

BID NOTICE

STELLENBOSCH MUNICIPALITY HEREBY INVITES YOU TO TENDER FOR: B/SM 27/24 EERSTE RIVER FLOOD REHABILITATION STRUCTURES - AGRICULTURAL HALL.

TENDER NUMBER: **B/SM 27/24**
DESCRIPTION: **EERSTE RIVER FLOOD REHABILITATION STRUCTURES - AGRICULTURAL HALL**
CLOSING DATE: **30 NOVEMBER 2023**

CLOSING TIME: 12h00: Bids will be opened in the **Council Chambers or Supply Chain Management Boardroom.**
CIDB: The following CIDB class of construction works will be applicable to the Tender, in accordance with the sum tendered or value determined in accordance with regulation 25(7A) of the Construction Industry Development Regulations, 2004 (as amended) – As at 23 May 2019 - **Class of Construction Works: 4 CE or higher.**

INFORMATION:

Tender Specifications: Johan Fullard at 021 808 8207: e-mail: Johan.Fullard@stellenbosch.gov.za
SCM Requirements: Gerald Kraukamp at 021 808 8519 e-mail: Gerald.Kraukamp@stellenbosch.gov.za
Office hours for collection: 08h00-15h30

A Compulsory Clarification Meeting will be held on **16 November 2023 at 10h00 at Stellenbosch Municipality, Ecclesia Building, 71 Plein Street, Stellenbosch Electric Boardroom 2nd floor.** Tenderers who fail to attend the compulsory information session will be regarded as non-compliant, late comers will not be entertained.

Tenders may only be submitted on the Tender document issued by Stellenbosch Municipality and must be valid for **180 days** after tender closing. Late, electronic format, telephonic or faxed Tenders will not be considered and Stellenbosch Municipality does not bind itself to accept the lowest bid or any of the tenders that has been submitted.

Sealed Tenders, with B/SM 27/24 “EERSTE RIVER FLOOD REHABILITATION STRUCTURES - AGRICULTURAL HALL” clearly endorsed on the envelope, must be deposited in the Tender box at the offices of the Stellenbosch Municipality, Town House Complex, Plein Street, Stellenbosch. The Tender box is accessible 24 hours a day and Tenders must be accompanied by the completed Tender documents. Tenders not accompanied by a complete Tender document, will not be considered.

NOTE: This tender will be evaluated in terms of the General Conditions of Contract, Supply Chain Management Policy and relevant specification as depicted in the document and also the Stellenbosch Preferential Procurement Policy effective from 16 January 2023 in accordance with the Preferential Procurement Regulations that was promulgated by the Minister of Finance on 04 November 2022 in Government Gazette No 47452

The Preferential points system applied is as follows: 80/20 in terms of the approved policy.

| | |
|--|------------|
| Price | 80 |
| B-BBEE status level of contribution | 10 |
| Locality | 10 |
| Total points for Price; B-BBEE and locality | 100 |

The following conditions to Tender exist (failure to comply may result in your Tender being disqualified):

1. This Tender is subject to the general conditions of contract (GCC) and special conditions for Tendering.
2. Relevant terms of reference.
3. Tenderers must be registered on the Central supplier database (CSD) if they wish to conduct business with the municipality.
4. No award will be made to tenderers whose tax status is non-compliant.
5. Tenders submitted must be in a sealed envelope clearly marked with the Tender number, placed in the tender box before closing time. Failure will result in the tender being invalid.

*Only hard copy tender documents, in English, are available and obtainable from the offices of the Supply Chain Management Unit, Stellenbosch Municipality, Town House Complex, 1st Floor, Plein Street, Stellenbosch, upon payment of a non-refundable fee of **R 738,50 per document.***

Note: The Municipality will never contact you to pay money in exchange for the award of the tender

G Mettler (Ms)
MUNICIPAL MANAGER



TENDER KENNISGEWING

STELLENBOSCH MUNISIPALITEIT NOOI U OM TE TENDER VIR DIE VOLGENDE TENDER: B/SM 27/24 EERSTE RIVIER HERSTEL VAN VLOEDSKADE AAN STRUKTURE.

