		
613.06	Setting out and premarking the lines (excluding traffic-island markings, lettering and symbols)	km	LI	28.8		
B 613.07	Re-establishing the painting unit at the end of the maintenance period	L/Sum		1.0		
Total Carried Forward To Summary						-

ROADWORKS

ITEM	DESCRIPTION	UNIT	LI	QTY	RATE	TESTING AMOUNT R
903.00	TESTING					
903.06	Other special tests requested by the Engineer					
903.06.01	Cost of testing	Prov Sum		1.0	450 000.00	
903.06.02	Charge on prime cost sum	%				
Total Carried Forward To Summary						

ROADWORKS		SUMMARY OF SECTIONS	AMOUNT R
SECTION	DESCRIPTION		
001	GENERAL REQUIREMENTS AND CHARGES		
002	ENGINEER'S ACCOMMODATION		
101	SITE CLEARING AND GRUBBING		
102	ACCOMMODATION OF TRAFFIC		
103	OVERHAUL		
104	LANDSCAPING AND GRASSING		
106	SERVICE DUCTS		
202	TRENCHING		
203	MASS EARTHWORKS		
501	SUBSURFACE DRAINS AND DRAINAGE BLANKETS		
502	PREFABRICATED CULVERTS AND STORMWATER SEWERS		
503	KERBING AND CHANNELLING		
504	OPEN DRAINS		
505	EROSION PROTECTION		
601	GRAVEL PAVEMENT LAYERS		
602	CRUSHED-STONE PAVEMENT LAYERS		
604.00	STABILIZATION		
605	PRIME COAT		
606	ASPHALT BASE AND SURFACING		
609	SEGMENTED PAVING		
611	GUARDRAILS		
612	TRAFFIC SIGNS		
613	TRAFFIC MARKINGS		
903	TESTING		
Total Carried Forward To Summary Of Schedules			

BRIDGE 03-SECTION 101

ITEM	DESCRIPTION	UNIT	LIC	QTY	RATE	AMOUNT R
101	SITE CLEARING AND GRUBBING					
101.01	Clearing and grubbing					
101.01.01	Areas	m ²		2500.0		
101.02	Cutting and removing large trees with girth -					
101.02.01	exceeding 1 m up to and including 2 m	No		6.0		
Total Carried Forward To Summary						

BRIDGE 3-SECTION 102

ITEM	DESCRIPTION	UNIT		QTY	RATE	AMOUNT R
102	ACCOMMODATION OF TRAFFIC					
102.12	Provision of temporary bridges for maintaining access to properties.					
B 102,12.02	Provision of Temporary Bridges Construct a temporary by-pass bridge to Bridge 3 to accomodate two-way traffic. Refer to B001.12 in the specifications for a detailed breakdown of construction requirements.					
	(b) Provide all labour, materials, and plant to construct, maintain, and remove a temporary stream crossing complete with culvert/pipe units, erosion protection, geotextile, approach ramps, scour control, traffic accommodation, environmental protection, and final reinstatement, in accordance with City of Tshwane specifications, complete.	Prov Sum		1.0	2 000 000.00	
Total Carried Forward To Summary						

BRIDGE 3-SECTION 505

ITEM	DESCRIPTION	UNIT		QTY	RATE	AMOUNT R
505	EROSION PROTECTION					
505.01	Foundation trench excavation and backfilling					
505.01.02	In all other classes of material	m ³		100.0		
505.02	Surface preparation for bedding the gabions	m ²		75.0		
B505.03	Gabions					
505.03.01	Gabion boxes (hexagonally woven mesh, 80mm x 100mm, 2.7mm dia. with additional PVC coating) as follows:					
	(i) 1.0m x 1.0m x 1.0m	m ³		50.0		
505.05	Filter fabric for gabions and riprap (Grade B)	m ²		55.0		
B505.07	Riprap					
B505.07.01	Grouted packed riprap (using 80mmx100mmx2.7mm mesh with 1.0 m diaphragm spacing, critical stone mass of 1.5kg. with additional PVC coating)					
	(i) 2.0 m wide by 0.3 m high by 6.0 m long	m ³		55.0		
Total Carried Forward To Summary						

BRIDGE 3-SECTION 701

ITEM	DESCRIPTION	UNIT		QTY	RATE	AMOUNT R
701	FOUNDATIONS FOR STRUCTURES					
701.02	Excavation for structures					
701.02.01	Excavation of soft material situated within the following depth ranges:					
701.02.01.01	0 m up to 2 m	m³		415.0		
701.02.01.02	Exceeding 2 m up to 4 m	m³		283.0		
701.02.02	Extra over subitem 701.02.01 for excavation in hard material irrespective of depth	m³		243.0		
701.02.04	Extrar over subitem 701.02.01 for excavation by hand	m³		80.0		
B701.04	Dewatering the foundation excavations	L/sum		1.0		
701.05	Backfill to excavations utilizing -					
701.05.01	Material from the excavation compacted to					
701.05.01.02	93% of modified AASHTO density	m³		204.0		
701.05.02	Imported material compacted to					
701.05.02.02	93% of modified AASHTO density	m³		204.0		
701.06	Fill within restricted areas (extra over item 203.01)	m³		426.0		
B 701.07	Foundation fill consisting of:					
B 701.07.04	Mass concrete (Class 25/19)	m³		300.0		
B 701.07.05	75 mm thick blinding layer, Class 15/19 concrete	m³		50.0		
B 701.12	Dowelling into rock:					
B 701.12.01	Drilling and cleaning of holes	m		230.0		
Total Carried Forward						

BRIDGE 3

BRIDGE 3-SECTION 701

ITEM	DESCRIPTION	UNIT		QTY	RATE	AMOUNT R
Brought Forward						
B 701.12.02	Supplying and installing dowel bars (3.35m long Y25 galvanized in accordance to SANS 121 and grouted in with an approved high strength non-shrinkage grout)	kg		2034.0		
701.13	Foundation lining (beneath approach slabs)	m ²		48.0		
B 701.14	Access and drainage	L/sum		1.0		
Total Carried Forward To Summary						

BRIDGE 3

BRIDGE 3-SECTION 702

ITEM	DESCRIPTION	UNIT		QTY	RATE	AMOUNT R
702	FALSEWORK, FORMWORK AND CONCRETE FINISH					
702.01	Formwork class F1 surface finish					
702.01.01	Single-surface formwork					
702.01.01.02	Plane, sloping	m ²		10.0		
702.01.01.03	Plane, vertical	m ²		650.0		
702.03	Formwork class F3 surface finish					
702.03.01	Single-surface formwork					
702.03.01.01	Plane, horizontal	m ²		677.0		
702.03.01.02	Plane, sloping	m ²		74.0		
702.03.01.03	Plane, vertical	m ²		245.0		
B 702.05	Permanent void formers					
B 702.05.01	600 mm dia. cylindrical void formers as shown on drawings	m ²		935.0		
B 702.06	Formwork to form open joints:					
B 702.06.01	Between deck end and abutment as shown on drawings	m ²		24.0		
B 702.06.02	Between wing walls and abutment as shown on drawings	m ²		13.0		
B 702.11	Contractor's Health and Safety obligations with regard to falsework and formwork	L/Sum		1.0		
Total Carried Forward						

BRIDGE 3

BRIDGE 3-SECTION 702

ITEM	DESCRIPTION	UNIT		QTY	RATE	AMOUNT R
Brought Forward						
	<p>In addition to Section 702, Clause 04: The design of the entire falsework infrastructure used to temporarily support the bridge structure, shall be carried out by a specialist professionally registered engineer in the design of falsework and formwork. Therefore, the tenderer must allow for the design, inspection and approval of the staging.</p>	L/Sum		1.0		
Total Carried Forward To Summary						

BRIDGE 3

BRIDGE 3-SECTION 703

ITEM	DESCRIPTION	UNIT		QTY	RATE	AMOUNT R
703	STEEL REINFORCEMENT FOR STRUCTURES					
703.03	Welded steel fabric for -					
703.03.01	Approach slabs					
703.03.01.01	Mesh Ref. No. 888	kg		36.0		
703.05	Reinforcement for -					
703.05.01	Abutments, wingwalls and return walls					
703.05.01.01	Mild steel	t		1.1		
703.05.01.02	High-yield-stress-steel bars (450 MPa)	t		24.1		
703.05.02	Deck					
703.05.02.01	Mild steel	t		2.0		
703.05.02.02	High-yield-stress-steel bars (450 MPa)	t		100.0		
703.05.03	Pier					
703.05.03.01	Mild steel	t		0.5		
703.05.03.02	High-yield-stress-steel bars (450 MPa)	t		26.6		
703.05.04	Parapets and endblocks					
703.05.04.01	Mild steel	t		1.1		
703.05.04.02	High-yield-stress-steel bars (450 MPa)	t		6.5		
B 703.06	Extra-over items 703.05.01 - 703.05.04 for galvanizing of reinforcement	t		7.6		
Total Carried Forward						

BRIDGE 3

BRIDGE 3-SECTION 704

ITEM	DESCRIPTION	UNIT		QTY	RATE	AMOUNT R
B 704.01	Cast in situ concrete					
B 704.01.01	Class 30/19 (W) in abutments and wingwalls	m ³		380.0		
B 704.01.02	Class 30/19 (W) in piers	m ³		160.0		
B 704.01.03	Class 40/19 (W) in deck	m ³		450.0		
B 704.01.04	Class 30/19 (W) in approach slabs	m ³		20.0		
B 704.01.05	Class 30/19 (W) in return walls	m ³		10.0		
B 704.01.06	Class 15/19 in sidewalks	m ³		28.0		
B 704.08	Curing of Concrete:					
B 704.08.01	Substructure, deck sides, wing walls and returnwalls using an approved curing compound	m ²		920.0		
B 704.08.02	Deck top surface using moisture curing	m ²		577.0		
B 704.08.03	Approach slabs and sidewalk top surface using moisture curing	m ²		133.0		
Total Carried Forward To Summary						-

BRIDGE 3

BRIDGE 3-SECTION 706

ITEM	DESCRIPTION	UNIT		QTY	RATE	AMOUNT R
706	JOINTS IN STRUCTURES					
706.03	Expansion joints as detailed on the Drawings and/or specified in the Project Specifications					
706.03.01	Asphaltic plug joints (400x75mm deep)	m		25.0		
706.04	Filled joints					
706.04.01	20 mm wide movement joints between abutment and wing wall as shown on drawings	m ²		10.0		
706.04.02	20 mm wide movement joint between approach slabs and curtain wall as shown on drawings	m ²		40.0		
B 706.07	Additional water tests for joints ordered by the engineer	No		2.0		
Total Carried Forward To Summary						

BRIDGE 3-SECTION 808

ITEM	DESCRIPTION	UNIT		QTY	RATE	AMOUNT R
808	BRIDGES					
808.03	Bearings (300 x 250 x 5(10)mm laminated elastometric bearing pads total thickness 74mm and shore hardness 60) as shown on the drawings	No		20.0		
808.05	Bridge parapets (F-shape parapets as per drawings)	m		112.0		
808.06	End blocks	No		4.0		
808.07	Bridge number plates	No		2.0		
808.08	Weep holes as shown on the Drawings (50 mm dia. uPVC pipes)	m		22.0		
808.10	Drainage pipes					
808.10.01	75 mm dia. uPVC scuppers	m		60.0		
808.10.02	M65 perforated drainage pipe wrapped in filter fabric Grade B	m		55.0		
808.12	Synthetic-fibre filter fabric (Grade B)	m ²		135.0		
B 808.13	Drainage strips - 325mm wide DN1 Netlon drainage strips covered with filter fabric Grade B	m		90.0		
Total Carried Forward To Summary						

SECTION	DESCRIPTION	SUMMARY OF SECTIONS	AMOUNT R
101	SITE CLEARING AND GRUBBING		
102	ACCOMMODATION OF TRAFFIC		
505	EROSION PROTECTION		
701	FOUNDATIONS FOR STRUCTURES		
702	FALSEWORK, FORMWORK AND CONCRETE		
703	STEEL REINFORCEMENT FOR STRUCTURES		
704	CONCRETE FOR STRUCTURES		
706	JOINTS IN STRUCURES		
808	BRIDGES		
Total Carried Forward To Summary Of Schedules			<hr/> <hr/>

Contract No.: HS 09-2025/26

THE CONSTRUCTION OF 6KM ROAD AND STORMWATER NETWORK AND ONE BRIDGE (BRIDGE NO 3) ALONG BATHLAPING STREET IN OLIEVENHOUTBOSCH EXTENSION 60 FOR A PERIOD OF 36 MONTHS - PHASE 1

		SUMMARY OF SCHEDULES	
SCHEDULE	DESCRIPTION		AMOUNT R
1	ROADWORKS		
2	BRIDGE 3		
	Sub-total		_____
1	Contingencies (10% of Subtotal 1) Sub-total		_____
2	Contract Price Adjustment (10% of Subtotal 2) Sub-total		_____
3	VAT (15 % of Subtotal 3)		_____
Total			_____

Contract No: HS 09-2025/26: TENDER FOR THE CONSTRUCTION OF 6KM ROAD AND STORMWATER NETWORK AND ONE BRIDGE (BRIDGE NO 3) ALONG BATHLAPING STREET IN OLIEVENHOUTBOSCH EXTENSION 60 - PHASE 1 FOR A PERIOD OF 36 MONTHS.

Part C3: Scope of work

CITY OF TSHWANE
HUMAN SETTLEMENTS DEPARTMENT

CONTRACT NO: HS 09 2025/26

THE CONSTRUCTION OF 6KM ROAD AND STORMWATER NETWORK AND ONE BRIDGE (BRIDGE NO 3) ALONG BATHLAPING STREET IN OLIEVENHOUTBOSCH EXTENSION 60- PHASE 1 FOR A PERIOD OF 36 MONTHS.

PORTION 2: CONTRACT

PART C3: SCOPE OF WORK

SCOPE OF WORK

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NOTE: ALL DRAWINGS REFERRED TO UNDER THIS SECTION OF THE TENDER DOCUMENT ARE INCLUDED UNDER VOLUME 2

Contract No: HS 09 2025/26: TENDER FOR THE CONSTRUCTION OF 6KM ROADS AND STORMWATER NETWORK AND ONE BRIDGE IN OLIEVENHOUTBOSCH EXTENSION 60 - PHASE 1 FOR A PERIOD OF 36 MONTHS.

Part C3: Scope of Work
Section C3.1: Description of the Works

CITY OF TSHWANE
HUMAN SETTLEMENTS DEPARTMENT

CONTRACT NO: HS 09 2025/26

THE CONSTRUCTION OF 6KM ROAD AND STORMWATER NETWORK AND ONE BRIDGE (BRIDGE NO 3) ALONG BATHLAPING STREET IN OLIEVENHOUTBOSCH EXTENSION 60 - PHASE 1 FOR A PERIOD OF 36 MONTHS.

C3.1 DESCRIPTION OF THE WORKS

C3.1 DESCRIPTION OF THE WORKS

1.1 EMPLOYER'S OBJECTIVES

The employer's objective is to enhance service delivery and improve access within Olievenhoutbosch Extension 60 by constructing 6 km of compliant local and collector roads, together with the associated stormwater infrastructure and a bridge. This work aims to ensure safe and reliable access to residential properties, improve mobility and connectivity, and ultimately support more efficient transportation throughout the township by ensuring the following:

1.1.1. Service Delivery & Access Improvement

- Construct 6 km of compliant local and collector roads, including stormwater infrastructure, to provide safe access to residential properties within Olievenhoutbosch Ext 60. To improve mobility, connectivity, and transport efficiency within the township.

1.1.2. Flood Mitigation & Infrastructure Resilience

- Construct a major stormwater network and address existing localised flooding experienced during rainy seasons.
- Provide a safe, engineered bridge crossing over the Rietspruit River, ensuring all year-round accessibility.

1.1.3. Compliance & Safety

- Ensure the works comply with TRH, UTG, Red Book, City of Tshwane standards, SABS 1200, environmental, and OHS requirements.
- Integrate safe NMT (non-motorised transport) facilities for pedestrians.

1.1.4. Enable Human Settlements Development

- Support the City of Tshwane's human settlement goals and unlock the residential development of Olievenhoutbosch Ext 60, including community facilities and bulk services.

1.1.5. Quality & Long-Term Maintainability

- Ensure the design and construction achieve structural adequacy, safe geometry, robust drainage, and durable pavement structures.

NOTE 1 *The employer's objective in requiring the appointment of a construction manager is to provide expertise and resources that selected subcontractors might lack, capacitate these contractors to successfully complete their contracts and to minimize the risk of works not being constructed to stated requirements, within budget, and on time.*

NOTE 2 *The employer's objective in appointing a materials manager is to ensure that supported contractors are supplied timeously with materials that comply with the requirements of the project. The Contractor may be required to procure materials on behalf of the subcontractors, and the materials manager will be required to facilitate and plan accordingly with the Contractor.*

Works earmarked for labor-intensive construction methods will be numbered with a prefix "LI" in the bill of quantities to distinguish them from the conventional construction works. Such work shall be constructed using local workers who are temporarily employed in terms of the project specification.

The Contractor will be appointed based on the minimum Construction Industry Development Board (CIDB) 8CE grading.

City of Tshwane is not bound to accept the lowest or any tender and reserves the right to accept the whole or any part of a tender.

1.2 OVERVIEW OF THE WORKS

The project entails the construction of a 6km road network with associated stormwater drainage infrastructure and x1 bridge (Bridge 03) in Olievenhoutbosch Extension 60. The proposed bridge is a 3 span continuous, reinforced concrete slab, voided deck supported on reinforced concrete abutments and piers. The substructure will be founded on spread footings on rock. The works include earthworks, foundation systems, reinforced concrete substructure and superstructure, approach road tie-ins, river training works, and all ancillary elements required to deliver a fully complete and operational bridge crossing.

The drawings supplied describe the scope and design intent of the Work and provide the required detail for construction, but do not limit the Contractor from carrying out further works reasonably necessary for successful completion of the Contract.

The quantities and dimensions reflected in the drawings are indicative and shall be verified on site.

The project scope involves:

Part C3: Scope of Work

Section C3.1: Description of the Works

- Construction of 6 km of asphalt-paved roads of different classes (Class 3, 4a, 4b, 5a, 5b, and cul-de-sacs).
- Construction of Bridge No. 3, a 50-m long, 10-m wide structure over the Rietspruit River.
- Installation of a complete stormwater drainage system, including pipes, inlets, manholes, subsoil drains, and outfall structures.
- Integration of sidewalks, pedestrian routes, kerbing, and service crossings.
- Ensuring compliance with environmental authorisations, OHS obligations, and municipal standards.

This forms Phase 1 of the township's transportation and stormwater infrastructure rollout.

The description of the works contained is merely an outline of the Contract works to be undertaken and shall not limit the work to be carried out by the Contractor under this Contract. The Schedule of Quantities provides only for the type of work that may be undertaken, and the quantities are provided purely for tendering purposes and are indicative of the expected or estimated quantities.

1.2.1 EXTENT OF THE WORKS

The extent of the Works consists of:

I. Road Infrastructure

- 6 km of internal roads with widths ranging from 5.0 m to 7.4 m.
- Road classes ranging from minor distributor to local access streets.
- Earthworks, layer works, asphalt surfacing and kerbing across all roads.

II. Bridge Infrastructure

- Bridge No. 3 specifications:
 - Length: 50 m
 - Width: 10 m total (7.4 m roadway + 1.375 m walkway)
 - Skew 9 degrees
 - Three spans @ 14.35m spacings with piers (pier 1 & 2) and F-type parapets
 - Designed per SANRAL and TMH7 requirements
 - Construction of reinforced concrete Piers 1 and 2
 - Installation of approach slabs at both abutments - D745-B03-02 - GENERAL ARRANGEMENT
 - Reinforced concrete deck with void formers, parapets, deck joints and

surfacing layers as detailed in the deck concrete drawings - D745-B03-09
- DECK CONCRETE DETAIL

○ **Foundations**

- Bulk excavation to rock to receive substructure elements as indicated in foundation layouts and geotechnical notes
- Installation of dowelled foundations into bedrock using Y25/Y32 galvanized dowel bars into rock (2–2.5 m deep per element)
- Construction of foundation bases for abutments and piers in accordance with the foundation layout drawings - D745-B03-03 - FOUNDATION LAYOUT

○ **Roadworks & Tie-ins**

- Road formation tie-in along Setolotolo Street and Letsha Street including walkways and shoulders per the site plan cross-sections - D745-B03-02 - GENERAL ARRANGEMENTS
- Final surfacing to deck and approaches (30 mm asphalt) - D745-B03-09 - DECK CONCRETE DETAIL

○ **Drainage & Hydraulic Works**

- Construction of deck drainage including scuppers at 2.5 m centres and PVC downpipes through the slab - D745-B03-09 - DECK CONCRETE DETAILS
- Abutment drainage including weep holes, drainage strips & perforated pipes - D745-B03-02 - GENERAL ARRANGEMENT
- River training and erosion protection using gabion mattresses and key-ins at abutments / low points - D745-B03-02 - GENERAL ARRANGEMENTS

○ **Guardrails, Parapets & Ancillary Works**

- Fabrication and installation of steel guardrails, anchor plates & backing plates at both approaches as detailed in the miscellaneous drawings - D745-B03-15 - MISCELLANEOUS DETAILS
- Installation of reinforced concrete “F-Type” parapets on both sides of the bridge deck - D745-B03-09 - DECK CONCRETE DETAILS
- Installation of signage plates and number plates as detailed in Miscellaneous details drawings - D745-B03-15 - MISCELLANEOUS DETAILS

○ **Temporary Works / Sequence**

- Temporary access and drainage arrangements before opening works (Stage 1) - D745-B03-17 - CONSTRUCTION SEQUENCE

- Staged construction of substructure and deck in 3 phases per construction sequence drawings—D745-B03-17—
CONSTRUCTION SEQUENCE
- Removal of staging, reinstatement, landscaping and site clean-up upon completion- D745-B03-17 - CONSTRUCTION SEQUENCE
- Construction of the temporary/detour bridge if deemed necessary by the Employer's Agent

III. Storm-water System

- Catch pits, manholes, channels, pipes, river outfall structures, and subsoil drains.
- Tie-ins to major drainage systems and river crossing protections.

IV. Ancillary Works

- Wayleave coordination for water, sewer, electricity, telecoms.
- NMT facilities: sidewalks ≥ 1.5 m wide.
- Environmental controls: dust suppression, erosion control, compliance with EMPr.
- Traffic accommodation.

a) Particular Works

The following needs to be observed and considered during the cost estimation of the works:

- Bidders shall prepare and submit the program of works taking into consideration that the Employer may require that the services be completed in a specific order.
- The contractor shall, upon commencement, inspect the access routes, river accesses and inform the engineer of all obstructions to be relocated.
- A high level of superintendence is required.

1.2.2 PHASING OF THE WORKS

The Employer intends the works to be implemented over a 36-month construction period, broadly structured as follows. The works will not be phased but constructed over 3 financial years.

The Contractor will commence with the Works in the 2026/2027 Financial Year. The works will be sequenced such that the bridge will have priority over all the works, in recognition of the current absence of a safe river crossing and the associated community safety risks.

Bridge No. 3 will be treated as an enabling work and commence immediately in the first financial year, including temporary access, river protection, bulk excavation, foundations and

Part C3: Scope of Work
Section C3.1: Description of the Works

substructure works, to ensure early mitigation of life-safety concerns. The bridge superstructure, surfacing and approaches will be completed and opened to pedestrian and local traffic use in the second financial year, thereby restoring safe all-year access across the river. Construction of the 6 km internal road network will be undertaken in parallel where practical and completed progressively thereafter, with final tie-ins, finishing works and environmental close-out concluded in the final year of the programme.

Financial Year	Activity
2026 / 2027	Immediate priority to Bridge No. 3 as enabling works: site establishment; OHS & EMPr implementation; GPR and services verification (bridge corridor first); temporary access and river protection works; bulk excavation to rock; installation of galvanised dowel bars; construction of abutment and pier foundations; commencement of pier construction; early stormwater works affecting the river; limited road earthworks only where required to access and support bridge construction. The temporary/detour bridge will also be high priority if deemed necessary.
2027 / 2028	Completion and opening of Bridge No. 3: completion of piers; staged deck construction; deck drainage, parapets and walkways; asphalt surfacing to bridge and approaches; removal of falsework; controlled opening for pedestrian and local traffic use; construction of primary internal distributor roads linking to the bridge; major road layer works; kerbing and Non-Motorized Transport (NMT) facilities.
2028 / 2029	Completion of remaining internal roads (local access streets and cul-de-sacs); asphalt surfacing and finishing works; river training works and permanent erosion protection (gabions); final tie-ins to external roads; signage and road markings; verge reinstatement and landscaping; as-built drawings, environmental close-out and handover.

1.3 NATURE OF THE WORKS

The employer wishes to deliver public infrastructure using labour-intensive methods and sub-contractors where possible. The works in this contract are to be executed by using both conventional construction and labour-intensive construction methods according to the Special Public Works Programme (SPWP) as prescribed in the guidelines of the Expanded Public Works Programme (EPWP).

a) Conventional construction methods

- Removal of boulders or other obstructions too large to be hand removed
- Excavation of trenches deeper than 1,5m
- Heavy earthworks and compaction
- Pavement layer works using rollers and graders
- Asphalt surfacing (specialised plant)

Part C3: Scope of Work

Section C3.1: Description of the Works

- Bridge construction:
- Excavation
- Piers and abutments
- Deck construction
- Formwork/scaffolding
- Lifting/placing reinforcing
- Installation of large-diameter stormwater pipes
- Major drainage structures
- River protection works and high-volume concrete pours

b) Labour intensive construction methods (EPWP)

Items deemed suitable for construction using labour intensive construction methods are prefixed "LI" in the schedule of quantities. The employer's further objective is to optimise labour opportunities, and the contractor shall be required to construct the works accordingly. The "LI" activities, inter alia, include but are not limited to:

- Minor concrete works (channels, kerbs, edging)
- Clearing of the areas for the excavation of trenches, including the removal of any trees or other impediments to the installation of new pipelines.
- Excavation of trenches not exceeding 1,5m in depth, including for all shoring and other safety methods to ensure safe working conditions;
- Excavate by hand to expose existing services and backfill;
- Bedding and laying of new stormwater pipelines;
- Backfilling of all new stormwater pipelines as specified;
- Construction of manholes, excluding the lifting of precast concrete cover slabs.
- The installation of fence where necessary;
- Fixing damaged residential fences and walls.
- Landscaping and erosion protection measures
- Construction of gabions
- Provision of security

c) Local Emerging Contractors (LEC)

Items deemed suitable for construction using Local Emerging Contractors include but are not limited to:

- Supply and erection of site camp fence and gate;
- Construction of subsoil drains;
- Excavation of trenches not exceeding 1,5m in depth, including for all shoring and

other safety methods to ensure safe working conditions;

- Excavate by hand to expose existing services and backfill;
- Bedding and laying of new stormwater pipelines;
- Backfilling of all new stormwater pipelines as specified;
- Construction of manholes, excluding the lifting of precast concrete cover slabs.
- Fixing damaged residential fences and walls.
- Landscaping and erosion protection measures
- Construction of gabions
- Provision of security

The works therefore represent a hybrid delivery approach, consistent with the Employer's social development and technical quality requirements.

1.4

TEMPORARY WORKS

Before the commencement of the construction of the permanent bridge, the Contractor shall construct a safe, reliable all weather crossing for both the motorists and pedestrians as provisioned for in the bills of quantities & approved drawings.

1.5

LOCAL ECONOMIC PARTICIPATION SPECIFICATION

A. PREAMBLE

The City of Tshwane has a long-term commitment to the protection and Participation of local business and industry, including the Participation and support of construction skills and – capacity. In addition, the municipality is committed to the provision of as many job opportunities as possible to its local communities and therefore to the consistent pursuance and achievement of the objectives of EPWP. Having regard for the specialized nature of this project, the municipality in its role as Employer requires the maximum possible level of Local Economic Participation, as defined in this contract, as well as the maximum possible level of employment of local skills and labour. This specification therefore forms a very important aspect of this contract, which will be enforced and will require the full attention of the Contractor for the duration of the contract.

B. DEFINITIONS

“**Local Sub-Contractor**” means a legal business entity with its registered office and/or physical address in the City of Tshwane municipal area, duly registered with the Construction

Industry Participation Board (CIDB) and with the required CIDB grading and who has actively conducted business in the City of Tshwane municipal area for a period of more than 12 months.

“Local Supplier” means a legal business entity with its registered office and/or physical address in the City of Tshwane municipal area who has actively conducted business in the City of Tshwane municipal area for a period of more than 12 months and who supplies goods or materials directly to the end user.

C. SPECIFICATION

1. LOCAL ECONOMIC PARTICIPATION (LEP) shall comprise of:
 - a. The direct participation of Local Sub-contractors in the Contract.
 - b. The direct participation of Local Suppliers and Service Providers in the Contract.
 - c. The direct employment of local labor, - semi-skilled and - skilled staff by the Contactor and Local Sub-contractors.
2. Direct Participation shall mean the engagement of resources, listed in 1 above, by the Contractor without the involvement of any other intermediary parties or agents.
3. LOCAL ECONOMIC PARTICIPATION (LEP) shall be measured by value as follows:
 - a. Where activities, as measured under LI and SC of the Bill of Quantities, are performed entirely by Local Sub-contractors at the rate in the Bill of quantities, the value of the measured item shall be deemed to be the net value of LEP in respect of that activity.
 - b. Where an activity, performed in terms of the above, is valued at a scheduled rate that includes a profit mark-up, supervision fee, administration fee or any other mark-up, the net value of the item payable to the Local Sub-contractor shall be deemed to be the net value of the LEP in respect of that activity.
 - c. Where any component of the Contract, measured in the Schedule of Quantities, being a material or plant item or service required for the completion of the Contract, is provided entirely by a Local Supplier or Service Provider, at the rate in the Schedule of Quantities, the value of the measured item shall be deemed to be the net value of LEP in respect of that component.
 - d. Where a component, supplied in terms of point 'c' above, is valued at a scheduled rate that includes a profit mark-up, supervision fee, administration fee or any other mark-up, the net value of the item payable to the Local Supplier shall be deemed to be the net value of the LEP in respect of that component.
 - e. The value of local labour shall be the net value of wages and/or salaries paid to individuals recruited from communities in the City of Tshwane municipal area for the purpose of the Contract, by the Contractor or any of the Local Sub-contractors appointed in terms of this Contract.

Part C3: Scope of Work

Section C3.1: Description of the Works

4. Tenderers shall indicate in their tenders the value (as a percentage) of Local Economic Participation (LEP) that will be achieved should he be awarded the contract. This tendered value, split between the participation of Local Suppliers and Service Providers on the one hand and Local Sub-contractors on the other shall become the Contractor's Local Economic Participation target.
The achievement of this target will be a contractual obligation, which will be enforced in terms of the provisions of this section.
5. The Contractor shall, within seven (7) days of the date of the Letter of Acceptance, submit to the Engineer a detailed plan for the achievement of his tendered Local Economic Participation (LEP) objectives and target, including a schedule of construction activities, construction components, materials, goods and services, local skills and labour etc, in which their valuation in terms of the principles of this specification is clearly indicated. This schedule shall indicate how targets will be met.
6. The Engineer shall approve this detailed plan in writing within seven (7) days of its submission by the Contractor.
7. The Contractor shall submit monthly progress reports to the Engineer, in a format approved by the Engineer, clearly indicating progress to date in respect of LEP. These reports will be in addition to monthly MIG reports required from the Contractor.
8. The Contractor shall, if requested by the Engineer at any stage of the Contact, submit within seven (7) days all necessary documentation required to confirm the accuracy of information provided in the monthly progress reports. Documentation shall include but not be limited to:
 - a. Tax invoices,
 - b. Wage sheets,
 - c. Salary Advice
 - d. Orders.
9. At the completion of the project and prior to the issue of the Performance Certificate, the Contractor shall submit audited (audited by a recognized third-party institution) figures to substantiate and confirm actual LED expenditure achieved during the implementation of the Contract. Failure to meet the tendered target will result in a financial penalty as described under Sub-Clause 4.10.1 of the General Conditions of Contract (as amended).
10. Failure by the Contractor to comply with any of the requirements in 4, 5, and 6 above shall be dealt with in terms of Clause 9.2 of the General Conditions of Contract.
11. The Contractor shall during the course of the Contract have the opportunity to submit revised detailed plans for the achievement of Local Economic Participation (LEP) objectives and targets, considering practical constraints encountered during the construction process and including the necessary motivation for such revised detailed plans.

12. In the event that the Contractor is prevented to comply with his implementation plan by any circumstances outside his control, he shall within seven (7) days submit to the Engineer a notice outlining such circumstances in detail and stipulating the impact of such circumstances on the Local Economic Participation in the Contract and as defined above. The Engineer shall, within seven (7) days of receiving such a notice inform the Employer accordingly, who shall be obliged to:
 - a. Rectify the circumstances preventing compliance and exempting the Contractor from his obligations, in terms of his implementation plan, for the duration of the period in which the circumstances prevailed, or
 - b. Exempting the Contractor entirely from his obligations in terms of its implementation plan insofar as these are affected by the specific circumstances.
13. Any dispute arising from this specification or the implementation thereof shall be resolved in accordance with the provisions of Clause 10 of the General Conditions of Contract.
14. A payment item has been included under Schedule 1 (preliminary and general charges) for all costs related to the compilation and administration of all LED-related documentation as well as the auditing of the final figures by a recognized third-party institution.

D. NON-SPECIALIST WORK LOCAL SUB-CONTRACTORS

All work measures that have been identified for construction by local sub-contractors as a minimum requirement, which does not prevent the Contractor from employing sub-contractors for other portions of work in order to achieve the tendered LEP target.

1.6 LOCATION OF SITE

The Olievenhoutbosch Extension site is situated North of Blue Hills Estate, East of the R55 to Kyalami, South of Thatchfield and slightly North-West of Kosmosdal.

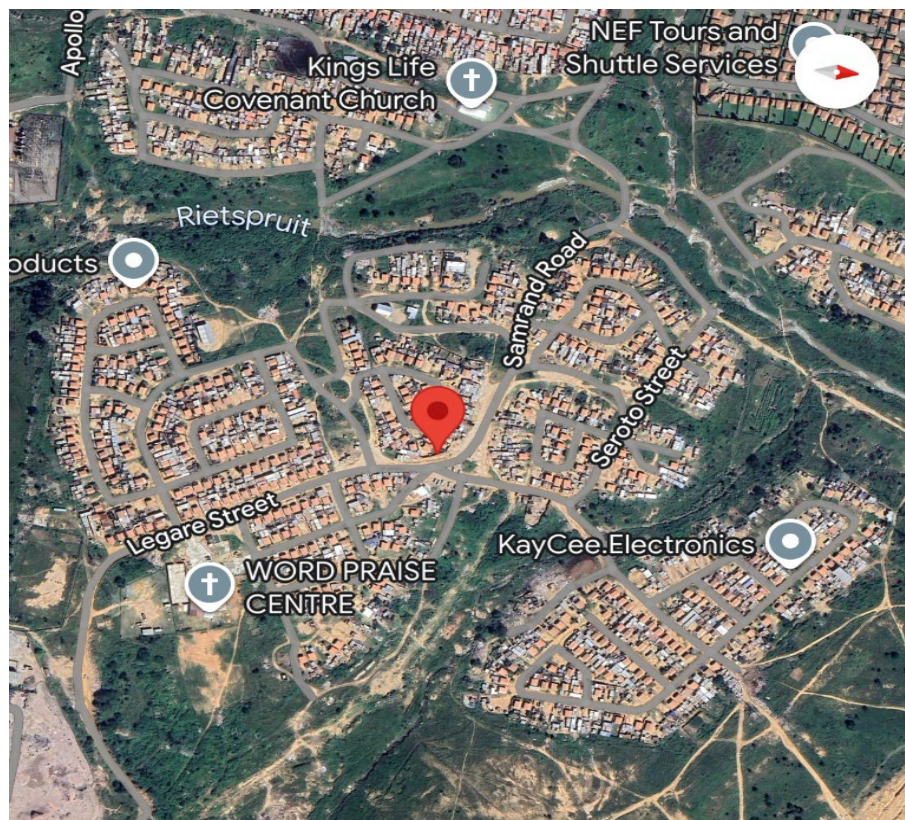
The project is located on:

- Portion 322 of the farm Olievenhoutbosch 389-JR
- Approximately 10 km south-west of Centurion
- Bounded by:
 - Olievenhoutbosch Ext 19 to the southwest
 - Rietspruit River to the northwest
- Within Ward 77, City of Tshwane Metropolitan Municipality

GPS Coordinates

- S 25.9125654
- E 28.1189962

Locality plan



Part C3: Scope of Work
Section C3.1: Description of the Works



1.7 GEOTECHNICAL INFORMATION

a) Bridge 03

1.7.1 Geotechnical Investigations

A geotechnical investigation was undertaken along the bridge alignment to determine subsurface conditions. Based on the DCP profiles and soil logs contained in the investigation report for Bridge 3, the following testing was performed:

- California Bearing Ratio (CBR)
- Field Moisture Content
- In-situ Density
- Dynamic Cone Penetrometer (DCP) testing to depths between 1.0 m and 3.0 m depending on refusal depth

The logs indicate shallow residual granitic material with variable ferruginisation, underlain by moderately weathered to fresh granite. The investigation also provided key information on bearing capacities, expected excavation conditions, transported soils, and groundwater presence.

1.7.2 Site Classification

Site Class: C–C1

Expected total soil movement: <5–10 mm

1.7.3 Earthworks

No groundwater seepage was identified during fieldwork. The Contractor remains responsible for:

- Protecting the works against stormwater
- Preventing flooding from springs or seepage
- Maintaining excavations in a dry state using pumping or dewatering

1.7.4 Excavations

Excavation profile:

- Upper transported horizon: loose silty sand or sandy silt
- Below this: ferruginised residual granite
- Deeper profile: moderately weathered granite, approaching fresh granite

Conditions:

- Soft to intermediate excavation expected
- Hard excavation may occur locally
- Shoring required for narrow trenches
- Excavations must progress from the lowest point uphill

1.7.5 Material Usage

Unsuitable materials:

- Transported soils in the upper horizon
- Material with >10% rock fragments >50 mm
- Clay lumps that do not break under compaction

Suitable materials:

- Ferruginised residual granite (G7–G8)
- AASHTO A1–A6 compliant soils

Where shortfalls occur, approved borrow material must be sourced by the Contractor.

b) Roads

1.7.6 Geotechnical Investigations

Geology

Regional geological information indicates that the site is underlain by granites and gneisses of the Halfway House Granite Suite.

The typical soil profile across the site consists of:

- A thin topsoil layer,
- Underlain by transported soils (silty sands and sandy clays),
- Followed by residual granite soils, and
- Underlying partially weathered to hard granite bedrock at variable depths.

The residual soils are generally silty sands and gravelly silty sands, often mottled yellow, brown, grey, and

orange, with variable densities ranging from loose near surface to dense at depth. Occasional quartz gravels and boulders were encountered. Some areas contain reworked or dumped fill, which is highly variable and locally compressible.

Groundwater Conditions

Groundwater seepage was encountered in 7 of the 41 trial holes during excavation. Seepage depths generally ranged between 0.8 m and 1.9 m below ground level, with standing water recorded at depths of approximately 1.4 m to 3.05 m in isolated locations.

The groundwater is interpreted as perched water, associated with soil horizons rather than a regional water table. No artesian conditions were observed. The presence of groundwater is considered seasonally variable, and higher water levels may be expected during or after prolonged rainfall. Appropriate drainage and foundation measures are therefore recommended in areas where seepage was observed.

The Tenderer may, upon approval by the Employer's Agent, do his own exploratory work in order to establish ground and sub soil conditions in order to prepare his tender. The tenderer shall be fully liable for any claims for losses, damage or injuries arising or as a consequence of carrying out trial hole excavations for the purpose of this tender. Furthermore, the Employer's Agent's authority for the carrying out of any exploratory excavations is subject to the tenderer indemnifying the Employer and the Employer's Agent against any such claims.

A detailed geotechnical investigation report is attached as an annexure.

1.8 FEATURES REQUIRING SPECIAL ATTENTION

1.8.1 Existing Services

All existing services shall be indicated to the contractor, whereafter he will assume full responsibility for maintaining these in good running order. It shall be understood that the protection of the existing services shall in no way be impaired during the contract.

The wayleaves are also to be utilized to identify clashes of services with the works.

The Employer's Agent will be responsible for obtaining the necessary permissions and way-leave approvals from the relevant Service Owners. The Contractor shall locate and establish the actual position of any services on Site as indicated on the wayleaves before starting the construction.

Payment will not be made for any inconvenience caused to the Contractor in regard to any services crossing the Site or any authority working on any such service, nor will any delays caused by such works be accepted as a basis for claiming an extension of time for completing the works. All communications with owners of services and their work teams must take place

in conjunction with the engineer or his representative.

Wayleaves to be attained are shown on the table below.

Name of Institution	Type of Service
Eskom / Internal Distribution	Electricity
Telkom	Telecommunication
City Of Tshwane Municipality	Electricity
City Of Tshwane Municipality	Water and Sanitation
DFA	Fibre
Rand Water	Water Pipes
Liquid Communication / Neotel	Fibre
Cell C	Fibre
City Of Tshwane Municipality	Environmental Services
City Of Tshwane Municipality	Roads and Stormwater
Frog Foot	Fibre
Extribx Pty Ltd T/A SAS Networks	Fibre
Link Africa	Fibre
Metro Fibre	Fibre
MTN	Fibre
Sasol	Gas Pipes
Transnet	Pipe Lines
Tshwane Broad Band	Fibre
Vodacom	Fibre
VumaTel	Fibre
Gautrans	Roads and Stormwater

1.8.2 Surveying and Cadastral Beacons (including Stand pegs)

The Contractor shall be held responsible for the cost incurred in replacing or repositioning of any cadastral beacons which may have been disturbed by his actions.

Under no circumstances shall cadastral beacons be replaced by unauthorized persons and the Engineer shall be informed immediately of such disturbed beacons. The Engineer shall arrange for the replacement of any beacons by a competent Land Surveyor.

1.9 SUPPLYING OF MATERIALS

All materials required for this contract shall be supplied by the Contractor. The Contractor shall take care that no delay is caused due to a shortage of material. Therefore, the material required shall be ordered well in advance.

While care had been taken in calculating the quantities, the Contractor shall check the quantities before ordering. No claims for payment of excess or incorrect materials due to such shall be entertained.

1.10 QUALITY CONTROL

It is the responsibility of the Contractor to deliver work of quality and accuracy that is in accordance with the specifications and drawings, and the Contractor shall at his own cost provide a quality control system and provide experienced Engineers, Foreman, Surveyors, Technicians and other Technical Personnel together with the necessary transport, instruments and plant to ensure that proper supervision and positive control be applied on the job at all times. This also includes work done by sub-contractors, including nominated sub-contractors for specialised work or otherwise.

The cost of all supervision and control, tests included, performed by the Contractor, shall be included in the relevant rates for the different items when tendering, except where separate provision has been made in the sections of the specifications.

The Contractor's attention is drawn to the stipulations of the different sections of the specifications regarding the minimum frequency of test to ensure proper quality control. The Contractor shall increase this frequency if he deems fit to ensure appropriate control.

The Contractor shall, at the completion of each part of the work and requesting approval thereof by the Engineer, submit all applicable test results, measurements and levels to indicate that it conforms with the relevant specifications.

CITY OF TSHWANE
HUMAN SETTLEMENTS DEPARTMENT

CONTRACT NO: HS 09 2025/26

**THE CONSTRUCTION OF 6KM ROAD AND STORMWATER
NETWORK AND ONE BRIDGE (BRIDGE NO 3) ALONG
BATHLAPING STREET IN OLIEVENHOUTBOSCH
EXTENSION 60 FOR A PERIOD OF 36 MONTHS - PHASE 1**

C3.2 ENGINEERING

C3.2 ENGINEERING

3.2.1 STANDARDS AND CODES OF PRACTICE

The following design standards for civil engineering infrastructure will apply:

- i) *Guidelines for the provision of engineering services and amenities in residential township development* by the National Housing Board (Red book).
- ii) *General Conditions of Contract for Construction Works (2015) (Third Edition)* by the South African Institution of Civil Engineers.
- iii) *Standard Specifications for Municipal Civil Engineering Works* of the City of Tshwane (Third Edition 2005).

3.2.2 EMPLOYER'S DESIGN

The Contractor undertakes only construction on the basis of full designs issued by the Employer. The Contractor is to follow the specification, the design and construction drawings as laid out by the Employer. The design of the Works is detailed on the drawings and described in this document.

3.2.3 DRAWINGS

The drawings issued to tenderers as part of the tender documents must be regarded as provisional and preliminary for the tenderer's benefit to generally assess the scope of work. The work shall be carried out in accordance with the latest available revision of the drawings approved for construction.

At the commencement of the contract, the Engineer shall deliver to the Contractor copies of the construction drawings and any instructions required for the commencement of the works. From time to time thereafter during the progress of the works, the Engineer may issue further drawings or revisions for construction purposes as may be necessary for adequate construction, completion, and defects correction of the works.

Drawings issued separately in Volume 2 will be listed hereafter. The drawings represent the total works required under this contract. The employer has developed comprehensive standardized typical details which can be obtained by the contractor from the employer.

The Contractor shall use only the dimensions stated in figures on the Drawings in setting out the Works, and dimensions shall not be scaled from the Drawings, unless required by the Engineer. The Engineer will, on the request of the Contractor in accordance with the provisions of the

Conditions of Contract, provide such dimensions as may have been omitted from the Drawings.

The Contractor shall ensure that accurate as-built records are kept of all infrastructure installed or relocated during the contract. The position of junction boxes, duct ends and all other underground infrastructure shall be given by either co-ordinates, or stake value and offset. Where necessary, levels shall also be given. A marked-up set of drawings shall also be kept and updated by the Contractor. This information shall be supplied to the Engineer's Representative on a regular basis. All information in possession of the Contractor, required by the Engineer and/or the Engineer's Representative to complete the as-built/record drawings, must be submitted to the Engineer's Representative before a Certificate of Completion will be issued.

The Drawings prepared by the Employer for the permanent Works are bound at the back of this volume. The Employer reserves the right to issue amended and/or additional drawings during the Contract.

Note: All applicable Drawings are Included Under Volume 2.

C3.2.2 DESIGN & SPECIFICATIONS

3.2.2.1 STANDARD SPECIFICATIONS

A range of standard specifications are referred to in this document, either as listed applicable standard specifications below or as standard specifications listed in Particular specifications and amended standard specifications.

Whilst every attempt is made to ensure that all standard specifications referred to in the specifications for the construction of the Works, are included in the lists below, it could be that additional standards are referred to in the Particular Specifications or amended standard specifications without being shown in the lists below. Such omission from the lists below, should it occur, should not be seen as misinformation and it is to be noted that ALL standards specifications referred to in the complete specification document are applicable, whether listed below or not.

It is also possible that the date of publication of any specific specification might be superseded by a later revision. The latest revision of any particularly listed standard specification is to be referred to as the applicable and current standard specification.

The list indicates where the standard specifications are referred to in the amended specifications or elsewhere. Should no "referred to" indicator be available, it needs to be interpreted that that specific standard specification needs to be followed when work activities as defined in the standard specification, are undertaken.

It is the Contractor's duty to obtain copies of referenced standard specifications at his cost and all tendered rates shall be deemed to include for these costs.

C3.2.2.2 LIST OF DRAWINGS

The drawings issued to Tenderers as part of the tender documents must be regarded as provisional and preliminary for the Tender's benefit to generally assess the scope of work and to develop his pricing strategy. These drawings are marked as "Tender Drawings".

The construction of the Works shall be carried out against drawing revisions marked as "for construction purposes". The Contractor has to ensure that he always refers to the latest construction drawing revision issued by the Employer's Agent.

The Employer's Agent shall, at commencement of the Contract, deliver to the Contractor, copies of the construction drawings and any associated instructions required for the commencement of the Works.

The Employer's Agent may issue, from time to time, during the construction of the Works, revisions to previously issued drawings as may be required for adequate construction and completion of the Works.

The drawings for the construction of the Works have been prepared by the Employer.