TENDER NOMMER: **B/SM 27/24**
BESKRYWING: **EERSTE RIVIER HERSTEL VAN VLOEDSKADE AAN STRUKTURE - LANDBOUSAAL**
SLUITINGSDATUM: **30 NOVEMBER 2023**

TYD VAN SLUITING: **12h00**. Tenders sal oopgemaak word in die **Raadsaal** of in die **Voorsieningskanaalbestuurs Raadsaal**.

KIOR: Die volgende KIOR klas vir konstruksiewerk, in ooreenstemming met die totale bedrag getender of waarde bepaal in ooreenstemming met regulasie 25 (7A) van die Konstruksie-industrie Ontwikkelingsraad, Regulasies, 2004 (soos gewysig) op 23 Mei 2019, sal op die bod van toepassing wees. Tendersaars moet 'n **geskatte KIOR kontrakgradering** van ten minste **4CE of hoër** hê

NAVRAE:

Tender spesifikasies: Johan Fullard by 021 808 8207: e-pos: Johan.Fullard@stellenbosch.gov.za
Vkb vereistes: Gerald Kraukamp by 021 808 8519 e-pos: Gerald.Kraukamp@stellenbosch.gov.za
Kantoor Ure: 08h00-15h30

'n Verpligte inligtingsessie sal gehou word op **16 NOVEMBER 2023** om **10:00** by die Ecclesia gebou, Plein Straat 71 in die Elektriese raadsaal op die 2de vloer. Laat kommers en Tendersaars wat nie die verpligte inligtingsessie bywoon nie, sal nie in ag geneem word nie.

Tenders mag slegs ingedien word op die tenderdokumentasie verskaf deur Stellenbosch Munisipaliteit en moet geldig wees vir **180.dae** na die sluitingsdatum. Laat, elektroniese formaat of gefakse tenders sal nie aanvaar word nie en Stellenbosch Munisipaliteit is nie verplig om die laagste of enige tender wat ingedien word te aanvaar nie.

Verseëelde tenders duidelik gemerk: "**B/SM 27/24 EERSTE RIVIER HERSTEL VAN VLOEDSKADE AAN STRUKTURE - LANDBOUSAAL**", op die koevert, moet geplaas word in tenderbus buite die kantore van Stellenbosch Munisipaliteit, Meenthuis Kompleks, Stellenbosch. Die tenderbus is 24 uur per dag beskikbaar en tenders moet vergesel word met die voltooiende stel tenderdokumente. Tendersaanbiedinge wat nie deur die volledige tenderdokument vergesel word nie, sal nie oorweeg word nie.

LET WEL: Hierdie tender sal geëvalueer word ingevolge die Algemene Kontrakvoorwaardes, Voorsieningskanaal Bestuursbeleid and relevante spesifikasies, soos vervat in die tender dokument asook die Stellenbosch Voorkeurverkrygingsbeleid effektief vanaf 16 Januarie 2023 in samewerking met die Voorkeurverkrygingsregulasies wat op 04 November 2022 deur die Minister van Finansies in Staatskoerant No 47452 afgekondig is.

Die voorkeerpunte stelsel is soos volg gebaseer: 80/20 in terme van die goedgekeurde beleid:

| | |
|---|------------|
| Prys | 80 |
| BBSEB status | 10 |
| Ligging | 10 |
| Totale punte vir prys, B-BSEB en ligging | 100 |

Die volgende voorwaardes vir Tender soos volg: (versuim om te voldoen, kan veroorsaak dat u Tender gediskwalifiseer word):

1. Hierdie tender is onderworpe aan die algemene kontrakvoorwaardes (GCC) en spesiale voorwaardes vir die tender;
2. Toepaslike opdrag
3. Tendersaars moet geregistreer wees op Sentrale verskaffersdatabasis (SVD) as hulle met die munisipaliteit sake wil doen
4. Geen toekenning sal gemaak word aan diensverskaffers wie se Belasting status ongeldig is.
5. Die tender wat ingedien moet word, moet in 'n verseëelde koevert wees wat duidelik gemerk is met die Tondernommer, wat in die tenderbus voor sluitingstyd geplaas word. Versuim sal tot gevolg hê dat die tender ongeldig is.

Tenderdokumente, is slegs in Engels, is verkrygbaar by die kantoor van die Voorsieningskanaalbestuurseenheid, Stellenbosch Munisipaliteit, Meenthuis Kompleks, 1ste Vloer, Pleinstraat, Stellenbosch na betaling van 'n nie-terugbetaalde tenderdeelnamewooi van R738,50 per dokument.

Let wel: Die Munisipaliteit sal jou nooit kontak om geld te betaal in ruil vir die toekenning van die tender

G Mettler (Me)
Munisipale Bestuurder



B/SM 27/24
AGRICULTURAL BUILDING FLOOD REHABILITATION
PROCUREMENT DOCUMENT

| | | | |
|--|--|------------|-----------|
| NAME OF TENDERER: | | | |
| Total Bid Price (Inclusive of VAT) <i>(refer to page 121):</i> | | | |
| COMPLETION PERIOD IN WORKING DAYS: | | | |
| BBBEE LEVEL | | | |
| LOCALITY | | YES | NO |

NOVEMBER 2023

PREPARED AND ISSUED BY:

Directorate: Finance:
Supply Chain Management Unit
Stellenbosch Municipality,
PO Box 17, Stellenbosch, 7599

CONTACT FOR ENQUIRIES REGARDING SPECIFICATIONS:

Mr Charl du Preez
Project Leader
JG Afrika (Pty) Ltd
Tel. Number: +27 21 530 1800



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Part T1: Tendering procedures

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| T1.1 Tender Notice and Invitation to Tender | 4 - 7 |
| T1.2 Tender Data..... | 8 - 20 |
| T1.3 Tender Conditions | 21 – 29 |



1. T1.1 TENDER NOTICE AND INVITATION TO TENDER

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G Mettler (Ms)
MUNICIPAL MANAGER



TENDER KENNISGEWING

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Tenders mag slegs ingedien word op die tenderdokumentasie verskaf deur Stellenbosch Munisipaliteit en moet geldig wees vir **180.dae** na die sluitingsdatum. Laat, elektroniese formaat of gefakse tenders sal nie aanvaar word nie en Stellenbosch Munisipaliteit is nie verplig om die laagste of enige tender wat ingedien word te aanvaar nie.

Verseëelde tenders duidelik gemerk: **“B/SM 27/24 EERSTE RIVIER HERSTEL VAN VLOEDSKADE AAN STRUKTURE - LANDBOUSAAL”**, op die koevert, moet geplaas word in tenderbus buite die kantore van Stellenbosch Munisipaliteit, Meenthuis Kompleks, Stellenbosch. Die tenderbus is 24 uur per dag beskikbaar en tenders moet vergesel word met die voltooide stel tenderdokumente. Tendersaanbiede wat nie deur die volledige tenderdokument vergesel word nie, sal nie oorweeg word nie.

LET WEL: Hierdie tender sal geëvalueer word ingevolge die Algemene Kontrakvoorwaardes, Voorsieningskanaal Bestuursbeleid and relevante spesifikasies, soos vervat in die tender dokument asook die Stellenbosch **Voorkeurverkrygingsbeleid** **effektief vanaf 16 Januarie 2023 in samewerking met die Voorkeurverkrygingsregulasies wat op 04 November 2022 deur die Minister van Finansies in Staatskoerant No 47452 afgekondig is.**

Die voorkeerpunte stelsel is soos volg gebaseer: 80/20 in terme van die goedgekeurde beleid:

| | |
|---|------------|
| Prys | 80 |
| BBSEB status | 10 |
| Ligging | 10 |
| Totale punte vir prys, B-BSEB en ligging | 100 |

Die volgende voorwaardes vir Tender soos volg: (versuim om te voldoen, kan veroorsaak dat u Tender gediskwalifiseer word):

1. Hierdie tender is onderworpe aan die algemene kontrakvoorwaardes (GCC) en spesiale voorwaardes vir die tender;
2. Toepaslike opdrag
3. Tendersaars moet geregistreer wees op Sentrale verskaffersdatabasis (SVD) as hulle met die munisipaliteit sake wil doen
4. Geen toekenning sal gemaak word aan diensverskaffers wie se Belasting status ongeldig is.
5. Die tender wat ingedien moet word, moet in 'n verseëelde koevert wees wat duidelik gemerk is met die Tendonummer, wat in die tenderbus voor sluitingstyd geplaas word. Versuim sal tot gevolg hê dat die tender ongeldig is.