OLIEVENHOUTBOSCH EXT 60 - ROADS, STORMWATER AND BRIDGE NO.3 DRAWING LIST			
No.	DRAWING DESCRIPTION	DRAWING No.	REVISION
ROAD LAYOUT PLANS & SECTIONS			
1	ROAD LAYOUT (SHEET 1 OF 3)	D745-2000	00
2	ROAD LAYOUT (SHEET 2 OF 3)	D745-2001	00
3	ROAD LAYOUT (SHEET 3 OF 3)	D745-2002	00
4	ROAD 1 - SEROTO STREET ROAD LAYOUT AND LONGITUDINAL SECTION CH 0+000 - CH 0+338	D745-2003	00
5	ROAD 1 - SEROTO STREET CROSS SECTIONS CH 0+000 - CH 0+160	D745-2004	00
6	ROAD 1 - SEROTO STREET CROSS SECTIONS CH 0+300 - CH 0+320	D745-2005	00
7	ROAD 2 - SEROTO STREET ROAD LAYOUT AND LONGITUDINAL SECTION CH 0+000 - CH 0+353	D745-2006	00
8	ROAD 2 - SEROTO STREET CROSS SECTIONS CH 0+000 - CH 0+220	D745-2007	00
9	ROAD 2 - SEROTO STREET CROSS SECTIONS CH 0+240 - CH 0+353	D745-2008	00
10	ROAD 3 ROAD LAYOUT, LONGITUDINAL SECTION AND CROSS-SECTIONS CH 0+000 - CH 0+036	D745-2009	00
11	ROAD 4 - KGOHATSA STREET ROAD LAYOUT AND LONGITUDINAL SECTION CH 0+000 - CH 0+270	D745-2010	00
12	ROAD 4 - KGOHATSA STREET CROSS-SECTIONS CH 0+000 - CH 0+270	D745-2011	00
13	ROAD 5 - LEKGABA STREET ROAD LAYOUT AND LONGITUDINAL SECTION CH 0+000 - CH 0+049	D745-2013	00
14	ROAD 6 - LEKGABA STREET ROAD LAYOUT, CROSS-SECTIONS AND LONGITUDINAL SECTION CH 0+000 - CH 0+190	D745-2014	00
15	ROAD 7 - LAYOUT ROAD, CROSS-SECTIONS AND LONGITUDINAL SECTION CH 0+000 - CH 0+075	D745-2016	00
16	ROAD 8 - BATHLAPANG STREET ROAD LAYOUT CROSS-SECTIONS AND LONGITUDINAL SECTION CH 0+000 - CH 0+198	D745-2017	00
17	ROAD 9 - BORANKANA STREET ROAD LAYOUT AND LONGITUDINAL SECTION CH 0+000 - CH 0+580	D745-2019	00
18	ROAD 9 - BORANKANA STREET ROAD LAYOUT AND LONGITUDINAL SECTION CH 0+580 - CH 0+891	D745-2020	00
19	ROAD 9 - BORANKANA STREET CROSS SECTIONS CH 0+000 - CH 0+240	D745-2021	00
20	ROAD 9 - BORANKANA STREET CROSS SECTIONS CH 0+260 - CH 0+480	D745-2022	00
21	ROAD 9 - BORANKANA STREET CROSS SECTIONS CH 0+500 - CH 0+720	D745-2023	00
22	ROAD 9 - BORANKANA STREET CROSS SECTIONS CH 0+740 - CH 0+891	D745-2024	00
23	ROAD 10 - GXILA STREET ROAD LAYOUT CROSS-SECTIONS AND LONGITUDINAL SECTION CH 0+000 - CH 0+052	D745-2025	00
24	ROAD 11 - HOLA STREET ROAD LAYOUT CROSS-SECTIONS AND LONGITUDINAL SECTION CH 0+000 - CH 0+052	D745-2026	00
25	ROAD 12 - INYANISO STREET ROAD LAYOUT CROSS-SECTIONS AND LONGITUDINAL SECTION CH 0+000 - CH 0+071	D745-2027	00
26	ROAD 13 - IZWELO STREET ROAD LAYOUT CROSS-SECTIONS AND LONGITUDINAL SECTION CH 0+000 - CH 0+078	D745-2028	00
27	ROAD 14 - BATHLAPING STREET ROAD LAYOUT CROSS-SECTIONS AND LONGITUDINAL SECTION CH 0+000 - CH 0+084	D745-2029	00
28	ROAD 15 - ROAD LAYOUT, CROSS-SECTIONS AND LONGITUDINAL SECTION CH 0+000 - CH 0+082	D745-2031	00
29	ROAD 15 - LAYOUT, LONGITUDINAL SECTION AND CROSS SECTIONS	D745-2032	00
30	ROAD 16 - BATHLAPING STREET, ROAD LAYOUT CROSS-SECTIONS AND LONGITUDINAL SECTION CH 0+000 - CH 0+072	D745-2033	00
31	ROAD 17 - ROAD LAYOUT, CROSS-SECTIONS AND LONGITUDINAL SECTION CH 0+000 - CH 0+079	D745-2034	00
32	ROAD 18 - BATHLAPING STREET ROAD LAYOUT AND LONGITUDINAL SECTION CH 0+000 - CH 0+375	D745-2035	00
33	ROAD 18 - BATHLAPING STREET CROSS SECTIONS CH 0+000 - CH 0+220	D745-2036	00
34	ROAD 18 - BATHLAPING STREET CROSS SECTIONS CH 0+240 - CH 0+375	D745-2037	00
35	ROAD 19 - MAHALA STREET ROAD LAYOUT, CROSS-SECTIONS AND LONGITUDINAL SECTION CH 0+000 - CH 0+235	D745-2038	00

Part C3: Scope of Work
Section C3.3 Procurement

36	ROAD 19 - MAHALA STREET CROSS SECTIONS CH 0+100 - CH 0+220	D745-2039	00
37	ROAD 20 - SETOLOLO STREET ROAD LAYOUT AND LONGITUDINAL SECTION CH 0+000 - CH 0+543	D745-2040	00
38	ROAD 20 - SETOLOLO STREET CROSS SECTIONS CH 0+000 - CH 0+300	D745-2041	00
39	ROAD 20 - SETOLOLO STREET CROSS SECTIONS CH 0+320 - CH 0+540	D745-2042	00
40	ROAD 21 - THABISAGO STREET ROAD LAYOUT AND LONGITUDINAL SECTION CH 0+000 - CH 0+160	D745-2043	00
41	ROAD 21 - THABISAGO STREET CROSS SECTIONS CH 0+000 - CH 0+160	D745-2044	00
42	ROAD 22 - LETSHA STREET ROAD LAYOUT AND LONGITUDINAL SECTION CH 0+000 - CH 0+152	D745-2045	00
43	ROAD 22 - LETSHA STREET CROSS SECTIONS CH 0+80 - CH 0+152	D745-2046	00
44	ROAD 23 - INJENGELE STREET ROAD LAYOUT AND LONGITUDINAL SECTION CH 0+000 - CH 0+543	D745-2047	00
45	ROAD 23 - INJENGELE STREET CROSS SECTIONS CH 0+000 - CH 0+348	D745-2048	00
46	ROAD 23 - INJENGELE STREET LAYOUT, CROSS SECTION AND LONGITUDINAL SECTION	D745-2049	00
47	ROAD 24 - POMELO STREET ROAD LAYOUT, LONGITUDINAL SECTION AND CROSS-SECTIONS CH 0+000 - CH 0+242	D745-2050	00
48	ROAD 24 - POMELO STREET CROSS SECTIONS CH 0+160 - CH 0+242	D745-2051	00
49	ROAD 25 - SARASARA STREET ROAD LAYOUT CROSS-SECTIONS AND LONGITUDINAL SECTION CH 0+000 - CH 0+235	D745-2052	00
50	ROAD 26 - POMELO STREET ROAD LAYOUT AND LONGITUDINAL SECTION CH 0+000 - CH 0+405	D745-2054	00
51	ROAD 26 - POMELO STREET CROSS SECTIONS CH 0+000 - CH 0+260	D745-2055	00
52	ROAD 26 - POMELO STREET CROSS SECTIONS CH 0+280 - CH 0+405	D745-2056	00
53	ROAD 27 - SEKGANKULA STREET ROAD LAYOUT, CROSS-SECTIONS AND LONGITUDINAL SECTION CH 0+000 - CH 0+075	D745-2057	00
54	ROAD 28 - SEGABA STREET ROAD LAYOUT, CROSS-SECTIONS AND LONGITUDINAL SECTION CH 0+000 - CH 0+064	D745-2059	00
55	ROAD 29 - LEGARE STREET ROAD LAYOUT AND LONGITUDINAL SECTION CH 0+000 - CH 0+375	D745-2061	00
56	ROAD 29 - LEGARE STREET CROSS SECTIONS CH 0+000 - CH 0+220	D745-2062	00
57	ROAD 30 - MOJOKO STREET ROAD LAYOUT AND LONGITUDINAL SECTION CH 0+000 - CH 0+372	D745-2063	00
58	ROAD 30 - MOJOKO STREET CROSS SECTIONS CH 0+000 - CH 0+260	D745-2064	00
59	ROAD 30 - MOJOKO STREET CROSS SECTIONS CH 0+280 - CH 0+372	D745-2065	00
60	ROAD 31 - ROAD LAYOUT, CROSS-SECTIONS AND LONGITUDINAL SECTION CH 0+000 - CH 0+052	D745-2066	00
61	ROAD 32 - ROAD LAYOUT, CROSS-SECTIONS AND LONGITUDINAL SECTION CH 0+000 - CH 0+016	D745-2067	00
62	ROAD 33 - MOTJEKO STREET ROAD LAYOUT, CROSS-SECTIONS AND LONGITUDINAL SECTION CH 0+000 - CH 0+099	D745-2068	00
63	ROAD 34 - NESIBINDI STREET ROAD LAYOUT, CROSS-SECTIONS AND LONGITUDINAL SECTION CH 0+000 - CH 0+090	D745-2069	00
64	ROAD 35 - SAMRAND ROAD ROAD LAYOUT CH 0+000 - CH 0+500	D745-2070	00
65	ROAD 35 - SAMRAND ROAD ROAD LAYOUT CH 0+520 - CH 1+000	D745-2071	00
66	ROAD 35 - SAMRAND ROAD LONGITUDINAL SECTION CH 0+000 - CH 0+580	D745-2072	00
67	ROAD 35 - SAMRAND ROAD LONGITUDINAL SECTION CH 0+500 - CH 1+000	D745-2073	00
68	ROAD 35 - SAMRAND ROAD CROSS SECTIONS CH 0+000 - CH 0+140	D745-2074	00
69	ROAD 35 - SAMRAND ROAD CROSS SECTIONS CH 0+320 - CH 0+460	D745-2076	00
70	ROAD 35 - SAMRAND ROAD CROSS SECTIONS CH 0+480 - CH 0+620	D745-2077	00
71	ROAD 35 - SAMRAND ROAD CROSS SECTIONS CH 0+640 - CH 0+780	D745-2078	00
72	ROAD 35 - SAMRAND ROAD CROSS SECTIONS CH 0+800 - CH 0+940	D745-2079	00
73	ROAD 35 - SAMRAND ROAD CROSS SECTIONS CH 0+960 - CH 1+000	D745-2080	00
74	ROAD 36 - SAMRAND STREET ROAD LAYOUT CH 0+000 - CH 0+580	D745-2081	00
75	ROAD 36 - SAMRAND STREET ROAD LAYOUT CH 0+560 - CH 1+080	D745-2082	00
76	ROAD 36 - SAMRAND STREET ROAD LAYOUT CH 0+920 - CH 1+400	D745-2083	00

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77	ROAD 36 - SAMRAND STREET LONGITUDINAL SECTION CH 0+000 - CH 0+580	D745-2084	00
78	ROAD 36 - SAMRAND STREET LONGITUDINAL SECTION CH 0+560 - CH 1+120	D745-2085	00
79	ROAD 36 - SAMRAND STREET LONGITUDINAL SECTION CH 1+200 - CH 1+400	D745-2086	00
80	ROAD 36 - SAMRAND STREET CROSS SECTIONS CH 0+000 - CH 0+200	D745-2087	00
81	ROAD 36 - SAMRAND STREET CROSS SECTIONS CH 0+220 - CH 0+420	D745-2088	00
82	ROAD 36 - SAMRAND STREET CROSS SECTIONS CH 0+440 - CH 0+640	D745-2089	00
83	ROAD 36 - SAMRAND STREET CROSS SECTIONS CH 0+660 - CH 0+860	D745-2090	00
84	ROAD 36 - SAMRAND STREET CROSS SECTIONS CH 0+880 - CH 1+080	D745-2091	00
85	ROAD 36 - SAMRAND STREET CROSS SECTIONS CH 1+100 - CH 1+300	D745-2092	00
86	ROAD 36 - SAMRAND STREET CROSS SECTIONS CH 1+320 - CH 1+460	D745-2093	00
STORMWATER LAYOUT PLANS			
87	STORMWATER LAYOUT	D745-4000	00
88	STORMWATER LAYOUT AND LONGITUDINAL SECTIONS	D745-4001	00
89	STORMWATER LAYOUT AND LONGITUDINAL SECTIONS	D745-4002	00
90	STORMWATER LAYOUT AND LONGITUDINAL SECTIONS	D745-4003	00
91	STORMWATER LAYOUT AND LONGITUDINAL SECTIONS	D745-4004	00
92	STORMWATER LAYOUT AND LONGITUDINAL SECTIONS	D745-4005	00
93	STORMWATER LAYOUT AND LONGITUDINAL SECTIONS	D745-4006	00
94	STORMWATER LAYOUT AND LONGITUDINAL SECTIONS	D745-4007	00
95	STORMWATER LAYOUT AND LONGITUDINAL SECTIONS	D745-4008	00
96	STORMWATER LAYOUT AND LONGITUDINAL SECTIONS	D745-4009	00
97	STORMWATER LAYOUT AND LONGITUDINAL SECTIONS	D745-4010	00
98	STORMWATER LAYOUT AND LONGITUDINAL SECTIONS	D745-4011	00
99	STORMWATER LAYOUT AND LONGITUDINAL SECTIONS	D745-4012	00
100	STORMWATER LAYOUT AND LONGITUDINAL SECTIONS	D745-4013	00
101	STORMWATER LAYOUT AND LONGITUDINAL SECTIONS	D745-4014	00
102	STORMWATER LAYOUT AND LONGITUDINAL SECTIONS	D745-4015	00
103	STORMWATER LAYOUT AND LONGITUDINAL SECTIONS	D745-4016	00
104	STORMWATER LAYOUT AND LONGITUDINAL SECTIONS	D745-4017	00
105	STORMWATER LAYOUT AND LONGITUDINAL SECTIONS	D745-4018	00
106	STORMWATER LAYOUT AND LONGITUDINAL SECTIONS	D745-4019	00
107	STORMWATER LAYOUT AND LONGITUDINAL SECTIONS	D745-4020	00
108	STORMWATER LAYOUT AND LONGITUDINAL SECTIONS	D745-4021	00
109	STORMWATER LAYOUT AND LONGITUDINAL SECTIONS	D745-4022	00
110	STORMWATER LAYOUT AND LONGITUDINAL SECTIONS	D745-4023	00
111	STORMWATER LAYOUT AND LONGITUDINAL SECTIONS	D745-4024	00
112	STORMWATER LAYOUT AND LONGITUDINAL SECTIONS	D745-4025	00
113	STORMWATER LAYOUT AND LONGITUDINAL SECTIONS	D745-4029	00
114	STORMWATER LAYOUT AND LONGITUDINAL SECTIONS	D745-4030	00
115	STORMWATER LAYOUT AND LONGITUDINAL SECTIONS	D745-4031	00
116	STORMWATER LAYOUT AND LONGITUDINAL SECTIONS	D745-4032	00
117	STORMWATER LAYOUT AND LONGITUDINAL SECTIONS	D745-4033	00
118	STORMWATER LAYOUT AND LONGITUDINAL SECTIONS	D745-4034	00
119	STORMWATER LAYOUT AND LONGITUDINAL SECTIONS	D745-4035	00
120	STORMWATER LAYOUT AND LONGITUDINAL SECTIONS	D745-4036	00

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121	STORMWATER LAYOUT AND LONGITUDINAL SECTIONS	D745-4037	00
122	STORMWATER LAYOUT AND LONGITUDINAL SECTIONS	D745-4038	00
TYPICAL DETAILS			
123	ROAD CLASSIFICATION LAYOUT	D745-5000	00
124	ROAD CLASSIFICATION LAYOUT	D745-5001	00
125	ROAD CLASSIFICATION LAYOUT	D745-5002	00
126	ROAD SIDEWALK LAYOUT	D745-5003	00
127	ROAD SIDEWALK LAYOUT	D745-5004	00
128	ROAD SIDEWALK LAYOUT	D745-5005	00
129	ROAD KERB LAYOUT	D745-5006	00
130	ROAD KERB LAYOUT	D745-5007	00
131	ROAD KERB LAYOUT	D745-5008	00
132	ROAD CROSS SECTION TYPE LAYOUT	D745-5009	00
133	ROAD CROSS SECTION TYPE LAYOUT	D745-5010	00
134	ROAD CROSS SECTION TYPE LAYOUT	D745-5011	00
135	ROAD CATERORY AND TRAFFIC	D745-5012	00
136	ROAD IN-SITU CBR ZONES	D745-5013	00
137	ROAD MARKINGS AND SIGNS	D745-5014	00
138	ROAD LAYERWORK DESIGN AND SIDEWALK CROSS SECTION	D745-5015	00
139	ROAD CROSS SECTION DETAIL	D745-5016	00
140	SLEEVES LAYOUT PLAN	D745-5023	00
141	SLEEVES LAYOUT PLAN	D745-5024	00
142	SLEEVES LAYOUT PLAN	D745-5025	00
143	STORMWATER BERM LAYOUT	D745-5026	00
144	EXISTING SERVICES LAYOUT	D745-5027	00
145	EXISTING SERVICES LAYOUT	D745-5028	00
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147	MANHOLE DETAIL	D745-5030	00
148	EROSION PROTECTION AT OUTLET NUMBER 01	D745-5031	00
149	EROSION PROTECTION AT OUTLET NUMBER 02	D745-5032	00
150	EROSION PROTECTION AT OUTLET NUMBER 03	D745-5033	00
151	EROSION PROTECTION AT OUTLET NUMBER 04	D745-5034	00
152	EROSION PROTECTION AT OUTLET NUMBER 05	D745-5035	00
153	EROSION PROTECTION AT OUTLET NUMBER 06	D745-5036	00
154	EROSION PROTECTION AT OUTLET NUMBER 07	D745-5037	00
155	EROSION PROTECTION AT OUTLET NUMBER 08	D745-5038	00
156	EROSION PROTECTION AT OUTLET NUMBER 09	D745-5039	00
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161	EROSION PROTECTION AT OUTLET NUMBER 14	D745-5044	00
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165	FOUNDATION DETAILS	D745-B03-03	00
166	PIER CONC. & REINF. DETAILS	D745-B03-04	00
167	ABUTMENT 1 CONCRETE DETAILS	D745-B03-05	00
168	ABUTMENT 2 CONCRETE DETAILS	D745-B03-06	00
169	ABUTMENT 1 REINF. DETAILS	D745-B03-07	00
170	ABUTMENT 2 REINF. DETAILS	D745-B03-08	00
171	DECK CONCRETE DETAILS	D745-B03-09	00
172	DECK REINF. DETAILS 1	D745-B03-10	00
173	DECK REINF. DETAILS 2	D745-B03-11	00
174	BALUSTRADE CONC. DETAILS 1	D745-B03-12	00
175	BALUSTRADE CONC. DETAILS 2	D745-B03-13	00
176	BALUSTRADE REINF. DETAILS	D745-B03-14	00
177	MISCELLANEOUS DETAILS 1	D745-B03-15	00
178	MISCELLANEOUS DETAILS 2	D745-B03-16	00
179	CONSTRUCTION SEQUENCE	D745-B03-17	00
180	BENDING SCHEDULE 1	D745-B03-18	00
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Part C3: Scope of Work
Section C3.3 Procurement

CITY OF TSHWANE
HUMAN SETTLEMENTS DEPARTMENT

CONTRACT NO: HS 09 2025/26

THE CONSTRUCTION OF 6KM ROAD AND STORMWATER NETWORK AND ONE BRIDGE (BRIDGE NO 3) ALONG BATHLAPING STREET IN OLIEVENHOUTBOSCH EXTENSION 60 FOR A PERIOD OF 36 MONTHS - PHASE 1

C3.3 PROCUREMENT

C3.3 PROCUREMENT

C.3.3.1 PREFERENTIAL PROCUREMENT PROCEDURES

C3.3.1.1 Requirements

C3.3.1.1.1 Employment of unskilled and semi-skilled labour in Labour Intensive Construction works

1. Requirements for the sourcing and engagement of labour
 - 1.1 Unskilled and semi-skilled labour required for the execution of all labour-intensive works shall be engaged strictly in accordance with prevailing legislation and SANS 1914-5, Participation of Targeted Labour.
 - 1.2 The EPWP Ministerial Determination, as revised from time to time, sets out a minimum wage and minimum conditions of employment and Contractors must comply with its requirements.
 - 1.3 Tasks by the Contractor must be such that:
 - (a) the average worker completes 5 tasks per week in 40 hours or less; and
 - (b) the weakest worker completes 5 tasks per week in 55 hours or less.
 - 1.4 The Contractor must revise the time taken to complete a task whenever it is established that the time taken to complete a weekly task is not within the requirements of 1.3.
 - 1.5 The Contractor shall, through all available community structures, inform the local community of the labour-intensive works and the employment opportunities presented thereby. Preference must be given to people with previous practical experience in construction and / or who come from households:
 - (a) where the head of the household has less than a primary school education;
 - (b) that have less than one full time person earning an income;
 - (c) where subsistence agriculture is the source of income;
 - (d) those who are not in receipt of any social security pension income.
 - 1.6 The Contractor shall endeavour to ensure that the expenditure on the employment of temporary workers is in the following proportions:
 - (a) 55% women;
 - (b) 55% youth who are between the ages of 16 and 35; and
 - (c) 2% persons with disabilities.

C3.3.1.1.2 Appointment Process

C3.3.1.1.2.1 Project Steering Committee (PSC)

Section 6.1.3.1 of the Expanded Public Works Programme (EPWP) Recruitment Framework requires the Office of the Speaker, in consultation with the Ward Councillor, to hold a public meeting, and elect a Project Steering Committee (PSC).

Project Steering Committee will be limited to a minimum of four (4) members and a maximum of six (6) members, to avoid a situation of too many potential interest groups preventing the PSC from functioning.

C3.3.1.1.2.2 Community Liaison Officer

After selection of the PSC, at the same meeting indicated under item C3.3.1.1.2.1, residents and stakeholders in attendance are to vote for poll of three (3) potential CLO's coming from the community concerned.

In the event that a PSC is not constituted by public meeting or cannot proceed with its work, as contemplated by section [6.1.3.5](#) of the Framework, the appointed PSC will nominate potential CLOs.

It is from this pool that the contractor, after interviewing the three (3) nominees and consultation with the PSC appoints the CLO.

Administrative processes for appointment of Community Liaison Officers.

- Minutes and an attendance register must be kept as evidence of the proceedings of the election meeting.
- The office of the speaker must submit the results (minutes) and attendance registrar of the community liaison officer election meeting to the chairperson of the PSC, the contractor and the Expanded Public Works Programme (EPWP) Division.
- The elected CLO will be appointed by the contractor for the duration of the project and also be remunerated by the contractor. Where the CLO is no longer available and another is appointed, the existing CLO shall cease to receive remuneration.
- An employment agreement containing the general terms and conditions of the contract will be issued to the CLO and must be signed by the CLO before commencement of duties.
- A CLO will be appointed from the ward in which the project is executed.

- The CLO's will be remunerated according to the entry level basic salary of an Administrator Officer position of the City of Tshwane (Task Level 5 notch 1 (B1-1). No benefits will be applicable.

The CLO must have the following attributes: -

- have credibility and standing in the community.
- have a strong personality.
- be able to be firm and decisive.
- be able to facilitate disputes.
- be able to handle conflict.
- be able to keep minutes and records in a proper and orderly way.
- have a knowledge of labour laws and industrial relations (training will be provided where necessary).
- be objective and impartial.
- be fair.

C3.3.1.2 Resource standard pertaining to targeted procurement

The Contractor shall deliver the following deliverables in terms of the relevant SANS 1914 and the associated specification data:

C3.3.1.2.1 Provide business opportunities for targeted enterprises in terms of **SANS 1914-4**

1. **General**

Targeted enterprises shall be engaged in the performance of the contract in accordance with the requirements of SANS 1914-4 as amended in 2

2. **Amendments to SANS 1914-4**

2.1 Replace the existing definitions with the following:

contract participation goal (CPG)

value of supplies, services and works for which the contractor contracts targeted enterprises exclusive of any value added tax or sales tax which the law requires the employer to pay to the contractor, expressed as a percentage of the contract amount associated with the targeting strategy that is identified in the specification data.

2.2 Add the following definitions:

contract amount

1) targeting strategy, A

financial value of the contract at the time of the award of the contract, exclusive of all allowances and any value added tax or sales tax which the law requires the employer to pay to the contractor.

2) targeting strategy B

financial value of the contract upon completion of all contractual obligations, exclusive of any value added tax or sales tax which the law requires the employer to pay to the contractor.

targeting strategy, A

a strategy that:

- a) links the granting of a preference by the employer in the evaluation of tender offers in return for the tendering of a contract participation goal or an undertaking to attain a specified contract participation goal at the time that tenders are evaluated; or
- b) requires a contractor to achieve a minimum specified goal in the performance of a contract; or
- c) involves both a) and b)

targeting strategy B

a strategy that:

- a) links the payment of an incentive bonus to a contractor for the attainment of a specified contract participation goal; or
- b) requires the contractor to record and report on the quantum of work generated for targeted labour

2.3 Replace clauses 3.11 and 3.12 with the following:

3.1.1 The contractor shall engage targeted enterprises directly or indirectly in the performance of the contract to the extent that the total monetary value of such engagements exclusive of any value added tax or sales tax required by law, is sufficient to achieve the contract participation goal provided for in the specification data.

3.1.2 The contractor shall, in the case of targeting strategy A, submit details of his plan to achieve the contract participation goal to the employer's representative on the contract participation goal implementation plan form contained in Annex C, within five working days of being instructed to do so. If no such instructions are given, these plans shall be submitted before the submission of the first claim for payment.

2.4 Replace 3.2.2 with the following:

3.2.2 Contractors shall submit completed targeted enterprise declaration affidavits and, where targeting strategy A applies, letters of undertaking to act as sub-consultants, sub-contractors suppliers, manufacturers or service providers (see Annex D), in respect of each and every targeted enterprise and targeted partner whose contribution shall be counted towards the contract participation goal. These documents shall, unless otherwise stated in the specification data, be submitted to the employer's representative before the submission of the first claim for payment.

2.5 Replace 4.1 with the following:

4.1 The contractor shall enter into written contractual agreements with all the targeted enterprises and targeted partners cited in the contract participation goal implementation plan and shall, as soon as is practicable, furnish the employer's representative with copies of such agreements and the written acceptances thereof. The contract to be performed by the targeted enterprises and targeted partners shall, in the case of targeting strategy A, thereafter neither be reduced in scope, nor terminated without the prior written approval of the employer's representative, which shall not be unreasonably withheld or delayed.

2.6 Replace 4.2.1 with the following:

4.2.1 Where targeting strategy A applies, and in the event that, through no fault of the contractor, a contracted targeted enterprise is found to be:

- a) unable to perform, or to perform on time;
- b) unable to produce acceptable work;
- c) unwilling to perform work required; or
- d) not fit to perform the service;

The contractor shall notify the employer's representative of the apparent necessity to reduce or terminate such a targeted enterprise's contract, citing the reasons therefore.

2.7 Replace 4.3 with the following:

Where, in the case of targeting strategy A, an enterprise under contract was initially considered to be a targeted enterprise but is later discovered not to be so, or is found not to be creditable towards contract participation goals, the employer may consider a partial waiver of the contractor's obligations towards the achievement of the contract participation goal in respect of such a targeted enterprise, should the contractor satisfactorily demonstrate that he was justified in believing the enterprise to be a targeted enterprise and that eligibility standards were not violated.

2.8 Replace 6 with the following:

In the event that, and where targeting strategy A applies, the contractor fails to substantiate that any failure to achieve the contract participation goal was due to

- a) quantitative underruns,
- b) the elimination of items contracted to targeted enterprises, or
- c) any other reason beyond the contractor's control which may be acceptable to the employer, the sanctions provided for in the contract shall apply.

2.9 Delete "net amount" in definitions and replace "net amount" with "contract amount" wherever it appears in the text.

Clause	Specification Data	
The specification data associated with SANS 1914-5 is as follows		
2.7	The employer's representative is:	Damaris Holdings, Takusa Consulting and Services CC
	Target area:	
	Target Area 1	Olievenhoutbosch Ward 77
	Target Area 2	The ward/wards directly adjoining the ward/wards in which the work package is to be performed.
	Target Area 3	The region within which the ward/wards in which the work package is to be performed resides
	Target Area 4	The City of Tshwane Municipal area
2.17	Targeted enterprise is	Will be specified for each work package.
	The targeting strategy is	Strategy A b)
	The contract participation goal is	<i>The min. goal is 10% and the maximum goal is 20% (The combined goal for the contract will not exceed 30%)</i>
	The contract participation goal may only be achieved by subcontracting work to one or more targeted enterprises to perform commercially useful functions in the performance of the contract.	
2.9	The following weightings shall apply:	
	Target Area 1	1.2
	Target Area 2	1.0
	Target Area 3	0.8

	Target Area 4	0.6
6	Sanctions	<p>In the event that the Contractor fails to substantiate that any failure to achieve the Contract Participation Goal relating to the granting of preference was due to quantitative under runs, the elimination of items, or any other reason beyond the Contractor's control which may be acceptable to the Employer, it shall be liable to pay the Employer a financial penalty in the following manner:</p> $P = 0.15 \times \frac{(D - D_o)}{100} \times N_A$ <p>Where</p> <p><i>D</i> = required Contract Participation Goal percentage</p> <p><i>D_o</i> = the Contract Participation Goal which the Employer's representative, based on the credits passed, certifies as being achieved upon completion of the work package</p> <p><i>N_A</i> = Net Amount</p> <p><i>P</i> = Rand value of penalty payable</p>

C3.3.2 SCOPE OF MANDATORY SUBCONTRACT WORK

C3.3.2.1 Scope of mandatory subcontract works

The contractor is to identify and present to the Engineer the works to be subcontracted. The contractor can however, add to this scope at his discretion or if he needs such services from the local subcontractors. The following shall be subcontracted to the local subcontractors:

- Kerbing
- Paving
- Construction of manholes
- Construction of brickwork related work
- Security
- Road marking and signage
- Replacement of fences
- Relocation of services

- Site clearing
- Construction of guardrails
- Construction of erosion protection
- Supply and erection of site camp;

C3.3.3 PREFERRED SUBCONTRACTORS/SUPPLIERS

In terms of the Supply Chain Management policy 2025/26 Section 47 states that:

47. SUB-CONTRACTING

When subcontracting: The City shall obligate main contractors or service providers to engage targeted enterprises in the performance of their contracts incorporating resource specifications. These will be made a condition of the tender for the city to implement at project management level. In cases that the city decides to unbundle the tender to appoint different service providers to an extent that the contract value per service provider does not exceed 30million then the provision of sub-contracting will not be applicable.

- (1) Sub-contracting must be subjected to approval by the city manager. The appointed service provider must source competent and capable service providers and where applicable be registered with the relevant body and submit a list of sub-contractors for approval to the City of Tshwane.**
 - (2) Sub-contracting entity should have an equal B-BBEE level status or higher than the main contractor.**
 - (3) Minimum of 30% can be sub-contracted for tenders above 30 million**
 - (4) Local economic participation should be given priority when making a list of potential subcontractors available.**
- **City of Tshwane Participants with specific attention for the region in which the contract is to be executed should be given first priority and the below competent and capable designated groups should be prioritized**
 - o **An EME or QSE**
 - o **An EME or QSE which is at least 51% Black Owned**
 - o **An EME or QSE which is at least 51% Owned by Black youth**
 - o **An EME or QSE which is at least 51% Black Women Owned**
 - o **An EME or QSE which is at least 51% owned by black people with disabilities.**
 - o **An EME or QSE which is 51% owned by black people living in rural or underdeveloped areas or townships**

- o **A cooperative which is at least 51% owned by black people**
- o **An EME or QSE which is at least 51% owned by black people who are military veterans; or**
- o **More than one of the categories referred to in paragraphs (a) to (h).**

Should subcontractors within Tshwane not be identified, the appointed service provider can extend the list of subcontractors to:

- **Gauteng Participants**
- **National participants**

- (5) In relation to a designated sector a contractor must not be allowed to sub-contract in such a manner that the local production and content of the overall value of the contract is reduced to below the stipulated minimum threshold if the appointed Service Provider scored points for Local Content and Production.**

Local emerging contractors must be Black Enterprises. A black enterprise (BE) is defined as a company or economic activity that is owned by black persons and where there is substantial management control by Black People. Ownership refers to economic interest, whilst management refers to the membership of any board or similar governing body of the enterprise. The Broad-Based Black Economic Empowerment Act No. 53 of 2014, principles must apply to BE's.

Enterprises must comply with the following:

- Business must be registered within the City boundaries,
- Owners must reside within the City,
- Owners or business addresses must be in Region 4. Other Regions within the CITY will only be considered if no suitable candidates are available in Region 4.

C3.3.4 SUBCONTRACTING PROCEDURES

The contractor shall advertise and call for competitive quotations in respect of each portion of the works that are required to be subcontracted in terms of the contract in accordance with the relevant provision of the latest edition of the CIDB Standard for Uniformity in Construction Procurement. The Contract Data in the associated procurement documents shall be based on the City of Tshwane standards and any other relevant documentation of subcontracting with minimal project specific variations and amendments that do not change their intended usage.

The Employer together with the Contractor shall evaluate the quotations received in accordance with the provision of the Standard Conditions of tender. The evaluation panel shall comprise equal representatives from the Employer and from the Contractor.

The Contractor shall without delay enter into contract with the successful tendering subcontractor

based on their accepted tender submission.

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

- Note:**
- 1) The CIDB Best Practice Guideline D1, *Subcontracting Arrangements*, provides Guidance on the selection of a suitable form of subcontracts.
 - 2) Provision in the Pricing Data should be made for provisional sums for portions of the works that are to be subcontracted in this manner.

C3.3.5 EVALUATION CRITERIA

The bids submitted by the prospective local subcontracting companies will be evaluated by the Main Contractor and the Engineering representative.

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Part C3: Scope of Work
Section C3.4 Construction

CITY OF TSHWANE
HUMAN SETTLEMENTS DEPARTMENT

CONTRACT NO: HS 09 2025/26

THE CONSTRUCTION OF 6KM ROAD AND STORMWATER NETWORK AND ONE BRIDGE (BRIDGE NO 3) ALONG BATHLAPING STREET IN OLIEVENHOUTBOSCH EXTENSION 60 FOR A PERIOD OF 36 MONTHS - PHASE 1

C3.4 CONSTRUCTION

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C3.4.1 Works Specifications

The applicable "Standard Specifications" shall be the document "Standard Specifications for Municipal Civil Engineering Works, Third Edition 2005", issued by the Executive Director: Water and Sanitation of the City of Tshwane, read together with the Particular Specifications.

Tenderers, Contractors and Subcontractors shall obtain their own copies of the document "Standard Specifications for Municipal Civil Engineering Works, Third Edition 2005", for tendering purposes and for use for the duration of the Contract from the Procurement Advice Centre, Block D, 2nd Floor, Tshwane House, 320 Madiba Street, Pretoria and shall bear all expenses in this regard.

The Standard Specifications have been written to cover all types of municipal civil engineering works, and it may therefore cover work not applicable to this contract.

The Particular Specifications together with the Drawings and Bill of Quantities clearly indicate the sections of the Standard Specifications which apply to this contract.

Section C3.6 covers references to the Particular Specifications in the Standard Specifications as well as variations and additions to the Standard Specifications.

Section C3.6 covers corrections and amendments to the Standard Specifications for Municipal Civil Engineering Works, Third Edition 2005

LABOUR INTENSIVE COMPETENCIES OF SUPERVISORY AND MANAGEMENT ~~STAFF~~

In accordance with the principles of the Expanded Public Works Programme (EPWP) and the Code of Good Practice for Special Public Works Programmes issued under the Basic Conditions of Employment Act, all infrastructure projects implemented under EPWP must ensure that supervisory and management personnel possess the necessary competencies in labour-intensive construction methods.

All Supervisory and Management Personnel appointed to an EPWP project must demonstrate competence in the planning, supervision, and management of labour-intensive construction activities. These competencies must align with the EPWP Guidelines for Labour-Intensive Infrastructure Projects issued by the Department of Public Works and Infrastructure.

Minimum Training Requirements (SAQA Accredited)

Supervisory and management staff must have successfully completed **accredited labour-intensive construction training**, including the following **SAQA registered unit standards**:

- **Management Level (Project Managers / Engineers / Programme Managers)**

Manage Labour-Intensive Construction Processes
NQF Level: 5

- **Supervisory Level (Site Agents / Foremen / Site Supervisors)**

Supervision of Civil Engineering Construction Processes
NQF Level: 4

- **Technical / Implementation Level (Team Leaders / Leading Hands)**

Apply labour intensive construction systems and techniques to work activities
NQF Level: 2

Training must be provided by an accredited training provider recognized by the relevant Sector Education and Training Authority (SETA).

OR

Table 1: Labour-Intensive Skills Programme for Supervisory and Management Staff

Position / Role	Skills Programme	NQF Level	Purpose
Project Manager / Engineer / Programme Manager	Manage Labour-Intensive Construction Processes	NQF Level 5	Plan, manage and control labour-intensive construction projects
	Apply Labour-Intensive Construction Systems and Techniques to Infrastructure Projects	NQF Level 5	Integrate labour-intensive methods in project planning and design
Site Agent / Construction Manager	Manage Labour-Intensive Construction Processes	NQF Level 5	Oversee labour-intensive construction implementation
Site Supervisor / Foreman	Supervise Labour-Intensive Construction Processes	NQF Level 4	Supervise workers and ensure labour-intensive methods are followed
	Apply Labour-Intensive Construction Systems and Techniques to Infrastructure Projects	NQF Level 4	Implement labour-intensive construction techniques on site
Team Leader / Leading Hand	Apply labour intensive construction systems and techniques to work activities	NQF Level 2	Lead labour teams performing labour-intensive tasks

C3.4.2 Plant and materials

All plant and material to be supplied by the Contractor.

C3.4.3 Construction equipment

All construction equipment to be supplied by the Contractor.

C3.4.4 Contractor's employees

C3.4.4.1 Minimum employment Conditions for Conventional Construction Works

Contractors shall comply with the Basic Conditions of Employment Act (Act No 75 of 1997).

As a determination has not been made in terms of the aforesaid act for the building sector, the minimum employment conditions which will apply to this Contract shall be guided by the Amendment of Sectoral Determination 2: Civil Engineering Sector published in the Government Gazette dated 4th September 2012, as and when amended from time to time.

Contractors shall also take in considerations the clauses of the Government Gazette 39293 of 16 October 2015 regarding Bargaining Council for Civil Engineering Industry: Extension of Conditions of Employment amending collective agreements to non-parties.

The following minimum conditions shall apply to this Contract and Contractors shall include such conditions in employment contracts.

C3.4.4.1.1 Employment contracts

The Contractor shall enter into an employment contract with every one of his/her employees, including short-term contracts i.e. contracts in which employment commencement and employment termination dates are specified. Short-term employment contracts will also apply an employee employed for only one day.

C3.4.4.1.2 Normal working hours

Normal working hours are from 07:00 to 17:00 from Monday to Friday. A tea break is taken from 09:00 to 09:15 and lunch from 12:30 to 13:00.

Actual hours of work and be paid for is 9 hours per day. If a lunch break of one (1) hour is taken then the normal working day will be as follow:

Morning work sessions from 07:00 to 12:00, lunch break from 12:00 to 13:00, and afternoon sessions from 13:00 to 17:00.

C3.4.4.1.3 Minimum wages

Minimum wages shall be according to the Government Gazetted rates for the Civil Engineering Sector for Gauteng Province (Regulation Gazette No 52185 Vol. 716). For a full day's work, the hourly rate shall be multiplied by 9. Normal 5-day week hours of work shall be 45 hours and the wage calculated according to the applicable hourly rate.

Overtime pay shall be 1.5 times the ordinary wage.

An employee shall be paid monthly.

Wages should be increased by CPI Excluding Owners' Equivalent Rent (EOER) plus two percentage point for the second and third years of the determination. The CPI to be used is the one that is published by StatsSA six weeks prior to the scheduled increment date. Below are the recommendations of the Department regarding new minimum wages levels:

Table 1: Minimum wages per hour for all employees in the Civil Engineering Sector.

TASK GRADE AND WAGE RATE TABLES			
Task Grades	YEAR 1	YEAR 2	YEAR 3
	Hourly Rate Rand Per Hour	Hourly Rate Rand Per Hour	Hourly Rate Rand Per Hour
	From the date determined by the Minister, up to 31 August 2026 (6%)	From 01 September 2026 to 31 August 2027 (5,5%)	From 01 September 2027 to 31 August 2028 (5,5%)
1.	54,06	57,03	60,17
2.	55,32	58,36	61,57
3.	56,87	60,00	63,30
4.	59,00	62,24	65,67
5.	66,80	70,48	74,35
6.	75,86	80,04	84,44

7.	86,89	91,67	96,71
8.	97,42	102,78	108,44
9.	110,11	116,17	122,56

C3.4.4.1.4 Short time (excluding short time due to inclement weather)

If for reasons, which may be ascribed to the employee, e.g. arriving late for work or taking an afternoon off, the hours not worked shall be deducted from the daily wage calculation.

C3.4.4.1.5 Short time resulting from inclement weather

- i. If the Contractor informs his/her employees that no work will be done the following day due to inclement weather, no payment will be due to the employee for such a day.
- ii. If the Contractor has not informed his/her employees that no work will be done due to inclement weather and no work or less than four (4) hours of work is possible during a day, the Contractor must pay the employee for four (4) hours of work. If more than four (4) hours of work is done, the Contractor shall pay the employee for the number of hours worked.

C3.4.4.1.6 Vacation leave

If an employee has been in full time employment for more than four (4) months, he/she shall be entitled to 1 day's paid leave for every seventeen (17) days the employee worked or was entitled to payment.

C3.4.4.1.7 Family responsibility leave

If an employee has been in full time employment for more than four (4) months, he/she shall be entitled to three days paid leave in a leave cycle of thirty-six (36) months of employment:

- i. When the employee's child is born;
- ii. When the employee's child is sick;
- iii. In the event of death of the employee's spouse or life partner, parent, grandparent,

child or grandchild.

The employee shall provide the required proof to the Contractor of the event, failing which the leave shall be unpaid leave

C3.4.4.1.8 Maternity leave

At least four (4) months unpaid leave.

C3.4.4.1.9 Sick leave

The employee shall be entitled to one (1) day's paid sick leave of normal wages for every twenty-six (26) days worked.

If an employee is absent for three (3) or more consecutive days, the employee shall provide a sick certificate from a registered medical practitioner to qualify for sick leave payment. If such a certificate is not provided, no sick leave payment will be due to the employee.

C3.4.8.1.10 Piece work

Irrespective of the quantity of work done under a piece work system during a working week, the employee shall be entitled to a minimum of a week's wages determined as if no piece work applied.

The Contractor or employee may terminate an employment contract by giving notice of termination of not less than:

- i. On short period contracts i.e. a contract which states from which date work employment commences and on which day employment terminates, the terms of the employment contract shall apply;
- ii. One week if employee has been employed for four (4) weeks or less, unless it is a short-term project;
- iii. Two (2) weeks if employee has been employed for more than four (4) weeks but not more than one (1) year;
- iv. Four (4) weeks if employee has been employed for more than one year.

C3.4.4.2 EMPLOYMENT CONDITIONS FOR LABOUR INTENSIVE WORKS AND CONSTRUCTION

The Ministerial Determination 4, Expanded Public Works Programme (revised 2012) issued in terms of the Basic Conditions of Employment Act of 1997 by the Minister of Labour as reproduced

below, shall apply to works described in scope of work as being labour intensive and which are undertaken by unskilled or semi-skilled workers. The Ministerial Determination must be read in conjunction with the Code of Good Practises for the Expanded Public Works Programme as published in Government Notice N° R64 of 25 January 2002,

This clause contains the standard terms and conditions for workers employed in elementary occupations on an Expanded Public Works Programme (EPWP). These terms and conditions do NOT apply to persons employed in the supervision and management of an EPWP.

C3.4.4.2.1 Terminology

- (a) “department” means any department of the State, implementing agent or contractor;
- (c) “employer” means any department, implementing agency or contractor that hires workers to work in elementary occupations on an EPWP;
- (d) “workers” means any person working in an elementary occupation on an EPWP;
- (e) “elementary occupation” means any occupation involving unskilled or semi-skilled work;
- (f) “management” means any person employed by a department or implementing agency to administer or execute an EPWP’
- (g) “task” means a fixed quantity of work;
- (h) “task-based work” means work in which a worker is paid a fixed rate for performing a task;
- (i) “task-rated worker” means a worker paid on the basis of the number of tasks completed;
- (j) “time-rated worker” means a worker paid on the basis of the length of time worked.

C3.4.4.2.2 Terms of Work

- i. Workers on an EPWP are employed on a temporary basis or contract basis.

C3.4.4.2.3 Normal Hours of Work

- i. An employer may not set tasks or hours of work that require a worker to work:
 - (a) more than forty hours in any week;
 - (b) on more than five days in any week; and
 - (c) for more than eight hours on any day.
- ii. An employer and worker may agree that a worker will work four days per week. The

worker may then work up to ten hours per day.

- iii. A task-rated worker may not work more than a total of 55 hours in any week to complete the tasks allocated (based on a 40-hour week) to that worker.

C3.4.4.2.4 Meal Breaks

- i. A worker may not work for more than five hours without taking a meal break of at least thirty minutes duration.
- ii. An employer and worker may agree on longer meal breaks.
- iii. A worker may not work during a meal break. However, an employer may require a worker to perform duties during a meal break if those duties cannot be left unattended and cannot be performed by another worker. An employer must take reasonable steps to ensure that a worker is relieved of his or her duties during the meal break.
- iv. A worker is not entitled to payment for the period of a meal break. However, a worker who is paid on the basis of time worked must be paid if the worker is required to work or to be available for work during the meal break.

C3.4.4.2.5 Special Conditions for Security Guards

- i. A security guard may work up to 55 hours per week and up to eleven hours per day.
- ii. A security guard who works more than ten hours per day must have a meal break of at least one hour or two breaks of at least 30 minutes each.

C3.4.4.2.6 Daily Rest Period

Every worker is entitled to a daily rest period of at least twelve consecutive hours. The daily rest period is measured from the time the worker ends work on one day until the time the worker starts work on the next day.

C3.4.4.2.7 Weekly Rest Period

Every worker must have two days off every week. A worker may only work on their day off to perform work which must be done without delay and cannot be performed by workers during their ordinary hours of work ("emergency work").

C3.4.4.2.8 Work on Sundays and Public Holidays

- i. A worker may only work on a Sunday or public holiday to perform emergency or security work.
- ii. Work on Sundays is paid at the ordinary rate of pay.
- iii. A task-rated worker who works on a public holiday must be paid –
 - a. the worker's daily task rate, if the worker works for less than four hours;
 - b. double the worker's daily task rate, if the worker works for more than four hours.
- iv. A time-rated worker who works on public holiday must be paid –
 - (a) the worker's daily rate of pay, if the worker works for less than four hours on the public holiday;
 - (b) double the worker's daily rate of pay, if the worker works of more than four hours on the public holiday.

C3.4.4.2.9 Sick Leave

- i. Only workers who work more than 24 hours per month have the right to claim sick-pay in terms of this clause.
- ii. A worker who is unable to work on account of illness or injury is entitled to claim one day's sick leave for every full month that the worker has worked in terms of a contract.
- iii. A worker may accumulate a maximum of twelve days' sick leave in a year.
- iv. Accumulated sick-leave may not be transferred from one contract to another contract.
- v. An employer must pay a task-rated worker the worker's daily task rate for a day's sick leave.
- vi. An employer must pay a time-rated worker the worker's daily rate for a day's sick leave.
- vii. An employer must pay a worker sick pay on the worker's usual payday.
- viii. Before paying sick-pay, an employer may require a worker to produce a certificate stating that the worker was unable to work on account of sickness or injury if the worker is –
 - a. absent from work for more than two consecutive days; or
 - b. absent from work on more than two occasions in any eight-week period.
- ix. A medical certificate must be issued and signed by a medical practitioner, a qualified nurse or a clinic staff member authorised to issue medical certificates indicating the duration and reason for incapacity.

- x. A worker is not entitled to paid sick-leave for a work-related injury or occupational disease for which the worker can claim compensation under the Compensation for Occupational Injuries and Disease Act.

C3.4.4.2.10 Maternity Leave

- i. A worker may take up to four consecutive month's unpaid maternity leave.
- ii. A worker is not entitled to any payment or employment-related benefits during maternity leave.
- iii. A worker must give her employer reasonable notice of when she will start maternity leave and when she will return to work.
- iv. A worker is not required to take the full period of maternity leave. However, a worker may not work for four weeks before the expected date of birth of her child or for six weeks after the birth of her child, unless a medical practitioner, midwife or qualified nurse certifies that she is fit to do so.
- v. A worker may begin maternity leave –
 - (a) four weeks before the expected date of birth; or
 - (b) on an earlier date –
 - if a medical practitioner, midwife or certified nurse certifies that it is necessary for the health of the worker or that of her unborn child; or
 - if agreed to between employer and worker; or
 - (c) on a later date, if a medical practitioner, midwife or certified nurse has certified that the worker is able to continue to work without endangering her health.
- vi. A worker who has a miscarriage during the third trimester of pregnancy or bears a stillborn child may take maternity leave for up to six weeks after the miscarriage or stillbirth.
- vii. A worker who returns to work after maternity leave, has the right to start a new cycle of twenty-four months employment, unless the EPWP on which she was employed has ended.

C3.4.4.2.11 Family Responsibility Leave

- i. Workers, who work for at least four days per week, are entitled to three days paid family responsibility leave each year in the following circumstances –
 - (a) when the employee's child is born;
 - (b) when the employee's child is sick;
 - (c) in the event of a death of –
 - the employee's spouse or life partner;
 - the employee's parent, adoptive parent, grandparent, child, adopted child,

grandchild or sibling.

C3.4.4.2.12 Statement of Conditions

- i. An employer must give a worker a statement containing the following details at the start of employment –
 - a. the employer's name and address and the name of the EPWP;
 - b. the tasks or job that the worker is to perform; and
 - c. the period for which the worker is hired or, if this is not certain, the expected duration of the contract;
 - d. the worker's rate of pay and how this is to be calculated;
 - e. the training that the worker will receive during the EPWP.
- ii. An employer must ensure that these terms are explained in a suitable language to any employee who is unable to read the statement.
- iii. An employer must supply each worker with a copy of these conditions of employment.

C3.4.4.2.13 Keeping Records

- i. Every employer must keep a written record of at least the following –
 - a. the worker's name and position;
 - b. copy of an acceptable worker identification;
 - c. in the case of a task-rated worker, the number of tasks completed by the worker;
 - d. in the case of a time-rated worker, the time worked by the worker;
 - e. payments made to each worker.
- ii. The employer must keep this record for a period of at least three years after the completion of the EPWP.

C3.4.4.2.14 Payment for the Labour-Intensive Component of the Works

Payment for works identified in the Scope of Work as being labour-intensive shall only be made in accordance with the provisions of the Contract if the works are constructed strictly in accordance with the provisions of the scope of work. Any non-payment for such works shall not relieve the Contractor in any way from his obligations either in contract or in delict.

- i. An employer must pay all wages at least monthly in cash or by cheque or into a bank account.
- ii. A worker may not be paid less than the sectoral determination for Civil Engineering Works Task Grade 1. This will be adjusted annually on the 1st of September in line

with the Bargaining Council for the Civil Engineering Industry, with reference to the three-year settlement agreement signed on 18 October 2021, relating to wages and conditions of employment.

- iii. A task-rated worker will only be paid for tasks that have been completed.
- iv. An employer must pay a task-rated worker within five weeks of the work being completed and the work having been approved by the manager or the contractor having submitted an invoice to the employer.
- v. A time-rated worker will be paid at the end of each month.
- vi. Payment must be made in cash, by cheque or by direct deposit into a bank account designated by the worker.
- vii. Payment in cash or by cheque must take place –
 - a. at the workplace or at a place agreed to by the worker;
 - b. during the worker's working hours or within fifteen minutes of the start or finish of work;
 - c. in a sealed envelope which becomes the property of the worker.
- viii. An employer must give a worker the following information in writing –
 - a. the period for which payment is made;
 - b. the numbers of tasks completed or hours worked;
 - c. the worker's earnings;
 - d. any money deducted from the payment;
 - e. the actual amount paid to the worker.
- ix. If the worker is paid in cash or by cheque, this information must be recorded on the envelope and the worker must acknowledge receipt of payment by signing for it.
- x. If a worker's employment is terminated, the employer must pay all monies owing to that worker within one month of the termination of employment.

C3.4.4.2.15 Deductions

- i. An employer may not deduct money from a worker's payment unless the deduction is required in terms of a law.
- ii. An employer must deduct and pay to the SA Revenue Services any income tax that the worker is required to pay.
- iii. An employer who deducts money from a worker's pay for payment to another person must pay the money to that person within the time period and other requirements specified in the agreement law, court order or arbitration award concerned.
- iv. An employer may not require or allow a worker to –
 - a. repay any payment except an overpayment previously made by the employer by mistake;
 - b. state that the worker received a greater amount of money than the employer

- actually paid to the worker; or
- c. pay the employer or any other person for having been employed.

C3.4.4.2.16 Health and Safety

- i. Employers must take all reasonable steps to ensure that the working environment is healthy and safe.
- ii. A worker must –
 - a. work in a way that does not endanger his/her health and safety or that of any other person;
 - b. obey any health and safety instruction;
 - c. obey all health and safety rules of the EPWP;
 - d. use any personal protective equipment or clothing issued by the employer;
 - e. report any accident, near-miss incident or dangerous behaviour by another person to their employer or manager.

C3.4.4.2.17 Compensation for Injuries and Diseases

- i. It is the responsibility of the employers (other than a contractor) to arrange for all persons employed on a EPWP to be covered in terms of the Compensation for Occupational Injuries and Diseases Act, 130 of 1993.
- ii. A worker must report any work-related injury or occupational disease to their employer or manager.
- iii. The employer must report the accident or disease to the Compensation Commissioner.
- iv. An employer must pay a worker who is unable to work because of an injury caused by an accident at work 75% of their earnings for up to three months. The employer will be refunded this amount by the Compensation Commissioner. This does NOT apply to injuries caused by accidents outside the workplace such as road accidents or accidents at home.

C3.4.4.2.18 Termination

- i. The employer may terminate the employment of a worker for good cause after following a fair procedure.
- ii. A worker will not receive severance pay on termination.
- iii. A worker is not required to give notice to terminate employment. However, a worker who wishes to resign should advise the manager the employer in advance to allow the employer to find a replacement.
- iv. A worker who is absent for more than three consecutive days without informing the

employer of an intention to return to work will have terminated the contract. However, the worker may be re-engaged if a position becomes available of the balance for the 24-month period.

- v. A worker who does not attend required training events, without good reason will have terminated the contract. However, the worker may be re-engaged if a position becomes available for the balance of the 24-month period.

C3.4.4.2.19 Certificate of Service

On the termination of employment, a worker is entitled to a certificate stating –

- a. the worker's full name;
- b. the name and address of the employer;
- c. the EPWP on which the worker worked;
- d. the work performed by the worker;
- e. any training received by the worker as part of the SPWP;
- f. the period for which the worker worked on the SPWP;
- g. any other information agreed on by the employer and worker.

C3.4.4.3 EMPLOYMENT OF UNSKILLED AND SEMI-SKILLED WORKERS IN LABOUR-INTENSIVE WORKS

C3.4.4.3.1 Requirements for the Sourcing and Engagement of Labour

- i. Unskilled and semi-skilled labour require for the execution of all labour intensive works shall be engaged strictly in accordance with prevailing legislation and SANS 1914-5, Participation of Targeted Labour – Part 5, 1st edition, 2002.
- ii. Tasks established by the contractor must such that:
 - a. the average worker completes 5 tasks per week in 40 hours or less; and
 - b. the weakest worker completes 5 tasks per week in 55 hours or less.
- iii. The contractor must revise the time taken to complete a task whenever it is established that the time taken to complete a weekly task is not within the requirements of 6.1.3.
- iv. The Contractor shall, through all available community structures, inform the local community of the labour-intensive works and the employment opportunities presented thereby. Preference must be given to people with previous practical experience in construction and / or who come from households:
 - a. where the head of the household has less than a primary school education;
 - b. that have less than one full time person earning an income;
 - c. where subsistence agriculture is the source of income;
 - d. those who are not in receipt of any social security pension income.

- v. The Contractor shall endeavour to ensure that the expenditure on the employment of temporary workers is in the following proportions:
 - a. 60 % women;
 - b. 20 % youth who are between the ages of 18 and 35; and
 - c. 2 % on persons with disabilities.

C3.4.4.3.2 Specific Provisions Pertaining to SANS 1914-5

- i. Definitions

Targeted labour: Unemployment persons who are employed as local labour on the project.

- ii. Contract participation goals

- a) there is no specified contract participation goal for the contract. The contract participation goal shall be measured in the performance of the contract to enable the employment provided to targeted labour to be quantified.
- b) The wages and allowances used to calculate the contract participation goal shall, with respect to both time-related and task rated workers, comprise all wages paid and any training allowance paid in respect of agreed training programmes.

- iii. Terms and conditions for the engagement of targeted labour

Further to the provisions of clause 3.3.2 of SANS 1914-5, written contracts shall be entered into with targeted labour.

- iv. Variations to SANS 1914-5

- a. The definition for net amount shall be amended as follows:

Financial value of the contract upon completion, exclusive of any value added tax or sales tax which the law requires the employer to pay the contractor.
- b. The schedule referred to in 5.2 shall in addition reflect the status of targeted labour as women, youth and persons with disabilities and the number of formal training provided to targeted labour.

C3.4.4.3.3 Training of Targeted Labour

- i. The contractor shall provide all the necessary CETA Accredited training to targeted labour to enable such labour to master the basic work techniques required to undertake the work in accordance with the requirements of the contract in a manner that does not compromise worker health and safety.
- ii. The cost of the formal training of targeted labour, shall be measured and paid for in the

schedule of quantities of this contract document.

- iii. The contractor shall do nothing to dissuade targeted labour from participating in training programmes and shall take all reasonable steps to ensure that each beneficiary is provided with two days of formal training for every 22 days worked.
- iv. An allowance equal to 100 % of the task rate or daily rate shall be paid by the contractor to workers who attend formal training, in terms of (iii) above.
- v. This training should take place as close to the project site as practically possible. The City will ensure that training arrangements for participants are in place and appointment of the training provider facilitated in time.

Proof of compliance with the requirements of (ii) to (iv) must be provided by the Contractor to the Employer prior to submission of the final payment certificate.

C3.4.4.4 COMMUNITY LIAISON OFFICER

C3.4.4.4.1 The successful tenderer shall enter into an agreement with the Ward Councillor/Ward Committee whereby the Ward Councillor shall provide to the Contractor the following if necessary:

- a) A Community Liaison Officer (CLO) for liaison with the recipient community, who as part of his/her duties will also act as a Labour Desk Officer (LDO) for labour recruitment.

C3.4.4.4.2 The CLO shall attend all site and other meetings concerning the project.

C3.4.4.4.3 The CLO will be remunerated according to the entry level salary of Administrative Officer in the city of Tshwane. (T5-level monthly notch) in the City of Tshwane.

City will provide the Contractor with the figures accordingly.

Community Strategy

The CLO shall be available full time on site when contractor is active. Furthermore, it will be required of him to liaise any pertinent communication to the community. He/she shall attend all site and technical meetings as well as steering committee meetings as well as steering committee meetings happen after hours.

C3.4.4.4.4 Only one CLO shall be appointed per project. If the project spans over more than one Ward, the relevant Ward Councillors shall agree on one CLO to be appointed by the

Contractor. Should no agreement be found as envisaged, the relevant Project Manager together with the Executive Director: Integrated Community Development, or their nominees, will interview prospective appointees and in their discretion appoint such CLO.

Notwithstanding the above, if the vastness of the project requires the use of more than one CLO, this will be permitted provided that the total monthly sum paid to all CLO's shall not exceed the amount allowed for in paragraph 5.3.

C3.4.4.4.5 Should the Contractor experience any difficulties with the community, these difficulties shall immediately be brought to the attention of the Department/Project Manager who shall arrange a meeting with the relevant Ward Councillor(s) and the CLO to resolve such difficulties.

C3.4.4.4.6 The main Contractor shall ensure that any Sub-Contractor he may appoint shall adhere to these conditions but also subject to the provisos applicable to the duration of such sub-contract.

C3.4.4.4.7 Should any of the above conditions be less favourable than any Bargaining Council Agreement or Act applicable to the Contractor, the more favourable condition will apply.

C3.4.5 EXISTING SERVICES

Existing services consist of an existing water and sewer pipelines, overhead and underground electrical services, fibre cables, etc.

C3.4.6 Site establishment

C3.4.6.1 Contractor's Camp Site

The Contractor shall provide a suitable site for his camp and for accommodating the work force. The choice of the site for the establishment of the camp, offices and the layout thereof, shall be approved.

The camp site shall be cleared and grubbed and properly fenced with a security fence around the perimeter. The Contractor is to provide his own security at the camp or on the site if required, at his own expense.

After completion of the contract, the Contractor shall remove all his temporary buildings, plant and equipment. The site shall be made good and be left in a neat and tidy condition before a certificate of completion shall be issued.

C3.4.6.2 Water Supply

The Contractor shall make his own arrangement for potable and construction water. It shall be the responsibility of the contractor to apply for a water connection and water meter at City for his site camp. The contractor shall be responsible for payment of all water used. Water quality shall be verified before use in concrete is allowed.

C3.4.6.3 Power Supply

The Contractor shall make his own arrangements.

C3.4.6.4 Ablution Facilities

The Contractor shall, at each construction area, provide sufficient portable chemical latrine units. The latrine units shall be serviced daily and kept in a hygienic and orderly state to the approval of the engineer. No separate payment shall be made for this requirement and the costs thereof shall be deemed to be included in the rates billed for the contractor's time-related obligations.

C3.4.6.5 Cellular Telephone

It is a requirement of the contract that the contractor shall equip his site agent(s) with a cellular telephone to allow for effective communication between the contractor's supervisory personnel and the engineer's supervisory staff. All the applicable contact details must be made available to the Employer as well as the staff on site. All costs associated with the provision of cellular telephones for the contractor's personnel shall be deemed to be included in rates billed for time-related charges.

C3.4.6.6 Site Facilities required by the Engineer

One site office boardroom for site meetings for 10 – 12 people.

Two carports for the engineers' exclusive use, with solid sheeting, not shade cover.

An ablution unit for his exclusive use. Two offices for the Resident Engineer and Assistant Resident Engineer should be provided.

C3.4.6.7 Storage and laboratory facilities

The Contractor shall make his own arrangement for Storage and Laboratory facilities and services to carry out his quality control.

C3.4.6.8 Other facilities and services

None.

C3.4.6.9 Vehicles and equipment

The Contractor shall make his own arrangement for vehicles and equipment required to carry out the work.

C3.4.6.10 Advertising rights

Not applicable.

C3.4.6.11 Notice boards

Two notice boards will be supplied by the Contractor which will be erected at the construction site as per instruction of the Engineer.

C3.4.7 Site usage

Not applicable.

C3.4.8 Permits and way leaves

The Engineer will be responsible for the initial application of permits and wayleaves after which the contractor will be responsible for maintaining and renewing of permits and wayleaves.

C3.4.9 Alterations, additions, extensions and modifications to existing works

To be carried out with the instruction from the Engineer.

C3.4.10 Inspection of adjoining properties

Adjacent buildings and properties will be inspected before commencing with the works that have the potential to damage surrounding buildings and property on the instruction of the Engineer and according to his requirements.

C3.4.11 Water for construction purposes

No natural water from rivers, streams, boreholes, pans, dams or irrigation canals shall be used for concrete or stabilised layers. Only drinking quality purified water shall be used. The Contractor must make adequate provision in his tender for all negotiations and procurement of water for construction activities and all related costs will be deemed to be included in his tendered rates.

C3.4.12 Survey control and setting out of the works

Survey controls requirements and the setting out of the works will be determined by the Engineer and will be site specific.

Contract No: HS 09 2025/26: THE CONSTRUCTION OF 6KM ROAD AND STORMWATER NETWORK AND ONE BRIDGE IN OLIEVENHOUTBOSCH EXTENSION 60 FOR A PERIOD OF 36 MONTHS- PHASE 1

Part C3: Scope of Work
Section C3.5: Management

CITY OF TSHWANE
HUMAN SETTLEMENTS DEPARTMENT

CONTRACT NO: HS 09 2025/26

THE CONSTRUCTION OF 6KM ROAD AND STORMWATER NETWORK AND ONE BRIDGE (BRIDGE NO 3) ALONG BATHLAPING STREET IN OLIEVENHOUTBOSCH EXTENSION 60 FOR A PERIOD OF 36 MONTHS - PHASE 1

C3.5 MANAGEMENT

C3.5 MANAGEMENT

1. Construction Programme

The Contractor shall submit, within the period stated in the Contract Data, a suitable and realistic construction programme for the consideration of the Engineer.

The programme shall be in the form of a Gantt chart and shall include the following details:

- A work breakdown structure, identifying the major activity groups.
- For each activity group, further details shall be provided with regard to the scheduled start and end dates of individual activities.
- The linkages between activities shall be clearly indicated and the logical network upon which the programme is based shall be separately submitted to the engineer if requested. Any constraints shall be classified as being time-related or resource-related.
- The critical path(s) shall be clearly indicated and floats on non-critical activities shall be shown.
- The Contractor shall indicate the working hours per day, night, week and month allowed for in the programme.
- Where relevant the Contractor shall state the production rates for key activities, e.g. earthworks, etc.

Together with the programme as detailed above the contractor shall submit to the engineer a cash flow projection, indicating projected monthly invoice amounts. The cash flow projection shall be updated at monthly intervals to reflect actual payments to date and anticipated further payments. The programme will be reviewed at the monthly site meetings at which the Contractor shall provide sufficient detail that will allow the comparison of completed work per activity that has fallen behind. The updated programme shall be submitted to the Engineer at least two days prior to the monthly meetings.

If the programme has to be revised by reason of the Contractor falling behind his programme, he shall produce a revised programme showing how he intends to regain lost time in order to ensure completion of the Works within the time for completion as defined in Clause 4.2 of the General Conditions of Contract or any granted extension of time. Any proposal to increase the tempo of work must be accompanied by positive steps to increase production by providing more labour and plant on site, or by using the available labour and plant in a more efficient manner.

Failure on the part of the Contractor to submit the programme or to work according to the programme, or revised programmes, shall be sufficient reason for the Engineer to take steps as provided in Clause 9.2 of the General Conditions of Contract.

The approval by the Engineer of any programme shall have no contractual significance other than that the Engineer will be satisfied that the work is carried out according to such programme and that the Contractor undertakes to carry out the work in accordance with the programme. It shall not limit the right of the Engineer to instruct the Contractor to vary the programme if required by circumstances. The Contractor is also referred to Clause 5.6 of the General Conditions of Contract when drawing up his programme.

2. Sequence of the works

The Contractor shall supply the proposed sequence of the works.

3. Accommodation of traffic

The following contain the Employer's general requirements for accommodating the traffic during construction:

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

Failure to maintain road signs, warning signs, etc, in a good condition shall constitute ample reason for the engineer to bring the works to a stop until the road signs, etc, have been repaired to his satisfaction.

The contractor may not commence constructional activities before adequate provision has been made to accommodate traffic in accordance with the requirements of this document and the South African Road Traffic Signs Manual Volume 2 Chapter 13.

The contractor shall submit proposals in connection with directional signs to the engineer for approval prior to construction.

Sufficient signage shall be provided, erected and relocated as necessary by the contractor to reroute traffic onto the deviations.

4. Extension of time on account of abnormal rainfall

Extension of time due to abnormal rainfall shall be determined by means of Method 1 using the rainfall records below.

Rainfall data for Olievenhoutbosch Ext 60 was established using long-term rainfall observations representative of the Pretoria, Centurion (Irene) climatic region. The dataset reflects a 10-year rainfall period (2015–2024), reconstructed from long-term climatic statistics for the region.

The Mean Annual Precipitation (MAP) for the long-term climatic record is calculated as 661 mm.

Figure 1 shows the average annual monthly rainfall distribution for the Olievenhoutbosch region based on the long-term normal.

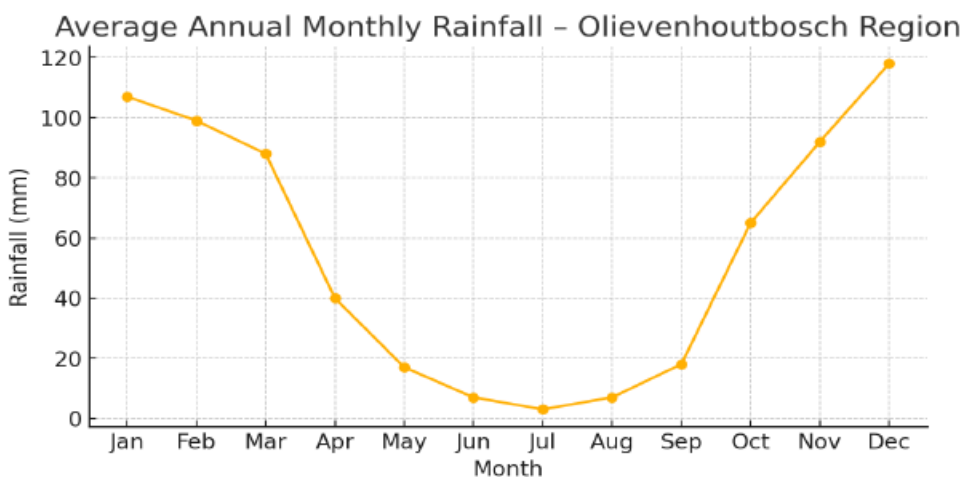


Figure 1: Average Annual Climatic Conditions

MONTH	NORMAL (MM)	N-DAY RAIN
JAN	107	10.68
FEB	99	9.89
MAR	88	8.79
APR	40	3.99
MAY	17	1.70
JUN	7	0.70

JUL	3	0.30
AUG	7	0.70
SEP	18	1.80
OCT	65	6.49
NOV	92	9.19
DEC	118	11.78
TOTAL / MAP	661	66

Table 1: long term monthly average rainfall

MON	NORM (mm)	N-value (days)	Mean Actual mm	Mean Actual Days
JAN	107	10.68	118.90	11.87
FEB	99	9.89	98.00	9.79
MAR	88	8.79	88.60	8.85
APR	40	3.99	38.40	3.83
MAY	17	1.70	14.00	1.40
JUN	7	0.70	5.60	0.56
JUL	3	0.30	1.20	0.12
AUG	7	0.70	5.20	0.52
SEP	18	1.80	17.00	1.70
OCT	65	6.49	69.50	6.94
NOV	92	9.19	102.20	10.20
DEC	118	11.78	136.50	13.63
TOTAL	661	66	695	66.56

Table 2: Method 1: Rainfall exceedance (10-year average)

FORMULA:

$N = (\text{Normal rainfall for month for Month} / \text{MAP}) \times \text{Annual Normal Rain Days}$

Where :

N=Normal rain days for the Month (Method 1 value)

Normal rainfall (mm= Long term average monthly rainfall obtained from SAWS

MAP=Mean Annual precipitation (mm)

Annual Normal Rain days

TAKE NOTE, RAIN DAY=ANY DAY WITH > OR = 5 MM rainfall

5. Community participation

Community participation for the appointment of the PSC will be as per Section 6.1.3.1 of the Expanded Public Works Recruitment Framework, in the Office of the Speaker, in consultation with ward councillors, is responsible to hold public meetings to elect a project steering committee once a development project is to commence within a ward.

The functions of the PSC will be to:

- Assist in monitoring the project.
- Ensure that the community aid the contractor to ensure that he can execute the contract in accordance with the specifications and within time.
- Encourage the community to participate in the Labour-Intensive construction.
- Identify skills, skilled personnel and suppliers in the towns.

The PSC will not have the power to:

- Give any instructions to the contractor, except through the engineer.
- Become involved in the daily operations of the contractor or interfere with the contract works.

A monthly meeting will be held with the PSC to discuss relevant matters. The site agent and resident engineer will attend the meetings. The contractor will have to report on progress, deviations from the programme, financial matters community related aspects, general problems and co-operation at the meeting. The PSC members will not receive any remuneration for attending, and they must provide their own transport.

The committee, which may be chaired by the Ward Councilors, shall consist of representatives of:

- (a) The Ward Councilors(s)
- (b) The Client
- (c) The Engineer
- (d) The Contractor
- (e) The CLO(s)

- (f) Members of Ward Committees nominated by Ward Councilors(s)
- (g) Local Security Company
 - The Community Liaison Officer shall manage the labour desk and will have regular meetings with the Contractor where all construction and labour matters will be addressed. Some of the role players will only attend these meetings on an ad hoc basis as needed.
 - The Local Security Company shall be responsible for the safekeeping of all plant, materials, construction equipment and all personnel employed on the project, 24 hour a day, seven days a week from site handover to project completion.
 - The following aspects will have to be clarified by the labour desk before any person is engaged in construction work:
 - Contract of Employment
 - Type of Work
 - Duration of appointment
 - Workman's Compensation
 - Tax deduction
 - Insurance (UIF)
 - Wages and bonus and overtime regulations
 - Production pay-rate per unit of production
 - Working hours
 - Start and end times of a daily shift
 - Lunch breaks
 - Company policy regarding:
 - Rain time
 - No work no pay
 - Disciplinary policy
 - Grievance policy
 - Method of payment and intervals
 - Safety equipment where applicable
 - The appointment of any local labour under this project will be the responsibility of the main contractor. All employee/employer issues will be ruled by the statutory labour relations' regulations as well as per the relevant contractual clauses.

5. Construction management service requirements

The Contractor shall appoint a Construction Manager whose duties will be to provide construction management and materials management services to the Local Emerging Contractors in line with the employer's objective as stated in Clause 3.1.1, Description of Work.

6.1 General

The construction manager shall, in order to achieve the employer's objectives stated in Clause 3.1.1, Description of Work,

- a) comply with agreements made with the employer and the local community, if any, monitor and report on project expenditure and costs and construction progress, and co-ordinate site activities,
- b) advise, assist and train the supported contractor on the job in terms of the contract between the employer and the supported contractor and, if so required in the specification data, arrange for the supply of certain items of equipment and the supply and delivery to site of materials,
- c) remain impartial in his dealings with the employer and the supported contractor,
- d) engage, on behalf of and with the approval of the employer, specialist contractors to execute parts of the works and coordinate the work of supported contractors and the specialist contractors,
- e) cooperate with other professional service providers appointed by the employer,
- f) visit the site at appropriate intervals during the various stages of construction in order to confirm that the supported contractor is making satisfactory progress, that he shows technical competence in the execution of all aspects of the works and generally fulfils all contractual obligations,
- g) provide continuous support to the supported contractor in order to ensure that the employer's objectives are achieved,
- h) operate within any structured framework developed by the employer to enable interim payments to be made to supported contractors within relatively short time frames,
- i) provide site facilities for the employer and his agents, as provided for in the specification data,
- j) ensure the economic and efficient use of all plant and, to this end, maintain adequate records of plant usage,
- k) maintain detailed records of all costs relating to the construction of the works including those relating to the provision of construction management services, and report to the employer at intervals not exceeding one month on the financial status of the contract, and
- l) assist supported contractors in registering with a public body, if required, in terms of the specification data.

6.2 Construction stage requirements

6.2.1 General

Following the award of the contract to the supported contractor, the construction manager shall, as a minimum,

- a) attend site and coordination meetings conducted by the employer and his agents,
- b) arrange weekly or fortnightly site progress meetings with the supported contractor and record and distribute the minutes thereof,
- c) liaise with the employer at coordination meetings at regular, agreed intervals and keep him fully informed regarding all aspects of the supported contractors' contracts,
- d) confirm insurance arrangements, notify insurers of all claims and ensure that all insurance policies are maintained,
- e) bring to the attention of the employer without delay any deficiencies in materials or in work performed by the supported contractor and follow up corrective actions which might be prescribed,
- f) inspect all exposed services, report in writing any damage to the employer and, subject to the approval of the employer, take the necessary action to have the damage repaired,
- g) implement and monitor approved security arrangements and recommend and implement changes which might be necessary, where required by the employer in terms of the specification data, arrange for the supply and erection of suitable name boards,
- h) maintain and update the assets register,
- i) monitor the progress of the supported contractor and submit monthly progress reports to the employer which provide information relating to,
 - progress in relation to the programme,
 - costs incurred in respect of materials, labour, plant, transport, specialist contractors and construction management services,
 - the actual cash flow compared with the predicted cash flow,
 - expected savings or excess expenditure,
 - site meetings,
 - details of plant hired, including standing-time charges, breakdowns and reasons for the use thereof, and
 - details regarding the theft of materials issued to site,
- j) coordinate and monitor the activities of the supported contractor and others involved in the works,
- k) maintain all necessary site records and documentation including those pertaining to personnel on site, equipment, progress, deliveries of materials to supported contractors, variations to their respective contracts, quantities of work executed, etc.,
- l) ensure that the supported contractor implements a systematic testing programme,
- m) review and monitor the supported contractor's quality control systems,
- n) establish and maintain a list of defects and ensure that these are remedied,
- o) brief supported contractors on health and safety requirements, and
- p) verify claims for payment to supported contractors and other parties in accordance with the provisions of the contract.

- q) Provide a full-time **site agent**

6.2.2 Advice and assistance to the supported contractor

The construction manager shall, as a minimum,

- a) process and resolve supported contractors' queries regarding the interpretation of drawings, specifications and contractual matters pertaining to their respective contracts,
- b) motivate and guide supported contractors and, where necessary, recommend measures to expedite their progress,
- c) assist supported contractors with
 - the preparation and updating of a realistic and achievable programme,
 - the setting out of the works,
 - the management, administration and employment of their work forces,
 - the performance of their contracts,
 - all registrations required in terms of legislation and all applicable taxes and levies,
 - the preparation of payment certificates,
 - the handing over of the works to the employer upon completion, and
 - liaison with external organizations and the local community with regard to the works, and
- d) advise the supported contractor on safety measures which shall be implemented in order to comply with safety legislation.

6.2.3 Training

The construction manager shall, as a minimum,

- a) teach the supported contractors how to assess and order materials required for incorporation into the works,
- b) train, advise and guide supported contractors both in-house and on the job with regard to the following aspects of the contract:
 - the basic work techniques required to perform the contract;
 - the need to develop communication skills;
 - what is expected of a supported contractor;
 - health and safety requirements;
 - the need to execute appropriate tasks correctly the first time;
 - how to submit claims for payments;
 - how to control and motivate their work-forces;
 - the necessity for planning;
 - how to prepare and use construction programmes;

- the relationship between tender pricing, productivity and profit; and
 - payment procedures for payments required in terms of the law, including all applicable taxes and levies, and
- c) act generally as a mentor to the supported contractor and facilitate, when appropriate, training of the supported contractor by other organizations.

6.2.4 Tools and equipment

The construction manager shall, as a minimum,

- a) advise supported contractors regarding their hand-tool requirements and assist them with the procurement thereof,
- b) arrange for the timeous supply and cost-effective use of items of equipment and plant required for the execution of the works which supported contractors are not, in terms of their contracts, required to provide,
- c) arrange for the supply of calibrated testing equipment to supported contractors, as required, and ensure that tests are properly carried out and the results forwarded to the relevant parties that require such information, and
- d) arrange for the supply of all fuel and power required for the operation of power-driven equipment and tools.

6.2.5 Materials (where materials management services are provided to supported contractors)

The construction manager shall, where a materials manager has been appointed, as a minimum,

- a) provide the materials manager with a programme of materials requirements, based on the programmes of supported contractors, at the commencement of their respective contracts and update such programmes as necessary,
- b) review supported contractors' requests for materials, adjust quantities, if necessary, and forward orders timeously to the materials manager,
- c) arrange with the materials manager for the delivery of materials direct to the site, where necessary,
- d) where required, collect materials from the materials manager's store and deliver to the site,
- e) monitor and approve the overnight storage of unused materials on the site by supported contractors or, should such materials not be suitable for overnight storage on site, arrange for their return to the store,
- f) determine appropriate allowances for tolerances and wastage on items where such allowances are not laid down in the supported contractor's scope of work, and
- g) reconcile quantities of materials issued to supported contractors with quantities used in the

works and issue a materials reconciliation certificate to supported contractors upon completion of the works.

6.2.6 Post-construction stage requirements

After the completion of the works associated with supported contractors' contracts, the construction manager shall, as a minimum,

- a) compile a completion report that includes:
 - the final cost of the works in respect of materials, labour, plant, transport, supervision and construction management services;
 - the time of completion relative to the programme;
 - the nature and extent of training received by the supported contractor;
 - details of damage to services and insurance claims;
 - details of the construction manager's staff and organizational structure, equipment purchased for the contract and establishment costs; and
 - details of actual expenditure compared with projected expenditure,
- b) monitor remedial work undertaken during the defects liability period and advise and assist the supported contractor as necessary, and
- c) return, if required, to the employer or dispose of in accordance with the employer's instructions, all items of equipment on the register of assets.

6. Materials management service requirements

7.1 General

The materials manager shall, in order to achieve the employer's objectives,

- a) procure, store and issue materials for incorporation into the works either to the construction manager, who will deliver such materials to the place of work or directly to the supported contractor,
- b) establish a stores facility which is capable, at short notice, of supplying all the materials required for the project in a reliable, efficient and cost-effective manner,
- c) establish and implement management procedures and systems for procuring, storing, issuing and accounting for materials that
 - take cognizance of specific storage requirements for individual materials,
 - comply with the employer's procurement policies and procedures,
 - provide for quality checks upon delivery,
 - provide for the processing and timeous payment of statements for materials supplied and

- the delivery of materials to site,
- account for the quantities of materials that are procured, stored and issued to or on behalf of each individual supported contractor,
 - ensure that records are readily auditable and protect the employer against corruption and theft, and
 - allow the employer to be informed monthly as to the status of all aspects of the materials management,
- d) ensure that all possible trade and settlement discounts are obtained and that the most favourable prices are paid for materials, and
- e) ensure that all materials purchased and issued comply fully with the employer's specifications embodied in the scope of work of the supported contractors' contract or in the contract with the employer.

Contract No: HS 09 2025/26 : THE CONSTRUCTION OF 6KM ROAD AND STORMWATER NETWORK AND ONE BRIDGE IN OLIEVENHOUTBOSCH EXTENSION 60 FOR A PERIOD OF 36 MONTHS- PHASE 1

Part C3: Scope of Work

Section 3.6: Particular Specifications and Variations and Additions to the Standard Specifications

CITY OF TSHWANE

HUMAN SETTLEMENTS DEPARTMENT

CONTRACT NO: HS 09 2025/26

Contract No: HS 09 2025/26 : THE CONSTRUCTION OF 6KM ROAD AND STORMWATER NETWORK AND ONE BRIDGE (BRIDGE NO 3) ALONG BATHLAPING STREET IN OLIEVENHOUTBOSCH EXTENSION 60 FOR A PERIOD OF 36 MONTHS - PHASE 1

C3.6 PARTICULAR SPECIFICATIONS AND VARIATIONS AND ADDITIONS TO THE STANDARD SPECIFICATIONS

C3.6 PARTICULAR SPECIFICATIONS AND VARIATIONS AND ADDITIONS TO THE STANDARD SPECIFICATIONS

The following references from, and variations and additions to the Standard Specifications will be valid for this Contract.

The clauses and pay items in this portion of the Particular Specifications are numbered "B" followed by a number corresponding to the number of the relevant clause or pay item in the Standard Specifications. New clauses and pay items not covered by clauses or pay items in the Standard Specifications, if included here, are also designated "B" followed by a number. These numbers follow on the last clause or pay item number used in the relevant section of the Standard Specifications.

The following particular specifications are applicable to this Contract: These are attached as annexures. The following is a full list of annexures available for this Contract:

ITEM #	DESCRIPTION
C5.1	City of Tshwane Standard Specifications for Municipal Civil Engineering Works
C5.2	Employer's Health and Safety Plan and Risk Assessment
C5.6	General Geotechnical Data
C5.7	Environmental Management Plan

SERIES 0: GENERAL

“SECTION 001: GENERAL REQUIREMENTS AND CHARGES

B 13.02 Services

Add the following:

“The Contractor must be aware of existing services in the area of the Works that will affect his programme of work. It is therefore of the utmost importance for the Contractor to work in close conjunction with the owners or authorities controlling these services to ensure that the services are not disrupted in any way as a result of the Works.

Before work commences, the Contractor shall contact private owners or public authorities controlling services to allow them to protect, move or relocate a service as required, or to confirm that all such work has been completed.

No payment will be made for inconvenience to the Contractor due to services crossing the Site or any authority working on such services, nor will delays caused by such works be accepted as a basis for claiming an extension of time for completing the Works.”

B 17.02 Occupational Health and Safety Act

Add the following to the end of subclause 17.02:

The Contractor shall ensure that every employee, including Subcontractors and their employees, has a valid medical certificate of fitness issued in the form of an Annexure 3 in compliance with Construction Regulation 7(1)(g) or 7(8) as applicable.

Specific testing for existing conditions and limitations relative to exposure could include, but are not limited to:

- Audiometry (hearing tests);
- Spirometry;
- Epilepsy or high blood pressure; and
- Any other tests identified as relevant from chemical or specifically identified risks of exposure including exit medical assessments

B 17.06 Health and safety training

Add the following to the end of subclause 17.06

Local employees to be trained under the South Africa Qualifications Authority (SAQA) unit standard for Health & Safety training on the project are as follows:

Course	No. of people to complete the course
-SHE rep	5
-scaffold rector	1
-scaffold inspector	1
-fire fighter	2
-emergency warden	2
-first aid	5
-Incident investigation	1
-Hazardous chemical controller	1
Traffic Safety Officer	1
Tip Truck Operator	1
Flagmen	5
-Other	

B 17.07 Personal protective clothing and equipment (PPE)

Add the following to the end of subclause 17.07

Tabulated below is the minimum personal protective clothing and equipment to be provided for each employee employed on the site.

Personal Protective Clothing and Equipment	Units/Sets per Employee
(i) Protective foot wear	2
(ii) Pantone Green Overalls	2
(iii) Dust masks FFP2 and or Respirator	10
(v) Gloves	5
(iv) Safety Glasses/Goggles	1
(v) Portable On-Site Ablutions	4
(vi) Mobile Sheltered Eating Areas	2
(Vii) Induction cards or stickers	1

Further to the table above, is the maximum additional personal protective clothing to be issued to employees as may be required or necessary.

Personal Protective Equipment	No
Hard hats with chin straps	120
Overalls	200
Gloves	200
Shoes (safety boots)	200
Safety goggles	100

First aid box	2
Dust musk(box)	20
Gum boots steel (toe cap)	10
Safety harnesses	1
Reflective vests	120
Hearing protection	15
OTHER SITE-SPECIFIC REQUIREMENTS	
Fencing, signs, poles and barricades for the duration of the contract	1
Site establishment fire extinguishers	2
Symbolic signage	10
Chemical toilets	36
Safety notice boards/SMI boards	1
Copy of required legislation	2

Add the following:

.01 The contractor shall provide all the necessary on-the-job training to targeted labour to enable such labour to master the basic work techniques required to undertake the work in accordance with the requirements of the contract in a manner that does not compromise workers' health and safety.

.02 The contractor shall be responsible for scheduling the training of workers and shall take all reasonable steps to ensure that each beneficiary is provided with a minimum of six (6) days of formal training if he/she is employed for 3 months or less and a minimum of ten (10) days if he/she is employed for 4 months or more.

.03 The contractors shall do nothing to dissuade targeted labour from participating in the above-mentioned training programmes.

.04 An allowance equal to 100% of the task rate or daily rate shall be paid by the contractor to workers who attend formal training, in terms of B 01.04.08.04.04 above. Provision for allowances is included in provisional sum

.05 Proof of compliance with the requirements of B 01.04.08.04.03 to B 01.04.08.04.05 must be provided by the Contractor to the Employer prior to submission of the final payment certificate.

All labourers on site must wear the necessary protective clothing including an overall. All labourers must also wear a bright reflected jacket over their overall. On the front of the overall the "City of Tshwane" name must appear with the City logo on the left hand side and the EPWP sectorial logo must appear on the right. On the back the letters "EPWP" must appear.

B 17.08 Provision of safety fences, signs and barricades

Add the following to the end of subclause 17.08

The contract and information signboard detail are provided on page AAA. The Contractor will be required to erect a signboard displaying the EPWP logo, indicating that this project is part of the EPWP. All costs related to the provision, erection and subsequent removal of the signboard shall be refunded to the contractor through the provisional sum included in the Schedule of Quantities for this purpose.

B 29 THE CONTRACTOR'S ESTABLISHMENT ON SITE

Add the following new subclause after subclause 29.04:

B 29.05 Finish the road and road reserve

After completing the seal or surfacing, or gravel surface on gravel roads, the road and road reserve shall be cleared of all excess earth, stones, boulders, debris, litter, garbage and other waste material resulting from the construction of the works or the use of the road. Culvert inlets and outlets, culvert barrels, and open drains shall be cleared of all debris, soil, silt and other material. The surface shall be cleared of all dirt, mud and foreign objects, dragging, pushing or scraping material across the finish surface shall not be permitted. All junction, intersections, islands, kerbing and other elements making up the completed works shall be neatly finished off. All declared noxious weeds shall be removed from the road-reserve and borrow-pit areas. All materials shall be disposed at an approved location not visible from the road. The contractor himself shall make his own arrangements with the owners of properties on which such material is to be deposited. Disposal shall be carried out in a neat and uniform manner.

SERIES 0: GENERAL

B.31: TRAINING AND DEVELOPMENT

SECTION B001: PROVISION FOR TRAINING OF TARGETED LABOURERS FOR EPWP

B01 INTRODUCTION

B02 SELECTED TRAINING PROVIDER / SUBCONTRACTOR

B03 TRAINING PROVISION: TECHNICAL SKILLS

B04 TRAINING SCOPE OF WORKS AND DELIVERABLES

B01 INTRODUCTION

The Training Specification Data has been prepared in line with City of Tshwane Municipality socio-economic responsibilities, Small Business Act No. 102 of 1996, Affirmative Procurement policies as developed by PWD led task team and deliverables as described in the October 2007 edition of the CIDB Specification for Social and Economic Deliverables in Construction Works Contracts (SSED) (www.cidb.org.za).

The training targeted as described below; will also assist the contract in implementing labour enhanced construction methods for maximization of employment of unskilled previously disadvantaged individuals.

B02 SELECTED TRAINING PROVIDER / SUBCONTRACTOR

The Engineer shall instruct the Principal Contractor to appoint an accredited training subcontractor to conduct training as detailed under sections B003.03 and B003.04. A service level agreement to be provided by the Engineer or Client will be signed by the Principal Contractor and the Nominated Training Subcontractor. The nominated training subcontractor shall be accredited with CETA (Construction Education Training Authority) & QTCO (Quality Council of Trades and Occupations) and will furnish the Engineer with the following documentation/information:

- Tax Clearance Certificate and Compliance Pin
- Certified Copies of Company Registration Documents and Director's ID Copies

- Certified B-BBEE Verification Certificate/Affidavit
- Valid proof of CETA accreditation letter for the required training
- Accreditation with QTCO

- Proof of Availability of training facilities within the City of Tshwane (training facilities can also be hired if not available)
- Minimum of 3 written testimonials from Previous Clients
- Qualifications and CVs of Key Staff to be used in the project if not the same as those listed on the accreditation letter
- Training Schedule and Methodology and Project Approach incl. how disabled learners will be accommodated
- Letter from the Bank confirming banking details
- Proof of payment of Rates and Taxes (City of Tshwane Municipality) for Company and Directors - Not older than three (3) months
- COIDA Letter of Good Standing
- CSD Registration (National Treasury)

B03 TRAINING PROVISION: CONSTRUCTION RELATED TECHNICAL SKILLS

The provision must be made available for Technical Training for non-seconded and second local labour. This training must be conducted prior to individual labour commencing work on site.

The Contractor together with the Social Facilitator and Selected Training Subcontractor shall select the appropriate candidates to undergo Technical Training at a semi-skilled level, in preparation for employment on the Project in any (as many as possible, budget permitting) of the unit standards listed below aligned with the contractor's operational requirements.

US ID No.	US Description
12916	Batch and mix concrete by volume
119056	Identify, describe and utilise materials in construction
119076	Use and maintain small plant and equipment on a construction site
116573	Assemble, tie and fix reinforcing cages
119067	Build masonry superstructures using solid units
119077	Install control valves
116051	Demonstrate fundamental knowledge of earthworks
116152	Demonstrate mechanical awareness and plant appreciation
10252	Identify, inspect, use, maintain and care for engineering hand tools
119059	Install and maintain a below ground drainage system

10255	Select, use and care for power tools
14567	Use a small self-propelled compactor to compact material
12875	Use and maintain small plant and equipment on a construction site

For a detailed description of the unit standards identified above, kindly refer to the South African Qualifications Authority website www.saqqa.org.za/ registered qualifications and unit standards, and enter the unit standard number (given in the first column) in the search field.

The Contractor shall be responsible for employing all learners participating in the training, after the individual's completion of the theoretical component of the training. The employment must be aligned to their practical experiential requirement to enhance their competency in their trained area.

B04 TRAINING SCOPE OF WORKS AND DELIVERABLES

The training scope of works and deliverables by the Selected Training Subcontractor will be as follows:

- Identification of the target group and the candidates together with the Contractor and Social Facilitator.
- Pre-assessment and qualification of candidates
- Code of conduct to be explained and signed to the Learners
- Enrolment of Learners (Registration and Particulars)
- Induction on the first day of Learners
- CETA accredited learning materials will be handed to all Learners on day one of the training.
- Facilitation will be done as referred from learning materials during theory session.
- Learning activities for each specific outcome will be done in class.
- Practicals will be done as per drawing plans and instruction sheets in the learning materials.
- To assess competency in each specific outcome, assessment criteria and finding will be filled to a portfolio of evidence (P.O.E)
- Each learner will compile his/her own P.O.E which will be moderated by Selected Training Subcontractor Quality Assurance Manager.
- On completion of internal moderation all competent Learners will receive Certificate of Completion.
- Provision of a detailed training report

B 31 Measurement and Payment:

B001.01.02 Time related Charge

Month

Add the following:

The unit of measurements shall be in months over the 36 months period.

The tendered rates under subitem 001.01.02 shall represent that part of the contractor's preliminary and general charges which is related to the time required for the completion of all projects within the 36 months period. The number of months payable shall only be the number of months the contractor shall be employed. No time related charges shall be paid to the contractor if the services are not required within the 36 months period.

Time-related charges should include provision of key personnel required for the supervision and management of the project. **Key personnel include the Contracts Manager, Construction Manager, 2xConstruction Supervisors.**

B001.04.04 Provision of a safety officer

Month

The unit of measurements shall be in months over the 36 months period.

The tendered rate shall include full compensation for the provision of a competent and experienced safety officer full-time for the duration of the construction work or all the contractor's costs in respect of compliance with the OHS act and construction regulation. The tendered rate for item B001.04.04 shall be to provide a Health and Safety Officer registered as such with the SACPCMP as a CHSO. In the event of the construction period exceeding the tendered completion period and no extension of time has been granted, the Contractor shall still provide a safety officer with the specified remuneration but shall not be reimbursed there for.

B001.04.05 Provision of Health and Safety Training

Lump Sum

The tendered lump sum shall include **full compensation for the provision of training programs for the**

Contractor's employees and also, where applicable, for sub-contractors.

Sixty per cent (60%) of the amount will be paid when, the local labourer's have received accredited health and safety training. A further 40% will be paid when training completion certificate has been issued.

B 01.04.08.01 Compliance with the Environmental Management Plan **Lump sum**

The lump sum tendered shall include full compensation for the contractor's obligations in terms of the NEMA and supporting regulations not specifically covered in the items above.

The payment will be made in four equal instalments when the value of all permanent work done, excluding escalation, reaches 25%, 50% and 75% of the Tender Price. The final payment will be payable when the completion certificate has been issued.

B 01.04.08.02 Provision of a Dedicated Environmental Officer (DEO) **Month**

The unit of measurements shall be in months over the 36 months period.

The tendered rate shall include full compensation for the provision of a competent and experienced environmental officer full-time for the duration of the construction work or all the contractor's costs in respect of compliance with the NEMA.

The Dedicated Environmental Officer (DEO) Once a nominated representative of the Contractor has been approved, he/she shall become the DEO and shall be the responsible person for ensuring that the provisions of this EMP are complied with during the life of the contract. The DEO shall submit regular written reports to the Engineer but not less frequently than once a month. The DEO may undertake other construction duties unless Section B: Specification Data, prescribes this position as 'Full-time' or 'dedicated' as opposed to the standard position being 'designated'. However, the DEO's environmental duties shall hold primacy over other contractual duties and the Engineer has the authority to instruct the Contractor to reduce the DEO's other duties or to replace the DEO if, in the Engineer's opinion, he/she is not fulfilling his/her duties in terms of the requirements of this EMP. Such instruction will be in writing clearly setting out the reasons why a replacement is required. As a minimum the DEO shall have an accredited National Qualifications Framework (NQF) level 6 qualification in environmental or natural sciences or equivalent and a minimum of 2 years' experience in a similar role in construction or other environmental regulatory field. In addition to the compliance duties relating to EMP the DEO shall also provide full cooperation whenever the Contractor is subjected to environmental audits.

B 01.04.08.03 Appointment of Local Security Company

Month

The unit of measurements shall be in months over the 36 months period.

The tendered rate under item 01.04.08.03 shall include full compensation for the appointment of a local security company (x3 Grade C guard at night and X2 Grade D x2 guards during the day) for the duration of the project.

Payments shall be made in equal monthly instalments, spread over the tendered completion period, upon proof of payment to the local security company. In the event of the construction period exceeding the tendered completion period and no extension of time been granted, the Contractor shall still pay the local security company for the specified remuneration but shall not be reimbursed there for.

B 01.04.08.04 Provision for training of targeted labourers for EPWP

Provisional Sum

(I) Handling cost and charges for the Contractor on Item B 01.04.08.04

Percentage (%)

The percentage tendered for handling costs and charges shall cover all additional costs for the Contractor over and above the sums paid.

B 01.04.08.05 Cost of medical certificates and medical surveillance

(i) Initial (baseline) medical examinations

No

(ii) Exit medical examinations

No

The tendered rate for sub-item B 001.07 shall be paid per number for local employees obtaining their initial baseline medical certificates of fitness and existing medical certificates.

B001.05 Community Liaison Officer

Provisional Sum

The Provisional Sum shall include full compensation for the appointment of a community liaison officer for the duration of the contract works.

Payments shall be made in monthly instalments for the number of months one or more community liaison officer is employed.

The tendered rate shall include full compensation for the appointment of a community liaison officer for the duration of the construction works.

Payment shall be made in monthly instalments for the number of months the community liaison officer is employed. Rate will be the City of Tshwane's minimum T5 monthly level 1 notch. Annual rate increase depends on annual approved City of Tshwane salary increases

B 001.06 Employment of Student Trainee NQF Level 6

Prov Sum

Employment of a Student Trainee (NQF Level 6) for the duration and as directed by the Engineer.

The student trainee shall be:

- Registered at a recognised South African University or University of Technology;
- Enrolled in a Built Environment–related qualification, including but not limited to:
 - Civil Engineering
 - Construction Management
 - Quantity Surveying
 - Structural Engineering
 - Project Management (Built Environment–focused) or equivalent;
- At NQF Level 6 or higher at the time of appointment.

The Contractor shall be responsible for:

- Payment of stipend/salary and all statutory obligations;
- Provision of on-site supervision, mentoring, and practical exposure aligned with the student's academic requirements;
- Compliance with applicable labour legislation, health and safety regulations, and the project's training objectives.

The rate shall be deemed to include all costs associated with the employment of the student trainee, including but not limited to remuneration, supervision, administration, and overheads

B001.07 The construction of new survey beacons and protection of existing survey beacons

(a) Provisional sum for new survey beacons to be constructed and/or for existing survey beacons to be replaced and/or protected during construction **Prov Sum**

(b) Handling costs and profit in respect of subitem (a) above %

The Provisional Sum provided under item B 001.07 (a) shall include full compensation for new survey beacons to be constructed and/or for existing survey beacons to be replaced and/or protected during construction at the instruction of the Engineer. Expenditure under this item shall be made in accordance the specification outlined within the City of Tshwane Metropolitan Municipality Standard Specifications for Municipal Civil Engineering Works and clause 6.6 of the General Conditions of Contract 2015.