*Tenderdokumente, is slegs in Engels, is verkrygbaar by die kantoor van die Voorsieningskanaalbestuursseenheid, Stellenbosch Munisipaliteit, Meenthuis Kompleks, 1ste Vloer, Pleinstraat, Stellenbosch na betaling van 'n nie-terugbetaalde tenderdeelnametrok van **R738,50 per dokument.***

Let wel: Die Munisipaliteit sal jou nooit kontak om geld te betaal in ruil vir die toekenning van die tender

G Mettler (Me)
Munisipale Bestuurder



STELLENBOSCH

STELLENBOSCH • PNIEL • FRANSCHHOEK

MUNISIPALITEIT • UMASIPALA • MUNICIPALITY

PART A INVITATION TO BID

| | | | | | |
|---|--|---------------|-------------------------|---------------|--------------|
| YOU ARE HEREBY INVITED TO BID FOR REQUIREMENTS OF THE (NAME OF MUNICIPALITY/ MUNICIPAL ENTITY) | | | | | |
| BID NUMBER: | B/SM 27/24 | CLOSING DATE: | 30 NOVEMBER 2023 | CLOSING TIME: | 12:00 |
| DESCRIPTION | EERSTE RIVER FLOOD REHABILITATION STRUCTURES - AGRICULTURAL HALL. | | | | |
| THE SUCCESSFUL BIDDER WILL BE REQUIRED TO FILL IN AND SIGN A WRITTEN CONTRACT FORM (MBD7). | | | | | |

BID RESPONSE DOCUMENTS MUST BE DEPOSITED IN THE BID BOX SITUATED AT **STELLENBOSCH MUNICIPALITY, TOWN HOUSE COMPLEX, PLEIN STREET, STELLENBOSCH**

SUPPLIER INFORMATION

| | | | | | |
|--|---|--|-------------------------------------|---|--|
| NAME OF BIDDER | | | | | |
| POSTAL ADDRESS | | | | | |
| STREET ADDRESS | | | | | |
| TELEPHONE NUMBER | CODE | | NUMBER | | |
| CELLPHONE NUMBER | | | | | |
| FACSIMILE NUMBER | CODE | | NUMBER | | |
| E-MAIL ADDRESS | | | | | |
| VAT REGISTRATION NUMBER | | | | | |
| TAX COMPLIANCE STATUS | TCS PIN: | | OR | CSD No: | |
| B-BBEE STATUS LEVEL VERIFICATION CERTIFICATE [TICK APPLICABLE BOX] | <input type="checkbox"/> Yes <input type="checkbox"/> No | | B-BBEE STATUS LEVEL SWORN AFFIDAVIT | <input type="checkbox"/> Yes <input type="checkbox"/> No | |

[A B-BBEE STATUS LEVEL VERIFICATION CERTIFICATE/ SWORN AFFIDAVIT (FOR EMES & QSEs) MUST BE SUBMITTED IN ORDER TO QUALIFY FOR PREFERENCE POINTS FOR B-BBEE]

| | | | |
|--|---|---|---|
| 1. ARE YOU THE ACCREDITED REPRESENTATIVE IN SOUTH AFRICA FOR THE GOODS /SERVICES /WORKS OFFERED? | <input type="checkbox"/> Yes <input type="checkbox"/> No [IF YES ENCLOSE PROOF] | 2. ARE YOU A FOREIGN BASED SUPPLIER FOR THE GOODS /SERVICES /WORKS OFFERED? | <input type="checkbox"/> Yes <input type="checkbox"/> No [IF YES, ANSWER PART B:3] |
| 3. TOTAL NUMBER OF ITEMS OFFERED | | 4. TOTAL BID PRICE | R |
| 5. SIGNATURE OF BIDDER | | 6. DATE | |
| 7. CAPACITY UNDER WHICH THIS BID IS SIGNED | | | |

BIDDING PROCEDURE ENQUIRIES MAY BE DIRECTED TO:

| | |
|------------------|--|
| DEPARTMENT | SCM |
| CONTACT PERSON | Gerald Kraukamp |
| TELEPHONE NUMBER | 021 808 8519 |
| FACSIMILE NUMBER | |
| E-MAIL ADDRESS | Gerald.Kraukamp@stellenbosch.gov.za |

TECHNICAL INFORMATION MAY BE DIRECTED TO:

| | |
|------------------|--|
| CONTACT PERSON | Johan Fullard |
| TELEPHONE NUMBER | 021 808 8207 |
| FACSIMILE NUMBER | |
| E-MAIL ADDRESS | Johan.Fullard@stellenbosch.gov.za |



**PART B
TERMS AND CONDITIONS FOR BIDDING**

| | |
|--|--|
| 1. BID SUBMISSION: | |
| 1.1. | BIDS MUST BE DELIVERED BY THE STIPULATED TIME TO THE CORRECT ADDRESS. LATE BIDS WILL NOT BE ACCEPTED FOR CONSIDERATION. |
| 1.2. | ALL BIDS MUST BE SUBMITTED ON THE OFFICIAL FORMS PROVIDED–(NOT TO BE RE-TYPED) OR ONLINE |
| 1.3. | THIS BID IS SUBJECT TO THE PREFERENTIAL PROCUREMENT POLICY FRAMEWORK ACT AND THE PREFERENTIAL PROCUREMENT REGULATIONS, 2022, THE STELLENBOSCH SUPPLY CHAIN MANAGEMENT POLICY, THE GENERAL CONDITIONS OF CONTRACT (GCC) AND, IF APPLICABLE, ANY OTHER SPECIAL CONDITIONS OF CONTRACT. |
| 2. TAX COMPLIANCE REQUIREMENTS | |
| 2.1 | BIDDERS MUST ENSURE COMPLIANCE WITH THEIR TAX OBLIGATIONS. |
| 2.2 | BIDDERS ARE REQUIRED TO SUBMIT THEIR UNIQUE PERSONAL IDENTIFICATION NUMBER (PIN) ISSUED BY SARS TO ENABLE THE ORGAN OF STATE TO VIEW THE TAXPAYER’S PROFILE AND TAX STATUS. |
| 2.3 | APPLICATION FOR THE TAX COMPLIANCE STATUS (TCS) CERTIFICATE OR PIN MAY ALSO BE MADE VIA E-FILING. IN ORDER TO USE THIS PROVISION, TAXPAYERS WILL NEED TO REGISTER WITH SARS AS E-FILERS THROUGH THE WEBSITE WWW.SARS.GOV.ZA. |
| 2.4 | FOREIGN SUPPLIERS MUST COMPLETE THE PRE-AWARD QUESTIONNAIRE IN PART B:3. |
| 2.5 | BIDDERS MAY ALSO SUBMIT A PRINTED TCS CERTIFICATE TOGETHER WITH THE BID. |
| 2.6 | IN BIDS WHERE CONSORTIA / JOINT VENTURES / SUB-CONTRACTORS ARE INVOLVED, EACH PARTY MUST SUBMIT A SEPARATE TCS CERTIFICATE / PIN / CSD NUMBER. |
| 2.7 | WHERE NO TCS IS AVAILABLE BUT THE BIDDER IS REGISTERED ON THE CENTRAL SUPPLIER DATABASE (CSD), A CSD NUMBER MUST BE PROVIDED. |
| 3. QUESTIONNAIRE TO BIDDING FOREIGN SUPPLIERS | |
| 3.1. | IS THE ENTITY A RESIDENT OF THE REPUBLIC OF SOUTH AFRICA (RSA)? <input type="checkbox"/> YES <input type="checkbox"/> NO |
| 3.2. | DOES THE ENTITY HAVE A BRANCH IN THE RSA? <input type="checkbox"/> YES <input type="checkbox"/> NO |
| 3.3. | DOES THE ENTITY HAVE A PERMANENT ESTABLISHMENT IN THE RSA? <input type="checkbox"/> YES <input type="checkbox"/> NO |
| 3.4. | DOES THE ENTITY HAVE ANY SOURCE OF INCOME IN THE RSA? <input type="checkbox"/> YES <input type="checkbox"/> NO |
| 3.5. | IS THE ENTITY LIABLE IN THE RSA FOR ANY FORM OF TAXATION? <input type="checkbox"/> YES <input type="checkbox"/> NO |
| IF THE ANSWER IS “NO” TO ALL OF THE ABOVE, THEN IT IS NOT A REQUIREMENT TO REGISTER FOR A TAX COMPLIANCE STATUS SYSTEM PIN CODE FROM THE SOUTH AFRICAN REVENUE SERVICE (SARS) AND IF NOT REGISTER AS PER 2.3 ABOVE. | |