The tendered percentage is a percentage of the amount of expenditure approved by the Employer's Agent under subitem B 001.06 (a) and shall include full compensation for the handling costs of the Contractor and the profit in connection with the provisional sum for new survey beacons to be constructed and/or for existing survey beacons to be replaced and/or protected during construction.

Item	Unit
B 001.08 Finishing the road and road reserve	
(i) Single carriageway road	m

The unit of measurement shall be the metre of road measured along the centre line.

The tendered rate shall include full compensation for clearing, trimming, disposing of material, tidying and all other work to be done for finishing off the road and road reserve.

B001.09 Protection, Removal, Realignment and Replacement of Services

Utility services:

- a) Relocation of services and payments to service owners **Prov Sum**
- b) Handling cost and profit in respect of
- item B001.11 (a) above.....percentage (%)

The percentage (%) provided under item B 001.09 (b) shall include full compensation for existing services to be located, relocated and/or protected/repared during construction. Expenditure under this item shall be made in accordance the specification outlined within the City of Tshwane Metropolitan Municipality Standard Specifications for Municipal Civil Engineering Works Section and clause 6.6 of the General Conditions of Contract 2015.

The tendered percentage is a percentage of the amount of expenditure approved by the Employer’s Agent under subitem B 001.09 (a) and shall include full compensation for the handling costs of the Contractor and the profit in connection with the provisional sum for existing services to be located, relocated and/or protected/repared during construction.

B001.10 DAYWORKS

SCOPE

01 Scope

This section covers the listing of Dayworks items in accordance with Conditions of Contract Clause 6.5, for the use in determining payment for work which cannot be quantified in specific units, or work ordered by the Engineer during construction period which was not foreseen at bid stage and for which applicable rate exist in the schedule of quantities.

02 General

No dayworks shall be paid unless written authorisation has been obtained from the Engineer.

03. Measurement And Payment

Item Unit

B001.10.01 Provision of Skilled, Semi-Skilled and Un-Skilled Labor

Unskilled Labour	hr
Semi-skilled Labour	hr
Carpenter	hr
Driver (LDV, machines, trucks, etc.)	hr
Foreman	hr
Plumber	hr
Electrician	hr
Welder	hr

B001.10.02 Construction Plant Hire (Hire of plant already established on site for dayworks)

Lowbed transport of plant to and from site	km
Excavator (medium), between 93kW & 200kW	hr
Tractor loader backhoe (TLB)	hr
Front end wheel loaders	hr
Generator 5Kw	hr
Trucks (6 cub or equivalent)	hr
Tip trucks (10 Cub or equivalent)	hr
Water pump 75mm diameter	hr

Plate compactor	hr
Light delivery vehicles (1t or equivalent)	km
Self propelled vibrating roller, 9 ton	hr
Walk behind roller 60 or similar	hr
Plate compactor	hr
Compressor 400 cuft/min - with 2 breakers	hr
Concrete mixer - 360l capacity	day
Materials supplied by the Contractor:	
Sand (Building)	m ³
Sand (River)	m ³
50kg pocket of Cement	No.
Dump Rock 150mm	m ³
Crusher Run 28mm	m ³
G5 material	m ³
G2 material	m ³

HDPE WATER PIPES

20 mm dia HDPE PE100 PN6 water pipe	m
25 mm dia HDPE PE100 PN6 water pipe	m
32 mm dia HDPE PE100 PN6 water pipe	m
40 mm dia HDPE PE100 PN6 water pipe	m
50 mm dia HDPE PE100 PN6 water pipe	m

Part C3: Scope of Work

Section 3.6: Particular Specifications and Various Additions to the Standard Specifications

63 mm dia HDPE PE100 PN6 water pipe	m
75 mm dia HDPE PE100 PN6 water pipe	m
90 mm dia HDPE PE100 PN6 water pipe	m
110 mm dia HDPE PE100 PN6 water pipe	m
160 mm dia HDPE PE100 PN6 water pipe	m
200 mm dia HDPE PE100 PN6 water pipe	m
250 mm dia HDPE PE100 PN6 water pipe	m
315 mm dia HDPE PE100 PN6 water pipe	m
uPVC SEWER PIPES	
110 mm dia uPVC Sewer Pipe Class 34 (SN4)	m
110 mm dia uPVC Sewer Pipe Class 51 (SN8)	m
160 mm dia uPVC Sewer Pipe Class 34 (SN4)	m
160 mm dia uPVC Sewer Pipe Class 51 (SN8)	m
200 mm dia uPVC Sewer Pipe Class 34 (SN4)	m
200 mm dia uPVC Sewer Pipe Class 51 (SN8)	m
250 mm dia uPVC Sewer Pipe Class 34 (SN4)	m
250 mm dia uPVC Sewer Pipe Class 51 (SN8)	m
315 mm dia uPVC Sewer Pipe Class 51 (SN8)	m
375 mm dia uPVC Sewer Pipe Class 51 (SN8)	m
400 mm dia uPVC Sewer Pipe Class 51 (SN8)	m
450 mm dia uPVC Sewer Pipe Class 51 (SN8)	m

CONCRETE SEWER PIPES

300 mm dia Concrete Pipe Class 50D	m
300 mm dia Concrete Pipe Class 75D	m
300 mm dia Concrete Pipe Class 100D	m
375 mm dia Concrete Pipe Class 50D	m
375 mm dia Concrete Pipe Class 75D	m
375 mm dia Concrete Pipe Class 100D	m
450 mm dia Concrete Pipe Class 75D	m
450 mm dia Concrete Pipe Class 100D	m
525 mm dia Concrete Pipe Class 100D	m
600 mm dia Concrete Pipe Class 100D	m
CONCRETE CULVERTS	
4000mm x 1500mm Rectangular Portal Culvert	m

The Contractor is also referred to Clause 6.5, of the Conditions of Contract for regarding Dayworks.

Personnel during normal working hours

The unit rate for item B001.10.01 shall be the hour for the labourer. The labour charges to be reimbursed under the Dayworks item B001.10.01 in the Schedule of Quantities shall be the actual amount of wages paid to labourers, (but no foreman), employed on Dayworks with the authorisation of the Engineer. The labour charges will be paid only for the time that the workmen are actually so employed on Dayworks.

Leave pay, bonuses, subsistence, allowances, employer's contribution to medical schemes and provident funds and the like shall not be included in the above-mentioned labour charges, but will be deemed to be covered by the percentage rate tendered by the Contractor against item B107.02 scheduled for this purpose under Dayworks in the Schedule of Quantities.

The unit rate for item B001.10.01 shall be the percentage extra over for the labourer. This percentage rate shall also be deemed to allow for the use of small tools, supervision, insurances, overhead expenses, transport of workmen, housing and feeding (if the liability of the contractor), profit and any other expenses

in connection with workmen employed on Dayworks and shall also include for everything else covered under the allowance as stated in Clause 6.5 of the Conditions of Contract.

Construction Plant

The unit rate for item B001.10.01 shall be the hour for the item of plant. The rates tendered for the hire of plant shall be applicable only to plant that the Contractor has on the site and shall be total all-inclusive unit prices which shall include, inter alia for all fuel and lubricants; for the wages of operators, equipment and everything else necessary; for all depreciation, maintenance and repair costs; for overhead expenses, profit and for everything in accordance with Clause 6.5 of the General Conditions of Contract.

The rates shall be paid only for the time that the plant is actually working on the Dayworks as authorised by the Engineer.

Transport of Construction Plant

The unit rate for item B001.10.01 shall be the hour for the kilometre distance that the vehicle travelled for transporting plant. The billed rate for item B001.10.01 shall include full compensation for the cost of the vehicle including fuel, maintenance, depreciation and running costs and all costs related to the loading and unloading of the plant onto and off the vehicle.

Replacement of existing services

The unit rate for item B001.10.01 under "Replacement of existing services" shall be measured per metre for the specified diameter and class actually installed.

The rate shall be deemed to include all excavation, fittings, connections, testing, reinstatement and all ancillary work necessary to complete the installation to the satisfaction of the Engineer.

No separate payment shall be made for fittings, couplings, temporary works, dewatering, or maintaining service continuity unless separately scheduled.

SERIES 0: GENERAL

SECTION 002: ENGINEER'S ACCOMODATION

B 07 Measurement and Payment

B002.01.01 Services for office and laboratories

Month

Add the following:

The unit of measurements shall be in months over the 36 months period.

Payment of the tendered rate under item 002.01 shall be in full compensation for the services specified Engineer's accommodation including provision of offices, boardroom, kitchen, ablutions, sanitaryware, fittings, furniture and **equipment specified**. Payments will be made in monthly instalments for the number of months the service is required.

B002.02 Treatment and maintenance of areas surrounding offices and laboratories

Month

Add the following:

The unit of measurements shall be in months over the 36 months period.

Replace the existing clause with the following:

Payment of the tendered rate shall be in full compensation for the treatment and maintenance of the areas specified. Payments will be made in monthly instalments for the number of months the treatment and maintenance is required on one or more projects.

B002.03 Offices, Boardroom and Ablutions Facilities

Month

Add the following:

The unit of measurements shall be in months over the 36 months period.

Payment of the tendered rate under item 002.03 shall be in full compensation for the services specified and for the supplying and erecting of the Engineer's accommodation including

provision of offices, boardroom, ablutions, sanitaryware, fittings, furniture and **equipment specified**. Payments will be made in monthly instalments for the number of months the service is required.

B 002.04 Provision of survey equipment and two (2) assistants

Day

Add the following:

The unit of measurements shall be per day over the 36 months period as and when required.

Provision, operation and maintenance of all necessary survey equipment, together with two (2) competent survey assistants, for the execution of setting out, checking, monitoring, and as-built surveys required for the Works.

The rate shall be deemed to include, but not be limited to:

- Supply, calibration, operation, and maintenance of all survey equipment (including total station, GPS/GNSS equipment, levels, staffs, tripods, data collectors, and associated accessories).
- Provision of two suitably trained and experienced survey assistants.
- Transport of personnel and equipment to and from site.
- All consumables, batteries, data processing, and minor repairs.
- Compliance with all relevant standards, specifications, and the Engineer's instructions.
- Standby time, relocation within the site, and all incidental costs necessary to complete the survey tasks.

SERIES 1: ANCILLARY WORK

SECTION 102: ACCOMMODATION OF TRAFFIC

B 02.03 Bypasses and detours

Add the following after the end of the second paragraph of clause 04.02:

"The Contractor shall be required to provide and maintain an access crossing over the river as specified for the temporary deviation. The Contractor is required to make reference to the Hydrology and Hydraulic report attached to this document and design and construct an access crossing to accommodate the 1 in 2yr return period flows. The Contractor will be required to maintain the access crossing for the duration of the contract and remove the crossing after completion of the contract. The Contractor will be required to submit his proposed access crossing drawings to the Engineer for comment 2 weeks prior to the commencement of works.

The access crossing must be constructed with concrete pipes or concrete portal culverts. The embankments to the access crossing must be protected adequately using grouted reno mattresses and gabions.

The temporary bypass will be constructed as follows:

- Roadbed construction
- Construct fill using material from box cuts or imported normal fill
- Import material to construct 150 mm thick G7-quality upper selected layer
- Import material to construct 200 mm thick C3-quality base using G5-quality material
- Use rectangular portal culverts (SABS 986) including precast bases
- Gabion baskets to protect against erosion
- Wingwalls and headwalls
- Construct a 10 mm Cape seal over full width of the bypass
- Average slope = 0.01407m/m
- Design flood, $Q_5 = 50.1\text{m}^3/\text{s}$
- Flood elevation = 1 441.12 m
- Max. Stream velocity = 3.01 m/s
- Catchment Area = 39.3 km²

B 03.02 Warning devices, signs, speed limits and channelization devices

Add the following to the end of subclause 03.02:

The contractor shall ensure that all his own personnel, excluding those who are permanently office bound, all other construction workers on the site, staff of the Engineer's Agent and visitors are equipped with high visibility reflective safety vests. High visibility reflective safety vests shall be worn at all times when working on or near to the travelled way. High visibility reflective safety vests shall be kept in good condition and any such safety vests that are, in the opinion of the Engineer's Agent, ineffective shall be replaced immediately by the contractor.

B 16 MEASUREMENT AND PAYMENT

Under Bridges:

B 102.12 Provision of detour bridges.

Amend as follows:

Detour Bridge (Bridge 3)

(a) Deviation:Prov Sum

Two-way detour vehicular bridges deviation adjacent bridge No 3.

B 102.14.01 Flagmen man-day

Add the following:

The unit of measurement shall be the man-day worked by a flagman.

The tendered rate shall include full compensation for a flagman who is required to control traffic by way of flags or portable STOP and GO-RY signs and shall include the provision of flags and safety jackets.

Add the following new pay item:

SERIES 1: ANCILLARY WORK

SECTION 103: OVERHAUL

MEASUREMENT AND PAYMENT

B103.01 Overhaul distance

Add the following:

“The free haul distance for the purpose of this project shall be measured to be 15km’.

“Material procured from commercial sources shall not be regarded as overhaul material.”

SERIES 2: EARTHWORKS

SECTION 202: TRENCHING

B 0.02: Hand excavation for trenches inside erven

Trenches are to be 500mm wide and 600mm deep and will be paid under item B202.17. This rate will not be extra over item 202.01

B16: Measurements for certificates

Add the following:

No works will be certified without relevant tests.

B 16 Measurement and Payment:

B202.04 m³

Add the following:

The unit of measurement shall be the cubic meter of material excavated and hand excavations for trenches inside erven trenches not exceeding 500mm wide and 600mm deep.

The tendered rate shall include full compensation for the additional expenses of excavating by means of hand labour instead of traditional trenching equipment.

SERIES 5 : DRAINAGE AND EROSION PROTECTION

SECTION 502: PREFABRICATED CULVERTS AND STORMWATER SEWERS

B 07 BEDDING AND LAYING OF PREFABRICATED CULVERTS

Insert the following new subclauses:

B 07.05 Extension of existing culverts

Where an existing culvert requires extension or replacement, the new section shall be replaced at the grade and, where it joins the existing structure, at the same level as the existing structure.

All sections of the existing wing walls, approach slabs and headwalls which may obstruct any new work shall be demolished and removed. Existing culvert ends shall not be damaged, but should damage occur, the repair work shall be done before the placement of any fresh concrete or new culverts. Loose material shall be removed, and joint faces thoroughly cleaned to the satisfaction of the engineer."

B 07.06 Removal of existing work

Where shown on the drawings or directed by the engineer, existing inlets or outlets to pipe culverts shall be demolished and debris or rubbish disposed of as directed by the engineer. Existing pipes shall be removed where necessary and saved for later use. All such work shall be carried out so as to prevent damage being done to former work which is to remain.

The Contractor's attention is directed to the provisions of Section 101 that specifies which structures have to be removed as part of the clearing and grubbing operations, the removal of which will not be measured and paid for under this section.

Pipes shall be carefully removed from the existing culverts and thoroughly checked.

Undamaged pipes shall be re-used in the works where indicated by the engineer. Pipes which cannot be re-used shall remain the property of the employer and shall be stacked within the road reserve or where directed by the engineer.

B 12 MEASUREMENT AND PAYMENT

Add the following new pay items

Item		Unit
B 501.02	Procuring of filter sand	m ³

The unit of measurement shall be the cubic metre of filter sand compacted to the specified density, and the quantity shall be calculated from the authorized dimensions of the layer as specified or as directed by the Engineer.

The tendered rates shall include full compensation for procuring, furnishing and placing all materials including the sand necessary for the work as specified.

Add the following new pay items :

Item		Unit
B 502.24	Removing and stacking existing prefabricated culverts	
	(i) 450mm Ogee Class 100D	m
	(ii) 525mm Ogee Class 100D	m

(iii) 600mm Ogee Class 100D	m
(iv) 750mm Ogee Class 100D	m
(v) 900mm Ogee Class 100D	m
(vi) 1050mm Ogee Class 100D	m
(vii) 1200mm Ogee Class 100D	m

The unit of measurement shall be the metre of existing prefabricated culverts removed and stacked.

The tendered rate shall include full compensation for lifting, loading, transporting to stack, off-loading, and stacking the prefabricated culverts.

Payment for any excavation and backfilling required for removing and stacking the existing prefabricated culverts shall be made separately under items 202.01 and 502.01. The free-haul distance shall be 10,0km.

Item		Unit
B 502.25	Removing and re-laying existing pipes	m

The unit of measurement shall be the metre of existing pipe removed and re-laid.

The tendered rate shall include full compensation for lifting, loading, transporting, offloading, temporary storage (if necessary), all charges related to inspecting, cleaning, loading and transporting from temporary storage, offloading and laying pipes according to the specifications.

Payment for any excavation and backfilling required for the removal and relaying of existing pipes shall be made separately under items 202.01 and 502.01.

SERIES 5 : DRAINAGE AND EROSION PROTECTION

SECTION 505: EROSION PROTECTION

B 04 CONSTRUCTING GABION CAGES

Add the following after clause 04.03

04.04 Binding and connecting wire

“Sufficient binding and bracing wire for all the tying to be done during construction of the gabions as specified in clause 05 below, shall be supplied with the gabion cages. The binding wire and the bracing wire shall both be made from class A heavy galvanised mild-steel wire and shall have diameters of 2,2 mm.

B 05 CONSTRUCTION OF GABIONS

05.02 Assembly

Replace the first paragraph with the following:

“The method of constructing the gabions, viz., stretching, placing in position, tensioning, supporting on temporary frames, bracing, filling with rock and tying by lacing, shall generally be in accordance with the manufacturer’s instructions, subject to the approval of the engineer. Nevertheless, a minimum of six internal bracing wires per square metre of face shall be tensioned between the vertical sides of all the outer visible cells to prevent the deformation of cages as they are being filled with rocks.

Tension on the cages shall be released only when fully packed, at which point the temporary frames shall be removed and the lids laced down into place. During assembly of the cages, all sharp ends of wire shall be twisted towards the inside of the cages to prevent damage to the filter fabric.”

12 MEASUREMENT AND PAYMENT

Amend sub item (c) as follows:

ITEM

B505.07	Riprap:	UNIT
	(vii) 1200mm Ogee Class 100D	m

The unit of measurement shall be the metre of existing prefabricated culverts removed and stacked.

The tendered rate shall include full compensation for lifting, loading, transporting to stack, off-loading, and stacking the prefabricated culverts.

Payment for any excavation and backfilling required for removing and stacking the existing prefabricated culverts shall be made separately under items 202.01 and 502.01. The free-haul distance shall be 10,0km.

SERIES 6: ROADS AND PARKING AREAS

SECTION 601: GRAVEL PAVEMENT LAYERS

B 03 MATERIALS

Add to the following to Clause 03.01:

B 03.01 General

The pavement for Samrand Road, a Class 3 - 7.4m wide road shall consist of:

- Upper subbase: 150mm stabilized natural gravel subbase (C3 quality)
- Lower subbase: 150mm stabilized natural gravel subbase (C4 quality)
- Upper selected layer: 150mm natural gravel material (G5 quality)
- Lower selected layer: 150mm in-situ material (G6 quality)
- Roadbed: 150mm natural gravel material (G7 quality)

The pavement for a Class 4a - 7.4m wide road shall consist of:

- Subbase: 150mm stabilized natural gravel subbase (C4 quality)
- Selected layer: 150mm natural gravel material (G5 quality)
- Roadbed: 150mm natural gravel material (G7 quality)
- The pavement for a Class 4b - 7.4m wide road shall consist of:
- Subbase: 150mm stabilized natural gravel subbase (C4 quality)

- Selected layer: 150mm natural gravel material (G5 quality)
- Roadbed: 150mm natural gravel material (G7 quality)

The pavement for a Class 5a – 6.0m wide road shall consist of:

- Subbase: 150mm stabilized natural gravel subbase (C4 quality)
- Selected layer: 150mm natural gravel material (G5 quality)
- Roadbed: 150mm natural gravel material (G7 quality)

The pavement for a Class 5a – 7.4m wide road shall consist of:

- Subbase: 150mm stabilized natural gravel subbase (C4 quality)
- Selected layer: 150mm natural gravel material (G5 quality)
- Roadbed: 150mm natural gravel material (G7 quality)

The pavement for a Class 5a – 7.4m wide road shall consist of:

- Subbase: 150mm stabilized natural gravel subbase (C4 quality)
- Selected layer: 150mm natural gravel material (G5 quality)
- Roadbed: 150mm natural gravel material (G7 quality)

The pavement for a Class 5b – 5.5m wide road shall consist of:

- Subbase: 150mm stabilized natural gravel subbase (C4 quality)
- Roadbed: 150mm natural gravel material (G7 quality)

The pavement for a Class 5c – 5.0m wide road shall consist of:

- Subbase: 150mm stabilized natural gravel subbase (C4 quality)
- Roadbed: 150mm natural gravel material (G7 quality)

The pavement for the sidewalk shall consist of:

- Subbase: 150mm stabilized natural gravel subbase (C4 quality)
- Roadbed: 150mm natural gravel material (G7/G8 quality)

Add to the following to Clause 03.02:

B 03.02 Compaction Requirements

- The compaction requirements for Samrand Road, a Class 3 - 7.4m wide road shall be:
 - Upper subbase: 97% of modified AASHTO
 - Lower subbase: 95% of modified AASHTO
 - Upper selected layer: 93% of modified AASHTO
 - Lower selected layer: 93% of modified AASHTO
 - Roadbed: 93% of modified AASHTO

- The pavement for a Class 4a - 7.4m wide road shall consist of:
 - Subbase: 95% Mod. AASHTO
 - Selected layer: 93% of modified AASHTO
 - Roadbed: 93% Mod. AASHTO
- The pavement for a Class 4b - 7.4m wide road shall consist of:
 - Subbase: 95% Mod. AASHTO
 - Selected layer: 93% of modified AASHTO
 - Roadbed: 93% Mod. AASHTO
- The pavement for a Class 5a – 6.0m wide road shall consist of:
 - Subbase: 95% Mod. AASHTO
 - Selected layer: 95% of modified AASHTO
 - Roadbed: 93% Mod. AASHTO
- The pavement for a Class 5a – 7.4m wide road shall consist of:
 - Subbase: 95% Mod. AASHTO
 - Selected layer: 95% of modified AASHTO
 - Roadbed: 93% Mod. AASHTO
- The pavement for a Class 5a – 7.4m wide road shall consist of:
 - Subbase: 95% Mod. AASHTO
 - Selected layer: 95% of modified AASHTO
 - Roadbed: 93% Mod. AASHTO
- The pavement for a Class 5b – 5.5m wide road shall consist of:
 - Subbase: 95% Mod. AASHTO
 - Roadbed: 93% Mod. AASHTO
- The pavement for a Class 5c – 5.0m wide road shall consist of:
 - Subbase: 95% Mod. AASHTO
 - Roadbed: 93% Mod. AASHTO
- The pavement for the sidewalk shall consist of:
 - Subbase: 95% Mod. AASHTO
 - Roadbed: 93% Mod. AASHTO

SECTION 602: CRUSHED STONE PAVEMENT LAYERS

08 MEASUREMENT AND PAYMENT

Amend pay item 602.01.01.02 as follows:

Item		Unit
B 602.01.01.01	G1 material compacted to 86% apparent density Class 2-4 road base layer	m ³

The unit of measurement shall be the cubic metre of completed crushed-stone base compacted to the specified density, and the quantity shall be calculated from the authorized dimensions of the layer as specified or as directed by the Engineer.

The tendered rates shall include full compensation for procuring, furnishing and placing all materials including the crusher fines or sand necessary for correcting the grading of the crushed stone or lime for correcting the conductivity where necessary, for rolling, slushing and correcting the layers, and for testing, protecting and maintaining the work as specified.

Amend pay item 602.01.01.02 as follows:

Item		Unit
B 602.01.01.02	G2 material compacted to 100% of modified AASHTO density	m ³

The unit of measurement shall be the cubic metre of completed crushed-stone base compacted to the specified density, and the quantity shall be calculated from the authorized dimensions of the layer as specified or as directed by the Engineer.

The tendered rates shall include full compensation for procuring, furnishing and placing all materials including the crusher fines or sand necessary for correcting the grading of the crushed stone or lime for correcting the conductivity where necessary, for rolling, slushing and correcting the layers, and for testing, protecting and maintaining the work as specified.

CITY OF TSHWANE

HUMAN SETTLEMENTS DEPARTMENT

CONTRACT NO: HS 09 2025/26

THE CONSTRUCTION OF 6KM ROAD AND STORMWATER NETWORK AND ONE BRIDGE (BRIDGE NO 3) ALONG BATHLAPING STREET IN OLIEVENHOUTBOSCH EXTENSION 60 FOR A PERIOD OF 36 MONTHS - PHASE 1

C3.7 SOCIO-ECONOMIC PLAN AND COMMUNITY PARTICIPATION AND UPLIFTMENT THROUGH PROJECTS

SOCIO-ECONOMIC PLAN AND COMMUNITY PARTICIPATION AND UPLIFTMENT THROUGH PROJECTS

1. SOCIO-ECONOMIC PLAN

- 1.1 The successful tenderer shall provide an economic plan which will include the job creation plan (i.e. skills required and the number for each skill). The job creation plan where applicable should include interns.
- 1.2 The successful tenderer shall provide details of all training to be provided, through on-site, accredited training and formal training for employees at all levels, to ensure that they enhance their competence, and are able to provide the required operation and maintenance skills across the various process streams. This shall also include SHEQ training.
- 1.3 The successful tenderer shall also detail the capacity building and skills transfer initiatives to be implemented so that the City can manage the infrastructure on contract completion, in a seamless and sustainable manner.

CITY OF TSHWANE
HUMAN SETTLEMENTS DEPARTMENT

CONTRACT NO: HS 09 2025/26

THE CONSTRUCTION OF 6KM ROAD AND STORMWATER NETWORK AND ONE BRIDGE (BRIDGE NO 3) ALONG BATHLAPING STREET IN OLIEVENHOUTBOSCH EXTENSION 60 FOR A PERIOD OF 36 MONTHS - PHASE 1

C3.8 REFERENCES TO THE SCOPE OF WORKS IN TERMS OF THE OCCUPATIONAL HEALTH AND SAFETY ACT AND REGULATIONS: HEALTH AND SAFETY SPECIFICATION

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1. INTRODUCTION AND BACKGROUND

This specification has been prepared, in accordance with the requirements of the Occupational Health and Safety Act (Act 85 of 1993) along with the Construction Regulations 2014, to assist all Contractors in providing for a Health and Safety management system which is in line with The Client requirements, without derogating from the legal obligations of the responding parties. Contractors, however, will remain responsible for ensuring the health and safety of their employees and must comply with Construction Regulations 2014.

The project has as its driving force the creation of a construction environment in which the achievement of "Zero Harm" is not only possible, but very real. To this end this specification will be the benchmark against which all Contractors' Safety Management Plans will be measured. Safety Management Plans which are not in line with the requirements contained in this specification will be rejected and Contractors will not be allowed to commence with any works until such time as these have been modified.

Health and safety on the **CITY OF TSHWANE** construction site can only be assured if all stakeholders buy into a singular management approach, integrating the line of accountability of all management staff and workers on site. The management systems provided for in this specification are designed to encourage open and unfettered participation, which will in turn provide for continuous improvement, resulting in the completion of a zero-harm project. Accidents and injuries are preventable, and all safety management plans must have as its basis the comprehensive identification, assessment and reduction of risk. This Project Health and Safety Specification is built on the following safety principles:

All incidents are preventable

Visible leadership is implemented and imperative at all levels
Sound non-negotiable world class procedures and standards
Zero tolerance for unsafe conditions or behaviors

This document sets out the responsibilities, processes and methods that must be complied with to ensure the pro-active management of Contractor's occupational health and safety during the construction and commissioning phases of the Project.

In view of the above mentioned, you are herewith presented with the Client Safety Specification for the Project; upon the successful awarding of the tender to yourself, you will be required to present OHS agent with your written Health and Safety Plan indicating how you plan to conform to the Safety Specification on site. Once we have satisfied ourselves that your plan will ensure compliance with the requirements as set out in this specification, Acts and Regulations and Municipal by-laws, approval thereof will be granted, and work may commence. **(Please note that generic Safety Plans or a Safety Plan that do not address the requirements as per the Client's Safety Specification will not be approved.)**

Thereafter, the OH&S Agent will conduct regular monthly audits to ensure on-going adherence to the presented Safety Plan. The Construction Regulations require of the Client, or the Client's Agent, to halt construction if the Safety Plan is not adhered to.

Refer to Annexure "C" of this document for package specific requirements which may be required as part of the tender submission.

In terms of Construction Regulation 5(1)(b) of the Occupational Health and Safety Act, No.85 of 1993 the Client, is required to compile a Health & Safety Specification for any intended project and provide such

specification to any prospective Contractor who, on appointment shall submit a Health and Safety Plan which shall address the requirements of this specification.

This specification objective is to ensure that any Contractor entering a Contract with **THE CITY OF TSHWANE** construction achieves an acceptable level of OH&S performance. This document forms an integral part of the Contract. Principal and other Contractors should make it part of any Contract that they may have with their Contractors and/or Suppliers. The requirements, as contained in this specification, along with the inherent responsibilities associated with the Occupational Health and Safety Act and its associated Regulations, should be considered when costing your portion of the work. This document does not absolve the Client from complying with minimum legal requirements, and the Client remains responsible for the Health & Safety of his employees and those of his Mandatories. Client or his appointed Agent, reserves the right to audit, monitor and where necessary to regulate the site work activities of any Principal Contractor or Principal-appointed Sub-contractor as per Construction Regulation 5(1)(k) and 7(1)(c)(v).

OMISSIONS FROM THIS SHE SPECIFICATION

By compiling this Safety, Health and Environmental Specification, the Client has endeavored to address the most critical aspects relating to Safety, Health and Environmental issues in order to assist the Contractor in adequately providing for the health and safety of employees on site. Should the Client not have addressed all health and safety aspects pertaining to the work that is tendered for, the Contractor needs to include it in the Safety, Health and Environmental Plan and inform Client of such issues when submitting the tender.

2. Scope of work

The scope involves key risk activities associated with the construction of approximately 6 km of internal roads, stormwater infrastructure, and Bridge No. 3 for the Olievenhoutbosch Ext. 60 project.

Activities will include:

- Site establishment including setup of site camp, temporary services, access routes, and fencing.
- Bulk earthworks involving clearing, grubbing, cut and fill operations, and platform preparation.
- Excavation for services including trenching for stormwater pipelines, manholes, catch pits, and chambers.
- Installation of stormwater infrastructure including laying of concrete pipes (450–1050 mm), manhole construction, bedding, and backfilling.
- Road layer works including subgrade preparation, G7/G8 selected layer, base and subbase construction.
- Asphalt surfacing including priming, tack coat, placing and compacting asphalt layers on all designated roads.
- Concrete works including kerbing, channels, edge beams, culverts, and minor concrete structures.
- Bridge construction works including foundations, pier and abutment construction, deck formwork, steel fixing, concrete casting, and parapet installation.
- River training and erosion protection including gabion baskets, reno mattresses, scour protection and key-ins near the river.
- Finishing works including sidewalks, NMT routes, signage, road markings, verge reinstatement, landscaping and final clean-up.

3. REFERENCES

The Contractor shall in respect of all matters arising in the fulfilment of this Safety and Health Specification comply at his own expense with all laws, regulations, by-laws and requirements of local and or other authorities that may be applicable to the Contract Works. In this regard, special reference is made to the following safety, health and Labour legislation, which does not constitute an exhaustive list:

- Occupational Health and Safety Act, Act No 85 of 1993
- Compensation for Occupational Injuries and Diseases Act, Act No 130 of 1993
- Hazardous Substances Act, Act No 85 of 1973
- Project and Construction Professions Act, Act 48 of 2000
- National Road Traffic Act, Act No 93 of 1996
- National Environmental Management Act 107 of 1998 (NEMA)
- National Environmental Management: Waste Act 59 of 2008
- National Water Act 36 of 1998

4. OCCUPATIONAL HEALTH & SAFETY MANAGEMENT SYSTEM ELEMENTS

4.1. Application

This specification document is a legal compliance document drawn up in terms of the OHS Act and is therefore binding. All Contractors entering a Contract with the Client shall, as a minimum, comply with the.

- Occupational Health & Safety Act and Regulations (Act 85 of 1993). A current, up-to-date copy of the OHS Act and Construction Regulations must always be available on site
- Compensation for Occupational Injuries & Diseases Act (Act 130 of 1993). The Principal Contractor will be required to submit a letter of Registration and "good standing" from the Compensation Insurer before being awarded the Contract.
- All Contractors shall comply with the "Integration Labour Law Act" and regulations All relevant Municipal bylaws and National Building Regulations
- The Immigrations Act 2002 as amended and shall further ensure that no illegal aliens are employed on the construction site.

4.2. New Construction Regulations 2014

New construction Regulations 2014 have been promulgated on the 7th of August 2014.

5. DUTIES OF THE DESIGNER

The designer of a structure must —

- Ensure that the applicable safety standards incorporated into these Regulations, under section 44 of the Act, are complied with in the design.
- Take into consideration the Health and Safety Specification submitted by the Client; Before the contract is put out to tender, make available in a report to the Client—
- All relevant Health and Safety information about the design of the relevant structure
- that may affect the pricing of the construction work;

Part C3: Scope of Work

C3.8: Reference to the Scope of Works in Health and Safety Specification

- The geotechnical-science aspects, were
- appropriate; and the loading that the structure is designed to withstand;
- Inform the Client in writing of any known or anticipated dangers or hazards relating to the construction work, and make available all relevant information required for the safe execution of the work upon being designed or when the design is subsequently altered;
- Refrain from including anything in the design of the structure necessitating the use of dangerous procedures or materials hazardous to the health and safety of persons, which can be avoided by modifying the design or by substituting materials;
- Consider the hazards relating to any subsequent maintenance of the relevant structure and must make provision in the design for that work to be performed to minimize the risk.
- When mandated by the Client to do so, carry out the necessary inspections at appropriate stages to verify that the construction of the relevant structure is carried out in accordance with his design: Provided that if the designer is not so mandated, the Client's appointed Agent in this regard is responsible to carry out such inspections.
- When mandated as contemplated in paragraph (g), stop any Contractor from executing any construction work which is not in accordance with the relevant design's health and safety aspects: Provided that if the designer is not so mandated, the Client's appointed Agent in that regard must stop that Contractor from executing that construction work;
- When mandated as contemplated in paragraph (g), in his or her final inspection of the completed structure in accordance with the National Building Regulations, include the health and safety aspects of the structure as far as reasonably practicable, declare the structure safe for use, and issue a completion certificate to the Client and a copy thereof to the Contractor; and
- During the design stage, take cognizance of ergonomic design principles in order to minimize ergonomic related hazards in all phases of the life cycle of a structure.

The designer of temporary works must ensure that—

- All temporary works are adequately designed so that it will be capable of supporting all anticipated vertical and lateral loads that may be applied;
- The designs of temporary works are done with close reference to the structural design drawings issued by the Contractor, and in the event of any uncertainty consult the Contractor;
- All drawings and calculations pertaining to the design of temporary works are kept at the office of the temporary works designer and are made available on request by an inspector; and
- The loads caused by the temporary works and any imposed loads are clearly indicated in the design.
- A geo science technical report where appropriate The load the structure is
- designed to withstand
- The methods and sequence of construction the construction process

6. PRINCIPAL CONTRACTOR

The Principal Contractor carries prime accountability & responsibility for the health and safety of his/her employees & his/her Sub-contractors within his/her working area, as contemplated by Section 37(2) of the

OHS Act. None of the additional safety requirements specified by the Client/Agent reduces the Principal Contractor's accountability and responsibility for the health and safety of his employees and Sub-contractor employees within his working area. The Principal Contractor remains an employer and consequently responsible for the implementation and management of all requirements as per the applicable legislation.

6.1. Principal Contractor and Contractor Supervision

A Principal Contractor must—

- Provide and demonstrate to the Client a suitable, sufficiently documented and coherent site specific Health and Safety Plan, based on the Client's documented Health and Safety Specifications contemplated in regulation 5(1)(b), which plan must be applied from the date of commencement of and for the duration of the construction work and which must be reviewed and updated by the Principal Contractor as work progresses;
- Open and keep on site a health and safety file, which must include all documentation required in terms of the Act and these Regulations, which must be made available on request to an inspector, the Client, the Client's Agent or a Contractor;
- On appointing any other Contractor, in order to ensure compliance with the provisions of the Act—
- Provide Contractors who are tendering to perform construction work for the Principal Contractor, with the relevant sections of the Health and Safety Specifications contemplated in regulation 5(1)(b) pertaining to the construction work which has to be performed;
- Ensure that potential Contractors submitting tenders have made sufficient provision for health and safety measures during the construction process;
- Ensure that no Contractor is appointed to perform construction work unless the Principal Contractor is reasonably satisfied that the Contractor that he or she intends to appoint, has the necessary competencies and resources to perform the construction work safely;
- Ensure prior to work commencing on the site that every Contractor is registered and in good standing with the Compensation Fund or with a licensed compensation insurer as contemplated in the Compensation for Occupational Injuries and Diseases Act, 1993;
- Appoint each Contractor in writing for the part of the project on the construction site; Take reasonable steps to ensure that each Contractor's health and safety plan contemplated in sub-regulation (2)(a) is implemented and maintained on the construction site;
- Ensure that the periodic site audits and document verification are conducted at intervals mutually agreed upon between the Principal Contractor and any Contractor, but at least once every 30 days;
- Stop any Contractor from executing construction work which is not in accordance with the Client's Health and Safety Specification and the Principal Contractor's Health and Safety Plan for the site or which poses a threat to the health and safety of persons;
- Where changes are brought about to the design and construction, make available sufficient health and safety information and appropriate resources to the Contractor to execute the work safely; and
- Discuss and negotiate with the Contractor the contents of the Health and Safety Plan contemplated in sub-regulation (2)(a), and must thereafter finally approve that plan for implementation;
- Ensure that a copy of his or her health and safety plan contemplated in paragraph (a), as well as the

Contractor's Health and Safety Plan contemplated in sub-regulation (2)(a), is available on request to an employee, an inspector, a Contractor, the Client or the Client's Agent;

- Hand over a consolidated health and safety file to the Client upon completion of the construction work and must, in addition to the documentation referred to in sub-regulation (2)(b), include a record of all drawings, designs, materials used and other similar information concerning the completed structure;
- In addition to the documentation required in the health and safety file in terms of paragraph (c)(v) and sub-regulation (2)(b), include and make available a comprehensive and updated list of all the Contractors on site accountable to the Principal Contractor, the agreements between the parties and the type of work being done; and
- Ensure that all his or her employees have a valid medical certificate of fitness specific to the construction work to be performed and issued by an occupational health practitioner in the form of Annexure 3.

A Contractor must prior to performing any construction work —

- Provide and demonstrate to the Principal Contractor a suitable and sufficiently documented health and safety plan, based on the relevant sections of the Client's Health and Safety Specification contemplated in regulation 5(1)(b) and provided by the Principal Contractor in terms of sub-regulation (1)(a), which plan must be applied from the date of commencement of and for the duration of the construction work and which must be reviewed and updated by the Contractor as work progresses;
- Open and keep on site a health and safety file, which must include all documentation required in terms of the Act and these Regulations, and which must be made available on request to an inspector, the Client, the Client's Agent or the Principal Contractor;
- Before appointing another Contractor to perform construction work, be reasonably satisfied that the Contractor that he or she intends to appoint has the necessary competencies and resources to perform the construction work safely;
- Co-operate with the Principal Contractor as far as is necessary to enable each of them to comply with the provisions of the Act; and
- As far as is reasonably practicable, promptly provide the Principal Contractor with any information which might affect the health and safety of any person at work carrying out construction work on the site, any person who might be affected by the work of such a person at work, or which might justify a review of the Health and Safety Plan.
- Where a Contractor appoints another Contractor to perform construction work, the duties determined in sub-regulation (1)(b) to (g) that apply to the Principal Contractor apply to the Contractor as if he or she were the Principal Contractor.
- A Contractor must take reasonable steps to ensure co-operation between all Contractors appointed by the Principal Contractor to enable each of those Contractors to comply with these Regulations.
- No Contractor may allow or permit any employee or person to enter any site, unless that employee or person has undergone health and safety induction training pertaining to the hazards prevalent on the site at the time of entry.

- A Contractor must ensure that all visitors to a construction site undergo health and safety induction pertaining to the hazards prevalent on the site and must ensure that such visitors have the necessary personal protective equipment.
- A Contractor must at all times keep on his or her construction site records of the health and safety induction training contemplated in sub-regulation (6) and such records must be made available on request to an inspector, the Client, the Client's Agent or the Principal Contractor;
- A Contractor must ensure that all his or her employees have a valid medical certificate of fitness specific to the construction work to be performed and issued by an occupational health practitioner in the form of Annexure 3.
- Description of the objective / scope of work Sequence of work / method
- statements
- Hazard identification & risk assessment (prior to commencement of work) Precautionary / preventative measures that are to be taken.
- Identification of sensitive features that may be impacted upon by the project.

6.2. Management and Supervision

- A Principal Contractor must in writing appoint one full-time competent person as the construction manager with the duty of managing all the construction work on a single site, including the duty of ensuring occupational health and safety compliance, and in the absence of the construction manager an alternate must be appointed by the Principal Contractor.
- A Principal Contractor must upon having considered the size of the project, in writing appoint one or more assistant construction managers for different sections thereof: Provided that the designation of any such person does not relieve the construction manager of any personal accountability for failing in his or her management duties in terms of this regulation.
- Where the construction manager has not appointed assistant construction managers as contemplated in sub-regulation (2), or, in the opinion of an inspector, a sufficient number of such assistant construction managers have not been appointed, that inspector must direct the construction manager in writing to appoint the number of assistant construction managers indicated by the inspector, and those assistant construction managers must be regarded as having been appointed under sub-regulation (2).
- No construction manager appointed under sub-regulation (1) may manage any construction work on or in any construction site other than the site in respect of which he or she has been appointed.
- A Contractor must, after consultation with the Client and having considered the size of the project, the degree of danger likely to be encountered or the accumulation of hazards or risks on the site, appoint a full-time or part-time construction health and safety officer in writing to assist in the control of all health and safety related aspects on the site: Provided that, where the question arises as to whether a construction health and safety officer is necessary, the decision of an inspector is decisive.
- No Contractor may appoint a construction health and safety officer to assist in the control of health and safety related aspects on the site unless he or she is reasonably satisfied that the construction health and safety officer that he or she intends to appoint is registered with a statutory body approved

- by the Chief Inspector and has necessary competencies and resources to assist the Contractor
- A construction manager must in writing appoint construction supervisors responsible for construction activities and ensuring occupational health and safety compliance on the construction site.
 - A Contractor must, upon having considered the size of the project, in writing appoint one or more competent employees for different sections thereof to assist the construction supervisor contemplated in sub-regulation (7), and every such employee has, to the extent clearly defined by the Contractor in the letter of appointment, the same duties as the construction supervisor: Provided that the designation of any such employee does not relieve the construction supervisor of any personal accountability for failing in his or her supervisory duties in terms of this regulation.
 - Where the Contractor has not appointed an employee as contemplated in sub-regulation (8), or, in the opinion of an inspector, a sufficient number of such employees have not been appointed, that inspector must instruct the employer to appoint the number of employees indicated by the inspector, and those employees must be regarded as having been appointed under sub-regulation (8).
 - No construction supervisor appointed under sub-regulation (7) may supervise any construction work on or in any construction site other than the site in respect of which he or she has been appointed: Provided that if a sufficient number of competent employees have been appropriately designated under sub-regulation (7) on all the relevant construction sites, the appointed construction supervisor may supervise more than one site.

6.3. Principal Contractor and Contractor HSE Practitioner

The appointment of a full time Safety Officer who is registered with the SACPCMP will be required for the duration of the contracted work. It is incumbent on the Principal Contractor during the tender process to evaluate the scope and nature of risk related to the work in order to objectively determine the need for such an appointment. (The Client reserves the right to insist on the appointment of a Health and Safety Officer where it deems the exposure to be of such a nature that a dedicated Health and Safety Officer is required). The Contractors Health and Safety Officer shall assist and support the Contractors Construction Manager to ensure that the Contractors Health and Safety responsibilities are fulfilled and compliance to the Health and Safety specifications and Health and Safety plan are met.

6.4 Principal and Contractor employees on the Project

The Principal Contractor is responsible for adequately informing his employees and Contractors of all relevant information about the Client issued Health and Safety specifications and the Principal Contractors Health and Safety plan. Employees are responsible for their own health and safety and that of their co-workers in their area. They must be made aware of their responsibilities during induction and awareness sessions some of which are:

- Familiarizing themselves with their workplaces and health and safety procedures.
- Working in a manner that does not endanger them or cause harm to others.
- Keeping their work area tidy.
- Reporting all incidents / accidents and near misses.
- Protecting fellow workers from injury.
- Reporting unsafe acts and unsafe conditions.

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- Reporting any situation that may become dangerous.
- Carrying out lawful orders and obeying health and safety rules.
- Ensuring as far as possible no interaction with the public
- Every employee must undergo site induction provided by the Principal Contractor before commencement of the contracted work. Only once this induction has been received will each employee receive a site access permit.
- The Client will provide induction to all professional team members as well as Principal Contractor management pertaining to the management of safety on the site.
- It must be highlighted to all employees that anyone who becomes aware of any person disregarding a safety notice, instruction or regulation shall immediately report this to the person concerned. If the person persists, stop the person from working and report the matter to the Project Manager and the Principal Contractor Supervisor immediately.
- No person shall damage, alter, remove, render ineffective, or interfere with anything that has been provided for the protection of the site, or for the health and safety of persons.
- No person under the influence of alcohol, drugs or medication (in state of intoxication) or any other condition that may render him incapable of controlling himself or of other persons under his charge shall be allowed to enter the site.
- All safety and warning signs must be always obeyed.
- Entering or leaving the Site may only be done via the official designated walkways; do not take short cuts. Follow designated walkways to and from your workplace. Walk, do not run, and be alert for motor vehicle traffic and mobile equipment.
- All employees must adhere to the HSE and other site-specific rules which may be issued by the Client or his designated Agent.

If any of the Principal Contractor's employees or his Sub-contractor's employees have transgressed any of the requirements of the HSE Specification; HSE plan or site rules, then the employee may be removed from site and his/her site access revoked. The Principal Contractor must follow a process of disciplinary action which shall include re-training / inducting the employee (at the cost of the Principal Contractor) and provide proof thereof to the Client's site / Project Manager and only upon the satisfaction of the Client's Site / Project Manager will the employee be allowed back on site.

7. MINIMUM ADMINISTRATIVE REQUIREMENTS

7.1. Application for Construction work Permit (CR3)

In terms of Construction Regulation 3 of the Occupational Health and Safety Act (Act 85 of 1993), the Client shall ensure that a Construction Work Permit is obtained from the Department of Employment and Labour before any construction work commences. The permit application will be prepared and submitted by the Client's Construction Health and Safety Agent, Takusa Consulting and Services CC at least thirty (30) days prior to the start of construction, as the project exceeds 365 days and falls within a CIDB Grade 8 classification.

No construction activities may begin until the permit is issued. A copy of the approved permit shall be kept in the Principal Contractor's Health and Safety File on site, with compliance monitored by the Construction Health and Safety Agent, and a further copy provided to the Client for record purposes.

7.2. Assignment of the Principal Contractor's / Contractors' Responsible Persons to Manage Supervise Health and Safety on Site (CR8 and Section 16)

The Principal Contractor and all Contractors must make supervisory appointments as well as other relevant appointments in writing (as stipulated by the OHS Act and Construction Regulations 2014). See attached Annexure 'A' for more detail and relevant appointments.

7.3. Competence of the Principal Contractor's/Contractors' Appointed Competent Persons

The Principal Contractor's and all Contractors' competent persons for the various risk management portfolios must fulfil the criteria as stipulated under the definition of 'Competent' in accordance with the Construction Regulations (2014). It is required that Principal Contractors submit written declarations confirming the competency of all persons deployed on the project as well as the mechanical soundness of all construction related equipment and plant.

7.4. Compensation for Occupational Injuries and Diseases Act 130 of 1993 (COIDA)

The Principal Contractor and Contractors must also hold proof of workman's compensation assurance registration in the form of a letter of good standing and forward a copy to the Principal Contractor before they begin working on site. A copy should also be available on site. No work will be permitted on the project unless these documents are in place.

7.5. Health and Safety Organogram

The Principal Contractor must prepare an organogram, outline the site health & safety management structure and appoint competent persons. In cases where appointments have not been made, the organogram shall reflect the intended positions. The organogram must be updated when there are changes in the Site Management Structure and dated accordingly. All HSE appointments are to be indicated on the organogram, clearly identifying the individual as well as providing contact details.

7.6. Preliminary Hazard Identification and Risk Assessments (CR 9)

Every Contractor performing construction work shall, before the commencement of any construction work or work associated with the aforesaid construction work and during such work, cause a Risk Assessment to be performed by a competent person, appointed in writing, and the Risk Assessment shall form part of the Health and Safety Plan and be implemented and maintained as contemplated in the Construction Regulation 9(1).

The following risk management process is to be adopted on the project:

- 1). A Contractor must, before the commencement of any construction work and during such construction work, have Risk Assessments performed by a competent person appointed in writing, which Risk Assessments form part of the health and safety plan to be applied on the site, and must include—
 - The identification of the risks and hazards to which persons may be exposed to;
 - An analysis and evaluation of the risks and hazards identified based on a documented method.
 - A documented plan and applicable safe work procedure to mitigate, reduce or control the risks and hazards that have been identified.
 - A monitoring plan; and
 - A review plan.
- 2). A Contractor must ensure that as far as is reasonably practicable, ergonomic related hazards are analyzed, evaluated and addressed in a Risk Assessment.
- 3). A Contractor must ensure that all employees under his or her control are informed, instructed and trained by a competent person regarding any hazard and the related work procedures and or control measures before any work commences, and thereafter at the times determined in the Risk Assessment monitoring and review plan of the relevant site.
- 4). A Principal Contractor must ensure that all Contractors are informed regarding any hazard that is stipulated in the Risk Assessment before any work commences, and thereafter at the times that may be determined in the risk assessment monitoring and review plan of the relevant site.
- 5). A Contractor must consult with the health and safety committee or, if no health and safety committee exists, with a representative trade union or representative group of employees, on the monitoring and review of the risk assessments of the relevant site.
- 6). A Contractor must ensure that copies of the Risk Assessments of the relevant site are available on site for

inspection by an inspector, the Client, the Client's Agent, any Contractor, any employee, a representative trade union, a health and safety representative or any member of the health and safety committee.

7). A Contractor must review the relevant Risk Assessment—

- Where changes are affected to the design and or construction that result in a change to the risk profile;
- or
- When an incident occurred,

The Issue Based Risk Assessment shall include, at least:

- The identification of the risks and hazards to which persons may be exposed to the analysis and evaluation of the risks and hazards identified
- A documented plan of safe work procedures to mitigate, reduce or control the risks and hazards that have been identified
- A monitoring plan
- A documented review plan
- Based on the Risk Assessments, the Contractor must develop a set of site-specific OH&S rules and operating procedures that will be applied to regulate the OH&S aspects of the construction. (See annexure "B" for SWMS minimum requirements)
- A copy of the Risk Assessment must be provided to the Client for review.
- The Contractor has consulted with the Health & Safety Committee and in the absence thereof, a representative group of employees, in conducting the risk assessments, monitoring as well as during the review process.
- The Contractor will ensure that no person or employee may enter the site without undergoing comprehensive induction training (proof of which must be retained by the employee) in respect to the risks and hazards present at the time, and where required, will ensure the appropriate use of the correct PPE.
- The Principal Contractor or Contractor has ensured that all employees under his control have been informed, instructed, and trained by a competent person in respect to the hazards and risks identified.
- The process as contemplated above is included in the Health & Safety Plan.
- No Generic Risk Assessments will be accepted and approved.

7.7. General Record Keeping

- The Principal Contractor and all Contractors must keep and maintain Health and Safety records to demonstrate compliance with these Specifications, with the OHS Act 85/1993, and with the Construction Regulations (2014).
- The Principal Contractor must also ensure that all records of incidents/injuries, emergency procedures, training, planned maintenance inspections, monthly Contractor audits, etc. are kept in the health & safety file(s) held in the site office.
- The Principal Contractor must ensure that every Contractor keeps its own health & safety file, maintains the file and makes it available on request (the file must include the Contractor's health & safety plan).
- Such Contractor safety files must be audited by the Principal Contractor.

7.8. Injury /Incident Reporting and Investigation

- Injuries are to be categorized into first aid; medical; lost time injury (LTI); and fatal injuries. When reporting injuries to the Client, these categories shall be used.
- The Principal Contractor must investigate all injuries, with an Annexure 1 report being completed and filed. All Contractors must report on the 4 categories of injuries to the Principal Contractor at least monthly.

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- Contractors must investigate injuries and incidents involving their employees and forward a copy of the annexure 1 investigation report to the Principal Contractor forthwith.
- The Principal Contractor must report all injuries to the Client in the form of an injury report, at least monthly.
- The Contractor must submit his incident reporting and investigation protocols for review by the Client.
- All incidents reportable in terms of the provisions of Section 24 of the OHS Act, 1993 must be reported to the local Dept. of Labour in the prescribed manner within 14 days. (Note: No reports will be made to third parties without the Client being notified of such intentions)
- (Department of Labour contact number Office _____)

All Contractors must immediately report all incidents where an employee is injured on duty to the extent that he/she

- Dies
- Becomes unconscious
- Loses a limb or part of a limb
- Is injured or becomes ill to such a degree that he/she is likely either to die or to suffer a permanent physical defect or likely to be unable for a period of at least 14 days either to work or continue with the activity for which he/she was usually employed

Or where:

- A major incident occurred
- The health or safety of any person was endangered Where a dangerous substance was spilled
- The uncontrolled release of any substance under pressure took place
- Machinery or any part of machinery fractured or failed resulting in flying, falling or uncontrolled moving objects
- Machinery ran out of control

The Contractor is required to provide the Client with copies of all internal and external accident/incident investigation reports including the reports contemplated above within 7 days of the incident occurring.

7.9. Permits and way leaves

Permits may include the following:

- Closing of public roadways and walkways Demolition
- Way Leaves
- Permit to work night
- Shift Hot work Permits
- The Principal Contractor must manage and co-ordinate these permit procedures.

7.10. Preparation of Health & Safety Documentation (CR 7)

It is the duty of the Principal Contractor to provide and demonstrate to the client a suitable, sufficiently documented and coherent site-specific health and safety plan, based on the client's documented health and safety specifications and open and keep on site a health and safety file, which must include all documentation required in terms of the Act and these Regulations

All health and safety documentation prepared by the principal Contractor must include his or her letterhead as these are legal documents which the principal Contractor is legally bound to implement and can be used in a court of Law.

The Following must be prepared:

- Prepare, implement and maintain a site-specific Health & Safety (H&S) Plan aligned to the Client's H&S Specification; update it as the works and risks change.
- Establish, keep and control an H&S File on site; ensure it is accessible to the Client/Agent and inspectors; hand

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it over at completion.

- Provide tenderers/contractors in the relevant parts of the Client’s H&S Specification and ensure sufficient H&S allowances in tenders and appointments.
- Appoint only competent contractors in writing and verify adequate resources, including a valid COIDA Letter of Good Standing, before work starts.
- Review, negotiate and approve each contractor’s H&S Plan prior to work; monitor implementation and close out non-conformances.
- Conduct regular H&S audits/inspections (at least monthly) and maintain records and a corrective-action tracker.
- Suspend/stop any work that is non-compliant or presents an immediate threat to health and safety.
- Coordinate activities and interfaces between contractors; hold H&S meetings and toolbox talks and keep minutes/attendance records.
- Notify the Department of Employment & Labour of construction work (where applicable) before work starts and keep the notice on file.
- Ensure all legal appointments are made in writing and that appointees are competent and resourced to discharge their duties.
- Provide necessary H&S information, instruction, training and supervision; keep proof of training and competence.
- Report and investigate incidents in terms of OHSA; submit statutory notifications where required and keep investigation record

The following health and safety deliverables should be reviewed during the tender submission process:

REQUIREMENT	TIMING
H&S DELIVERABLES	
<ul style="list-style-type: none"> • The Contractor must submit all deliverables as per the attached list of deliverables. These must be submitted individually under separate cover sheets for review and approval by the Client’s Appointed CHSA(Takusa Consulting). • The submissions will be commented on and returned to the Contractor for updating and re-submission. Access to site will not be granted unless these submissions have been provisionally approved. • On approval of deliverables, the Contractor may gain access to the works but has a period of 2 weeks in which to have the submissions finally approved for construction. • If this does not occur in the 2-week period, the Client reserves the right to suspend all work until such time as the Safety Agent is satisfied with all H&S submissions. 	<p>Prior to commencement with construction.</p>

(See annexure “C” with regard to detailed compliance submissions)

7.11. Offences and Penalties

Penalties may be imposed for on-going non-compliance with the provisions of the Client's health & safety specifications and the Principal Contractor's Health & Safety Plan. Non-compliances noted during safety agent audits and visits will be categorized into three levels based on severity. These will be as follows:

- Life threatening situations – a prohibition notice will be issued. This activity must be seized immediately, and corrective measures are taken.
- Serious injury possible – a contravention notice will be issued with a time frame for compliance stipulated. Failure to comply within the time frame may result in a financial penalty per non-compliance item per day that the non-compliance persists.
- Minor or no injury may result – an improvement notice will be issued. The corrective measures stipulated in the report must be taken.

The methodology used to decide the above levels will be directly linked to the Risk Assessments of the Principal Contractor and Contractors (i.e. high, medium, and low). In the absence of a Risk Assessment, the decision of the Safety Agent will be final.

7.12. Principal Contractor / Contractor - Competency Assessment

To ensure this, the Principal Contractor must demonstrate to the Client that it has a suitable and sufficiently documented OHS Plan and that its Contractors have the necessary competencies and resources to perform the construction work safely.

The Principal Contractor and Contractors must therefore submit the following documentation for perusal and verification by the Clients Appointed CHSA (Takusa Consulting and services):

- Management Structure as envisaged at tender (organogram);
- Registration certificate with the Compensation Commissioner or FEM.
- Proof management training on the Occupational Health & Safety Act and other related training.
- Example copy of previous Safety Committee Meeting Minutes and Incident Investigation report (from a previous project);
- Any previous convictions under the OHS-Act;
- Your Company's previous two years injury claims as reported to your workman's compensation insurer.
- Your company's approach to co-ordination of health & safety – do you employ safety officers, etc.? If not, what alternative arrangements are used?

The Principal Contractor and all Trade Contractors' competent persons for the various risk management portfolios will fulfill the criteria as stipulated under the definition of 'Competent' in accordance with the Construction Regulations 2014. This will be specific to the following appointments. (Refer to annexure "D" for an outline of legal assignments) The Principal Contractor shall ensure that all their appointees are made aware of their accountabilities & responsibilities in terms of their appointment, and to advise and assist these appointees in the execution of their duties. Appointment letters and competency certificates which is signed by the 16.2 appointee, which refers to the relevant training certificates and proof of experience of appointees must be submitted with the Health and Safety Plan. All minimum required training is to be provided by accredited training service providers. Where legislation requires formal certification in lieu of experience, then such proof of competency is to be provided by the Contractor.

7.13. Costs for OHS - Compliance (CR 7)

All parties bidding to work on this construction project must ensure that they have made adequate provision for the cost of complying with these specifications as well as with the OHS-Act 1993 and incorporated Regulations as a minimum requirement in their tender documentation. It must also be taken into consideration that time is money. That implies that sufficient time must be allowed for the implementation of the minimum OHS standards. No additional claims will be entertained at a later stage if a compliance requirement was prescribed in the OHS-Act, 1993 and incorporated regulations or this specifications document. Refer to annexure "E" of this document for a breakdown of possible safety costs.

7.14. Communication and Management of the work

Site Safety committee meetings will be held monthly or as determined by the associated risks on site. This does not preclude the requirement that each Contractor implement and maintain their own safety meetings where applicable.

- In addition to the above, communication may be directly to the Client or his appointed Agent, verbally or in writing, as and when the need arises.
- Consultation with the workforce on OH&S matters will be through their Supervisors, OH&S Representatives, the OH&S committee and their elected Trade Union Representatives, if any.
- The Site Manager or his Site Safety Officer will be responsible for the dissemination of all relevant OH&S information to the other Contractors e.g. design changes agreed with the Client and the Designer, instructions by the Client and/or his/her agent, exchange of information between Contractors, the reporting of hazardous/dangerous conditions/situations etc.
- A due diligence, one page report must be completed (and retained on file) by the Contractor every week after he has performed a site inspection. This document will be referenced at each formal site safety meeting and should be communicated via e mail with Client Safety Agent.
- The Contractors will be required to conduct Toolbox Talks with their employees on a weekly basis and records of these must be kept on the OH&S File. Employees must acknowledge the receipt of Toolbox Talks which record must, likewise, be kept on the OH&S File.
- The Contract Manager or suitable designate of each appointed Contractor will be required to attend all Site OH&S meetings.
- The Principal Contractor shall keep a Site Instruction Book on site at all times. All health and safety instructions issued by the Client, Principal Agent, or Construction Health and Safety Agent shall be recorded in the book and acknowledged by the relevant parties. The Site Instruction Book shall be available for inspection at all times and instructions issued therein shall be implemented within the agreed timeframes

8. CLIENT IDENTIFIED HAZARDS AND POTENTIALLY HAZARDOUS SITUATIONS

8.1. Client identified Hazards

The following items have been identified by the Client as potential hazards for this construction work and must be incorporated in the Contractor's site-specific Risk Assessments.

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C3.8: Reference to the Scope of Works in Health and Safety Specification

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BASELINE RISK ASSESSMENT WORKSHEET

Activity	Hazard	Risk	Risk Evaluation		Risk Score	Risk Level	Control Measures
			L	S			
Traveling to and from site in a vehicle.	<ul style="list-style-type: none"> • Safety belts not worn when traveling in, or operating a vehicle. • Vehicle not equipped with safety belts for all passengers. • Over speeding of vehicles. • Driving on public roads 	<ul style="list-style-type: none"> • Injuries caused when in vehicle accident. • Fatalities when in vehicle accident • Risk of personnel being injured by over speeding vehicles. • Involved in accident. 	3	5	15	Critical	Workers to stand clear from moving machinery when clearing and grubbing takes place
Working next to residential, commercial, industrial areas	<ul style="list-style-type: none"> • Public exposure to construction activities. • Destruction of businesses and services in the area. • Other activities in the areas • Strikes in the area 	<ul style="list-style-type: none"> • Injuries public and employees, broken bones, damage to property, death, • Production loss, disturbance of personnel activities • Fights, lawsuits, disagreement • Damage to property, injuries to employees 	3	4	12	High	-Appointed Risk Assessor to be in possession of a HIRA certificate (Hazard Identification and Risk Assessment) -Task specific risk assessments to be carried out. -Employees to be trained in the content of the risk assessments. -Attendance registers to be in place
Removal of damaged concrete slabs, Supply and installation of new concrete slabs	<ul style="list-style-type: none"> • Dust • Faulty hand tools • Manual handling of steel/ sharp points • Cement contact with body • Over bending • Noise • Vibration. 	<ul style="list-style-type: none"> • Lung disease, eye irritation • Injury to hands • Skeletal injuries • NIHL. • Muscular pains 	3	3	9	Medium	Occupational medical certificate of operator to be available. First aid to be on site at all times Workers to always wear correct PPE. Workers working with vibration equipment must ensure they have firm footing. Concrete truck driver to ensure that the handbrake is secured. to prevent truck from running out of control. Task Specific Training.
Activity	Hazard	Risk	Risk Evaluation		Risk Score	Risk Level	Control Measures
			L	S			

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Laying of Asphalt asphalt	<ul style="list-style-type: none"> • Incompetent driver/ operator • Dust • Vibration • Noise • Contact with hot asphalt/bitumen • Fumes • Unsafe tools • Open gas flames 	<ul style="list-style-type: none"> • Injuries, • Environmental contamination • Lung disease, eye irritation. Contamination of the nearest commercial buildings • Fatigue. Kidney damage. Muscle/ body/ joint pain • Noise induced hearing loss • Burns, skin infections • Breathing respiratory diseases • Injury to hands • Backache. • Injury to employees 	3	3	9	Medium	<ul style="list-style-type: none"> -Dust suppression - Ventilation and Noise reduction - Ergonomic assessment. -Provide relevant training to all personnel. - Implementation of permit to work system for high risk activities. - Provide PPE.
Laying and resetting of paving bricks	<ul style="list-style-type: none"> • Unsafe tools • Ergonomic hazards • Manual handling of paving brick • Defective grinder machine 	<ul style="list-style-type: none"> • Backache. • Injuries to hands and toes • Ergonomic risks • Injury to employees 	2	3	6	Medium	<ul style="list-style-type: none"> -proper lifting technique, -Safe use of tools and equipment. -Hazard identification and risk assessment procedure -Ergonomic principle and best practice.
<ul style="list-style-type: none"> • Recruitment of employees. Continuous supervision on site. 	<ul style="list-style-type: none"> • Community members not happy about the local labour being recruited. • Delays on services delivery or work to be executed 	<ul style="list-style-type: none"> • Strikes which may lead to physical assaults and damage to company property. • Application of penalties to the contractor by the client for failing to deliver on time 	3	2	6	Low	<ul style="list-style-type: none"> -Appointed Risk Assessor to be in possession of a HIRA certificate (Hazard Identification and Risk Assessment). -Task specific risk assessments to be carried out. -Employees to be trained in the content of the risk assessments. -Attendance registers to be in Place.
Manual clearing of the site	<ul style="list-style-type: none"> • Rubble existing on site • Manual handling of heavy objects • Illegal dumping. 	<ul style="list-style-type: none"> • Backache. • Fine 	2	3	6	Medium	<ul style="list-style-type: none"> -Pre-start inspections to be conducted. -Windscreens to be kept clean. -Occupational medicals to be conducted to ensure operator has good eye sight

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Excavation in rocky terrain	Falling rocks, collapsing trenches	Worker injury, equipment damage	4	4	16	High	- Use shoring, trench boxes- Conduct geotechnical assessment- Train workers on trench safety.
Activity	Hazard	Risk	Risk Evaluation		Risk Score	Risk Level	Control Measures
			L	L			
Existing underground and overhead services	Damage to utilities	Service disruption, electrocution	3	5	15	High	- Conduct utility detection surveys- Liaise with service providers- Implement permit-to-dig procedures
Traffic management	Vehicle collisions, pedestrian risks	Injury or fatalities	3	4	12	High	- Implement signage and barricades- Use flag personnel and traffic controllers- Create detours where feasible
<ul style="list-style-type: none"> The use of construction vehicle on the public and streets Execution of activities on the road in line with the scope of work. Exposed group/employees Placing of temporary traffic warning signs. 	<ul style="list-style-type: none"> Poor/ no traffic management plan in place Lack of traffic management training Unroadworthy plant and vehicle Collision with other vehicles Workers exposed to high traffic volume. Personnel movement and vehicles Signs not visible to the road users. Signs being placed at an unreasonable distance. Personnel in charge of traffic control not familiar with the traffic management plan. 	<ul style="list-style-type: none"> Accidents, death, broken bones damage to property Noncompliance with the National Road Traffic Act, Council Road Traffic by-laws and other applicable Regulations Blockage/ inconvenient access to industrial/ commercial areas Personnel are at risk of being bumped by a vehicle or an Accident It may cause injuries possibility of fatalities. 	3	4	12	High	- Implement signage and barricades- Use flag personnel and traffic controllers- Create detours where feasible
Stacking & Storage	Sub-standard stacking and storing practices	Collapsing of stacked / stored material causing serious injuries	3	3	9	Medium	- Stacking and storage supervisor to be appointed in writing. - Monthly inspections to be conducted on stacking and storing on site

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Activity	Hazard	Risk	Risk Evaluation		Risk Score	Risk Level	Control Measures
			L	L			
Site access	Unauthorised entry, poor site layout	Unauthorized access, security risks	2	3	6	Medium	- Control site entry with security- Maintain clear access routes- Install fencing and warning signs
Heavy equipment operation	Equipment failure, poor visibility	Worker injury, site damage	3	4	12	High	- Ensure operator certification- Conduct pre-use equipment inspections- Implement blind spot management strategies
Manual handling and lifting	Musculoskeletal injuries	Worker injury	4	3	12	High	- Train workers in safe lifting techniques- Use mechanical lifting aids- Rotate tasks to prevent strain
Exposure to hazardous materials (dust, asbestos)	Respiratory illnesses, skin irritation	Long-term health issues	4	4	16	High	- Provide appropriate PPE (masks, gloves)- Implement dust suppression methods- Conduct air quality monitoring
Working at heights	Falls from elevation	Severe injury or fatality	3	5	15	High	- Use fall protection systems (harnesses, guardrails)- Train workers in working-at-heights safety- Conduct pre-task safety briefings
Extreme weather conditions	Heat stress, cold exposure, lightning strikes	Worker illness, delays	3	3	9	Medium	- Adjust work schedules based on weather forecasts- Provide hydration and shelter areas- Issue appropriate clothing for weather conditions
Fire and explosion risks	Flammable materials, sparks from equipment	Severe burns, property damage	2	5	10	High	- Store flammable materials safely- Implement fire watch procedures- Provide fire extinguishers on-site

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8.2. Unforeseeable Hazards

The Principal Contractor must immediately notify other Contractors as well as the Client/Agent, in writing, of any hazardous or potentially hazardous situations that may arise during the performance of construction activities. During the Project, the Client/ Agent may advise of any new exposures relating to change of scope or design. All communicated shall be in writing

9 Site operational Requirements

9.1. Construction Health and Safety Officer

The Principal Contractor is to appoint a **full-time construction safety officer** in writing to assist in the control of all safety related aspects on site. It is compulsory to provide the name and CV of your appointed, competent construction safety officer to the CLIENT, prior to work commencing on site. The Safety Officer shall, as a minimum, hold a National Diploma in Safety Management or a NEBOSH International General Certificate in Occupational Health and Safety (IGC), be registered with the SACPCMP as a Construction Health and Safety Officer (CHSO), and have relevant construction site experience.

The construction safety officer must assist with the control of all safety related aspects on site and be utilized to provide input at early stages of the project, to assist in compiling the health and safety plan. In addition, his/her duties to include:

- Health and safety audits and inspections including administrative and physical audits of all CONTRACTOR'S health and safety plans, files and activities, and record findings in the form of audit reports that are to be kept in the health and safety file.
- Maintain the PRINCIPAL CONTRACTOR'S health and safety plan and file and make documents available on request of the CLIENT;
- Assist with investigations of near misses, incidents and injuries.
- Co-ordinate the function of reviewing the hazard identifications and risk assessments;
- Assisting with method statements (safe work procedures) and checking that the responsible persons follow these procedures.
- Assist with the implementation, monitoring and enforcement of occupational health and safety control measures to minimize all risks.

9.2. HEALTH AND SAFETY REPRESENTATIVE(S) (OHS Act Section 17)

The PRINCIPAL CONTRACTOR and all CONTRACTORS must ensure that for any workplace where more than 20 employees work, the minimum legislative prescribed number of Health and Safety Representatives in a ratio of 1:50 employees be nominated, elected, designated in writing and trained to carry out his/ her functions in his/ her area of responsibility. In addition, it is required that in areas where twenty (20) or less employees are engaged in an activity, at least one Health and Safety Representative be designated in writing in the same manner.

The PRINCIPAL CONTRACTOR /CONTRACTOR must consult in good faith, with registered trade unions where applicable, prior to elections and conclude an agreement on procedures outlined in General Administrative Regulations 6 (1) (a-e).

The PRINCIPAL CONTRACTOR / CONTRACTOR must ensure that all Health and Safety Representatives

carry out their functions in their area of responsibility, in accordance with Section 18 of the Occupational Health and Safety Act, Act 85 of 1993. Health and Safety Representatives shall be required to conduct monthly inspections within their area of responsibility; the records must be kept for CLIENT auditing purposes. All deviations recorded must immediately be reported to the appointed Construction Supervisor and Safety Officer, where applicable, within the designated person's area. Appropriate action must immediately be taken to eliminate the identified health and safety hazard.

9.3. Health and Safety Committees (Section 19)

The Principal Contractor must ensure that project health and safety committee meetings are held monthly with minutes kept. Meetings must be chaired by the Principal Contractor's Responsible Person [CR 8 (1)]. All Contractors' Responsible Persons and Health & Safety Representatives must attend the Principal Contractor's monthly health & safety meetings. The Principal Contractor's appointed supervisors must attend health & safety meetings.

The following topics must be tabled at meetings: management appointments; Sub-contractor legal issues; injuries and incidents; hazards and Risk Assessments (present and foreseen); method statements; planned inspections and registers/record keeping, leading and lagging indicators etc. The committee chairperson must sign off minutes.

9.4. Health and Safety Training

Induction

The Principal Contractor must ensure that all site personnel undergo a site-specific health & safety induction training session before any worker starts work. A record of attendance shall be kept in the health & safety file. The Principal Contractor will be required to induct all Contractors' employees. Workers must carry some sort of proof of inductions on their person.

Awareness

The Principal Contractor must ensure that, on site, periodic toolbox health & safety talks take place at least once every week. These talks should deal with risks relevant to the construction work at hand. Records of attendance must be kept in the health & safety file. Daily pre-task crew talks and DSTI's are to be conducted by the appointed CR8(7) supervisors.

Competence

All competent persons must have the knowledge, experience, training, and qualifications specific to the work they have been appointed to supervise, control, and carry out. This must be assessed on a regular basis e.g. training, evaluation, and periodic audits by the Client, progress meetings, etc. The Principal Contractor is responsible to ensure that competent Contractors are appointed to carry out construction work.

9.5. Health & Safety Audits, Monitoring and Reporting

- The Client, through the appointed OHS Agent, will conduct a monthly compliance audit in terms of Construction Regulation 5(1)(o) to ensure that the Principal Contractor is implementing and maintaining the approved Health & Safety Plan and provide Audit Feedback to the contractor with 7 days.
- The Principal Contractor must conduct monthly audits on all Contractors appointed by them. All audit reports must be kept in the Principal Contractor's Health & Safety File and made available to the Client or OHS Agent on request.
- Each Contractor must audit their sub-contractors monthly, keep the results in their Health & Safety File, and provide copies to the Principal Contractor when requested.
- A minimum audit score of 85% is required. Scores below this threshold must be corrected through a

documented corrective action plan and closed out within the required timeframe.

9.6. Emergency Procedures

The Principal Contractor shall prepare and submit a detailed, project-specific Emergency Procedure and Evacuation Plan prior to commencement of work on site, considering the risks and potential emergency situations associated with the scope of work.

The plan shall identify key competent personnel, include contact details of emergency services, and clearly outline the actions to be taken for various emergency scenarios, including but not limited to fire, chemical spills, injuries, hazardous substance incidents, damage to plant or equipment, bomb threats, major incidents, and site evacuation.

The Principal Contractor shall ensure that the Emergency Procedure is communicated to all employees and relevant site personnel prior to commencement of work and whenever updates are made. Proof of such communication, including attendance registers or acknowledgements, shall be maintained in the Health and Safety File.

Any emergency shall be reported to the Client in writing without delay, together with a record of actions taken or actions to be taken. A current emergency contact list for all relevant service providers shall be maintained on site and made readily available to all personnel.

9.7. First Aid Boxes and First Aid Equipment (GSR 3)

The Principal Contractor and all Contractors shall appoint First Aider(s) in writing. The Principal Contractor must appoint at least one First Aider who must be certified. Copies of valid certificates are to be kept on site. The Principal Contractor must provide at least 1 (one) first aid box, adequately always stocked. All Contractors with more than 5 employees shall supply their own first aid box. Contractors with more than 10 employees must have their own trained, always certified first aider on site.

The Contingency Plan of the Contractor must include the arrangements for speedily and promptly transporting injured persons to a medical facility or securing emergency medical help to persons that may require it.

9.8. Personal Protective Equipment (PPE) and Clothing

The Principal Contractor and Contractors must ensure that all site workers are issued with and wear the appropriate PPE as indicated in their Risk Assessments.

The Principal Contractor and Contractors must make provision and keep adequate quantities of SABS always approved PPE on site according to their Risk Assessments. The above procedure applies to Contractors and their Sub-contractors, as they are all Employers and must therefore supply their own PPE.

Labour only Contractors appointed by the Principal Contractor become the responsibility of the Principal Contractor unless otherwise instructed. The Contractor must compile a detailed PPE matrix for the various disciplines and tasks.

9.9. Occupational Health and Safety (OHS) Signage

The Principal Contractor must provide adequate on-site OHS signage. Including but not limited to: 'no unauthorized entry', 'report to site office', direction to site office, 'beware of overhead work', 'hard hat area' – to be posted up at all site entrances. Signage must also be posted up on site in strategic locations e.g. access routes, stairways, entrances to structures and buildings, scaffolding, and other potential risk areas/operations such as exposed edges and openings and trenches/excavations where persons are at work. **Health & safety**

signage must be well maintained including weekly inspections, cleaning, replacement and repair.

9.10. Public and Site Visitor Health & Safety

Public walkways and roadways must be kept clean and free of excessive construction materials to prevent a negative impact on the public. Roadways and walkways will have to be cleaned on a regular basis – daily inspections to be conducted by the Principal Contractor with action to be taken without delay.

Site visitors must be briefed on the hazards they may be exposed to as well as what measures are in place or should be taken to control these hazards. As per the Construction Regulations, a record of these 'inductions' must be kept on site. It is advised that a visitor book with a site rules leaflet be kept at the gate or at reception/site office and all visitors to be directed to such point where they must read through the site safety information and sign the visitor book. All hoarding lay out drawing are to be strictly adhered to.

9.11. Minimum Environmental Requirements

All Contractors shall, comply with the following environmental protection procedures and requirements:

Water Use and Disposal:

- No water hoses may be used on site unless they are fitted with nozzles that can prevent flow when not being used. Leaks in hoses are not permitted.
- Water from fire hydrants may not be used without prior authorization from the Client.
- Contaminated water may not be disposed of into the effluent drainage system without the prior authorization of the Engineer.
- Contaminated water may not be discharged into storm water drains under any circumstances.
- Contaminated water that cannot be disposed of via the site effluent system must be removed from site by a recognized waste disposal company and disposed of as per relevant legislation

Storm Water Drains:

- Nothing other than clean uncontaminated water may be discharged into the site of storm water drains.
- In the event of pollutants accidentally entering the storm water drains, the Supervisor shall be notified immediately, and the removal of the contaminants from the storm water system and their proper disposal shall be commenced without delay.
- If contamination has reached the outside of the site, the appropriate local authorities shall be notified and full-scale cleanup operations shall be commenced immediately.

Sewerage System

- Nothing shall be discharged into the site sewerage systems except domestic waste
- Water. Authorization shall be obtained from the site manager before connecting any temporary toilet or ablution facilities into the site's sewerage system.

Solid Waste Disposal

- Contractors shall be responsible for the safe and proper disposal of solid waste generated by their activities.
- Hazardous waste material shall only be disposed of via approved and recognized waste disposal companies. Disposal certificates shall be obtained and copies kept in the safety file.

Discharges to Atmosphere

- Nothing will be burnt on site.

- Any process which causes dust will be assessed prior to the work starting and authorization to work obtained before starting work.

Reporting Of Environmental Incidents

- Environmental Incidents shall be reported without delay and at the latest before the end of the shift during which the incident occurred.
- Spillages or incidents that could cause pollution outside of the boundaries of site shall be reported immediately for prompt preventative measures to prevent or reduce contamination of the environment.

9.12. Access to Site

The Principal Contractor or Site Manager will establish site access rules and implement and maintain these throughout the construction period. Access control must include the rule that non-employees will not be allowed on site unaccompanied.

Access to site will be restricted to persons working on site that attended a site-specific safety induction BEFORE starting work on site. Safety induction cards must be always issued and carried by all persons while on site. Visitors to site must be inducted and accompanied by a safety representative during their visit on site.

Security on Site

Both the Client and the Principal Contractor have a duty in terms of the OHS Act 85/1993 to do all that is reasonably practicable to prevent members of the public and site visitors from being affected by the construction activities. The site must be suitably always hoarded with a limited number of access points which must be controlled to ensure safe access and egress. The access points must be kept closed and must have the adequate notices displayed.

9.13. Hours of Work

Weekend and after-hours work may only be done with the prior approval of the Clients Agent. Approval shall be subject to:

- Competent supervision being on site throughout the duration of the weekend/afterhours work.
- The Contractor having a demonstrated history of adequate, problem free control and supervision of the work during normal working hours.

9.14 Lighting

The Contractor is to ensure that wherever work is performed where the lighting conditions are less than the minimum requirement as defined in Environmental Regulation 3 and relative schedules, that this is supplemented with additional lighting capacity to ensure that all works contemplated can be conducted safely. Portable Lights must be fitted with a robust non- hygroscopic non-conducting handle and the lamp must be protected by a robust and weatherproof guard. The cable lead-in must withstand rough handling. Registers must be maintained for each piece of equipment and findings of regular inspections must be entered into a register. Inspections must concentrate on plug, cord, switch and any obvious faults. When used in wet/damp conditions, it must be protected as for portable electrical tools, above.

10. PHYSICAL REQUIREMENTS

10.1 Erection of Hoarding

- All hoarding operations on site are to comply with the issued drawings.
- A detailed hoarding maintenance plan is to be drafted and submitted for approval.

10.2. Earthworks (Including Trenching and Excavations) (CR 13)

The Principal Contractor and relevant Contractors must make provision in their tender for the shoring of excavations where the soil conditions warrant it or if this is not possible cut it back - excavation walls must be battered back to a safe angle, termed the safe angle of repose. The Principal Contractor has the following options: first option is to shore or brace the excavation, should this not be practical then such excavation must be battered back to the safe angle of repose (second option). Should the first two options not be deemed necessary by the Contractor, then permission must be given in writing by the appointed competent excavation supervisor (third option). Where uncertainty pertaining to the stability of the soil exists, the decision of a professional engineer or professional technologist competent in excavations shall be decisive. Such permission must be written.

The following is relevant to excavations:

- Excavations/trenches are inspected before every shift, and a record of these inspections is kept.
- Safe work procedures have been communicated to the workers.
- The safe work procedures are always enforced and maintained by the Principal Contractor's and Contractors' responsible persons.
- Excavations next to permanent or temporary roadways - ensure that no load, material, plant or equipment is placed or moved near the edge of any excavation where it is likely to cause its collapse and thereby endangering the safety of any person, unless precautions such as the provision of sufficient and suitable shoring or bracing are taken to prevent the sides from collapsing.
- Ensure that where the stability of an adjoining building, structure or road is likely to be affected by the making of an excavation, steps are taken that may be necessary to ensure the stability of such building, structure or road as well as the safety of persons.
- Cause convenient and safe means of access to be provided into every excavation in which persons are required to work and such access shall not be further than 6m from the point where any worker within the excavation is working.
- Ascertain as far as is reasonably practicable, the location and nature of electricity, water, gas or other similar services which may in any way be affected by the work to be performed. The necessary steps must then be taken to render the circumstances safe for all persons involved.
- Cause every excavation which is accessible to the public or which is adjacent to public roads or thoroughfares, or where the safety of persons may be endangered, to be
- Adequately protected by a barrier or fence of at least one meter in height and as close to the excavation as is practicable; and provided with warning illuminants or any other clearly visible boundary indicators at night or when visibility is poor.
- Cause warning signs to be positioned next to an excavation within which persons are working or carrying out inspections or tests.
- No Excavations shall be left open for a long period of time.
- Excavated material shall not be placed or stacked near the edge of any excavation where it may cause the excavation to collapse or endanger any person. As a minimum requirement, excavated material shall be kept at least one (1) metre away from the edge of the excavation, or further where required by soil conditions, excavation depth, or site-specific risk assessments.

10.3 Traffic Diversions and TRAFFIC CONTROL

The Principal Contractor shall compile a project-specific Traffic Management Plan, including a schematic layout indicating traffic diversions, signage, and control measures, which shall be submitted to and approved by the Engineer prior to implementation. The plan shall also address the safe loading and off-loading of materials and waste. All necessary permits and approvals from the relevant Metropolitan Municipality Traffic Department shall be obtained in accordance with Paragraph 4.9 of this specification

TRAFFIC CONTROL

- A points-man / controller shall be placed at all road intersections, with a Stop / Go sign to control traffic.
- Ripple strips shall be placed at all road intersections and railway crossings During night driving, flashing lights shall be placed at crossings and intersections Adherence to all traffic signs is of vital importance
- All haul trucks, LDV's and Excavation Equipment will be always operated with headlights on.
- Following distances – 3 truck lengths must be always kept between the trucks Speed limit on site will be 10 Km per hour.
- Reversing of vehicles will only take place under the guidance of a
- spotter. Heavy vehicles / equipment will always have the right of way.
- A signal system will be in place between driver of haul truck and loader
- operator. To enter: 1 blow of hooter To stop : 2 blows of hooter
- To pull off: 3 blows of hooter
- No overtaking will take place on site by haul trucks.
- In case of a vehicle break-down on site road or haul road: The vehicle must be removed ASAP
- Warning signs must be placed (during Day time : Red Triangular) (During night time : flashing lights)
- Traffic controller in front and back of vehicle

HAUL LOADS

- Pedestrians will not be allowed to access the haul roads unnecessarily; however drivers of Plant and Haul Trucks must be alert for pedestrians.
- Haul roads will be wetted by water cart at regular intervals and if and when required. Any large rocks and / or spillages will be removed and cleaned from
- roads immediately.
- Ground pollution such as oil, diesel and hydraulic fluid will not be tolerated. If it occurs on the haul road or any other portion on the Site, the ground will be dug out, back filled and compacted.

VEHICLES / EQUIPMENT

- All vehicles will always be roadworthy
- Pre-use check will be done against any approved checklist; all faulty items will be attended to.
- Brakes
- Lights
- Air / Hydraulic
- Oil leaks
- The vehicles / Equipment will be withdrawn from service for repairs.

- Brake testing will be done every shift before use (Brake testing method to be submitted)
- No major repairs or services will be carried out on Site.

Vehicles and mobile equipment will be supplied with:-

- Fire Extinguisher
- Reflector's / Reflective tape
- Sides
- Front
- Back
- Reversing alarm OPERATORS / DRIVERS
- A supervisor or appointed person will drive around from on-loading to off-loading points and ensure that drivers get out of the vehicle and walk around for 5 minutes and if required allow the person to relieve himself or to drink water or cold drink which will be available on the LDV.
- Random alcohol / drug test must be done and results to be submitted.
- All drivers / operators will be appointed under OHS Act Construction Regulation 23, in addition a competent person must also be appointed in writing to inspect the plant, refer to OHS Act Construction Regulation 23
- If a driver / operator does not adhere to rules and regulations, his appointment will be cancelled, and he will not be able to carry on his duty.
- No driver / operator will be appointed without proof of training, Driver's license and valid medical certificate.
- No training of drivers / operators on site.
- No passengers on Dump trucks, Loaders, TLB's or Excavators No eating or drinking allowed while operating Plant
- No vehicle will be left unattended with the engine running or the key in the ignition.
-

10.4 Edge Protection, Barricading, Penetration and Fall Protection – Fall Risk Positions (Construction regulation 10.)

A Contractor must—

- Designate a competent person to be responsible for the preparation of a fall protection plan; ensure that the fall protection plan contemplated in paragraph (a) is implemented, amended where and when necessary and maintained as required; and take steps to ensure continued adherence to the fall protection plan.
- A fall protection plan contemplated in sub regulation (1), must include—
- A Risk Assessment of all work carried out from a fall risk position and the procedures and methods used to address all the risks identified per location;
- The processes for the evaluation of the employees' medical fitness necessary to work at a fall risk position and the records thereof;
- A program for the training of employees working from a fall risk position and the records thereof;
- The procedure addressing the inspection, testing and maintenance of all fall protection equipment; and A rescue plan detailing the necessary procedure, personnel and suitable equipment required to

affect a rescue of a person in the event of a fall incident to ensure that the rescue procedure is implemented immediately following the incident.

A Contractor must ensure that a construction manager appointed under regulation 10(1) is in possession of the most recently updated version of the Fall Protection Plan.

Fall prevention and fall arrest equipment are —

- Approved as suitable and of sufficient strength for the purpose for which they are being used, having regard to the work being carried out and the load, including any person, they are intended to bear; and Securely attached to a structure or plant, and the structure or plant and the means of attachment thereto is suitable and of sufficient strength and stability for the purpose of safely supporting the equipment and any person who could fall; and
- Fall arrest equipment is used only where it is not reasonably practicable to use fall prevention equipment.

A Contractor must ensure that—

- All unprotected openings in floors, edges, slabs, hatchways and stairways are adequately guarded, fenced or barricaded or that similar means are used to safeguard any person from falling through such openings.
- No person is required to work in a fall risk position, unless such work is performed safely as contemplated in sub-regulation (2);
- A detailed Fall Rescue Plan will be drafted and implemented on site.
- The above-mentioned plan will be demonstrated on instruction of the Clients Agent.

Note: Danger tape does not represent barricading and cannot be used as such.

10.5 Housekeeping (CR 27)

The Contractor to ensure that:

- Housekeeping is continuously
- implemented Scrap, waste & debris are removed regularly
- Materials placed for use are placed safely and not allowed to accumulate or cause obstruction to free movement of pedestrian and vehicle traffic
- Waste & debris not to be removed by disposing from heights, but by chute or crane Where practicable, construction sites are fenced off to prevent access of
- unauthorized persons
- An unimpeded workspace is maintained for every employee
- Every workplace is kept clean, orderly and free of tools etc. that are not required for the work being done.
- As far as is practicable, every floor, walkway, stair, passage and gangway is kept in good state of repair, slip and trip, skid-free and free of obstruction, waste and
- materials
- The walls and roof of every indoor workplace is sound and leak-free
- Openings in floors, hatchways, stairways and open sides of floors or buildings are barricaded, fences, boarded over or provided with protection to prevent persons from falling.

10.6 Stacking & Storage (Construction Regulation 28)

- The Contractor/Employer must ensure that a competent person is appointed in writing to supervise all stacking and storage on a construction site.
- Adequate storage areas are provided and demarcated
- The base of any stack is level and capable of sustaining the weight exerted on it by the stack The items in the lower layers can support the weight exerted by the top layers.
- Cartons and other containers that may become unstable due to wet conditions are kept dry Pallets and containers are in good condition and no material is allowed to spill out.
- The height of any stack does not exceed 3X the base unless stepped back at least half the depth of a single container at least every fifth tier or the approval of an inspector has been obtained to build the stacks higher with the aid of an appropriate machine.
- The articles that make up a single tier are consistently of the same size, shape and mass Structures for supporting stacks are structurally sound and able to support the mass of the stack
- No articles are removed from the bottom of the stack, but from the top tier first Anybody climbing onto a stack can and does so safely and that the stack is sufficiently stable to support him/her
- Stacks that are in danger of collapsing are broken down and restacked
- Stability of stacks are not threatened by vehicles or other moving plant and machinery Stacks are built in a header and stretcher fashion and that corners are securely bonded
- Persons climbing onto stacks do not approach unguarded moving machinery or electrical installations

10.7 Fire Extinguishers and Fire Fighting Equipment (CR 29)

The Principal Contractor and relevant Contractors shall provide adequate, regularly serviced firefighting equipment located at strategic points on site, specific to the classes of fire likely to occur.

The appropriate notices and signs must be posted up as required. **A minimum of four 9kg dry chemical powder fire extinguishers** must be available in and around the site office establishment and stores. Wherever 'hot work' is taking place, additional fire extinguishers must be on hand. Contractors are responsible for ensuring compliance with hot work procedures and must be in possession of method statements detailing the safe working procedures. 'Hot work' includes all work that generates a spark or flame and may therefore result in a fire.

10.8 Scaffolding (CR 16 / SANS 10085 - 1)

The Principal Contractor must ensure that all scaffolding operations are carried out under the supervision of a competent person and that all erectors, team leaders and inspectors are competent to carry out their work. The Principal Contractor must ensure that scaffolding when used and erected, complies with the safety standards as per SANS 10085-1:2004

10.9 Severe Weather Plan

When high wind creates a hazard to craftsmen or work being performed, i.e., instability in elevated areas, limited visibility due to dust or particles in the air, unmanageable materials, etc., supervision will stop work activities, re-assign work and area, properly store and secure material which might blow away, injure or damage, lower/tie down crane booms and obtain further instruction from Site Management.

When rain creates a hazard to craftsmen on work being performed, i.e., un-stable footing conditions due to

slippery structural steel, muddy and flooded work environments, unstable trenches or excavations, poor visibility due to rain or eye protection, supervision will stop specific work due to hazard, re-assign work duties and/or areas, and obtain further instructions from Project Management.

All scaffolding equipment and lifting equipment to be inspected and proclaimed safe to use or rectified as to be safe to use after any inclement weather. Signage must be posted to indicate the status of the scaffolding.

10.10 Structures (Construction Regulation 11)

The Contractor will ensure that in terms of the Construction Regulations

A Contractor must ensure that—

- All reasonably practicable steps are taken to prevent the uncontrolled collapse of any new or existing structure or any part thereof, which may become unstable or is in a temporary state of weakness or instability due to the carrying out of construction work;
- No structure or part of a structure is loaded in a manner which would render it unsafe; and
- All drawings pertaining to the design of the relevant structure are kept on site and are available on request to an inspector, other Contractors, the Client and the Client's Agent or employee.
- An owner of a structure must ensure that—
- Inspections of that structure are carried out periodically by competent persons in order to render the structure safe for continued use;
- That the inspections contemplated in paragraph (a) are carried out at least once every six months for the first two years and thereafter yearly;
- The structure is maintained in such a manner that it remains safe for continued use;
- The records of inspections and maintenance are kept and made available on request to an inspector.
- That the structure on/in, which works, are to be performed has been inspected by a certified structural engineer declaring the structure to be safe for construction, demolition or renovations work processes.
- Steps are taken to ensure that no structure becomes unstable or poses a threat of collapse due to demolition and construction work being performed on it, or in the vicinity of it.
- No structure is overloaded to the extent where it becomes unsafe He/she has received from the designer the following information:
- Information on known or anticipated hazards relating to the construction/demolition work and the relevant information required for the safe execution of the construction/demolition work
- A geo-scientific report (where applicable) The loading the structure is designed to bear
- The methods and sequence of the construction/demolition process
- All drawings pertaining to the design are on site and available for inspection
- The structural engineer shall carry out inspections at appropriate and sufficient intervals of the construction work involving the design of the relevant structure to ensure compliance with the design and record the results of these inspections in writing. These records shall be maintained on the relevant site safety files as per Construction regulation 11(2)(d).

10.11 Asbestos

Asbestos-containing materials (ACMs) pose significant health risks when fibers are inhaled. These risks

include asbestosis, lung cancer, and mesothelioma. The Occupational Health and Safety Act (OSHACT) and the Asbestos Regulations, 2001, place strict requirements on any employer or contractor who may encounter or disturb asbestos during construction, demolition, or maintenance work.

The contractor must ensure that asbestos-related risks are identified, controlled, and managed in accordance with statutory provisions. No person may work with, remove, or dispose of asbestos without proper authorization, training, and protective measures.

Contractor Requirements

If asbestos is present or suspected on site, the Contractor shall:

Identification and Risk Assessment

- Conduct a survey to identify asbestos-containing materials before commencing work.
- Compile an asbestos inventory and risk assessment in line with Regulation 3 of the Asbestos Regulations.
- Submit the assessment to the Client/Agent before disturbing any asbestos material.

Approval and Notification

- Notify the Department of Employment and Labour in writing before undertaking asbestos work, as required by law.
- Obtain written approval where necessary for asbestos removal or encapsulation.

Competency and Training

- Ensure all workers involved in asbestos work are trained and certified in asbestos handling.
- Appoint a competent person to supervise asbestos-related activities.

Medical Surveillance

- Enrol employees exposed to asbestos in a medical surveillance Programme as per Regulation 9.
- Maintain medical records for the prescribed period.

Protective Measures

- Provide appropriate personal protective equipment (PPE), including approved respirators and protective clothing.
- Implement dust suppression methods (e.g., wetting or encapsulation) to prevent airborne asbestos fibers.
- Prohibit the use of power tools without adequate controls (HEPA filters, wet cutting methods).

Work Area Control

- Clearly demarcate asbestos work zones with warning signage.
- Restrict access to authorized personnel only.
- Prevent contamination of adjacent work areas.

Waste Management

- Collect asbestos waste in sealed, labeled containers in compliance with waste disposal regulations.
- Dispose of asbestos waste at a licensed hazardous waste site with proof of disposal retained.

Emergency Procedures

- Develop and implement emergency procedures for accidental asbestos exposure or fiber release.
- Report any incidents immediately to the Client/Agent and the Department of Labour.

10.12 Demolition work (Construction Regulation 14)

- A contractor must appoint a competent person in writing to supervise and control all demolition work on site.
- A contractor must ensure that before any demolition work is carried out, and in order to ascertain the method of demolition to be used, a detailed structural engineering survey of the structure to be demolished is carried out by a competent person and that a method statement on the procedure to be followed in demolishing the structure is developed by that person.
- During a demolition, the competent person contemplated in sub regulation (1) must check the structural integrity of the structure at intervals determined in the method statement
- contemplated in sub regulation (2), in order to avoid any premature collapses.

A contractor who performs demolition work must –

- Regarding a structure being demolished, take steps to ensure that—
 - No floor, roof or other part of the structure is overloaded with debris or material in a manner which would render it unsafe;
 - all reasonably practicable precautions are taken to avoid the danger of the structure collapsing when any part of the framing of a framed or partly framed building is removed, or when reinforced concrete is cut; and
 - precautions are taken in the form of adequate shoring or other means that may be necessary to prevent the accidental collapse of any part of the structure or adjoining structure;
- Ensure that no person works under overhanging material or a structure which has not been adequately supported, shored or braced;
- ensure that any support, shoring or bracing contemplated in paragraph (b), is designed and constructed so that it is strong enough to support the overhanging material;
- Where the stability of an adjoining building, structure or road is likely to be affected by demolition work on a structure, take steps to ensure the stability of such structure or road and the safety of persons;
- ascertain as far as is reasonably practicable the location and nature of electricity, water, gas or other similar services which may in any way be affected by the work to be performed, and must before the commencement of demolition work that may affect any such service, take the steps that are necessary to render circumstances safe for all persons involved;
- Cause every stairwell used and every floor where work is being performed in a building being demolished, to be adequately illuminated by either natural or artificial means;
- cause convenient and safe means of access to be provided to every part of the demolition site in which persons are required to work; and
- erect a catch platform or net above an entrance or passageway or above a place where persons work or pass under, or fence off the danger area if work is being performed above such entrance, passageway, or place so as to ensure that all persons are kept safe where there is a danger or possibility of persons being struck by falling objects.

A contractor must ensure that no material is dropped to any point, which falls outside the exterior walls of the structure, unless the area is effectively protected,

No person may dispose of waste and debris from a high place by a chute unless the chute—

- Is adequately constructed and rigidly fastened;
 - if inclined at an angle of more than 45 degrees to the horizontal, is enclosed on its four sides;
 - if of the open type, is inclined at an angle of less than 45 degrees to the horizontal;
 - Where necessary, is fitted with a gate at the bottom end to control the flow of material; and
 - Discharges into a container or an enclosed area surrounded by barriers.