**NB: FAILURE TO PROVIDE ANY OF THE ABOVE PARTICULARS MAY RENDER THE BID INVALID.
NO BIDS WILL BE CONSIDERED FROM PERSONS IN THE SERVICE OF THE STATE.**

SIGNATURE OF BIDDER:

.....

CAPACITY UNDER WHICH THIS BID IS SIGNED:

.....

DATE:

.....



2. T1.2 Tender Data

The conditions of tender are the Standard Conditions of Tender as contained in Annex C of Government Gazette No. 42622 of 8 August 2019, Construction Industry Development Board (CIDB) Standard for Uniformity in Construction Procurement. (see www.cidb.org.za) which are reproduced without amendment or alteration for the convenience of tenderers as an Annex to this Tender Data.

The Standard Conditions of Tender make several references to the Tender Data for details that apply specifically to this tender. The Tender Data shall have precedence in the interpretation of any ambiguity or inconsistency between it and the standard conditions of tender. Each item of data given below is cross-referenced to the clause in the Standard Conditions of Tender to which it mainly applies.

The following variations, amendments and additions to the Standard Conditions of Tender as set out in the Tender Data below shall apply to this tender:

| Clause Number | Tender Data |
|---------------|-------------|
|---------------|-------------|

| | |
|------|-------------|
| 1.1. | C.1 General |
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| | |
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| C.1.1 | Actions |
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| C.1.1.1 | <i>Add the following:</i> |
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The parties agree that this tender, its evaluation and acceptance and any resulting contract shall also be subject to the Employer's Supply Chain Management Policy ('SCM Policy') that was applicable on the date the tender was advertised, save that if the Employer adopts a new SCM Policy which contemplates that any clause therein would apply to the contract emanating from this tender, such clause shall also be applicable to that contract. Please refer to this document contained on the Employer's website.

Abuse of the supply chain management system is not permitted and may result in the tender being rejected, cancellation of the contract, restriction of the supplier, and/or the exercise by the Employer of any other remedies available to it as described in the SCM Policy.

The Employer is the **Stellenbosch Municipality**, represented by the **Roads and Stormwater Department**.

Communication and employer's agent

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

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

The Employer's agent is:

Name: **JG AFRIKA (Pty) Ltd**
Address: 14 Central Square,
Pinelands 7405
Cape Town, 7100
Tel: +27 21 530 1800
Fax: N/A
Contact: Mr Charl du Preez
Email: dupreezc@jqafrika.com

| | |
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| C.1.5 | Cancellation and Re-Invitation of Tenders |
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Delete the fullstop at the end of C.1.5.1 d) and replace with,

Add the following after C.1.5.1 d):

- e) the parties are unable to negotiate market related pricing.

| | |
|---------|--|
| C.1.6.2 | Competitive negotiation procedure |
|---------|--|

Add the following to C.1.6.2.1:



A competitive negotiation procedure will not be followed.

C.1.6.3 Proposal procedure using the two-stage system

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

A two-stage system will not be followed.