A contractor must ensure that every chute used to dispose of rubble is designed in such a manner that rubble does not free-fall and that the chute is strong enough to withstand the force of the debris travelling along the chute.

A contractor must ensure that no equipment is used on floors or working surfaces, unless such floors or surfaces are of sufficient strength to support the imposed loads.

Where a risk assessment indicates the presence of asbestos, a contractor must ensure that all asbestos related work is conducted in accordance with the Asbestos Regulations, 2001, promulgated by Government Notice No. R.155 of 10 February 2002.

Where a risk assessment indicates the presence of lead, a contractor must ensure that all lead related work is conducted in accordance with the Lead Regulations, 2001, promulgated by Government Notice No. R.236 of 28 February 2002.

Where the demolition work involves the use of explosives, a method statement must be developed in accordance with the applicable explosives legislation, by an appointed person who is competent in the use of explosives for demolition work and all persons involved in the demolition works must adhere to demolition procedures issued by the appointed person.

A contractor must ensure that all waste and debris are as soon as reasonably practicable removed and disposed of from the site in accordance with the applicable legislation.

11. PLANT, MACHINERY AND EQUIPMENT

11.1. Construction Vehicles & Mobile Plant (CR 23)

“Construction Plant” includes all types of plant including but not limited to, cranes, piling rigs, excavators, construction vehicles, compaction plant, batch plants and lifting equipment.

The Principal Contractor must ensure that such plant complies with the requirements of the OHS Act, Construction Regulations 2014 and any manufacturer’s specifications. The Principal Contractor and all relevant Contractors must inspect and keep records of inspections on construction vehicles and mobile plant used on site. Only authorized/competent persons in the possession of the necessary training certificates and in possession of a certificate of medical fitness may operate construction vehicles and mobile plant. Appropriate PPE and clothing must be always provided and maintained in good condition. Reverse alarms must be installed on construction vehicles i.e. trucks, digger loaders, etc. Vehicles and pedestrian traffic must be safely separated, preventing any unnecessary interfacing.

All construction vehicles and mobile plant must be tagged and a full-service history of these vehicles and plant must be available on site.

Any vehicle or mobile plant using any public road must be roadworthy and carry a certificate proving this, likewise any operator of such construction vehicle or mobile plant will have to carry the necessary driver’s license.

11.2. Bulk Earthworks and the haulage

PPE REQUIREMENTS

- Hardhat
- Overall (non-supervisory)
- Steel cap Safety Boots / shoes

Oxygen and acetylene bottles must be secured in an upright position, must not show signs of corrosion or damage and must have flash back arrestors fitted on both bottle and torch.

11.3. Pressure Equipment and Gas Bottles

The Principal Contractor and all relevant Contractors shall comply with the Pressure Equipment Regulations (PER) and all other applicable statutory requirements when pressure vessels, gas bottles, or related equipment are brought onto site.

Contractor Requirements

The following measures shall be implemented and maintained:

Inspection and Certification

- All pressure vessels (owned or hired) shall comply with the statutory 36-month pressure vessel inspection and testing requirement.
- Valid certificates of testing and inspection must always be available on site for verification by the Client/Agent.

Competence and Training

- Only trained, competent personnel shall be permitted to operate or handle pressure equipment and gas bottles.
- Records of such training and competency shall be kept on site.

Personal Protective Equipment (PPE)

- Users must be issued with and required to wear the correct PPE, including face shields, gloves, ear protection, and other equipment as risk assessed.

Noise Control

- Areas where pressure equipment is in use shall be **identified as noise zones** with clear warning signage.
- Where reasonably practicable, noise levels must be reduced and maintained within permissible exposure limits.

Daily Pre-Use Inspections

- A **pre-start inspection** shall be carried out daily on all pressure equipment and gas bottles.
- Findings must be **recorded in a register** and corrective action taken immediately where defects are found.

Fire Prevention and Protection

- Appropriate **fire-fighting equipment** must always be available in areas where pressure equipment and gas bottles are used or stored.
- Fire extinguishers must be inspected and maintained in line with legal requirements.

Handling and Storage of Gas Bottles

- Gas bottles shall be stored in designated areas, upright, and secured with chains or similar restraints

to prevent tipping.

- Gas bottles must be transported on suitable **trolleys**, never dragged or rolled.
- Empty and full cylinders must be stored separately and clearly marked.

Flashback Arrestors and Safety Devices

- All gas cutting and welding equipment must be fitted with **flashback arrestors** and non-return valves where applicable.
- Equipment must be maintained in safe working order.

11.4. Hired Plant and Machinery

The Principal Contractor shall ensure that any hired plant and machinery used on site is safe for use and complies with the minimum legislated requirements. The necessary requirements as stipulated by the OHS Act and Construction Regulations 2014 shall apply.

The Principal Contractor shall ensure that operators hired with machinery are competent and that certificates are kept on site in the health & safety file.

Any load test requirements and inspections in terms of legislation must be complied with and copies of load test certificates and inspections must be kept in the health & safety file. All relevant Contractors must ensure the same.

11.5. Temporary Works (CR 12)

- A Contractor must appoint a temporary works designer in writing to design, inspect and approve the erected temporary works on site before use.
- A Contractor must ensure that all temporary works operations are carried out under the supervision of a competent person who has been appointed in writing for that purpose.
- A Contractor must ensure that—
- All temporary works structures are adequately erected, supported, braced and maintained by a competent person so that they are capable of supporting all anticipated vertical and lateral loads that may be applied to them, and that no loads are imposed onto the structure that the structure is not designed to withstand;
- All temporary works structures are done with close reference to the structural design drawings, and where any uncertainty exists the structural designer should be consulted;
- Detailed activity specific drawings pertaining to the design of temporary works structures are kept on the site and are available on request to an inspector, other Contractors, the Client, the Client's Agent or any employee;
- All persons required to erect, move or dismantle temporary works structures are provided with adequate training and instruction to perform those operations safely;
- All equipment used in temporary works structure are carefully examined and checked for suitability by a competent person, before being used;
- All temporary works structures are inspected by a competent person immediately before, during and after the placement of concrete, after inclement weather or any other imposed load and at least on a daily basis until the temporary works structure has been removed and the results have been recorded in a register and made available on site;

- No person may cast concrete, until authorization in writing has been given by the competent person contemplated in paragraph (a);
- If, after erection, any temporary works structure is found to be damaged or weakened to such a degree that its integrity is affected, it is safely removed or reinforced immediately;
- Adequate precautionary measures are taken in order to—
 - Secure any deck panels against displacement; and
 - o Dust masks when
 - o required Dust goggles
 - o Reflective vest displaying company name

11.6. Lifting Machines, Tackle and Lifting Operations/ Tower Cranes (DMR 18 / CR 22)

The Principal Contractor and all Contractors shall ensure that lifting machinery and tackle are inspected before use and thereafter in accordance with the Driven Machinery Regulations and the Construction Regulations (Regulation 22).

There must be a competent lifting machines inspector (registered with the Department of Labour, Gazette number 27305) and a competent lifting tackle inspector who must inspect the equipment, taking into account that:

- All lifting machinery and tackle has a safe working load clearly indicated;
- Regular inspection and servicing is carried out (3-monthly inspections and records for tackle and 6-monthly inspections and records for lifting machines);
- Records are kept of inspections and of service certificates;
- There is proper supervision in terms of guiding the loads that includes a trained banks man to direct lifting operations and check lifting tackle and attachments daily;
- Rigging of loads to be done in accordance with acceptable safe work practices;
- Tower crane bases have been designed and finally approved by an engineer before loading such base;
- Annual load test certificates for lifting machines are in place;
- Tower cranes are fitted with wind speed meters and audible alarm/warning lights, crane hooters, and that the crane's load chart is posted up in the crane cab;
- The operators are certified to operate the specific machine (valid certificate to be on site); The operators are physically and psychologically fit to work and are in possession of a medical certificate of fitness that is to be available on site.

The Principal Contractor must ensure that safe lifting operations are adhered to. This must include the following:

- Pallets of bricks being lifted by a tower crane or mobile crane may only be lifted when secured in a brick cage or brick net, securing the entire load of bricks to the crane hook; Mortar bins, waste bins and any other receptacle must be deemed to be a lifting attachment and must be designed to carry the required load. Such attachments must be on register and inspected every 3 months by the competent lifting tackle inspector.
- Temporary Works may only be lifted by using purpose designed and manufactured lifting tackle – eight-gauge wire and the like is prohibited.

- A competent banks man must be in control of all rigging, slinging and lifting operations and must wear a high visibility vest, be in possession of a two-way radio and make use of a whistle, warning persons of overhead loads. The crane operator may only take commands and signals from the designated bank men;
- Guide ropes (tag lines) must be used when lifting large shutters, long bundles of re-bar and other similar loads. This must be detailed in the Principal Contractor's and Contractors' fall prevention plans.
- Lifting operations must be re-evaluated once wind speeds reach 40 km/h unless otherwise specified by the lifting machine manufacturer.

11.7 Ladders (GSR 13)

The Principal Contractor must ensure that all ladders are inspected daily with monthly records kept; in good safe working order; the correct height for the task; extend at least 1m above the landing; fastened and secured; and at a safe angle. Stepladders must be safe for use, must be the correct height for the task and the top two rungs may not be used. Records of inspections must be kept in a register on site.

Contractors using their own ladders must ensure the same.

11.8. Driven Machinery

The Principal Contractor and relevant Contractors must ensure compliance with the Driven Machinery Regulations, which includes carrying out risk assessments on the machines, inspecting machinery regularly, appointing a competent person to inspect and ensure maintenance, issuing PPE and relevant clothing, and training those who use machinery.

11.09. Electrical Installations and Portable Electrical Tools (CR 24)

The Client will ensure as far as possible that the Principal Contractor is made aware of the positions of all electrical power lines.

The Principal Contractor must notify the Client should it not be sure of the location of any electrical power lines.]The Principal Contractor must comply with the Electrical Installation Regulations, the Electrical Machinery Regulations and the Construction Regulations (CR 24).The Principal Contractor must keep a copy of the Certificate of Compliance (COC) for its electrical power supply.A revised COC is required whenever the installation is altered or changed in any way. All temporary electrical installations must be inspected at least weekly by a competent person appointed in writing.Portable electrical tools and equipment must be visually inspected daily. Records of inspections must be kept on site (monthly inspection records to be kept after a competent inspector has carried out the monthly check).

11.10. Electrical & Mechanical Lockout

A system of control shall be established in order that no unauthorized person can energize a circuit, open a valve, or activate a machine on which people are working or doing maintenance, even if equipment, plant or machinery is out of commission for any period, thus eliminating injuries and damage to people and equipment as far as is reasonably practicable.

Physical/mechanical lock-out systems shall be part of the safety system and included in training.

Lockouts shall be tagged and the system tested before commencing with any work or repairs.

11.11. Cantilever Loading Platforms

Should these platforms be used, they must carry a design drawing issued by a competent person indicating the maximum safe workload and the erection and maintenance procedures.

The platform must be complete with guardrails and toe boards and must carry a notice indicating the maximum

safe workload. Access routes under the loading platforms must be diverted and persons must be protected from the potential material and objects falling. These platforms must be placed on a register and inspected on a weekly basis

11.12. Materials Hoists (CR 19)

A Contractor shall ensure that every material hoist and its tower have been constructed of sound material in accordance with the generally accepted technical standards.

- Each Contractor shall cause the tower of every material hoist to be –
- Erected on firm foundations and secured to the structure or braced by steel wire guy ropes, and to ensure that the highest landing has an unobstructed space of 900 mm for over travel.
- Enclosed on all sides at the bottom, and at all floors
- Provided with a door or gate at least 2100 mm in height at each landing and such door or gate shall be kept closed, except when the platform is at rest at such a landing.

A Contractor shall cause –

The platform of every material hoist to be designed in such a manner that it shall safely contain the loads being conveyed and that the combined weight of the platform and the load does not exceed the designed lifting capacity of the hoist;

The hoisting rope of every material hoist which has a remote winch to be effectively protected from damage. The material hoist to be provided with an efficient brake capable of holding the platform with its maximum load in any position when the power is not being supplied to the hoisting machinery.

The Contractor is to ensure that wherever building tools and equipment are conveyed that these have been tied down and secured so as to prevent uncontrolled movement.

A Contractor shall cause a notice, indicating the maximum mass MML load which may be carried at any one time and the prohibition of persons from riding on the platform of the material hoist, to be affixed around the base of the tower and at each landing.

A Contractor of a material hoist shall not require or permit any person to operate such a hoist, unless the person is competent (Has proof of training which should be retained on the site Health & Safety File) in the operation thereof. No Contractor shall require or permit any person to ride on a material hoist unless certified otherwise.

A Contractor shall cause every material hoist-

- To be inspected daily by a competent person who has been
- Appointed in writing and has the experience pertaining to the erection and maintenance of material hoists or similar machinery.
- Inspection contemplated in paragraph (a), to include the determination of
- The serviceability of the entire material hoist including guides, ropes and their connections, drums, sheaves or pulleys and all safety devices.
- Inspection results to be entered and signed in a register, which shall be kept on the site safety file C.R. 7 for that purpose.
- To be properly maintained and that the maintenance records in this regard are kept on the site safety file C.R.7

11.13. Explosive Actuated Fastening Devices (CR 21)

No Contractor may use or permit any person to use an explosive actuated fastening device, unless—

- The user is provided with and uses suitable protective equipment.
- The user is trained in the operation, maintenance and use of such a device.
- The explosive actuated fastening device is provided with a protective guard around the muzzle end, which effectively confines any flying fragments or particles; and
- The firing mechanism is so designed that the explosive actuated fastening device, will not function unless —
- It is held against the surface with a force of at least twice its weight; and
- The angle of inclination of the barrel to the work surface is not more than 15 degrees from a right angle.

A Contractor must ensure that —

- Only cartridges suited for the relevant explosive actuated fastening device, and the work to be performed, are used.
- An explosive actuated fastening device is cleaned and examined daily before use and as often as may be necessary for its safe operation by a competent person who has been appointed for that purpose.
- The safety devices of an explosive actuated fastening device are in good working order prior to use.
- When not in use, an explosive actuated fastening device and its cartridges are locked up in a safe place, which is inaccessible to unauthorized persons.
- An explosive actuated fastening device is not stored in a loaded condition.
- A warning notice is displayed in a conspicuous manner in the immediate vicinity wherever an explosive actuated fastening device is used; and
- The issuing and collection of cartridges and nails or studs of an explosive actuated fastening device are—
- Controlled and done in writing by a person having been appointed in writing for that purpose; and
- Recorded in a register by a competent person and that the recipient has accordingly signed for the receipt thereof as well as the returning of any spent and unspent cartridges.

12 .OCCUPATIONAL HEALTH

12.1. Industrial Hygiene (exposure to physical and chemical stress factors)

- Exposure of workers to occupational health hazards and risks is very common in any work environment, especially in construction.
- Occupational exposure is a major problem, and all Contractors must ensure that proper health and hygiene measures are put in place to prevent exposure to these hazards. Prevent inhalation, ingestion, and adsorption through the skin of hazardous chemical substances.

12.2. Noise Exposure and Hearing Conservation must comply with the updated Noise Exposure Regulations, 2024 (GN 5953 of 6 March 2025), which replace the previous GNR 307 of 2003. These regulations require the use of personal dosimetry, updated medical surveillance including audiometry in accordance with the Code of Practice for Audiometry, and a phased transition with full repeal of GNR 307 by September 2026. Employers must ensure compliance with SANS 10083:2020 and implement comprehensive noise risk assessments, exposure controls, and hearing conservation programs.

- Occupational noise emitted by construction machinery and power tools must be controlled as far as possible by implementing engineering solutions such as noise dampening, regular maintenance, servicing and inspection, screening off the noise, and reducing the number of persons exposed. It is generally accepted that all employees on a construction site will be exposed to varying degrees of noise.
- In view of this, the Contractor shall ensure full compliance with the above- mentioned regulation; furthermore, provide proof of the relative management process.
- The Contractor is advised to pay particular attention to section 12 of the "Noise- Induced Hearing Loss Regulation"

12.3. Ergonomics

Ergonomics is the study of how workers relate to their workstations. We advise the Principal Contractor and Contractors to take this into consideration when conducting risk assessments, thereby improving the worker-task relationship, which will in turn improve productivity and reduce chronic conditions such as back strains, joint problems and mental fatigue, amongst others.

12.4. Hazardous Chemical Substances (HCS)

- The Principal Contractor must ensure that the use, transport, and storage of HCS are carried out as prescribed in the HCS Regulations.
- The Principal Contractor and Contractors must ensure that all hazardous chemicals on site have Material Safety Data Sheets (MSDS) on site and the users are made aware of the hazards and precautions that need to be taken when using the chemicals.
- The First Aiders must be made aware of the MSDS's and how to treat HCS incidents appropriately.
- Copies of the MSDS's must be kept in the first aid box and in the store. All containers
- must be clearly labeled.
- Flammable substances must be stored separately, away from other materials, and in a well-ventilated area (appropriate cross ventilation).
- A competent person should be appointed to be in control of this portfolio.
- Fuel storage tanks must conform to the general environmental legislation and Environmental Management Plan. The necessary safety signage must be posted up on the tanks – 'no naked flames', 'no smoking'.
- Two 9kg DCP fire extinguishers must be placed near to fuel tanks, but not within 5m of the tanks. These extinguishers are over and above the minimum four required for the offices and stores.

12.5. Construction Employees' Facilities (CR 30) (Welfare)

- The Principal Contractor must supply sufficient toilets (1 toilet per 30 workers), clean, lockable changing facilities, hand washing facilities, soap, toilet paper, and hand drying material.
- Waste bins must be strategically placed around site and emptied regularly. Workers must not be exposed to hazardous materials/substances while eating and must be provided with adequate, sheltered eating areas complete with benches and tables.
- Stores may not double up a change rooms or mess areas.

12.6. Alcohol and other Drugs

- No alcohol and drugs will be allowed on site.

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C3.8: Reference to the Scope of Works in Health and Safety Specification

- No person may be under the influence of alcohol or any drug while on the construction site. Any person on prescription medication must inform his/her superior, who shall in turn report this to the Principal Contractor forthwith.
- Any person suffering from any illness/condition that may have a negative effect on his/her/anyone else's health or safety performance must report this to his/her superior.
- Any person suspected of being under the influence of alcohol or other drugs must be sent home immediately.

12.7. Reporting on occupational health issues

- As per the incident reporting and investigation requirements, it is essential that the Contractor advise the Client on any condition or occurrence where the health of any worker has been affected.
- Where an occupational health concern has been raised such incident is to be investigated as any other incident.

12.8 Occupational health medicals

- Contractors Must Provide both entry and exit medicals for all employees.
- It is however the responsibility of the Principal Contractor to ensure that where legislation requires a medical fitness certificate that such medicals are conducted and records kept in the site safety file.
- Medicals must be issued as per Annexure 3 document.

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C3.8: Reference to the Scope of Works in Health and Safety Specification

ANNEXURES

Annexure A - List of possible legal appointments and assignments

Annexure B- Safe Work Method Statements, minimum requirement

Annexure C - Compliance submissions in terms of the Specification Annexure

D - Health and Safety costing guideline

Annexure E - Sample site safety file index

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C3.8: Reference to the Scope of Works in Health and Safety Specification

PRINCIPAL CONTRACTOR'S ACCEPTANCE OF SPECIFICATION

I, _____ the Contractor, do hereby declare that my company _____ acknowledge having read and understood the conditions contained in this document and furthermore we agree and accept to abide by the conditions and requirements of the OHS Act and all applicable regulations there under.

CONTRACTOR: _____ DATE: _____

WITNESS _____ PRINT NAME: _____

CLIENT: _____ DATE: _____

WITNESS _____ PRINT NAME: _____

Annexure A - Assignment of responsible persons

The Principal Contractor must make all management appointments. Below is a list of Mandatory appointments for this project. (Further appointments could become necessary as the project progresses).

Appointment / Function	Legal Reference	Typical Responsibilities
Client / Client's Agent	CR 5(7)	Ensure overall compliance; approve Health & Safety Plan
Principal Contractor	CR 5(1)(k) & 7(1)	Overall Health & Safety responsibility; compile and implement Health & Safety Plan
Construction Manager	CR 8(1)	Manage construction activities and Health & Safety implementation
Construction Supervisor	CR 8(7)	Supervise construction work and enforce safety controls
Risk Assessment Competent Person	CR 9	Conduct baseline and activity-based risk assessments
Demolition Competent Person	CR 14	Supervise and control bridge demolition work
Temporary Works Supervisor	CR 12(2)	Supervise formwork, shoring, propping and bridge support systems
Temporary Works Designer	CR 12(1)	Design falsework, propping and cantilever support systems
Excavation Competent Person	CR 13	Inspect bridge foundations and road layer excavations daily
Fall Protection Plan Developer	CR 10(1)(a)	Develop and monitor fall protection systems for bridge works
Health & Safety Officer	CR 8(5)	Monitor compliance; conduct audits and reporting
Health & Safety Representatives	OHS Act Sections 17 & 18	Worker representation and workplace inspections
Health & Safety Committee	OHS Act Section 19	Conduct formal Health & Safety meetings
First Aider	GSR 3(4)	Provide first aid and maintain first aid kits
Incident Investigator	GAR 9	Investigate incidents and report to Department of Labour
Lifting Machinery Inspector	DMR 18	Inspect cranes used for bridge elements
Environmental Control Officer	NEMA Act 107 of 1998	Ensure environmental compliance

TABLE 2: Additional / Assistant Appointments
(High-Risk Infrastructure Support Roles)

Appointment / Function	Legal Reference	Typical Responsibilities
Assistant Construction Manager	CR 8(2)	Assist Construction Manager; manage bridge or road section
Assistant Construction Supervisor	CR 8(8)	Oversee demolition or deck works
Demolition Supervisor	CR 14	Directly supervise bridge demolition crew

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Formwork / Falsework Inspector	CR 12	Inspect bridge deck formwork
Traffic Safety Officer	CR 4(1)(c)	Implement and manage Traffic Management Plan
Safety Officer (Additional)	CR 8(5)	Dedicated Health & Safety oversight for high-risk bridge works
Emergency Coordinator	OHS Act Section 8	Manage emergency and rescue procedures, including fall rescue
Fall Protection Supervisor	CR 10	Supervise working-at-height activities
Environmental Site Representative	NEMA / EMPr	Assist Environmental Control Officer with daily monitoring

Part C3: Scope of Work

C3.8: Reference to the Scope of Works in Health and Safety Specification

Annexure B - Safe work procedures/method statements required

The hazardous operations listed below have been identified by the Client and must be managed by the Principal Contractor in the form of preparation of method statements / SWP's before such work begins. The onus remains on the Principal Contractor to conduct Risk Assessments and compile method statements for hazardous tasks (Construction Regulations). Contractors appointed by the Principal Contractor will be required to conduct the necessary Risk Assessments and method statements and forward these to the Principal Contractor before such work begins.

Due to the fact that various structures will be constructed with varying engineering designs, structure specific method statements will be required.

No.	Mandatory Method Statement / SWP	Date Approved	Date Last Reviewed
1	Traffic Accommodation & Traffic Management		
2	Movement of Construction Vehicles & Mobile Plant		
3	Clearing, Grubbing & Earthworks (Cut/Fill)		
4	Trench Excavation (Deep & Shallow)		
5	Shoring, Benching & Battering Procedures		
6	Pipe Laying & Pipe Handling (450–1050 mm)		
7	Manhole & Catchpit Construction / Confined Space Entry		
8	De-watering of Excavations		
9	Backfilling & Compaction of Trenches		
10	Roadbed Preparation & Layerworks		
11	Asphalt Surfacing (Prime, Tack, Paving, Compaction)		
12	Bridge Excavation to Bedrock		
13	Rock Dowel Installation		
14	Reinforcement Fixing & Concrete Casting (Bridge Works)		
15	Falsework, Formwork & Temporary Works		
16	Bridge Deck Construction (All Phases)		
17	Lifting Operations (Cranes, Rigging, Slings)		
18	Working at Heights (Deck, Edges, Parapets)		
19	Working Over / Near Water (River Training)		
20	Gabion, Reno Mattress & Erosion Protection Works		
21	Concrete Works (General)		
22	Hot Works (Cutting, Grinding, Welding)		
23	Environmental Controls (Dust, Noise, Silt, Water)		
24	Spill Control & Fuel Handling		
25	Waste Management (General & Hazardous)		
26	Emergency Procedures (Flooding, Severe Weather, Evacuation)		

Annexure D - Health and Safety costing guideline

As part of the tender submission, Contractors are required to submit a detailed breakdown as to the expenditure requirements regarding the implementation and maintenance of the Health and Safety program. This check sheet serves as a guideline to the compilation of such costs and must be completed by the Contractor.

List may be modified as required but must be submitted along with tender and self-assessment.

	Description	Qty	Unit Cost	Total
1	Approved SHE officer	36		
2	Other			
3	Health and safety plan	1		
4	Health and Safety file			
5	Medicals			
	-Entry	100		
	Exit	100		
6	Safety training			
	-SHE rep	5		

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	-scaffold rector	1		
	-scaffold inspector	1		
	-fire fighter	2		
	-emergency warden	2		
	-first aid	5		
	-Incident investigation	1		
	-Hazardous chemical controller	1		
	Traffic Safety Officer	1		
	Tip Truck Operator	1		
	Flagmen	5		
	-Other			
	Personal Protective Equipment			
8	Hard hats with chin straps	120		
9	Overalls	200		
10	Gloves	200		
11	Shoes (safety boots)	200		
12	Safety goggles	100		
13	First aid box	2		
14	Dust musk(box)	20		
15	Gum boots steel (toe cap)	10		
16	Safety harnesses	1		
17	Reflective vests	120		
21	Hearing protection	15		
22	Other			
	Site Establishment			
23	Fencing, signs, poles and barricades	1		
24	Site establishment fire extinguishers	2		

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25	Symbolic signage	10			
26	Chemical toilets	36			
30	Safety notice boards/SMI boards	1			
33	Copy of required legislation	2			
35	Other				
	Other				
Total				R	-

Annexure E - Typical safety file index and registers

Please note: Site File contents may vary depending on the type of trade. (Typical Site File Contents)

1. SHE Policy
2. Construction Work Permit
3. Client Safety Spec
4. Client and Principal Contractor Mandatory Agreement (37.2)
5. SHE Plan
6. Environmental Management Plan
7. Organogram
8. Mandatory Appointments
9. General Appointments
10. Drivers Licenses and Certificates of Training
11. Medical Certificates
12. Method Statements
13. Risk Assessments
14. Risk Assessment Review Plan
15. Proof of Risk Assessment Training
16. Safe Works Procedures
17. Fall Protection Plan
18. Proof of Fall Protection Training
19. Demolition Plan
20. Traffic Management Plan
21. MSDS
22. Emergency Procedure
23. Emergency Tel List
24. Accident and Incident Procedures
25. Annexure 1 Forms

26. Severe Weather Plan
27. Heat Stress Procedure
28. Lock Out Procedure
29. Equipment list and Test Certifications
30. Minutes – Safety Meetings
31. Audits and Notifications
32. WCA Certificate of Good Standing & Claim Forms
33. Site Rules
34. Inductions
35. Toolbox Talks
36. Copy of the Act
37. Copy of Construction Regulations

Part C3: Scope Of Work

C3.9: Reference to the Scope of Works in Environmental Management Programme

CITY OF TSHWANE
HUMAN SETTLEMENTS DEPARTMENT

CONTRACT NO: HS 09 2025/26

THE CONSTRUCTION OF 6KM ROAD AND STORMWATER NETWORK AND ONE BRIDGE (BRIDGE NO 3) ALONG BATHLAPING STREET IN OLIEVENHOUTBOSCH EXTENSION 60 FOR A PERIOD OF 36 MONTHS - PHASE 1

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SECTION 1: INTRODUCTION, PROJECT AND SITE DESCRIPTION

1.1. **Background**

The project by the City of Tshwane entails the construction of a 6km road network with associated storm water drainage infrastructure & x1 bridge (Bridge 03) in Olievenhoutbosch Extension 60. The works include earthworks, foundation systems, reinforced concrete substructure and superstructure, approach road tie-ins, river training works, and all ancillary elements required to deliver a fully complete and operational bridge crossing. The project is situated on Portion 322 of the farm Olievenhoutbosch 389 JR, approximately 10km South West of Centurion. The site is approximately 54Ha in extent, bounded by Olievenhoutbosch Ext 19 Township to the South West and the Rietspruit River to the North West, under the jurisdiction of the City of Tshwane Metropolitan Municipality, within Ward 77. The demolition of the old structures and construction of the new bridge and a 6km road network with associated stormwater drainage infrastructure will entail the infill and removal of more than 10m³ of material from within the river. The proposed upgrades will also result in the construction of more than 10m² of infrastructure within the two watercourses and clearance of more than 300m² of indigenous vegetation within a Critical Biodiversity Area as per the Gauteng C-Plan and the endangered Egoli Granite Grassland ecosystem type as per section 52 of the NEMBA.

1.2. **Scope of Work**

Prepare a site-specific EMPr for the upgrade of a bridge structure and new 6km road network with associated stormwater drainage infrastructure within the existing Olievenhoutbosch settlement to manage and mitigate potential environmental impacts during construction. The provisions of this EMPr are binding on the contractor throughout the life of the contract.

1.3. **General Principles and Purpose of This EMPr**

The purpose of this EMPr is to guide all contractors and site workers on how to operate responsibly to achieve these goals and ensure that the requirements of the legislation are met. This EMPr is a working document to be used during construction and has been generated to ensure that:

- The protection of the environment during the construction period.
- All emissions to air water and soil are controlled and managed to mitigate their impacts on the environment and surrounding communities.
- Nuisance factors associated with construction are controlled as far as is reasonably possible.
- The correct principles are followed from the very beginning during site set up, thereby reducing frustrations on the part of the contractor when asked to comply with the strictures of the EMPr and relevant environmental legislation.
- The post-construction clean-up is carried out correctly to avoid environmental impacts and meet the legislated requirements.

This EMPr is subject to change as brought about by variations in the project specification, and any changes must be approved by the relevant authorities.

1.4. **Responsibilities**

The Project Applicant (City of Tshwane) is responsible for:

- Ensuring that the engineer and contractors comply with the approved EMPr.
- Ensuring compliance with the provisions for duty of care and remediation of damage per section 28 of the National Environmental Management Act (NEMA), (No. 107 of 1998) and its obligations regarding the control of emergency incidents in terms of Section 30 of NEMA.
- Notifying the relevant authorities (GDARD) of any incident as defined in subsection 30(1) (a) of NEMA.
- Ensuring that the mitigation measures to address environmental impacts identified are carried out by the contractor.

The Project Manager or Engineer is responsible for:

- Appointing a qualified contractor and ensuring that they have read and understood the EMPr.
- Ensuring all work undertaken is per the EMPr.
- Ensuring adherence to safety, health and environment (SHE) standards and ensuring the construction activities comply with the EMPr.
- Arranging for the site to be monitored daily to ensure compliance with the EMPr.
- Overall responsibility and accountability for the site during the construction phase.
- Mitigating impact on the environment through responsible operation and adherence to the EMPr.
- Ensuring transparency in their operation and environmental management of the site.
- Managing the contractor to ensure that they adhere to the EMPr and ensuring that all necessary documentation is maintained on-site.
- Ensuring that the contractor has a copy of the EMPr and Method Statements.

The Site Contractor(s) is/are responsible for:

- Providing a suitable person to operate as Designated Environmental Officer (DEO) to undertake the monitoring of the day to day requirements of the EMPr.
- Operating per the EMPr and carrying out construction activities with due care and diligence.
- Ensuring that any communications from stakeholders are reported to the Environmental Control Officer (ECO).
- Maintaining relevant documentation for review by the ECO.
- Undertaking the mitigation measures to address the environmental impacts identified.
- Ensure implementation of all requirements stipulated in the General Authorization (GA) and Environmental Authorization (EA).
- Notification 20 days prior to site establishment to ECO to ensure timely notification to GDARD as per EA.

The Designated Environmental Officer (DEO) is responsible for:

- Daily compliance monitoring of construction against the requirements set out in this EMPr, and the environmental authorisation.
- Undertaking the mitigation measures to address the environmental impacts identified.
- Ensuring that all site staff are adequately trained in environmental matters.
- Liaising with site staff and I&APs through the Community Liaison Officer (CLO), if required.
- Must be conversant with the applicable legislation pertaining to the environment.
- Liaise directly with the ECO on the monthly audit findings.
- Identification of possible areas of improvement during construction.

- Monitoring the construction site regularly and recording key findings.
- Advising the Project Manager and the contractors on environmental matters.
- Provide recommendations to address and rectify these matters.
- Monitoring implementation of the EMPr by the contractor.
- Work hand in hand with the health and safety officer.
- Maintain records in a file pertaining to the requirements of the EMPr.

The Environmental Control Officer (ECO or Independent environment practitioner) is responsible for:

- Conducting regular auditing against the requirements of the EMPr and Environmental Authorization.
- Liaising directly with the GDARD and supplying them with copies of the audit reports.
- Liaising directly with the contractor and EO and supplying them with a copy of the audit reports.

1.5. Monitoring

The key to a successful EMPr is effective monitoring and review to ensure the effective functioning of the EMPr and to identify and implement corrective measures in a timely manner. The EO must be responsible for day-to-day monitoring and reporting while the ECO must undertake to monitor the site on a monthly basis. The day-to-day monitoring must be conducted by the EO in conjunction with the contractor and the engineer. The monthly audit report by the ECO can then be used to provide external monitoring and reporting to GDARD Compliance and Enforcement. Paramount to the reporting of non-conformances or incidents is that corrective and preventive action plans are developed and adhered to. Photographic records of all incidents and non-conformances must be retained. Non-compliances identified by the ECO must be resolved within fourteen days of being noted, incidents that are deemed by the ECO to have a large environmental impact must be resolved immediately.

1.6. Applicable Legislation

The site engineer must be aware of any compliance issues raised by the DEO and ECO and must ensure that the necessary corrective measures are implemented. As per the National Environmental Management Act No 107 of 1998 (Section 28), offending parties may be held financially accountable for any pollution or environmental damage.

The following environmental legislation must be adhered to:

- The Constitution of South Africa (No. 108 of 1996)
- National Environmental Management Act (Act 107 of 1998)
- National Water Act (Act 36 of 1998)
- National Environmental Management: Waste Act (Act 59 of 2008)
- National Environmental Management: Air Quality Act (Act 39 of 2004)
- National Environmental Management: Protected Areas Act (Act 57 of 2003)
- National Environmental Management: Integrated Coastal Management Act (Act 24 of 2008)
- National Forest Act (Act 84 of 1998)
- Environmental Conservation Act (Act 43 of 1996)

- National Environmental Management: Biodiversity Act (Act 10 of 2004)
- National Heritage Resources Act (Act 25 of 1999)
- Mineral & Petroleum Resources Development (Act 28 of 2002)
- Occupational Health and Safety Act (Act 181 of 1993)
- Hazardous Substances Act (Act No. 15 of 1973)
- National Building Regulations and Building Standards Act (Act 103 of 1977)
- Relevant local bylaws

This EMPr meets the requirements of the stipulations provided in Appendix 4 of NEMA, 1998 (Act No. 107 of 1998) Environmental Impact Assessment Regulations, 2014 with regards to the content of EMPr. This EMPr has been developed to specifically address the impacts related to this project in each phase of development.

1.7. The layout of the EMPr

The EMPr is divided into five sections dealing with an Introduction and description of the proposal and the site, Pre-Construction and Site Set Up, Construction Activities and Post Construction, Rehabilitation and Operation Activities. Sections 4 and 5 provide definitions and records that can be used to record training, incidents, and complaints. Under the construction section, each section deals with a specific aspect of the development, i.e. administration and records. Within these sections, the specific activity is described, and the mitigation action required is provided. The tables have been set up to enable ease of auditing with a section for the EO/SHE officer or ECO to state whether mitigation measures have been put in place and to make a comment about any problems noted.

1.8. Project Details

The project by the City of Tshwane entails the construction of a 6km road network with associated storm water drainage infrastructure & x1 bridge (Bridge 03) in Olievenhoutbosch Extension 60. The works include earthworks, foundation systems, reinforced concrete substructure and superstructure, approach road tie-ins, river training works, and all ancillary elements required to deliver a fully complete and operational bridge crossing. The project is situated on Portion 322 of the farm Olievenhoutbosch 389 JR, approximately 10km South West of Centurion. The site is approximately 54Ha in extent, bounded by Olievenhoutbosch Ext 19 Township to the South West and the Rietspruit River to the North West, under the jurisdiction of the City of Tshwane Metropolitan Municipality, within Ward 77.

The demolition of the old structures and construction of the new bridge and a 6km road network with associated stormwater drainage infrastructure will entail the infill and removal of more than 10m³ of material from within the river. The proposed upgrades will also result in the construction of more than 10m² of infrastructure within the two watercourses and clearance of more than 300m² of indigenous vegetation within a Critical Biodiversity Area as per the Gauteng C-Plan and the endangered Egoli Granite Grassland ecosystem type as per section 52 of the NEMBA.

The 6km roads new bridge and bulk water pipeline watercourse crossing will consist of the following approximate dimensions: (See appendix C for bridge and pipeline design drawings).

Road Infrastructure

- 6km of internal roads with widths ranging from 5.0 m to 7.4 m.
- Road classes ranging from minor distributor to local access streets.
- Earthworks, layer works, asphalt surfacing and kerbing across all roads.

Bridge 3 along Bathlaping Street

- Length: 50 m
- Width: 10 m total (7.4 m roadway + 1.375 m walkway)
- Skew 9 degrees
- Three spans @ 14.35m spacings with piers (pier 1 & 2) and F-type parapets
- Designed per SANRAL and TMH7 requirements
- Construction of reinforced concrete Piers 1 and 2
- Installation of approach slabs at both abutments - D745-B03-02 - GENERAL ARRANGEMENT
- Reinforced concrete deck with void formers, parapets, deck joints and surfacing layers as detailed in the deck concrete drawings - D745-B03-09 - DECK CONCRETE DETAIL

Foundations

- Bulk excavation to rock to receive substructure elements as indicated in foundation layouts and geotechnical notes
- Installation of dowelled foundations into bedrock using Y25/Y32 galvanized dowel bars into rock (2–2.5 m deep per element)
- Construction of foundation bases for abutments and piers in accordance with the foundation layout drawings - D745-B03-03 - FOUNDATION LAYOUT

Roadworks & Tie-ins

- Road formation tie-in along Setolotolo Street and Letsha Street including walkways and shoulders per the site plan cross-sections - D745-B03-02 - GENERAL ARRANGEMENTS
- Final surfacing to deck and approaches (30 mm asphalt) - D745-B03-09 - DECK CONCRETE DETAIL

Drainage & Hydraulic Works

- Construction of deck drainage including scuppers at 2.5 m centres and PVC downpipes through the slab - D745-B03-09 - DECK CONCRETE DETAILS
- Abutment drainage including weep holes, drainage strips & perforated pipes - D745-B03-02 - GENERAL ARRANGEMENT
- River training and erosion protection using gabion mattresses and key-ins at abutments / low points - D745-B03-02 - GENERAL ARRANGEMENTS

Guardrails, Parapets & Ancillary Works

- Fabrication and installation of steel guardrails, anchor plates & backing plates at both approaches as detailed in the miscellaneous drawings - D745-B03-15 - MISCELLANEOUS DETAILS
- Installation of reinforced concrete “F-Type” parapets on both sides of the bridge deck - D745-B03-09 - DECK CONCRETE DETAILS
- Installation of signage plates and number plates as detailed in Miscellaneous details drawings - D745-B03-15 - MISCELLANEOUS DETAILS

Temporary Works / Sequence

- Temporary access and drainage arrangements before opening works (Stage 1) - D745-B03-17 - CONSTRUCTION SEQUENCE
- Staged construction of substructure and deck in 3 phases per construction sequence drawings—D745-B03-17—CONSTRUCTION SEQUENCE
- Removal of staging, reinstatement, landscaping and site clean-up upon completion- D745-B03-17 - CONSTRUCTION SEQUENCE

Storm-water System

- Catch pits, manholes, channels, pipes, river outfall structures, and subsoil drains.
- Tie-ins to major drainage systems and river crossing protections.

1.9. Construction Methodology

The following provides the construction methodology for the project but not limited to.

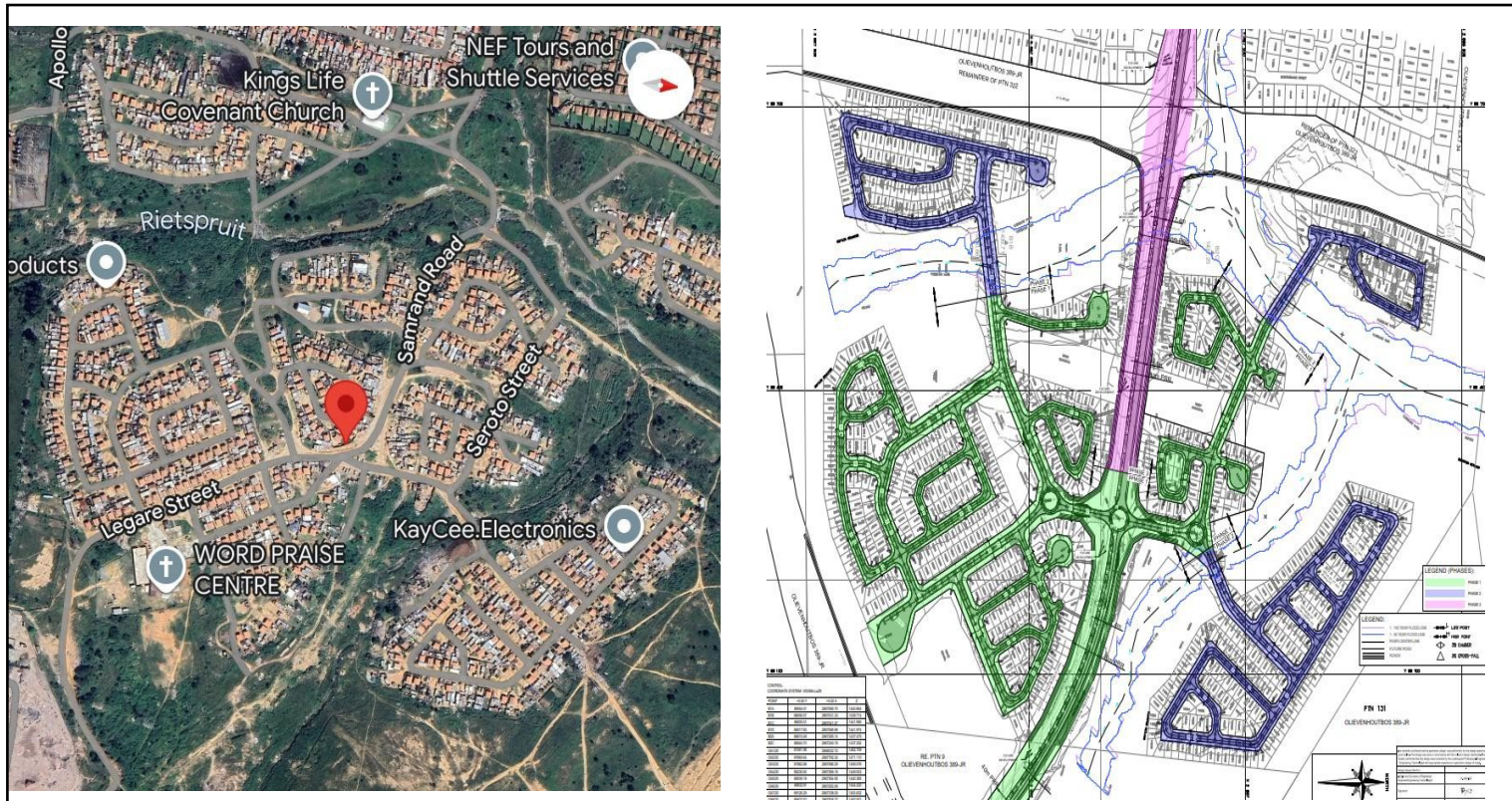
1. Removal of boulders or other obstructions too large to be hand removed
2. Excavation of trenches deeper than 1,5m
3. Heavy earthworks and compaction
4. Pavement layer works using rollers and graders
5. Asphalt surfacing (specialised plant)
6. Bridge construction:
7. Excavation
8. Piers and abutments
9. Deck construction
10. Formwork/scaffolding
11. Lifting/placing reinforcing
12. Installation of large-diameter storm water pipes
13. Major drainage structures
14. River protection works and high-volume concrete pours

PROJECT LOCATION

The project is situated on Portion 322 of the farm Olievenhoutbosch 389 JR, approximately 10km South West of Centurion. The site is approximately 54Ha in extent, bounded by Olievenhoutbosch Ext 19 Township to the South West and the Rietspruit River to the North West, under the jurisdiction of the City of Tshwane Metropolitan Municipality, within Ward 77.

The GPS Co-ordinates are: **S 25.9125654; E 28.1189962**

Figure 4: Engineer Designs for Bridge 3 (Source: Damaris Consulting, 2025)



1.11. **Names and Telephone Numbers of Contact Persons**

The following list of contacts must be printed and made clearly visible on the site.

Contact List			
Designation	Organisation	Name	Contact number
Applicant	City of Tshwane		
Engineer/Project Manager	Damaris Holdings		
Environmental Practitioner and ECO	Damaris Holdings		
Environmental Authority (Enforcement & Compliance)	GDARD		
Heritage Resources	SAHRA		
Fire Emergency	Fire Department		
Crime Emergency	Police		

1.12. **Fines/Penalties**

Fines/penalties will apply to the Contractors responsible for the maintenance or repair work, should they fail to comply with the provisions of the EMPr and EA. Penalties for non-compliance need to be discussed with the Contractor on appointment. The Contractor must make every effort to ensure that staff members comply with the EMPr, and enforce non-compliance penalties. Allowances must be made for the contractor to rectify all non-compliances, prior to issuance of penalties/fine.

The Contractor will comply with the requirements of this EMPr on an ongoing basis, any failure on their part to do so will entitle the Project Manager, in consultation with the ECO to certify the imposition of a fine. The value of the fine will be agreed between the Project Manager and ECO based on the nature, extent and duration of the offence and subsequent environmental damage and will be within the confines of the contractual arrangements. Such penalties shall be payable in addition to any remediation costs for correction of environmental damage as a result of noncompliance to this EMPr, that will also be for the Contractor's account. Time penalties may also be awarded by the contract's manager where the contractors do not comply. These details are to be included into the contracts.

The Contractor is deemed NOT to have complied with the EMPr if:

- a) Within the boundaries of the site, site extensions and haul/ access roads there is evidence of contravention of the EMPr confirmed and verified by the ECO;
- b) Environmental damage ensues due to non-compliance of EMPr requirements;
- c) The Contractor fails to comply with corrective or other instructions issued within a specific time;
- d) The contractor fails to comply with a site instruction given by the Engineer based on the ECO report;
- e) The Contractor fails to respond adequately to complaints from the public in line with requirements of this EMPr; and
- f) Legal action is instituted against the proponent in terms of Environmental laws.

1.13. **Additional requirements specifically for earthworks and layerworks**

This section includes all construction activities that involve the mining of all materials, and their subsequent placement, stockpile, spoil, treatment or batching, for use in the permanent works, or temporary works in the case of deviations. Before any stripping prior to the commencement of construction, the Contractor shall have complied with the requirements of of this EMPI. In addition, the Contractor shall take cognisance of the requirements set out below.

i) Quarries and borrow pits

The Contractor's attention is drawn to the requirement of the Department of Mineral Resources, that before entry into any quarry or borrow pit, an Environmental Authorisation for the establishment, operation and closure of a quarry or borrow pit shall have been approved by the Department. It is the responsibility of the Contractor to ensure that he is in possession of the authorisation prior to entry into the quarry or borrow pit. The conditions imposed by the relevant authorisation are legally binding on the Contractor and may be more extensive and explicit than the requirements of this specification. In the event of any conflict occurring between the requirements of the specific authorisation and this EMPr the former shall apply. The Borrow pit should be in possession of mining rights and/permits and should be in good standing with the ministry of mines and Environment.

ii) Excavation, hauling and placement

The Contractor shall provide the ECO and the Engineer with detailed plans of his intended construction processes prior to starting any cut or fill or layer. The plans shall detail measures by which the impacts of pollution (noise, dust, litter, fuel, oil and sewage), erosion, vegetation destruction and deformation of landscape will be prevented, contained and rehabilitated. Particular attention shall also be given to the impact that such activities will have on the adjacent built environment. The Contractor shall demonstrate his "good housekeeping", particularly with respect to closure at the end of every day so that the site is left in a safe condition.

iii) Spoil sites

The Contractor shall be responsible for the safe siting, operation, maintenance and closure of any spoil site he uses during the contract period, including the defects notification period. This shall include existing spoil sites that are being re-entered. Before spoil sites may be used proposals for their locality, intended method of operation, maintenance and rehabilitation shall be given to the ECO for his/her comments and to the Engineer for his approval. The location of these spoil sites shall have signed approval from the affected landowner before submission to the ECO and the Engineer. No spoil site shall be located within 500m of any watercourse. A photographic record shall be kept of all spoil sites for monitoring purposes. This includes before the site is used and after re-vegetation. The use of approved spoil sites for the disposal of any waste shall be prohibited.

Spoil sites will be shaped to fit the natural topography. Depending on availability, these sites shall receive a minimum of 75mm topsoil and be grassed with the recommended seed mixture. Appropriate grassing measures to minimise soil erosion shall be undertaken by the Contractor. This may include both strip and full sodding. The Contractor may motivate to the Engineer for other acceptable stabilising methods. The engineer may only approve a completed spoil site at the end of the defects notification period upon receipt from the Contractor of a landowner's clearance notice. .

iv) Stockpiles

The contractor shall plan his activities so that materials excavated from borrow pits and cuttings, in so far as possible, can be transported direct to and placed at the point where it is to be used. However, should temporary stockpiling become necessary, the areas for the stockpiling of excavated and imported material shall be indicated and demarcated on the site plan submitted in writing to the Engineer for his approval. The contractor s proposed measures for prevention of environmental damage, containment and subsequent rehabilitation shall also be submitted.

The areas chosen shall have no naturally occurring indigenous trees and shrubs present that may be damaged during operations. Care shall be taken to preserve all vegetation in the immediate area of these temporary stockpiles. During the life of the stockpiles the Contractor shall at all times ensure that they are positioned and sloped to create the least visual impact, constructed and maintained so as to avoid erosion of the material and contamination of surrounding environment and kept free from all alien/undesirable vegetation. After the stockpiled material has been removed, the site shall be re-instated to its original condition. No foreign material generated / deposited during construction shall remain on site. Areas affected by stockpiling shall be landscaped, top soiled, grassed and maintained at the Contractor's cost until clearance from the Engineer and land owner is received. Material milled from the existing road surface that is temporarily stockpiled in areas approved by the Engineer within the road reserve, shall be subject to the same condition as other stockpiled materials. Excess materials from windrows, in situ milling or any leftover material from road construction activities may not be swept off the road and left unless specifically instructed to do so in the contract documentation or under instruction from the Engineer.

The ECO shall comment on and the engineer shall approve the areas for stockpiling and disposal of construction rubble before any operation commences and shall approve their closure only when they have been satisfactorily rehabilitated.

v) Blasting activities

Wherever blasting activity is required on the site (including quarries and/or borrow pits) the Contractor shall rigorously adhere to the relevant statutes and regulations that control the use of explosives.

SECTION 2: SITE-SPECIFIC IMPACTS AND MITIGATIONS

Bridge 3



Nature and Consequences of impact	Proposed mitigation and Extent to which impact can be reversed/avoided, managed or mitigated:	Person	In place (Yes / No)	Comments
Construction				
<p>1. There is potential for erosion to take place within the Rietspruit River and Olievenhoutbosch Tributary resulting in downstream sedimentation due to clearing and construction near the rivers.</p>	<p>The following measures must be carried out to mitigate against erosion on the Bridge sites and pipeline river crossing site:</p> <ul style="list-style-type: none"> • The areas of the Rietspruit River and Olievenhoutbosch Tributary that are not within the direct project footprint must be demarcated as ‘no-go’ areas. • All construction activities occurring within the Rietspruit River and Olievenhoutbosch Tributary must be done so with extreme care to avoid any erosion taking place in the watercourse. • All areas upstream and downstream of construction footprint must be demarcated as a ‘no-go’ zone for the duration of the construction process. No site staff are permitted to enter these areas. • Areas exposed to erosion must be protected through the use of sand bags, berms and efficient construction processes i.e.: limiting the extent (footprint) and duration period that areas are exposed. • The contractor must limit in-stream work to minimize streambank and bed disturbance. • Construct the bridge in the dry season. • No excavated material or fill material may be stored within the Rietspruit River and Olievenhoutbosch Tributary or within 32m of the River. • Bedding material that will be used must not be stored within 32m of the Rietspruit River and Olievenhoutbosch Tributary before it is used. 	CON/ DEO		
<p>2. Damage to the watercourse during construction</p>	<p>The new bridges and pipeline crossing will be constructed in the Rietspruit River and Olievenhoutbosch Tributary. Soil/sand will be removed from the river and riparian vegetation will be cleared. The following precautions must be implemented:</p> <ul style="list-style-type: none"> • The riparian vegetation areas east and west of the bridge must be clearly demarcated as a no-go areas with fencing or snow netting. • Topsoil from within the construction corridor must be stockpiled separately from subsoil from all excavations. • No trenches may be left open for an extended period of time. • No heavy vehicle access may be permitted outside of the construction corridor what so ever. 	CON/ DEO		

Nature and Consequences of impact	Proposed mitigation and Extent to which impact can be reversed/avoided, managed or mitigated:	Person	In place (Yes / No)	Comments
	<ul style="list-style-type: none"> The site camp (containing hazardous materials storage areas and chemical toilets) must be placed more than 32m away from any watercourse boundary. 			
<p>3. The habitat for fauna living within the construction footprint will be modified due to the excavation and construction activities taking place within the Rietspruit River and Olievenhoutbosch Tributary.</p>	<p>The following measures must be carried out to mitigate against excessive habitat destruction on the Bridge sites and pipeline crossing site:</p> <ul style="list-style-type: none"> Erosion prevention and sediment control measures must be implemented. Temporary and permanent erosion control methods may include silt fences, interceptor ditches, seeding and sodding, riprap of exposed embankments, and mulching; The project footprint must be kept as small as possible; Direct impacts to Rietspruit River and Olievenhoutbosch Tributary substrate/habitat outside the construction footprint must be avoided by ensuring that the Rietspruit River and Olievenhoutbosch Tributary is outside the construction footprint is demarcated as a 'no go' zone during construction. Heavy machinery must not be permitted to move beyond the demarcated footprint; Sand and aggregate for concrete must not be obtained from within the riverbed or riparian zone but must be sourced from a permitted source; A spill containment plan is required to be in place prior to construction to minimize the potential impacts of spills or leaks of hazardous substances; Contamination of the river system with unset cement must be prevented as it is detrimental to aquatic biota. 	CON/ DEO		
<p>4. Clearing of the riparian vegetation within the project footprint. There will be clearing of vegetation for the construction of the Bridges and pipeline river crossing within the endangered Egoli Granite Grassland ecosystem type</p>	<p>This impact cannot be fully mitigated as it will result in the loss of riparian vegetation found within the project footprint. However, the riparian zone is currently modified as a result of channel modifications and invasions from alien species. The following measures must be carried out to mitigate against excessive vegetation clearing on the Bridge sites and pipeline crossing site:</p> <ul style="list-style-type: none"> The construction corridor must be clearly demarcated pre-construction and all construction activity and clearing must take place within the authorised construction area. The vegetation that will be cleared must be restricted to the construction footprint of the bridge and pipeline only. No vegetation may be cleared within the Rietspruit River and Olievenhoutbosch Tributary riparian area other than that required for access to the site or for the construction activities associated with the construction of the Bridges and pipeline. 	CON/ DEO		

Nature and Consequences of impact	Proposed mitigation and Extent to which impact can be reversed/avoided, managed or mitigated:	Person	In place (Yes / No)	Comments
	<ul style="list-style-type: none"> Contractors must avoid damaging any vegetation that is not within the construction footprint; The ECO must be consulted should a tree or any vegetation require clearing outside of the designated construction footprint area. 			
<p>5. Removal of alien invasive vegetation found within the construction corridors.</p>	<p>This is a positive impact. All alien vegetation must be cleared within the project footprint. Monthly alien vegetation clearing on site is mandatory.</p>	CON/ DEO		
<p>6. Careless operation by the contractor within the Rietspruit River and Olievenhoutbosch Tributary resulting in damage to the Rietspruit River and Olievenhoutbosch Tributary i.e.the riverbed, banks and riparian zones within the construction footprint and adjacent areas.</p>	<ul style="list-style-type: none"> The following measures must be carried out to mitigate against potential damage to the Rietspruit River and Olievenhoutbosch Tributary during construction: Areas of the Rietspruit River and Olievenhoutbosch Tributary not within the construction footprint must be demarcated as no-go areas; Heavy vehicles must avoid working near the Rietspruit River and Olievenhoutbosch Tributary as far as possible; A 32m buffer must be imposed on the rest of the Rietspruit River and Olievenhoutbosch Tributary with no traffic, vehicles or storage permitted within this buffer zone; Vehicles may not cross the Rietspruit River and Olievenhoutbosch Tributary at any other point than the construction footprint of the Bridge; Non-essential equipment and vehicles are to remain at least 32m from the Rietspruit River and Olievenhoutbosch Tributary at all times. 	CON/ DEO		
<p>7. The construction activities resulting in the encroachment of alien vegetation into disturbed areas.</p>	<p>There is currently alien vegetation in the surrounding riparian area.</p> <ul style="list-style-type: none"> Alien vegetation must not be allowed to encroach onto the site and must be continually removed during construction. Alien vegetation clearing must take place on a monthly basis. Construction must not promote further alien plant disturbances in the surrounding area. 	CON/ DEO		

SECTION 3: CONSTRUCTION MITIGATION MEASURES

The Impact Management Outcomes and Actions as per the specialist Terrestrial Compliance Statement Report (The Biodiversity Company, 2021) can be found in the Appendices of this report.

Generic construction related impacts associated with all four bridges and pipeline river crossing:

Nature and Consequences of impact	Proposed mitigation and Extent to which impact can be reversed/avoided, managed or mitigated:	Person	In place (Yes / No)	Comments
Construction				
<p>1. Dust Generation: Dust will be generated during the construction of the new structure.</p>	<p>The following mitigation measures must be applied:</p> <ul style="list-style-type: none"> • Stockpiles that may release dust must be covered with plastic; • Bare surfaces and stockpiles must be dampened as required to reduce windblown dust from becoming a nuisance for neighbours; • A water cart must be used which must remain on designated roadways during the construction phase; • Should dust become an ongoing nuisance to local residents, shade cloth must be erected along the boundary of the site to reduce the amount of dust being blown out of the construction site, onto the road. 	CON/ DEO		
<p>1. <i>Water Quality Monitoring</i></p>	<ul style="list-style-type: none"> • Monitoring is usually required upstream (as a control/baseline) and downstream (to detect impact) of the construction activity. The typical parameters to be tested often include: <ol style="list-style-type: none"> 1. Turbidity/Suspended Solids: Construction, especially near a watercourse, increases soil erosion and sediment load. High turbidity is a key indicator of pollution and is monitored to ensure it remains within the prescribed limit compared to the upstream control. 2. pH (Acidity/Alkalinity): The use of cement and other construction materials can drastically change the water's pH, which is toxic to aquatic life. Testing ensures the ph remains within the acceptable. 3. Chemical Oxygen Demand (COD) / Electrical Conductivity (EC): These are broad indicators of chemical and organic pollution, which can result from spills of oils, fuels, cement, or runoff from stockpiles. 	CON/ DEO		

	<p>4. Faecal Coliforms/E. coli: If construction includes sanitation facilities, monitoring is necessary to ensure no sewage effluent or waste enters the watercourse.</p> <ul style="list-style-type: none"> • Monitoring Frequency and Location Baseline: Monitoring <i>before</i> construction commences to establish the natural water quality. • During Construction: Regular monitoring (e.g., weekly or monthly, as specified in the GA is mandatory, particularly after rainfall events, which increase runoff risk. • Post-Construction/Rehabilitation: Continued monitoring until the site is successfully rehabilitated and water quality has returned to its natural state. • Reporting: All test results and monitoring data must be kept on record for a specified minimum period (e.g., five years) and submitted to the DWS/Responsible Authority as required in the GA. 			
<p>2. Soil & Water Contamination: Contamination of the receiving environment due to the inappropriate storage and usage of hazardous materials (petrochemicals, paint, cement etc.).</p>	<ul style="list-style-type: none"> • All hazardous materials and substances must be stored within a secured area in the construction camp. • The storage area must be hard-surfaced, bunded and undercover. • Cement mixing must be done on a hard surface that is protected from stormwater runoff. • All spillages must be cleaned immediately and the contaminated soil disposed of at a registered hazardous disposal facility; • Washing of any excess cement into the ground is prohibited; • Washing of any excess building material is prohibited as this may solubilize contaminants and increase the possibility of wastewater entering surface water; • Used oil must be collected and disposed of by a registered used-oil contractor; • The collection and disposal of used oil must be recorded, and documentation must be kept on site. 	<p>CON/ DEO</p>		

Nature and Consequences of impact	Proposed mitigation and Extent to which impact can be reversed/avoided, managed or mitigated:	Person	In place (Yes / No)	Comments
	<ul style="list-style-type: none"> The stormwater drainage system must be kept separate from the wastewater system; A designated, bunded area is to be set aside for vehicle washing and maintenance. Materials caught in this bunded area must be disposed of to a suitable waste site or as directed by the Engineer; Regular vehicle and machinery maintenance must be carried out to ensure that accidental spills are avoided. The construction camp, as well as any storage areas, must be located outside of the 32m buffer, as recommended by the specialist; All wetland systems outside the development footprint must be designated as No-Go areas during construction. 			
<p>3. Riparian Zone: Construction activities impacting on the adjacent sensitive areas.</p>	<ul style="list-style-type: none"> A site plan must be provided indicating waste areas, chemical storage areas, fuel storage areas, site office/s, placement of ablution facilities and the designated development footprint area. These areas must be demarcated and adhere to the buffer width where applicable; During the construction phase, vehicles and machinery must make use of existing access routes before adjacent areas are considered for access.; As much material must be pre-fabricated as possible and then transported to the site to avoid the risk of contamination associated with mixing, pouring and the storage of chemicals and compounds on-site; Prevent uncontrolled access of vehicles through the riparian zone and the demarcated buffer areas; Adequate sanitary facilities and ablutions must be provided for all personnel throughout the project area. Use of these facilities must be enforced (these facilities must be kept clean so that they are a desirable alternative to the surrounding vegetation); Have action plans on-site, and training for contractors and employees in the event of spills, leaks and other impacts to the aquatic systems; All removed soil and material must not be stockpiled within the riparian zones. Stockpiling should take place outside of the buffer areas. All stockpiles must be protected from erosion, stored on flat areas where run-off will be minimised, and be surrounded by bunds; Temporary and permanent erosion control methods may include silt fences, retention basins, detention ponds, interceptor ditches, seeding and sodding, riprap of exposed embankments, erosion mats and mulching; 	<p>CON/ DEO</p>		

Nature and Consequences of impact	Proposed mitigation and Extent to which impact can be reversed/avoided, managed or mitigated:	Person	In place (Yes / No)	Comments
	<ul style="list-style-type: none"> • Any exposed earth should be rehabilitated promptly by planting suitable vegetation (vigorous indigenous grasses) to protect the exposed soil; • No dumping of construction material on-site may take place; • All waste generated on-site during construction must be adequately managed. Separation and recycling of different waste materials should be supported; • Dust suppression must be continuous, and vehicles speed reduced and minimised to reduce dust precipitation; • Any possible contamination of topsoil by hydrocarbons, concrete or concrete water must be avoided. Spill kits must be available and on hand to clean these spills; • Where applicable, materials must be stored in leak-proof, sealable containers or packaging. Materials must also be stored in bunded areas which can accommodate the required volumes; • Drip trays or any form of oil absorbent material must be placed underneath vehicles/machinery and equipment when not in use; • No servicing of equipment on-site unless necessary, on a bunded impermeable surface; • Leaking equipment must be repaired immediately or be removed from the site to facilitate repair; • All vehicles and equipment must be well maintained to ensure that there are no oil or fuel leakages; • All contaminated soil must be removed and be placed in containers. A specialist Contractor must be used for the bioremediation of contaminated soil where the required remediation material and expertise is not available on-site; • All personnel and contractors to undergo Environmental Awareness Training. A signed register of attendance must be kept for proof. Discussions are required on sensitive environmental receptors within the project area, with particular reference to the wetland systems; • Before construction, fences should be erected in such a manner to prevent access and damage to the riparian zone and associated buffer areas. Where fences cannot be erected, these sensitive areas must be demarcated, and signposted; • An alien invasive plant management plan needs to be compiled and implemented before construction and continued through the life of the development, to control and prevent the spread of invasive aliens; 			

Nature and Consequences of impact	Proposed mitigation and Extent to which impact can be reversed/avoided, managed or mitigated:	Person	In place (Yes / No)	Comments
	<ul style="list-style-type: none"> • Clean vehicles on-site, and prioritise the cleaning of vehicles gaining access from surrounding areas; • Construct cut-off berms downslope of working areas; • Demarcate footprint areas to be cleared to avoid unnecessary clearing. Exposed areas must be ripped and vegetated to increase surface roughness; • Create energy dissipation at discharge areas to prevent scouring. 			
<p>4. Soil Erosion: Uncontrolled stormwater runoff will result in the site being susceptible to soil erosion during rainfall events and the movement of vehicles on site.</p>	<ul style="list-style-type: none"> • The time that stripped areas are left exposed must be minimised; • Appropriate erosion and stormwater management structures must be installed around the construction site. • Areas, such as steep areas, susceptible to soil erosion must be identified and suitable erosion mitigation measures implemented; • Material accumulating behind erosion mitigation structures must be routinely inspected, and any material present must be removed to optimize the functioning of the erosion mitigation structures. 	CON/ DEO		
<p>5. Increase in Noise: Noise will be generated during the construction phase.</p>	<p>The noise generated will be a temporary impact during construction.</p> <ul style="list-style-type: none"> • Suppressors on machinery must be used; • All construction vehicles must be fitted with standard silencers and be maintained; • Complaints register (included in the attached EMP) to be maintained on- site. 	CON/ DEO		
<p>6. Increase in Waste and Litter: Construction process may result in a temporary increase in waste generation and littering.</p>	<ul style="list-style-type: none"> • Littering will not be permitted on site • There must be no illegal dumping or burying of waste on-site or on adjacent properties under any circumstances. • A waste management area must be demarcated within the construction camp, and appropriate waste receptacles kept on site which must be emptied regularly. • A register of all waste generated and disposed of must be maintained and present on-site; • Staff must be provided with access to toilet facilities. Chemical toilets must be provided on-site for the duration of the construction activity; • Chemical toilets must be regularly emptied by registered companies and record of waste disposal must be maintained; • Safe disposal certificates for toilet waste must be obtained and kept on- site as assurance that the waste was properly disposed of; 	CON/ DEO		

Nature and Consequences of impact	Proposed mitigation and Extent to which impact can be reversed/avoided, managed or mitigated:	Person	In place (Yes / No)	Comments
	<ul style="list-style-type: none"> Toilets must not be situated on slopes or within 50m of any watercourse and must be secured to prevent them from tipping over; Staff must make use of facilities or arrangements provided and are not permitted to use surrounding properties or open veld as toilet facilities; 			
<p>7. Unsanitary conditions: Insufficient number of toilets and inappropriate disposal of sewage during the construction phase.</p>	<ul style="list-style-type: none"> Appropriate and sufficient toilet facilities to be provided by the contractor (i.e. 1 toilet for 15 workers). Chemical toilets from a reputable company must be used. Long drops and pit latrines will not be acceptable. Toilet facilities must be provided by a registered company and all sewage must be disposed of at an appropriate facility. Safe disposal certificates must be kept on record. Any spills must be immediately contained and the spilt material disposed of appropriately. Appropriate ablution facilities need to be put in place more than 32m from a watercourse (i.e. the eastern portion of the site). 	CON/ DEO		
<p>8. Cultural and Archaeological Artefacts: Artefacts may be discovered and/or damaged during the construction phase.</p>	<p>It is unlikely that any heritage resources/artefacts will be discovered; however, the following applies:</p> <ul style="list-style-type: none"> Construction workers cautioned to operate with care on-site and should a culturally sensitive aspect be discovered on-site; construction activities will be immediately (temporarily) stopped, and the discovery of the artefact will be reported to the ECO. The issue will then be assessed, and the authorities notified if need be. <p>The Heritage Impact Assessment specialist report recommended the following:</p> <ul style="list-style-type: none"> Should skeletal or archaeological remains be exposed during development and construction phases, all activities must be suspended and the relevant heritage resources authority contacted. Section 36 (6) of the National Heritage and Resources Act, 25 of 1999 also states that should culturally significant material be discovered during the course of the said development, all activities must be suspended pending further investigation by a qualified archaeologist. 	CON/ DEO		

3.1. Site Camp, Storage & Handling of Hazardous and Non-Hazardous Materials & Stockpiling				
Activity	Required Action / remediation to control environmental impact	Person	In place (Yes / No)	Comments
Location & Establishment of the construction camp	<ul style="list-style-type: none"> The construction camps must be marked out with the approval of the ECO. 	CON/ DEO		
	<ul style="list-style-type: none"> The site camps must be located on a flat transformed portion of land. Do not set up the construction camps within 32m of the stream or within an area that will be flooded should water levels rise. Do not set up construction camps within 32m of any other watercourse. 	CON/ DEO		
	<ul style="list-style-type: none"> The site camps must be demarcated and fenced off to prevent illegal entry. 	CON/ DEO		
	<ul style="list-style-type: none"> The following areas must be demarcated and marked within the construction camps: <ul style="list-style-type: none"> A waste storage area A materials storage area Areas for fuel and hazardous chemical / flammable goods Stockpile areas Vehicle servicing and wash bay areas (if required) Parking area 	CON/ DEO		
Establishing storage areas & Stockpiles	<ul style="list-style-type: none"> A waste storage area must be demarcated, and suitable and sufficient waste bins must be provided within the camps. Storage of waste must be on a hard surface, and undercover. Liquid waste must be situated within a bunded area. <ul style="list-style-type: none"> Liquid waste and accumulated waste must be removed from the site monthly by a recognised Waste Contractor. 	CON/ DEO		
	<ul style="list-style-type: none"> A materials storage area must be identified and designated within the construction camps, which must be located more than 16m from any watercourse. Materials, specifically liquid and potentially environmentally hazardous materials must be stored within a bunded area (110% capacity of the largest container) and on a hard surface. The storage area must be undercover. 	CON/ DEO		

	<ul style="list-style-type: none"> • Areas for fuel and hazardous chemical / flammable goods must be identified and signposted within the construction camps. An inventory of the materials and volumes stored must be maintained and updated once a week. These areas must be located within a bunded, hard-surfaced impermeable area. 	CON/ DEO		
	<ul style="list-style-type: none"> • Bulk fuel storage: No bulk fuel storage to occur on any of the sites. 	CON/ DEO		
	<ul style="list-style-type: none"> • Designated areas for stockpiling of raw materials must be demarcated within the construction camps. No stockpiling is to occur on or near slopes where they could be washed into the surrounding properties or the rivers. All stockpiling areas must be approved by ECO and must be located more than 15m from the edge of any watercourse. 	CON/ DEO		
	<ul style="list-style-type: none"> • Parking: The contractor must designate parking areas on the sites and ensure that only these parking areas are used. • Vehicles must not park within 15m of any watercourse. 	CON/ DEO		
	<ul style="list-style-type: none"> • Vehicle servicing and washing: only emergency (breakdown where equipment is no longer mobile) and minor maintenance (e.g. greasing) may be done on the sites. <ul style="list-style-type: none"> ○ A designated area must be set aside for this, which must be hard-surfaced and bunded. ○ If emergency repairs are required, this must not be conducted within 15m of any watercourse, riparian zone or wet area. ○ Drip trays must be used. ○ Any other planned or required maintenance must be done off-site at a suitable location. ○ Vehicle washing must also be conducted off-site at a designated vehicle wash bay, the wash bay must be lined with an impermeable material and must drain to a sump to ensure hydrocarbons, and other contaminants are separated before remaining runoff being discharged into the municipal sewer. ○ No cement vehicles may be washed on site. 	CON/ DEO		
Handling of liquids on site	<ul style="list-style-type: none"> • Decanting of any liquids/chemicals paints etc. must be done within the confines of a drip tray or on a hardened surface within a bunded area. 	CON/ DEO		

	<ul style="list-style-type: none"> This must not be carried out within 16m of any watercourse. 			
	<ul style="list-style-type: none"> Decanting from large containers (e.g. 210L drums) must be done using a hand pump, where possible. If no hand pump is available, liquids must be decanted on a drip tray using a funnel. This must not be carried out within 15m of any watercourse. 	CON/ DEO		
	<ul style="list-style-type: none"> All handling of hazardous materials, including cement, must take place on a hardened surface or within a drip tray or cement mixing tray. This must not be carried out within 15m of any watercourse. 	CON/ DEO		
	<ul style="list-style-type: none"> Decanting of hazardous materials must take place within the site camp above drip trays or containers to prevent the potential spillage into these areas. 	CON/ DEO		
Inventory and record of substances stored on site	<ul style="list-style-type: none"> A full inventory of hazardous substances and Material Safety Data Sheet (MSDS) for each substance stored on site must be maintained, and each substance must be stored and managed per the MSDS. 	CON/ DEO		
Storage of hazardous materials	<ul style="list-style-type: none"> Hazardous materials and liquids to be stored in the assigned storage area as per Section 3.0 of this EMPr. 	CON/ DEO		

3.2. Administration & Records

Activity / Document	Required Action	Person	In place (Yes / No)	Comments
General Authorization and Environmental Authorizations	<ul style="list-style-type: none"> Keep a hard copy of the Site-Specific EMPr on-site and ensure that it has been signed and received by the contractor 	ECO/ ENG		
Site-Specific EMPr	<ul style="list-style-type: none"> Keep a hard copy of the Site-Specific EMPr on-site and ensure that it has been signed and received by the contractor and engineer. 	CON/ DEO		
	<ul style="list-style-type: none"> All contractors, the engineers and the ECO must have a copy of the EMPr before coming on to the site. 	ECO/ ENG		

Records	<ul style="list-style-type: none"> Keep records and proofs of all agreements, meetings etc. to demonstrate compliance with this EMPr. 	CON/ DEO		
Proof of raw material sourcing and resource use	<ul style="list-style-type: none"> Proof of sustainable source of all materials used must be obtained and documented, especially for raw material i.e. topsoil, sands, natural gravels, crushed stone, clay liners, timber etc. <u>In other words, documented proof that materials have been sustainably sourced must be maintained on-site for review by GDARD.</u> <ul style="list-style-type: none"> E.g., sand may only be obtained from approved sand winning operations, which is licensed by the Department of Mineral Resources (DMR) and has an approved EMPr for operation. Where materials are borrowed (mined), proof must be provided of authorisation to utilise these materials from the landowner/mineral rights owner and the Department of Minerals and Energy. 	CON/ DEO		
Water abstraction for dust suppression	<ul style="list-style-type: none"> Water used on site must be obtained from a municipal source. If this is not available and water needs to be obtained from a nearby water resource, then the following will apply: <ul style="list-style-type: none"> If water is to be extracted it must be from an approved source, and permission from the landowner must be obtained. If water is extracted no more than 50 000l per day may be extracted. All water use must be registered with DWS. If water is extracted, a daily record of the volume of water extracted must be retained and: <ul style="list-style-type: none"> The driver must record each truckload that is removed, and this will be used to determine the volume of water extracted. These records must be provided to the ECO for record and review. The ECO must monitor volumes to ensure that usage remains below 50 cubic metres per property per day or that abstracted amounts remain within those allowed by the permit that must then need to be applied for. Water use must be controlled and reduced wherever possible. 	CON/ DEO		

Maintenance of the extraction point	<ul style="list-style-type: none"> • One point of entry must be established and approved by the ECO. Multiple entry points and pathways must not be permitted. • Multiple abstraction points are not permitted. • The abstraction point must not be established within wetland areas or in areas thickly vegetated by riparian vegetation. • The abstraction point must be easily accessible and where possible, located in close proximity to an established road to avoid the creation of additional tracks. • The abstraction area must not be located on steep slopes where the point may become eroded. • Vehicles approaching the extraction point must remain 16m away from the edge of the water resource except where required to pump directly from the stream/river. • No vehicle repairs or maintenance or refuelling may be conducted at the abstraction point. • Damage to the banks of any water resource must not take place. • Should the area become damaged or eroded, erosion protection measures such as sandbags or hessian sheeting must be put in place to allow the re-establishment of vegetation and stabilisation of the area. • Once an abstraction point is no longer being used, the area must be rehabilitated to its former state. 	CON/ DEO		
Proof of training	<ul style="list-style-type: none"> • Keep training attendance registers on file at all times. 	DEO		
Transnet Pipeline	<ul style="list-style-type: none"> • Prior to commencement of the work a representative of Transnet Pipelines must be present to indicate the position of the pipeline. 	DEO		
Incident records & Photographs	<ul style="list-style-type: none"> • Keep records of incidents that have occurred and how they were remediated. It is a good idea to take photographs when incidents occur and then to take follow up pictures to demonstrate remediation and keep these on record. • These records must be kept on-site for review by GDARD. 	DEO		
Appointment of ECO / EO	<ul style="list-style-type: none"> • Appoint an ECO (Environmental Control Officer) before commencement of construction to monitor the entire construction phase. 	ENG		

	<ul style="list-style-type: none"> Keep proof of appointment and contact details as well as dates of audits. 	APP		
Emergency response plan	<ul style="list-style-type: none"> An emergency response plan must remain on-site as must a copy of the EMP and the Environmental Authorization. 	CON/DEO		
Audits	<ul style="list-style-type: none"> A record of audits conducted on the site as well as findings must be kept on site. 	CON/DEO		
Permits & Approvals	<ul style="list-style-type: none"> Keep all necessary permits and approvals on file, i.e. construction licences etc. These must be kept on-site for review by GDARD. 	CON/DEO		
MSDSs	<ul style="list-style-type: none"> Material Safety Data Sheets (MSDSs) are to be kept on-site for all hazardous materials. 	CON/DEO		

3.3. Training & Awareness

Activity	Required Action / remediation to control environmental impact	Person	In place (Yes / No)	Comments
Who should be trained & Frequency of training	<ul style="list-style-type: none"> All construction staff must have basic environmental awareness training, which can be conducted at the same time as the required health & safety training. 	CON/DEO		
	<ul style="list-style-type: none"> Staff must be trained on their environmental responsibilities before commencing work and refresher sessions can be conducted during toolbox talks on specific areas causing problems. 	CON/DEO		
	<ul style="list-style-type: none"> Staff must sign a training register and Records of training must be kept. These records must be maintained on-site for review by GDARD. 	CON/DEO		
Training Content and staff conduct	<ul style="list-style-type: none"> Training must include <ol style="list-style-type: none"> The definition of environment (people + air + soil + water +business); Reasons for conserving and protecting the environment; How the following activities can impact the environment: - Not using assigned ablutions, hazardous materials, uncleaned spills, mixing of cement or paint on soil or grass surfaces, waste management, i.e. use of waste receptacles and waste 	CON/DEO		

	<p>separation for recycling, vehicle washing polluting soil & groundwater; litter;</p> <ol style="list-style-type: none"> 4. What to do to prevent the above impacting the environment i.e. assign impermeable mixing areas, no vehicle washing on-site, use of waste receptacles and separation of waste to allow for recycling, how to respond in an emergency and deal with a spill; 5. Consideration of neighbours. 6. Do not play music or create any other disturbance to neighbours. 7. Use only the chemical toilets provided. 8. No dumping to occur in sensitive areas on site. 9. Use waste bins provided. 10. Use drip trays provided. 11. Do not build fires for any purpose on the site. 12. Behave in a socially acceptable manner and do not use drugs or alcohol on site. 13. There is to be no hunting of wildlife on the site and no setting of snares or traps. No animals are to be harmed or harassed. 			
Neighbours & Working hours	<ul style="list-style-type: none"> • Local community members must be notified of the project through community leaders and must be notified of the existence of any hazardous storage areas as well as the type of chemicals being used on site. This can be achieved through the placement of signboards. 	CON/ DEO		
	<ul style="list-style-type: none"> • Limit hours of operation to weekdays 7-5pm and Saturday mornings 7 - 12 pm. Neighbours to be notified before construction on weekends takes place. 	CON/ DEO		
	<ul style="list-style-type: none"> • Advise the adjoining neighbours of the work and hours of work at least one week before commencement. This can also be indicated on the signboards. 	CON/ DEO		
	<ul style="list-style-type: none"> • Neighbours to be advised before periods where work will be done outside normal working hours. 	CON/ DEO		

3.4. Sensitive Social Areas, Environmental Areas, Water quality, Vegetation and Vegetation Clearing and Wildlife				
Activity	Required Action / remediation to control environmental impact	Person	In place (Yes / No)	Comments
Community	<ul style="list-style-type: none"> The surrounding stakeholders must be made aware of the commencement of construction 30 days before construction. Alternate temporary access routes must be determined before the commencement of the construction. 	CON/ DEO		
Specialist Mitigation Measures - Bridges	<ul style="list-style-type: none"> The bridge crossing must be aligned along the existing routes of disturbance i.e. where riverbed and banks have already been modified; The path leading up to the bridge must include a coarse rock layer that has been specifically incorporated to increase the porosity and permeability to accommodate flooding; It is critical to spread flows across the system, avoiding incisions in the landscape caused by concentrated flows. Temporary storm water channels should be filled with aggregate and/or logs (branches included) to dissipate flows; The crossing structure design should allow for the free movement of water' no impeding or canalisation; The footprint area of the all bridges must be kept to a minimum. The designated area should be demarcated to avoid unnecessary disturbances and encroachment into adjacent areas; Culverts should be constructed on the bedrock and not within the channel bed, nor within the preferential flow path of the systems to avoid obstructing flows (where possible); and Encouraged indigenous vegetation growth within the disturbed area to assist in bank stability and minimise erosion. 			
Specialist Mitigation Measures - General	<ul style="list-style-type: none"> The prescribed buffer zone of 32m from the riparian or 1:100 year floodline edge must be kept clear of site offices, laydown yards and stockpiles; The water resources outside of the specific direct operation area must be avoided; All contractors and employees should undergo induction which is to include a component of environmental awareness. The induction is 	CON/ EO		

	<p>to include aspects such as the need to avoid littering, the reporting and cleaning of spills and leaks and general good “housekeeping”;</p> <ul style="list-style-type: none"> • The contractors used for the construction should have spill kits available prior to construction to ensure that any fuel, oil or hazardous substance spills are cleaned-up and discarded correctly; • Action plans must be present on site, and training for contractors and employees in the event of spills, leaks and other impacts to the aquatic systems; • The construction vehicles and machinery must make use of existing access routes as much as possible, before adjacent areas are considered for access; • Prevent uncontrolled access of vehicles through the watercourses that can cause a significant adverse impact on the hydrology and soil structure of these areas; • The construction activities, laydown yards, camps or dumping of construction material are to be restricted to within the existing bridges; • During construction activities, all rubble generated must be removed from the site and not dumped in the active water channel; • Contamination of the watercourse with unset cement or cement powder should be negated as it is detrimental to aquatic biota. It is preferable that on-site mixing is avoided and that prefabricated materials be prioritised (where feasible); • Erosion and sedimentation into the channel must be minimised through the effective stabilisation (gabions and reno mattresses) and the re-vegetation of any disturbed banks; • All removed soil and material must not be stockpiled within the system. Stockpiling should take place outside of the watercourse; • All stockpiles must be protected from erosion, stored on flat areas where run-off will be minimised, and be surrounded by bunds; • Any exposed earth should be rehabilitated promptly by planting suitable (endemic) vegetation (vigorous indigenous grasses) to protect the exposed soil; • All waste generated on-site during construction must be adequately managed. Separation and recycling of different waste materials should be supported; and 			
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	<ul style="list-style-type: none"> Adequate sanitary facilities and ablutions on the servitude must be provided for all personnel throughout the project area. Use of these facilities must be enforced (these facilities must be kept clean so that they are a desired alternative to the surrounding vegetation); 			
Specialist recommendations	<ul style="list-style-type: none"> Guard rails are suggested for the bridge as the tributary is fairly deep and fast flowing. Pedestrians should not be at risk of falling of the bridge into the tributary. A sign should be placed permanently at the bridge for residents not to use or drink the water from the reach as it is polluted with sewage. A second sign should be placed telling pedestrians not to litter. During final landscaping of the construction, an alien vegetation control and eradication plan must be compiled and implemented. A 32m recommended buffer zone surrounding the river should be strictly adhered to during the construction phase of the project, with exception of the activities and structures required to traverse a watercourse. Any supporting aspects and activities not required to be within the buffer area should adhere to the buffer zone. 			
Topsoil	<ul style="list-style-type: none"> Topsoil removed during the excavations must be kept to one side (stored more than 16m from any watercourse). This must then be re-used for rehabilitation purposes. The soil must be replaced in the same area that it was excavated from. Much of this topsoil, especially the top 30cm, will retain grass and vegetation seeds. Soil stockpiles must not exceed 2m in height, must be covered, or grassed to prevent erosion caused by exposure to heavy wind or rain. 	CON/ EO		
	<ul style="list-style-type: none"> 			

Vegetation clearing and planting	<ul style="list-style-type: none"> • Only vegetation within the development footprint may be cleared. Any vegetation clearing must be done under the supervision of the ECO and Engineer. • A trained ecologist must conduct a site walkthrough before any clearance of vegetation along the temporary access routes take place. Any plants of importance identified must be avoided or relocated outside the construction footprint. • No non-indigenous garden variety plants must be used. 	CON/ EO		
Alien vegetation control	<ul style="list-style-type: none"> • On-going control of alien vegetation within the construction area must be maintained. 	CON/ EO		

	<ul style="list-style-type: none"> An alien eradication program must be in place to control the spread of alien invasive species on site. 	CON/ DEO		
Cultural and Heritage items	<ul style="list-style-type: none"> Should any items with historical or archaeological value be found during construction, these must be reported to SAHRA and work in the affected area must be stopped immediately. 	CON/ DEO		
Paleontological Monitoring Programme	<ul style="list-style-type: none"> The Monitoring Programme for Palaeontology must commence once the excavations for the siphon and abstraction pump begin. <ul style="list-style-type: none"> The following procedure is only required if fossils are seen on the surface and when excavations commence. When excavations begin, the rocks must be given a cursory inspection by the designated environmental officer or designated person. Any fossiliferous material (wood, plants, insects, bone, coal) must be put aside in a suitably protected place. This way, the project activities will not be interrupted. Photographs of similar fossil plants must be provided to the developer to assist in recognising the fossil plants in the shales and mudstones. This information will be built into the EMP's training and awareness plan and procedures. Photographs of the putative fossils can be sent to the palaeontologist for a preliminary assessment. If there is any possible fossil material found by the developer/environmental officer, then the qualified palaeontologist sub-contracted for this project must visit the site to inspect the selected material and check the dumps where feasible. Fossil plants or vertebrates that are considered to be of good quality or scientific interest by the palaeontologist must be removed, catalogued and housed in a suitable institution where they can be made available for further study. Before the fossils are removed from the site, a SAHRA permit must be obtained. Annual reports must be submitted to SAHRA as required by the relevant permits. If no good fossil material is recovered, then the site inspections by the palaeontologist will not be necessary. If no fossils are found and the excavations have finished, then no further monitoring is required. 	CON/ DEO		

3.5. Soil, Stormwater Runoff; Erosion				
Activity	Required Action / remediation to control environmental impact	Person	In place (Yes / No)	Comments
Stormwater system	<ul style="list-style-type: none"> Temporary stormwater protection measures must be established before construction activities commence. 	CON/ DEO		
	<ul style="list-style-type: none"> No contaminated runoff or greywater is allowed to be discharged from the Site Camps into any watercourse or surrounding environment. 	CON/ DEO		
	<ul style="list-style-type: none"> Stormwater must not be allowed to flow into surrounding properties and must enter existing stormwater channels. 	CON/ DEO		
Stormwater Quality	<ul style="list-style-type: none"> Only clean stormwater may be diverted to a watercourse, and associated wetlands and then precautions must be in place to prevent erosion of the riverbanks. These precautions can include gabion baskets, berms or diversion ditches, sandbags 	CON/ DEO		
	<ul style="list-style-type: none"> Washings from any vessels or any containers must not enter the watercourse. These washings are to be contained and removed as waste. 	CON/ DEO		
Incidents	<ul style="list-style-type: none"> The entry of any substance (i.e. any material or substance that is not clean stormwater) into the stormwater or a water body is considered an incident and must be reported to the ECO immediately for the purposes of maintaining the site's incident records. 	CON/ EO		
Stormwater flow	<ul style="list-style-type: none"> The drainage system must be regularly checked to ensure unobstructed water flow. 	CON/ DEO		
Erosion Control	<ul style="list-style-type: none"> Install erosion barriers (gabion baskets, berms or diversion ditches, sandbags) and other sediment control structures (grates or grids, geofabric) before clearing in order to prevent substances from entering exposed drains or channels. 	CON/ DEO		
	<ul style="list-style-type: none"> Identify any steeper areas where erosion is more likely to occur. These areas must be protected from erosion. This can be achieved through the planting of vegetation, placement of berms or use of hessian material. 	CON/ EO		

	<ul style="list-style-type: none"> Regularly check and clean material from behind erosion barriers. 	CON/ EO		
	<ul style="list-style-type: none"> Sediment/soil must not be permitted to enter the watercourses. The contractor must install erosion barriers (gabion baskets, berms or diversion ditches, sandbags) and other sediment control structures (grates or grids, geofabric). 	CON/ EO		

3.6. Housekeeping, Waste Storage Handling and Disposal (Only approved and accredited disposal facilities with permits)

Activity	Required Action / remediation to control environmental impact	Person	In place (Yes / No)	Comments
General Waste Storage	<ul style="list-style-type: none"> The waste area to be designated and demarcated within the construction camp (as per section 3). 	CON/ DEO		
	<ul style="list-style-type: none"> Solid waste must be stored in covered, tip-proof metal drums to be collected and disposed of by a certified waste contractor. Proof of safe disposal of solid waste must be documented, and these records must be maintained on-site for review by GDARD. 	CON/ DEO		
Hazardous waste	<ul style="list-style-type: none"> Hazardous materials that require disposal (cement, paints, solvents, old fuel/oil etc.) must be disposed of at a registered hazardous landfill site. 	CON/ DEO		
	<ul style="list-style-type: none"> These materials must be removed by a hazardous waste contractor. Proof of disposal must be available to the ECO for scrutiny and kept on record. Proof of safe disposal of solid waste must be documented, and these records must be maintained on-site for review by GDARD. 	CON/ DEO		
Waste from Chemical toilets	<ul style="list-style-type: none"> Install chemical toilets and ensure disposal of waste at a licenced disposal facility. Proof of disposal must be kept on-site at all times. 	CON/ DEO		
	<ul style="list-style-type: none"> Waste from the toilets must be collected weekly by a registered and reputable company. 	CON/ DEO		
	<ul style="list-style-type: none"> Safe disposal certificates for toilet waste must be obtained and kept on-site as assurance that the waste was properly disposed of. 	CON/ DEO		

	<ul style="list-style-type: none"> Toilets must not be situated on slopes or within 40m of any watercourse and must be secured to prevent them from tipping over. 	CON		
	<ul style="list-style-type: none"> Staff must use facilities provided and are not permitted to use any other areas on-site as toilet facilities. 	CON		
	<ul style="list-style-type: none"> Chemical toilets must be checked daily and cleaned. 	CON		
Waste storage and handling	<ul style="list-style-type: none"> No waste may be buried or burned on-site or dumped on surrounding properties and farmland. All waste must be disposed of at a licenced waste disposal facility. Proof of disposal must be kept on-site at all times. 	CON		
	<ul style="list-style-type: none"> All skips must be covered to contain odours and prevent waste from blowing around the site. 	CON		
	<ul style="list-style-type: none"> A register of all waste generated and disposed of must be maintained. 	CON/DEO		
	<ul style="list-style-type: none"> No dumping is permitted. There must be no dumping on site under any circumstances. The contractor is liable to a fine should there be any evidence of illegal dumping. The ECO to review the damage and advise on rehabilitation measures if required. 	CON		
	<ul style="list-style-type: none"> Do not place waste containers, skip bins or building materials on steep slopes or within 34m of the stream. 	CON/EO		
	<ul style="list-style-type: none"> Waste accumulated on-site must be removed weekly. The waste must be moved to a licenced waste disposal facility. 	CON		
	<ul style="list-style-type: none"> Provide litter bins throughout the site for use by all staff on site. 	CON		
Waste separation	<ul style="list-style-type: none"> Hazardous: Hazardous waste must be stored separately from general waste. <ul style="list-style-type: none"> Hazardous waste must be disposed of at an approved hazardous waste landfill, and safe disposal certificates must be obtained. Hazardous waste includes used oils, lubricants, solvents, solvent-based paints, concrete waste, and cement. 	CON/EO		

	<ul style="list-style-type: none"> • Oils must be within a bunded storage area and treated as flammable waste. <ul style="list-style-type: none"> ○ Where possible used oils must be recycled. ○ Safe disposal certificates must be kept on-site demonstrating disposal or recycling of the used oils. ○ Solid paint waste may be disposed of as general waste. 	CON/EO		
	<ul style="list-style-type: none"> • Concrete waste: <ul style="list-style-type: none"> ○ Return excess concrete with the delivery truck to the supplier for recycling or proper disposal. ○ Any other excess concrete, i.e. on-site mixed concrete, can be stored in a lined bin for eventual recycling or disposal. 	CON/EO		

3.7. Noise

Activity	Required Action / remediation to control environmental impact	Person	In place (Yes / No)	Comments
Noise Generation and suppression	<ul style="list-style-type: none"> • All construction vehicles must be fitted with standard silencers and be well maintained. 	CON		
	<ul style="list-style-type: none"> • Workers must be trained regarding noise on-site, and construction hours must be kept to working hours (07h00 to 17h00). 	CON		

3.8. Dust & Emissions

Activity	Required Action / remediation to control environmental impact	Person	In place (Yes / No)	Comments
Dust from stockpiles	<ul style="list-style-type: none"> • Cover any stockpiled fine material that may release dust with plastic. 	CON		
Dust from surfaces	<ul style="list-style-type: none"> • Damp down surfaces and stockpiles as required to reduce windblown dust. 	CON		

	<ul style="list-style-type: none"> A water cart may be used which must remain on designated roadways if required. 	CON		
	<ul style="list-style-type: none"> If dust from the site is likely to create problems for nearby residents, these areas must be shielded with shade cloth. 	CON		

3.9. Vehicle Maintenance, Operation, Driving On-Site and Vehicle Washing				
Activity	Required Action / remediation to control environmental impact	Person	In place (Yes / No)	Comments
Access points	<ul style="list-style-type: none"> Haulage roads must be demarcated at the site set up. 	CON		
	<ul style="list-style-type: none"> Turning areas must be located within the construction footprint and must be designated. 	CON/ EO		
	<ul style="list-style-type: none"> Temporary access roads must not be located within adjoining properties. 	CON/ EO		
	<ul style="list-style-type: none"> No ad hoc haulage roads or turning areas may be created. 	CON/ EO		
	<ul style="list-style-type: none"> Limit vehicle entry point to the designated access point and ensure no other point of entry is used. 	CON/ EO		
	<ul style="list-style-type: none"> All vehicles to remain in the parking area designated within the construction site. 	CON/ EO		
Vehicle Servicing and repairs	<ul style="list-style-type: none"> No major equipment or vehicle servicing to occur on-site, i.e. major disassembly and repair work, clutch replacements and oil or lubricant changes must be carried out at a suitably equipped workshop. 	CON		
	<ul style="list-style-type: none"> Only minor emergency repairs, i.e. those necessary to get the vehicle moving so that it can be taken to a repair facility to be carried out, i.e. stopping of oil leaks, lubricating of hydraulics, changing of buckets/breakers on Excavators and TLBs or changing of tyres. This must be carried out in designated workshop areas 	CON		

	within the allowed construction camps. These areas to be hard-surfaced and bunded.			
	<ul style="list-style-type: none"> Drip trays are to be used by all leaking vehicles and equipment. 	CON/ DEO		
	<ul style="list-style-type: none"> All vehicles to be equipped with drip trays. 	CON/ DEO		
	<ul style="list-style-type: none"> All small machinery used on site must be situated on a drip tray (i.e. pumps, generators, compressors etc.). 	CON/ DEO		
	<ul style="list-style-type: none"> All vehicles to be regularly maintained and maintenance records must be made available on request. 	CON/ DEO		
	<ul style="list-style-type: none"> No leaking vehicles to be allowed on site. 	CON/ DEO		
	<ul style="list-style-type: none"> Any vehicles that are leaking must not be allowed entry to the site. 	CON/ DEO		
	<ul style="list-style-type: none"> No vehicles to be washed on-site - cement trucks are not permitted to wash out cement mixers on site. 	CON/ DEO		
	<ul style="list-style-type: none"> Only emergency (breakdown where equipment is no longer mobile) and minor maintenance (e.g. greasing) may be done on-site. Any other planned or required maintenance must be done offsite at a suitable location. 	CON/ DEO		

3.10. Incidents, Spills and Emergency Response				
Activity	Required Action / remediation to control environmental impact	Person	In place (Yes / No)	Comments
Spill kits	<ul style="list-style-type: none"> Adequate spill kits and containers for spilt and contaminated material to be on standby on site. 	CON/EO		

	<ul style="list-style-type: none"> Keep marked booms and/or absorbent material on-site to contain spills if they occur. 	CON/ EO		
	<ul style="list-style-type: none"> All staff must be trained on how to react in the case of an emergency. 	CON-SHE		
	<ul style="list-style-type: none"> If a spill occurs, stop the source, contain it, clean up as per MSDSs and notify relevant authorities. 	CON/ EO		
	<ul style="list-style-type: none"> Make staff aware of emergency phone numbers to use in the case of a large spill. 	CON/ EO		
Definition of incidents	<ul style="list-style-type: none"> All incidents are to be recorded. 	CON/ EO		
	<ul style="list-style-type: none"> Minor incidents: small spills less than 5 l that do not enter stormwater or the stream/river, minor non-compliance with EMPr that does not cause major environmental impact, i.e. housekeeping issues etc. <ul style="list-style-type: none"> Action: Supervisor and staff on-site to record and address and notify ECO. Take photos of the spill. Prevent spill from spreading and contain. Collect spilt material and contaminated soil and place in a sealed container for disposal. ECO to advise on remediation measures and to follow up on actions taken to address the incident. Records: On-site incident register. 	CON/ EO		
	<ul style="list-style-type: none"> Major incidents: Large spills or any spills that enter stormwater or the stream/river, fires, explosions. Please see the definition of a reportable incident provided below. <ul style="list-style-type: none"> Action: Report immediately to ECO, action to be taken to prevent further damage and incident to be reported to authorities. ECO to advise on remediation measures and to follow up on actions taken to address the incident. Records: On-site incident register and report to authorities. 	CON/ EO		