C.1.6.5 Objections, complaints, queries and disputes/ Appeals in terms of Section 62 of the Systems Act/ Access to court

C.1.6.5.1 Disputes, objections, complaints and queries

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

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

C.1.6.5.2 Appeals

- a) In terms of Section 62 of the Local Government: Municipal Systems Act, 32 of 2000 a person whose rights are affected by a decision taken by the Stellenbosch Municipality, may appeal against that decision by giving written notice of the appeal and reasons to the SCM Manager within 21 days of the date of the notification of the decision.
- b) An appeal must contain the following:
 - i) Must be in writing
 - ii) It must set out the reasons for the appeal
 - iii) It must state in which way the Appellant's rights were affected by the decision;
 - iv) It must state the remedy sought; and
 - v) It must be accompanied with a copy of the notification advising the person of the decision.
- c) The relevant City appeal authority must consider the consider the appeal and **may confirm, vary or revoke** the decision that has been appealed, but no such revocation of a decision may detract from any rights that may have accrued as a result of the decision.

C.1.6.5.3 Right to approach the courts and rights in terms of Promotion of Administrative Justice Act, 3 of 2000 and Promotion of Access to Information Act, 2 of 2000

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

C.2 Tenderer's obligations

C.2.1 Eligibility

Add the following to C.2.1.1:

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

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

C.2.1.1.1 Centralised Supplier Database

No Bids will be awarded to a bidder who is not registered on the Centralised Supplier Database (CSD).

The CSD supplier number starting with (MAAA) number is automatically generated by the Central Database System after successful registration and validation of a prospective service provider. This number is now a mandatory requirement, as referred to in regulation 14(1) (b) of the Municipal Supply Chain Management Regulations, as part of the listing criteria for accrediting a prospective service provider. Prospective suppliers should self – register on the CSD website at www.csd.gov.za Registration on the CSD will be compulsory in order to conduct business with the



STELLENBOSCH MUNICIPALITY. Registration on SMSD can be done by contacting 021 808 8594 or Nicolene.Hamilton@stellenbosch.gov.za

Centralised Supplier Database No. MAAA

C.2.1.1.2 **Construction Industry Development Board (CIDB) Registration**

Only those tenderers who are registered with an active status with the CIDB, in a contractor grading designation equal to or higher than a contractor grading designation determined in accordance with the sum tendered, or a value determined in accordance with Regulation 25 (1B) or 25 (7A) of the Construction Industry Development Regulations, for a CE class of construction work, are eligible to have their tenders evaluated.

Joint Ventures are eligible to submit tenders provided that:

- every member of the joint venture is registered with an active status with the CIDB;
- the lead partner has a contractor grading designation of not lower than one level below the required grading designation in the CE class of construction work; and
- the combined contractor grading designation calculated in accordance with the Construction Industry Development Regulations is equal to or higher than a contractor grading designation determined in accordance with the sum tendered for a CE class of construction work or a value determined in accordance with Regulation 25 (1B) or 25 (7A) of the Construction Industry Development Regulations.

Notwithstanding the above, tenderers who are capable of being so registered with an active status with the CIDB prior to the evaluation of submissions may be evaluated at the sole discretion of the Employer (the evaluation of tenders takes place when the Employer's Bid Evaluation Committee meets to make a final recommendation to the Bid Adjudication Committee).

C.2.1.1.3 **Pre-requirements for this tender:**

Contractors experience:

Only those tenderers who has a **CIDB contractor grading of 4CE** or higher are eligible to have their tenders evaluated.

Only those tenderers with project experience, minimum experience listed below, are eligible to have their tender evaluated.

A minimum of **3 reinforced concrete structures** with a construction value greater than R1 million each completed by the tenderer. Reference checks will be done to determine whether projects were successfully carried out.

Add the following after C.2.1.2:

C.2.1.3 Only those tender submissions from which it can be established that a clear and unambiguous offer has been made to Employer, by whom the offer has been made and what the offer constitutes, will be declared responsive.