3.11. Sewage and Grey Water Management				
Activity	Required Action / remediation to control environmental impact	Person	In place (Yes / No)	Comments
Sewage	<ul style="list-style-type: none"> Adequate toilet facilities (such as chemical toilets) sufficient in number to cater for the number of staff on-site must be provided. One toilet per 15 staff must be provided. 	CON		
	<ul style="list-style-type: none"> Waste must be managed as per section 3.5, namely removed by a licensed contractor, and safe disposal certificates retained to prove proper disposal. Safe disposal certificates must be kept on-site for review by the GDARD. 	CON/ EO		
Greywater/wash water	<ul style="list-style-type: none"> Greywater must not be permitted to enter the surrounding properties or stormwater. 	CON/ EO		
	<ul style="list-style-type: none"> Vehicles, especially cement trucks, must not be washed on site these must be washed at a wash bay facility off-site. 	CON/ EO		
	<ul style="list-style-type: none"> Alternately the wash water can be collected and returned with the supplier's truck for disposal by the supplier. 	CON/ EO		

SECTION 4: POST CONSTRUCTION, REHABILITATION AND OPERATION

4.1. Post Construction Activities

Activity	Required Action / remediation to control environmental impact	Person	In place (Yes / No)	Comments
Post Construction Audit	<ul style="list-style-type: none"> Clearance from the ECO must be obtained to ensure the all of the requirements of the EMPr have been complied with. 	ECO		
Stormwater	<ul style="list-style-type: none"> The Contractor must check that the stormwater channels are free from building rubble, spoil materials, and waste materials. 	CON		
	<ul style="list-style-type: none"> Ensure that in the long term; stormwater is protected from ingress by potential pollutants. 	CON		
Waste & Spills	<ul style="list-style-type: none"> All spillages must be cleaned and contaminated soil must be removed and disposed of. 	CON/ EO		
	<ul style="list-style-type: none"> All remaining waste bins and/or skips must be removed and disposed of. Records of disposal must be retained. 	CON/ EO		
	<ul style="list-style-type: none"> All excess concrete must be removed from the site on completion of works and disposed of. Washing of the excess into the ground is not allowed. 	CON/ EO		
	<ul style="list-style-type: none"> All excess aggregate must also be removed. 	CON		
	<ul style="list-style-type: none"> Used oil must have been collected by a registered used oil contractor and documentation to this effect provided. 	CON		
	<ul style="list-style-type: none"> Surfaces are to be checked for waste products from activities such as concreting are cleared in a manner approved by the ECO. 	CON		
	<ul style="list-style-type: none"> No litter must be left on site. 	CON/EO		

Structures, materials and stockpiles	<ul style="list-style-type: none"> Any fences, barriers, or demarcations utilised for the construction phase must be removed and disposed of. 	CON		
	<ul style="list-style-type: none"> All structures and imported materials within the construction camp must be removed. 	CON		
	<ul style="list-style-type: none"> The remaining building materials must be removed from the site. 	CON		
Damage	<ul style="list-style-type: none"> Any damage incurred on the neighbouring homesteads by the contractor must be repaired by the contractor. 	CON		
	<ul style="list-style-type: none"> Any damage to existing infrastructure must be repaired or replaced on completion of the upgrade. 	CON		
Close Out	<ul style="list-style-type: none"> A meeting must be held between Engineer, the ECO, and the contractor to approve all remediation activities and ensure that the site has been restored to a condition, which has been approved by the Engineer. 	ENG		
Vegetation	<ul style="list-style-type: none"> All vegetation planting must be completed and any areas that have been disturbed or cleared must have been rehabilitated and re-vegetated. 	ECO		
	<ul style="list-style-type: none"> Re-vegetation of cleared land must utilise only 100% locally indigenous plant material to ensure no erosion occurs once the site is vacated. 	CON/EO		
	<ul style="list-style-type: none"> Ensure that no sensitive habitats have been damaged during the construction phase. 	ECO		
	<ul style="list-style-type: none"> Where habitats have been damaged, these must be reported to the ECO and procedures for rehabilitation of these habitats must be undertaken. 	CON/EO		
Erosion	<ul style="list-style-type: none"> Any eroded soil on paths/roadways/ other areas must be collected and replaced in the area from which it was eroded. These high-risk erosion areas must be protected from further soil erosion. 	CON/EO		

4.2. Rehabilitation				
Activity	Required Action / remediation to control environmental impact	Person	In place (Yes / No)	Comments
<p>THE CONSTRUCTION OF 6KM ROAD AND STORMWATER NETWORK AND ONE BRIDGE (BRIDGE NO 3) ALONG BATHLAPING STREET IN OLIEVENHOUTBOSCH EXTENSION 60 FOR A PERIOD OF 36 MONTHS - PHASE 1</p>	<ul style="list-style-type: none"> Cleared areas to be re-grassed on completion. Indigenous grasses to be used and the use of vetiver or kukuyu grass is not supported. Rather an indigenous grass seed mix must be used to rehabilitate the site. Species within this mix should include <i>Urochloa panicoides</i> (Garden Signal Grass), <i>Pogonarthria squarrosa</i> (Herringbone grass), <i>Eragrotis curvula</i> (Weeping Love Grass) and <i>Chloris gayana</i> (Rhodes Grass). Where possible, vegetation that was removed during clearing must be kept aside and re-used. This can be kept on-site in nursery areas or if the replanting occurs within a few days of clearing, can be kept to one side and immediately re-planted. Grass can be reintroduced by Hydroseeding or planting of grass plugs. Cleared areas must not be left exposed for periods longer than two weeks and must be revegetated in stages as each section is completed. Where serious habitat damage has taken the damaged must be reported to the ECO. Consultation between the ECO, contractor, and engineer must take place. Whereby the contractor must develop and suitable method statement which must focus on the rehabilitation of the damaged area. This method statement must be approved by both the ECO and engineer. The contractor must then implement this method statement under the supervision of the ECO. 	<p>CON/ EO</p>		
<p>Top Soil</p>	<ul style="list-style-type: none"> Topsoil removed during the excavations must be kept to one side (stored more than 15m from all watercourses) and re-used in the same area that it was excavated from. Much of this topsoil, especially the top 30cm will retain grass and vegetation seeds. This topsoil to be used when re-vegetating and rehabilitating areas cleared for construction/ excavation. 	<p>CON/ EO</p>		

Rehabilitation of eroded areas	<ul style="list-style-type: none"> Any erosion damage caused during construction must be repaired. The affected area must be reshaped, and the soil replaced. The eroded area must be re-vegetated or measures put in place to control further erosion. The contractor must install erosion barriers (gabion baskets, berms or diversion ditches, sandbags) and other sediment control structures (grates or grids, geofabric). 	CON/ EO		
Removal of alien invasive plants	<ul style="list-style-type: none"> Alien invasive species must be removed on an on-going basis. Use of chemical pesticides must be avoided, and mechanical removal by hand is preferred. 	CON/ EO		
Damage to any watercourse	<ul style="list-style-type: none"> Where any watercourse has been damaged, the following measures are to be taken to ensure restoration of the habitat: <ul style="list-style-type: none"> ECO must assess the damaged area Any construction debris or contaminants within the watercourse must be removed Original soil structure and water quality parameters must be restored Any impedance or diversion to water flow must be removed The area must be vegetated with suitable riparian or wetland species No loose soil or damaged banks can be left behind after construction. 	CON/ EO		

4.3. Operation				
Activity	Required Action / remediation to control environmental impact	Person	In place (Yes / No)	Comments
Maintenance of the structure	<ul style="list-style-type: none"> The road and culverts will require maintenance during operation. This work must be undertaken by municipal appointed staff. This EMPr must be used to mitigate against any potential risks to the environment. The following mitigation measure must be implemented on site during all inspections and maintenance work: 	CON/ EO		

	<ul style="list-style-type: none"> ○ All maintenance vehicles and machinery must make use of existing access routes; ○ Laydown yards, camps, and storage areas must be more than 32m from any water resource; ○ All machinery and equipment must be inspected regularly for faults and possible leaks, these must be serviced off-site ○ The contractors used for the maintenance must have spill kits available to ensure that any fuel or oil spills are clean-up and discarded correctly; ○ Uncontrolled access of vehicles through any watercourse must not be permitted; ○ Adequate sanitary facilities and ablutions must be provided for all personnel on site. Use of these facilities must be enforced; ○ All removed soil and material must not be stockpiled more than 32m from any water resource. All stockpiles must be protected from erosion, stored on flat areas where run-off will be minimised, and be surrounded by bunds; ○ No dumping of construction material on-site may take place; ○ An on-site environmental file must be maintained. The following documents must remain on site: <ul style="list-style-type: none"> ○ Environmental Authorisation ○ EMPr ○ Audit reports ○ Waste register with safe disposal certificates ○ Proof of toolbox talks. ○ Any other documents requested by the ECO. ○ The waste hierarchy must be implemented on site, reduce, reuse and recycle. All waste generated on-site during construction must be adequately managed. Separation and recycling of different waste materials should be supported. Safe disposal certificates must be obtained and kept on file for review. ○ Toolbox talks must be conducted on a regular basis which must cover environmental topic dealing with but not limited 			
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	<p>to, waste management, conservation of water, protection of fauna and flora and good housekeeping.</p> <ul style="list-style-type: none"> ○ An ECO (Environmental Control Officer) must be appointed before commencement of construction to monitor the entire construction phase. The ECO must undertake an audit every month during maintenance activities. ○ Keep proof of appointment and contact details as well as dates of audits. ○ All audit report must be sent to the compliance division of GDARD for review. 			
Soil Erosion	<ul style="list-style-type: none"> • The erosion protection features installed on the site must be checked to ensure, they continue to perform their function during the operational phase of the project. 	APP		
Vegetation	<ul style="list-style-type: none"> • Alien vegetation must be monitored and removed on an on-going basis. • Indigenous vegetation planting must continue on an on-going basis if it is required. 	APP		

SECTION 5: DEFINITIONS

Stormwater

Clean rainwater, must be allowed to enter the stormwater system or natural water bodies without causing erosion. Stormwater must not be contaminated with any other substance including soaps, washings, hazardous materials, soil etc.

Greywater

This is wash water that may contain non-hazardous soaps, i.e. bathwater, vehicle wash water etc. This must not be permitted to enter the stormwater system but can be disposed of in the sewage system or as effluent. If no sewage system is available on site, the greywater must be collected and disposed of.

Sewage

Human excrement from chemical toilets.

Raw materials for which source statement must be obtained

Topsoil, sands, natural gravels, crushed stone, asphalt, clay liners, timber etc. E.G., sand may only be obtained from approved sand winning operations, which is licensed and has an approved EMPr for operation.

Incidents

All incidents must be recorded. Minor incidents could include small spills of less than 5l that do not enter a water body or any stormwater drains, as well as housekeeping issues and general small non-compliances with the requirements of the EMPr. Major incidents are those that must be reported to the authorities and include all incidents involving contamination of a water body or stormwater or other reportable incidents as defined below.

Reportable incident is defined as 'an unexpected sudden occurrence, including a major emission, fire or explosion leading to serious danger to the public or potentially serious pollution of or detriment to the environment, whether immediate or delayed' NEMA Section 30, 'includes any incident or accident in which a substance (a) pollutes or has the potential to pollute a water resource; or (b) has, or is likely to have, a detrimental effect on a water resource.' NWA Section 20.

Environmental Emergency Response and Definition of an Incident

<p>Aim of this document</p>	<ul style="list-style-type: none"> • To effectively manage the response to emergency incidents and control these incidents should they occur. • To ensure that such incidents are recorded and, where possible, all measures are taken to prevent them from re-occurring. • To provide a definition for what would be considered a reportable incident in terms of the environmental legislation. <p>Activities covered in this procedure include:</p> <ul style="list-style-type: none"> • Identification and definition of an incident and whether or not it needs to be reported to the authorities. • Reporting to the relevant authorities if a reportable incident occurs • Procedure to follow in the event of a spill or fire.
<p>Personnel Duties and Responsibilities</p>	<p>The contractor is responsible for:</p> <ul style="list-style-type: none"> • Ensuring all activities are carried out as per this procedure and that the company complies with relevant legislation. • Maintaining a register of all incidents as well as ensuring that an incident report is generated for each incident, including details of the incident and how it was closed out. • Ensuring that safe disposal certificates are obtained for any waste materials generated as a result of an incident and that this waste is recorded. • Providing the necessary spillkit equipment and drums for storage of contaminated soil etc.
<p>Training Requirements</p>	<ul style="list-style-type: none"> • All personnel and workforce to undergo a site safety and environmental induction before starting work on site. All employees to be trained on how to respond to an environmental incident and whom to contact in order to ensure that the incident is addressed and recorded and if necessary reported.
<p>Definition of a “reportable incident”</p>	<ul style="list-style-type: none"> • In terms of the National Environmental Management Act, major incidents must be reported to the authorities. In terms of the National Water Act, any incident involving a substance which has the potential to pollute a water resource must be reported, i.e. any spill of into a watercourse or the stormwater system must be reported. The relevant sections from the legislation are provided below:
<p>National Environmental Management Act</p>	<p><i>As defined by NEMA, section 30 “Control of emergency incidents”.</i></p> <p><i>(1) In this section—</i></p> <p><i>(a) “incident” means an unexpected sudden occurrence, including a major emission, fire or explosion leading to serious danger to the public or potentially serious pollution of or detriment to the environment, whether immediate or delayed;</i></p> <p><i>(b) “responsible person” includes any person who—</i></p> <p><i>(i) is responsible for the incident;</i></p> <p><i>(ii) owns any hazardous substance involved in the incident; or</i></p> <p><i>(iii) was in control of any hazardous substance involved in the incident at the time of the incident;</i></p>

	<p>(c) “relevant authority” means—</p> <ul style="list-style-type: none"> (i) a municipality with jurisdiction over the area in which an incident occurs; (ii) a provincial head of department or any other provincial official designated for that purpose by the MEC in a province in which an incident occurs; (iii) the Director-General; (iv) any other Director-General of a national department.
<p>National Water Act</p>	<p>As defined by the National Water Act section 20 “Control of emergency incidents”</p> <p>(1) In this section “incident” includes any incident or accident in which a substance -</p> <ul style="list-style-type: none"> (a) pollutes or has the potential to pollute a water resource; or (b) has, or is likely to have, a detrimental effect on a water resource.
<p>Reporting to the authorities</p>	<p>If a reportable incident occurs, the Site Agent / Project Manager and Environmental Control Officer must be notified immediately. No site staff may communicate directly with the authorities.</p> <p>The relevant sections from the legislation are included below:</p> <p>As taken from NEMA, section 30: Control of Emergency Incidents:</p> <p>(3) The responsible person or, where the incident occurred in the course of that person’s employment, his or her employer must forthwith after knowledge of the incident, report through the most effective means reasonably available—</p> <ul style="list-style-type: none"> (a) the nature of the incident; (b) any risks posed by the incident to public health, safety and property; (c) the toxicity of substances or byproducts released by the incident; and (d) any steps that should be taken in order to avoid or minimise the effects of the incident on public health and the environment too— <ul style="list-style-type: none"> (i) the Director-General; (ii) the South African Police Services and the relevant fire prevention service; (iii) the relevant provincial head of department or municipality; and (iv) all persons whose health may be affected by the incident. <p>(4) The responsible person or, where the incident occurred in the course of that person’s employment, his or her employer, must, as soon as reasonably practicable after knowledge of the incident—</p> <ul style="list-style-type: none"> (a) take all reasonable measures to contain and minimise the effects of the incident, including its effects on the environment and any risks posed by the incident to the health, safety and property of persons; (b) undertake cleanup procedures; (c) remedy the effects of the incident; (d) assess the immediate and long term effects of the incident on the environment and public health. <p>(5) The responsible person or, where the incident occurred in the course of that person’s employment, his or her employer, must, within 14 days of the incident, report to the Director-General, provincial head of department and municipality such information as is available to enable an initial evaluation of the incident, including—</p> <ul style="list-style-type: none"> (a) the nature of the incident;

	<p>(b) the substances involved and an estimation of the quantity released and their possible acute effect on persons and the environment and data needed to assess these effects;</p> <p>(c) initial measures taken to minimise impacts;</p> <p>(d) causes of the incident, whether direct or indirect, including equipment, technology, system, or management failure; and</p> <p>(e) measures taken and to be taken to avoid a recurrence of such incident.</p> <p>(6) A relevant authority may direct the responsible person to undertake specific measures within a specific time to fulfil his or her obligations under subsections (4) and (5): Provided that the relevant authority must, when considering any such measure or time period, have regard to the following:</p> <p>(a) the principles set out in section 2;</p> <p>(b) the severity of any impact on the environment as a result of the incident and the costs of the measures being considered;</p> <p>(c) any measures already taken or proposed by the person on whom measures are to be imposed, if applicable;</p> <p>(d) the desirability of the State fulfilling its role as custodian holding the environment in public trust for the people;</p> <p>(e) any other relevant factors.</p> <p>(7) A verbal directive must be confirmed in writing at the earliest opportunity, which must be within seven days.</p> <p>(8) Should—</p> <p>(a) the responsible person fails to comply, or inadequately comply with a directive under subsection (6);</p> <p>(b) there be uncertainty as to who the responsible person is; or</p> <p>(c) there be an immediate risk of serious danger to the public or potentially serious detriment to the environment, a relevant authority may take the measures it considers necessary to—</p> <p>(i) contain and minimise the effects of the incident;</p> <p>(ii) undertake cleanup procedures; and</p> <p>(iii) remedy the effects of the incident.</p>
<p>National Water Act section 20: Control of emergency incidents</p>	<p>(2) In this section, "responsible person" includes any person who -</p> <p>(a) is responsible for the incident;</p> <p>(b) owns the substance involved in the incident, or</p> <p>(c) was in control of the substance involved in the incident at the time of the incident.</p> <p>(3) The responsible person, any other person involved in the incident or any other person with knowledge of the incident must, as soon as reasonably practicable after obtaining knowledge of the incident, report to -</p> <p>(a) the Department;</p> <p>(b) the South African Police Service or the relevant fire department; or</p> <p>(c) the relevant catchment management agency.</p> <p>(4) A responsible person must -</p> <p>(a) take all reasonable measures to contain and minimise the effects of the incident;</p> <p>(b) undertake to clean-up procedures;</p> <p>(c) remedy the effects of the incident; and</p>



	<i>(d) take such measures as the catchment management agency may either verbally or in writing direct within the time specified by such institution.</i>
Spill response	
Responsible Person/s	The spill is reported to the site foreman who must notify his superior. All employees must be made aware of the procedure in case of a spill.
Procedure	<ol style="list-style-type: none"> 1. Identify the nature of the spill, e.g. paint, oil or lubricants 2. Locate spill kit 3. Contain spill according to the training provided 4. Where necessary, contact external spill control contractors 5. Ensure spill does not cause any external contamination (such as storm/groundwater or soil) 6. Ensure that cleanup measures are taken if any contamination has occurred 7. Record in emergency response record the: <ul style="list-style-type: none"> • Nature of incident • Cause of incident • Clean up measures • Mitigation measures are taken 8. Record in non-conformance register 9. The ECO and Project Manager will determine if the event qualifies as an incident and take steps to report the incident to the necessary authorities, i.e. GDARD and DWS. 10. The ECO shall review all spill reports
Fire	
Responsible Person/s	The fire is reported to the site foreman All employees must be made aware of the procedure in case of fire.
Procedure	<ol style="list-style-type: none"> 1. Identify the source and nature of fire. 2. In case of small fire extinguish with material appropriate to the nature of the fire 3. In case of a large fire contact Fire Department 4. In the site camp, seal off exposed stormwater drains to ensure firewater does not cause any external contamination. If on-site, take measures to prevent firewater from entering any water body. 5. Ensure that clean-up measures are taken if any contamination has occurred 6. Record in emergency response record the: <ul style="list-style-type: none"> • Nature of incident • Cause of incident • Clean up measures • Mitigation measures are taken 7. Record in non-compliance register 8. The ECO and Project Manager will determine if the event qualifies as an incident and take steps to report to the authorities.

	<ol style="list-style-type: none"> 9. The DEO shall review incident/nonconformance reports 10. Adjustments will be made, if necessary, to the operational and emergency procedures and the Environmental Management System to prevent future occurrences
Explosion	
Responsible Person/S	<p>The explosion is reported to the site foreman who must notify his superior. All employees must be made aware of the procedure in case of an explosion.</p>
Procedure	<ol style="list-style-type: none"> 1. Identify the source and nature of the explosion. 2. In case of small fire as a result of the explosion, extinguish with material appropriate to the nature of the fire 3. In case of a large fire as a result of the explosion contact Fire Department 4. In the site camp, seal off exposed stormwater drains to ensure firewater does not cause any external contamination. If on-site, take measures to prevent firewater from entering any water body. 5. Ensure that clean-up measures are taken if any contamination has occurred 6. Record in emergency response record the: <ul style="list-style-type: none"> • Nature of incident • Cause of incident • Clean up measures • Mitigation measures are taken 7. Record in non-compliance register 8. The ECO and Project Manager will determine if the event qualifies as an incident and take steps to report the incident to the necessary authorities, i.e. GDARD and DWS. 9. The ECO shall review spill reports
Resource Requirements	
Materials	<ul style="list-style-type: none"> • Separate drums for contaminated soil. • Spade and clean soil • Fire equipment

Alien Plant Control Plan

Alien Plant Control Plan	
Activity	Site Mitigation Measures to control alien plants
Training and expertise of personnel involved in Alien plant management on site	<ul style="list-style-type: none"> • It is rare that a contractor has employees or members with good knowledge of alien plants and their eradication, who can then eradicate these plants effectively and on a near-complete basis. Partial knowledge means that some alien species are missed or ignored or indigenous plants harmed. Partial work or work that is not sustained is also ineffective in the long run as any residual presence can regenerate and expand quickly, particularly if live material or many seeds still in the ground. • As a result, the contractor must continually train their works as to the importance of alien plant control and at the same time providing them with the correct knowledge as to which plant must be removed and what method must take place.
Alien Invasive Plant Management in the construction area	<ul style="list-style-type: none"> • The construction area must be kept free of a lien invasive plants. Regular inspections of the site must take place. The following methods of alien plant control can be adapted: <ul style="list-style-type: none"> ○ Mechanical Control <ul style="list-style-type: none"> ▪ Hand pulling ▪ Manual removal using hand tools ▪ Manual removal using mechanised tools ○ Chemical Control <ul style="list-style-type: none"> ▪ Foliar spraying ▪ Handheld spraying ▪ High-pressure spraying • The construction area must be rehabilitated immediately following the completion of construction to ensure that a lien invasive plants do not become established. • The construction area must be regularly inspected following rehabilitation and alien invasive plants removed if they have become established.
Responsible Use of herbicides	<ul style="list-style-type: none"> • Problem plants in construction areas usually short-lived weeds for which mechanical methods alone are not successful. Some use of herbicides may be unavoidable. The following must be followed during the use of herbicides: <ul style="list-style-type: none"> ○ Do not spray herbicides in windy conditions ○ Preferably spray in dry conditions and not before any predicted heavy rainfall as most pesticide movement either to the surface or to the groundwater will occur in the first major storm event after application. Heavy losses are reported when application occurs immediately before a major storm. ○ A buffer zone which must remain untreated must be retained around any watercourse. A minimum buffer of 10m must be retained. This will have to be managed by mechanical means. ○ Empty containers or unused herbicides must be disposed of correctly and may not be dumped on site.

NB! Please ensure that all the information provided in brackets are removed before submitting this report to all the Authorities.

 <p>environmental affairs Department: Environmental Affairs REPUBLIC OF SOUTH AFRICA</p> 	Document Type:	Emergency Incident Report	
	Title for the incident:		
	Date of the incident:		
Reference:		Initial Submission Date:	
Revision No.:		Compiled by:	

This form provides a template for the emergency incident report required in terms of section 30(5) of the National Environmental Management Act (Act No. 107 of 1998) (hereinafter “NEMA”) in which the responsible person or, where the incident occurred in the course of that person’s employment, his or her employer, must, within 14 days of the incident, report to the Director General, provincial head of department and municipality such information as is available to enable an initial evaluation of the incident, including: (a) the nature of the incident; (b) the substances involved and an estimation of the quantity released and their possible acute effect on persons and the environment and data needed to assess these effects; (c) initial measures taken to minimise impacts; (d) causes of the incident, whether direct or indirect, including equipment, technology, system, or management failure; and (e) measures taken and to be taken to avoid a recurrence of such incident.

In terms of section 30(1)(a) of NEMA, an “incident” means an unexpected sudden occurrence, including a major emission, fire or explosion leading to serious danger to the public or potentially serious pollution of or detriment to the environment, whether immediate or delayed.

In line with section 24 of the Constitution of the Republic of South Africa (Act No. 108 of 1996), “serious” is taken to be a measure of the impact of an incident where such an incident has had, could have had, is having, or will have a negative impact on human health or well-being.

1. RESPONSIBLE PERSON			
In terms of section 30(1)(b) of NEMA, the “responsible person” includes any person who: (i) is responsible for the incident; (ii) owns any hazardous substance involved in the incident; or (iii) was in control of any hazardous substance involved in the incident at the time of the incident			
1.1. Name:		1.2. Designation:	
1.3. Postal Address:		1.4. Physical Address:	
1.5. Telephone (B/H):		1.6. Telephone (A/H):	
1.7. Fax:			
1.8. E-mail:			
1.9. Nature of Business:			

2. EMERGENCY INCIDENT SUMMARY INFORMATION

Mark the appropriate boxes

2.1. Fire:	2.2. Spill:	2.3. Explosion:	2.4. Gaseous Emission:
2.5. Injuries	2.6. Reportable injuries:	2.7. Hospitalisation:	2.8. Fatalities:
2.9. Open water impacts:	2.10. Ground water impacts:	2.11. Atmospheric impacts:	2.12. Soil impacts:
2.13. Own emergency response involved	2.14. Fire prevention services involved	2.15. Government hazardous materials emergency response involved	2.16. More than 1 governmental emergency response service involved
2.17. Emission of non-toxic substances at low concentrations	2.18. Emission of non-toxic substances at high concentrations	2.19. Emission of toxic substances at low concentrations	2.20. Emission of toxic substances at high concentrations
2.21. No evacuation required	2.22. Immediate area evacuated	2.23. Immediate surrounds evacuated	2.24. Evacuation of the general public
4.4. Others			

3. INITIAL EMERGENCY INCIDENT REPORT

In terms of section 30(3) of NEMA, the responsible person or, where the incident occurred in the course of that person's employment, his or her employer must forthwith after knowledge of the incident, report through the most effective means reasonably available: (a) the nature of the incident; (b) any risks posed by the incident to public health, safety and property; (c) the toxicity of substances or byproducts released by the incident; and (d) any steps that should be taken in order to avoid or minimise the effects of the incident on public health and the environment to: (i) the Director General; (ii) the South African Police Services and the relevant fire prevention service; (iii) the relevant provincial head of department or municipality; and (iv) all persons whose health may be affected by the incident.

3.1. Description	3.2. Date:	3.3. Time:	3.4. Medium:	3.5. Name and contact details:
Relevant fire prevention service: (in case of fire)	[submission date]	[submission time]	[Fax, phone, SMS, letter, etc.)	[Who was the report made to?]
LOCAL:				
PROVINCIAL: (Those deal with Environmental issues)				
DIRECTOR GENERAL: (Department of Environmental Affairs)				
Any other Director General of National Department, E.g. Department of Water Affairs				

4. INCIDENT DETAILS

In terms of NEMA section 30(5)(a) and (d), the responsible person must report on the nature of the incident as well as the causes of the incident, whether direct or indirect, including equipment, technology, system, or management failure

4.1. Location of the incident	[Provide physical address of the location where the incident happened including the GPS co-ordinates]		
4.2. Incident start date and time:		4.3. Incident duration:	
4.4. Duration of exposure:			
4.5. Incident description:			
<u>Background of the incident:</u>			
<u>Operation:</u>			
<u>Incident type:</u>			
<u>Root Cause of the incident:</u>			
<u>Contributory Factors to the incident:</u>			
<u>Conclusion:</u>			
4.6. Wind speed and direction		4.7. Ambient air temperature	
4.8. Weather conditions		4.9. Other relevant meteorological conditions	

5. POLLUTANTS RELEASED DURING INCIDENT

In terms of NEMA section 30(5)(b), the responsible person must report on the substances involved and an estimation of the quantity.

List all the pollutants directly released during the incident (i.e. exclude those pollutants that resulted from mitigation measures, e.g. flaring, treatment, dilution etc.)

5.1. Substance or mixture of substances	5.2. Reference Number	5.3. Phase eg solid, liquid or gas	5.4. Total Quantity emitted/released	5.5. Units eg Kg, L etc	5.6. Nature of emission/release
[The name recognised by any national or internationally recognised chemical referencing system]	[Reference to any national or internationally recognised chemical referencing system]	[solid, semi-solid, liquid or gas]	[the total measured or estimated quantity released into the environment]	[the unit of measure in respect to the quantity]	[Emitted from truck, underground pipe, stack, etc.]

6. SECONDARY POLLUTANTS RESULTING FROM INCIDENT

In terms of NEMA section 30(5)(b), the responsible person must report on the substances involved and an estimation of the quantity released.

List all the pollutants that resulted from mitigation measures, e.g. flaring, treatment, dilution etc.

6.1. Substance or mixture of substances	6.2. Reference Number	6.3. Phase	6.4. Total Quantity emitted/ released	6.5. Unit	6.6. Nature of emission
[The name recognised by any national or internationally recognised chemical referencing system]	Reference to any national or internationally recognised chemical referencing system]	[solid, semi-solid, liquid or gas]	[the total measured or estimated quantity released into the environment]	[the unit of measure in respect to the quantity]	[Emitted from truck, underground pipe, stack, etc.]

7. POLLUTANT CONCENTRATIONS

In terms of NEMA section 30(5)(b), the responsible person must report on the substances involved and an estimation of the quantity released.

List all the pollutants detailed in previous section:

7.1. Substance or mixture of substances	7.2. Reference Number	7.3. Estimated pollutant concentration on different radius			
		7.3.1. 10m	7.3.2. 100m	7.3.3. 500m	7.3.4. >2000m
[The name recognised by any national or internationally recognised chemical referencing system]	[Reference to any national or internationally recognised chemical referencing system]	[estimate the concentration of the pollutant in water, soil and/or air within a 10m radius of the epicentre of the incident] [provide the units used in a case of estimating concentration (e.g. ppm)]	[estimate the concentration of the pollutant in water, soil and/or air within a 100m radius of the epicentre of the incident] [provide the units used in a case of estimating concentration (e.g. ppm)]	[estimate the concentration of the pollutant in water, soil and/or air within a 500m radius of the epicentre of the incident] [provide the units used in a case of estimating concentration (e.g. ppm)]	[estimate the concentration of the pollutant in water, soil and/or air within a > 2000 m radius of the epicentre of the incident] [provide the units used in a case of estimating concentration (e.g. ppm)]

¹ Concentration at the plume

² Concentration that was falling on the ground

8. INCIDENT IMPACT

In terms of NEMA section 30(5)(b), the responsible person must report on possible acute effects on persons and the environment and the responsible must provide data needed to assess these effects;

8.1. Minor injuries	[Describe the number and types of any minor injuries that resulted from the incident or efforts to manage the incident or the impacts thereof]
8.2. Reportable injuries	[Describe the number and types of any injuries requiring statutory reporting that resulted from the incident or efforts to manage the incident or the impacts thereof]
8.3. Hospitalisation	[Describe the number and types of any injuries that required professional medical care that resulted from the incident or efforts to manage the incident or the impacts thereof]
8.4. Fatalities	[Describe the number and cause of any fatalities that resulted from the incident or efforts to manage the incident or the impacts thereof]
8.5. Biological impacts	[Describe any impacts on biological life, other than human life, e.g. fish kills, plant mortality, etc.]
8.6. Impact area	[Describe the area possibly affected by the incident or the impacts thereof including: (i) size of the area; (ii) socio-economic context; (iii) population density; (iv) sensitive environments (if any), etc.]
8.7. Data	Attach relevant impact reports, medical reports, death certificates, post mortem reports, environmental monitoring data, etc. as Annexes C1, C2,... to this report

9. EXISTING PREVENTION PROCEDURES AND/OR SYSTEMS

9.1. Foresight	[Briefly describe whether the incident could have, or had, been foreseen, e.g. was it included in any environmental impact assessment, risk assessment, health and safety plan, etc.]
9.2. Procedures and/or systems	Attach any relevant safety, health and environmental plans (including any statutory planning requirements) that detail what actions should be taken in the event of the incident that is the subject of this report
9.3. Procedure and/or systems failures	[Describe any failures or shortfalls in procedures and/or systems that may have contributed to the incident] All procedures and checklist in place and signed off.
9.4. Technical measures	[Describe any technical measures, equipment, 'fail-safe' devices, etc. that are in place to prevent the occurrence of the incident] Communications & discussions in place.
9.5. Technical failure	[Describe any failures of technical measures, equipment, 'fail-safe' devices, etc. that are in place to prevent the occurrence of the incident]

10. INITIAL INCIDENT MANAGEMENT

In terms of NEMA section 30(5)(c), the responsible person must report on initial measures taken to minimise impacts.

10.1. Evacuation	[Describe any evacuation activities including information on the number of people evacuated and whether these people were staff or otherwise]
10.2. Technical measures	[Describe all technical measures taken to address the incident]
10.3. Mitigation measures	[Describe all measures taken to minimize the impact] SOPEP gear activated
10.4. Emergency Services	[Describe any governmental emergency services involvement] SAMSA/TNPA advised

11. CLEANUP AND/OR DECONTAMINATION

In terms of NEMA section 30(5)(c), the responsible person must report on initial measures taken to minimise impacts.

11.1. Cleanup and/or decontamination	<i>[Report on initial cleanup and or decontamination (remediation) measures taken to minimise the impact of the incident on human health and the environment. Provide copy of safe disposal certificate (if any)]</i>
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11.2. Permissions and Instructions

Provide details of any permission and/or instructions received from any organ of state during initial incident management, cleanup and/or decontamination

11.3. Type	11.4. Statute	11.5. Issued By	11.6. Name and contact details
[Describe the nature or type of permission or instruction]	[Provide a reference to the legal mandate for the permission or instruction]	[Provide contact details for the permitting or instructing authority]	[provide a summary of the activities carried out in terms of the permission or instruction]

12. MITIGATION MEASURES

In terms of NEMA section 30(5)(e), the responsible person must report on measures taken and to be taken to avoid a recurrence of such an incident.

12.1. Measure	12.2. Objective	12.3. Cost	12.4. Timing
[Briefly describe each of the measures taken, and to be taken, to avoid a recurrence of such incident]	[Briefly describe the objective of the measure, i.e. the desired outcome of the measure]	[Estimate the cost of the measure in terms of capital costs and/or recurrent costs]	[Provide information on the timing for the full implementation of the measure]

13. AUTHORISATIONS

Provide details on all authorisations (including permits, licenses, certificates, etc.) in respect of the activity to which this incident relates.

13.1. Type	13.2. Statute	13.3. Issued By	13.4. Issue & Expiry Date
[Describe the nature or type of authorisation, e.g. Registration Certificate]	[Provide the reference for the authorisation, e.g. section X of the National Environmental Management Act (Act No. 107 of 1989)]	[Provide contact details for the issuing authority]	[provide the date of issue and expiry]



Part C3: Scope Of Work

C3.9: Reference to the Scope of Works in Environmental Management Programme

14. HISTORY

Provide details of all similar incidents involving the responsible person in the past (i.e. from 1998). Similar incidents include those that: (i) involved similar circumstances; (ii) involved similar emissions; (iii) involved similar personnel; and/or (iv) involved similar impacts.

14.1. Incident title	14.2. Report reference	14.3. Date of incident	14.4. Summary of event
[Provide the title used in the relevant emergency incident report]	[Provide the reference in respect of the relevant emergency incident report]	[Date of incident]	[Provide a summary of the event]

Signed by, or as a mandated signatory for, the responsible person:		Date:	
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APPENDIX 1

List of affected people as results of the incident

NAME	ADDRESS	PHONE	FAULT	REMARKS

APPENDIX 2

Layout map of the area likely to be affected or affected as a result of the incident

Disclaimer

Any other information not covered in the reporting template must be included.

CAUTION

In terms of section 30 (11) of NEMA as amended, it is an offence not to report an incident and liable on conviction to a fine not exceeding R 1 million or imprisonment for a period not exceeding 1 year, or to both such a fine and such imprisonment.

CITY OF TSHWANE
HUMAN SETTLEMENTS DEPARTMENT

CONTRACT NO: HS 09 2025/26

THE CONSTRUCTION OF 6KM ROAD AND STORMWATER NETWORK AND ONE BRIDGE (BRIDGE NO 3) ALONG BATHLAPING STREET IN OLIEVENHOUTBOSCH EXTENSION 60 - PHASE 1 FOR A PERIOD OF 36 MONTHS.

C4 SITE INFORMATION

C4.1 SITE DESCRIPTION

The site is located within Olivenhoutbosch Extension 60, in Centurion within Ward 77, City of Tshwane Metropolitan Municipality. Topographically, the site gently slopes towards the north-west, draining into two natural watercourses. Some of the areas are covered by veld grass, with some portions disturbed by formal dwellings and informal access routes. Evidence of burrow pits and dumped fill was noted in localized areas. Access for investigation was available across most of the site, and a total of 41 trial holes were excavated using a TLB to depths generally ranging between 0.8 m and 2.1 m.

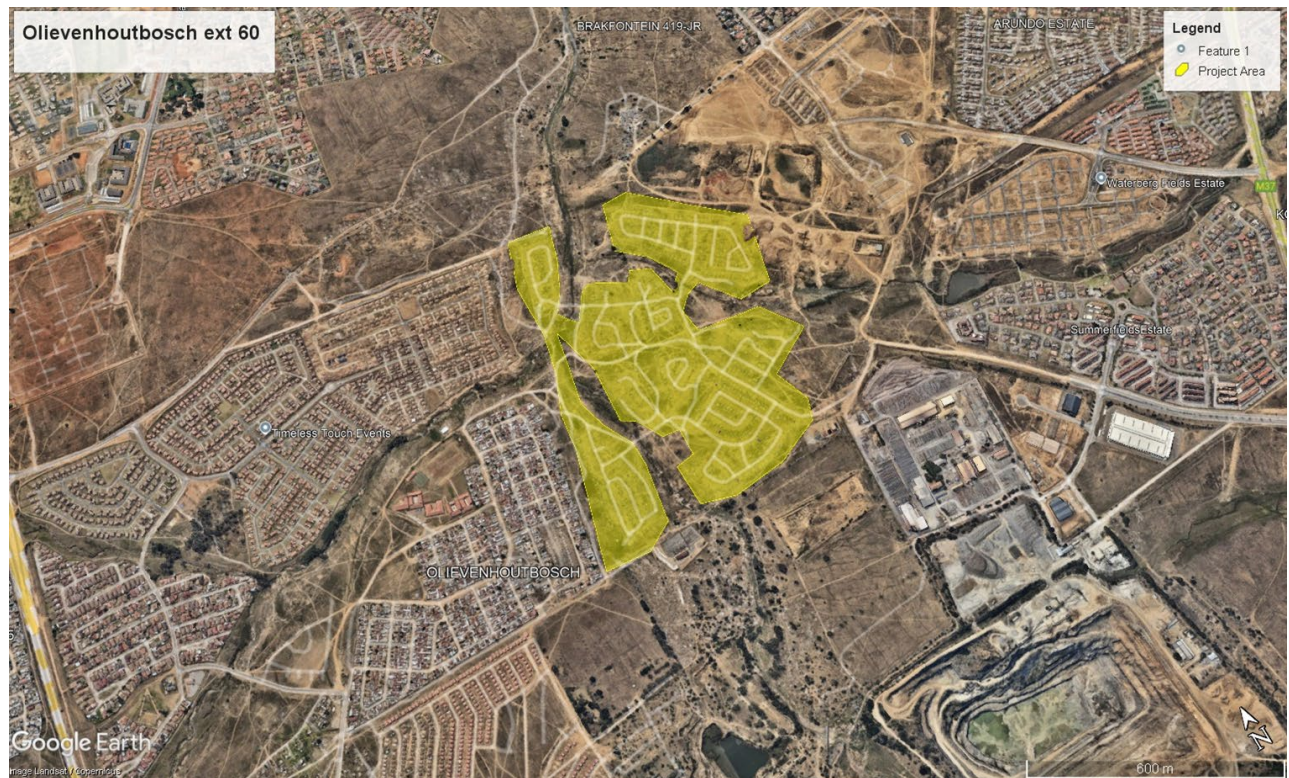
C4.2 LOCALITY

The project is situated on Portion 322 of the farm Olievenhoutbosch 389 JR (in Region 4) about 10km



Figure 1: Locality Plan - Olievenhoutbosch Phase 1

Part C4: Site Information
Section C4.1: Locality Plan



The Olievenhoutbosch Extension site is situated North of Blue Hills Estate, East of the R55 to Kyalami, South of Thatchfield and slightly North-West of Kosmosdal.

The project is located on:

- Portion 322 of the farm Olievenhoutbosch 389-JR
- Approximately 10 km south-west of Centurion
- Bounded by:
 - Olievenhoutbosch Ext 19 to the southwest
 - Rietspruit River to the northwest
- Within Ward 77, City of Tshwane Metropolitan Municipality

GPS Coordinates

- S 25.9125654
- E 28.1189962

C4.3 SOIL CONDITIONS

Soil Conditions

BRIDGE 03

(i) Recommendations

(a) Site Classification

Based on the available Geotechnical report's borehole logs:

Shallow transported materials (sand, clayey sand, silty sand) were encountered at the upper levels. Underlying material transitions into residual granite/granophyre, with varying degrees of weathering. The subsoil profile shows:

- Moderate to high variability across crossings
- Soft to firm overburden overlying medium-dense to dense gravel or weathered granite
- Occasional ferruginised or mottled horizons

The soils present moderate compressibility and variable bearing capacity depending on depth. Based on the profiles, a classification equivalent to Site Class C (compressible soils with moderate movement potential) is considered appropriate.

(b) Earthworks

The materials encountered include **overburden, transported soils and decomposed rock**, with variable excavation resistance.

Key implications for earthworks:

- The upper horizons (0–1.5 m) generally consist of **soft to intermediate** material.
- From ±1.5 m downward, material transitions into **stiff soils, dense granular layers and weathered granite**, requiring **intermediate to hard excavation**.
- No groundwater seepage is noted in the logs.

Recommended practices:

- Maintain dry foundations through pumping where required.

- Allow for **variable excavation effort** across short distances due to the heterogeneity demonstrated in logs.
- Bedding and backfilling to follow **SANS 1200 LB / DB**.

(c) Excavations

The borehole profiles show depth-varying conditions:

Typical horizons encountered:

Depth Range	Material Description
0.0–0.3 m	Grass cover / topsoil
0.3–1.5 m	Clayey sand / silt / transported material
1.5–3.0+ m	Gravelly sand, granite residuals, ferruginised layers , localised stiff clays
Below ~3 m	Moderately weathered to highly weathered granite / granophyre

These correspond broadly to:

- **Soft excavation:** 0.0–1.0 m
- **Intermediate excavation:** 1.0–2.5 m
- **Hard excavation:** when encountering decomposed or residual granite (2.5 m+ in several logs)
The logs show clear transitions to “intermediate residual granite” or “interpreted bedrock”.

Excavation recommendations:

- Use shoring where vertical cuts exceed 1.2 m.
- Control trench widths and prevent collapse in soft upper soils.
- Hand-expose services in crossing zones.
- Remove unsuitable trench bottoms and replace with engineered fill.

(d) Material Usage

Log descriptions indicate:

- Transported soils (clayey sand, mottled clay, silty sand) are **generally unsuitable** as structural bedding.
- Residual granite and granophyre are **suitable as selected layer or G7–G8 fills**, depending on grading and PI.
- Gravelly layers observed in several boreholes provide potential **selected granular bedding** material where free of fines.

Based on SANS 1200:

- **Selected granular material:** allowable where gravel bands appear.

- **Selected fill:** allowable where residual granite has sufficiently low PI.
- **Bedding Classes A–D:** as specified by the pipe material and bedding design.

Where suitable material is not available at shallow depth, importation or using other on-site excavations (e.g., deeper residual granite) will be needed.

Borehole TP	Depth Range (m)	Material Description	Interpretation	Excavation Class
BH1 (Page 5)	0–0.3	Topsoil / grass cover	Organic upper layer	Soft
	0.3–1.0	Clayey sand (light brown mottled)	Transported soil	Soft
	1.0–1.8	Sandy gravel (moderate dense)	Transition layer	Intermediate
	1.8–3.0+	Residual granophyre (moderately weathered)	Bedrock horizon	Intermediate–Hard
BH2 (Page 6)	0–0.2	Topsoil	Organic	Soft
	0.2–1.3	Silty sand (brown mottled)	Transported soil	Soft–Intermediate
	1.3–2.0	Gravelly sand	Stiffer layer	Intermediate
	2.0–3.0+	Residual granite	Weathered bedrock	Intermediate–Hard
BH3 (Page 7)	0–0.3	Topsoil	Organic cover	Soft
	0.3–1.7	Clayey sand (yellow–brown)	Transported soil	Soft
	1.7–2.7	Ferruginised residual granite	Dense residual	Intermediate
	2.7–3.0+	Residual Granite (MW)	Bedrock	Intermediate–Hard
BH4 (Page 9)	0–0.3	Topsoil	Organic	Soft
	0.3–1.0	Silty sand	Transported	Soft
	1.0–1.7	Gravelly sand	Dense	Intermediate
	1.7–3.0+	Residual granite	Highly weathered	Intermediate–Hard
BH5 (Page 11)	0–0.4	Topsoil	Surface	Soft
	0.4–1.3	Clayey sand	Collapsible potential	Soft–Intermediate
	1.3–2.0	Sandy gravel	Stronger layer	Intermediate
	2.0–3.0+	Residual granite / granophyre	Bedrock	Hard

(e) Construction Activities

From the available Geotechnical Report the following is noted:

- The crossings involve stream/river environments requiring controlled excavation and protection against erosion or water ingress.
- The subsurface conditions vary significantly between locations; therefore **construction sequencing must be planned per-crossing**.
- Decomposed granite zones may require reworking or stabilisation.

Construction considerations derived from the PDF data:

- Clear working strips on either side of the channel/crossing.
- Maintain dry excavations especially near watercourses.
- Ensure that bedding materials do not get contaminated by clayey overburden.
- Compact backfill to required Mod AASHTO densities (93–95%).
- Dispose of unsuitable clayey topsoil and highly plastic mottled layers.
- A geotechnical engineer should be present to confirm trench bottoms and approve bedding.

Given the variations in rock weathering states, small adjustments in founding depth may be required to achieve uniform bearing conditions.

(ii) Conclusions

From the available geotechnical report:

- The engineering investigation included **borehole profiling and logging**, with materials ranging from transported clayey sands to residual granite.
- The geological environment consists of **granite/granophyre**, supporting the variability observed.
- Upper soil horizons are **soft** and will require careful excavation for trenches or culvert footings.
- Deeper layers show **intermediate to hard excavation** due to residual granite.
- Materials demonstrate **moderate bearing capacity**, with some horizons showing improved stiffness at depth.
- No major groundwater problems are visible in the logs.
- Site is **suitable for infrastructure construction**, provided all recommendations are followed.
- Geotechnical oversight is required during excavation to verify bearing layers and manage variable subsurface profiles.

Geology

Regional geological information indicates that the site is underlain by granites and gneisses of the Halfway House Granite Suite.

The typical soil profile across the site consists of:

- A thin topsoil layer,
- Underlain by transported soils (silty sands and sandy clays),
- Followed by residual granite soils, and
- Underlying partially weathered to hard granite bedrock at variable depths.

The residual soils are generally silty sands and gravelly silty sands, often mottled yellow, brown, grey, and orange, with variable densities ranging from loose near surface to dense at depth. Occasional quartz gravels and boulders were encountered. Some areas contain reworked or dumped fill, which is highly variable and locally compressible.

Groundwater Conditions

Groundwater seepage was encountered in 7 of the 41 trial holes during excavation. Seepage depths generally ranged between 0.8 m and 1.9 m below ground level, with standing water recorded at depths of approximately 1.4 m to 3.05 m in isolated locations.

The groundwater is interpreted as perched water, associated with soil horizons rather than a regional water table. No artesian conditions were observed. The presence of groundwater is considered seasonally variable, and higher water levels may be expected during or after prolonged rainfall. Appropriate drainage and foundation measures are therefore recommended in areas where seepage was observed.

The Tenderer may, upon approval by the Employer's Agent, do his own exploratory work in order to establish ground and sub soil conditions in order to prepare his tender. The tenderer shall be fully liable for any claims for losses, damage or injuries arising or as a consequence of carrying out trial hole excavations for the purpose of this tender. Furthermore, the Employer's Agent's authority for the carrying out of any exploratory excavations is subject to the tenderer indemnifying the Employer and the Employer's Agent against any such claims.

C4.4 CLIMATE

The site is located within the Highveld climatic region and is characterised by a summer rainfall climate.

The mean annual rainfall in the area is approximately 650–750 mm, with the majority of precipitation occurring between October and March, predominantly in the form of short-duration, high-intensity thunderstorms. Winters are generally dry, with minimal rainfall.

Summer temperatures are moderate to warm, with average daily maximum temperatures ranging between 26°C and 30°C. Winter temperatures are cool, with average minimum temperatures occasionally approaching 0°C, and isolated occurrences of light frost may be experienced during winter months.

Evaporation rates are generally high, particularly during the dry winter and early summer periods.

Seasonal climatic variations may result in fluctuating near-surface soil moisture conditions, with softened soil profiles and temporary groundwater seepage potentially occurring during prolonged wet periods. These factors should be considered in the planning and design of earthworks, drainage, and foundations.

Average Monthly Rainfall and Temperature - Olivenhoutbosch / Centurion (Highveld)