C.2.1.4 Only those tenders that satisfy the following criteria will be declared responsive:

C.2.1.4.1 **Compulsory clarification meeting**

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

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

C.2.1.4.2 **Good standing with Bargaining Council**



Only those tenders submitted by tenderers who are in Good standing with the Compensation Fund. at the time of the tender award will be declared responsive. Tenderers must attach such proof to Schedule T2.2.12.

C.2.1.4.3 Track Record of Tenderer

The tendering entity is to submit a list of at least **3 successfully completed reinforced concrete structures** construction of a similar nature as described in the Scope of Works and shown on the applicable drawings. Contact details of references are to be provided and attached to Schedule 9. Sub-contractor agreements need to be provided where the tenderer is making use of a specialist contractor in order to comply with this requirement. These are also to be attached to Schedule T2.1.21 and T2.1.22.

C.2.1.4.4 Key Personnel

In order to be considered for an appointment in terms of this tender, the tenderer must have the following key personnel in its permanent employment at the close of tender. Alternatively, a signed undertaking from a specialist contractor/firm having the required personnel, stating that they will undertake the necessary work on behalf of the tenderer in terms of a sub-contractor agreement, will be acceptable. Such undertaking must be attached to Schedule 12, Part T2.2: Returnable Schedules.

Unless otherwise indicated below different individuals must be identified for each of the key personnel listed below and on Schedule 12.

A **Contract Manager** and **Site Agent/Construction Manager** each having completed a minimum of 3 reinforced concrete structures in their proposed position for this project.

The **Site Agent/Construction Manager** shall be a suitably qualified, as described above, and experienced in the role of construction manager and shall be the Contractor's Representative who will be the single point accountability and responsibility for the management of the construction works.

The Site Agent shall mean having acted as the Site Agent or Construction Manager in terms of SAICE GCC 2010 or 2015 (Clause 4.12.2 in both cases), or the equivalent Contractor's Representative in the FIDIC GCC.

A Contract Manager shall mean having acted as the Site Agent's/Construction Manager's direct supervisor/senior in the company structure.

If the company has different internal designations for these positions, they are to clarify which designation is equivalent to the required positions stated above. Information provided with alternative designations without the required clarification shall be ruled to be non-responsive.

The Curriculum Vitae of the Key Personnel including contactable references and qualifications needs to be attached to Schedule T2.2.9. and T2.2.10

Should it become necessary to replace any of the key personnel listed at the time of tender during this contract, they may only be replaced by individuals who meets these criteria, who satisfy the minimum requirements and then only with the approval of the Employer.

C.2.3 Check documents

Delete the clause and replace with the following:

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

C.2.7 Clarification meeting

Add the following after the second sentence:

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

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

C.2.8 Seek Clarification

Add the following after the first sentence:



The tenderer warrants that it has:

- a) inspected the Specifications and read and fully understood the Conditions of Contract.
- b) read and fully understood the whole text of the Specifications and Price Schedule and thoroughly acquainted itself with the nature of the goods proposed and generally of all matters which may influence the Contract.
- c) visited the site(s) where delivery of the proposed works will take place, carefully examined existing conditions, the means of access to the site(s), the conditions under which the delivery is to be made, and acquainted itself with any limitations or restrictions that may be imposed by the Municipal or other Authorities in regard to access and transport of materials, plant and equipment to and from the site(s) and made the necessary provisions for any additional costs involved thereby.
- d) requested the Employer to clarify the requirements contained in the Specifications and Price Schedule, the exact meaning or interpretation of which is not clearly intelligible to the tenderer.
- e) received any notices to the tender documents which have been issued in accordance with the Employer's SCM Policy.

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

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

C.2.11 Alterations to documents

Delete the first sentence and replace with the following:

Do not make any alterations or additions to the tender documents, except to comply with instructions issued by the employer in writing, or necessary to correct errors made by the tenderer.

C.2.12 Alternative tender offers

Add the following to C.2.12.1 to C.2.12.3 with the following:

"Alternative tender offers are not allowed."

C.2.13 Submitting a tender offer

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

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

C.2.13.3 *Delete the clause and replace with the following:*

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

C.2.13.4 The tender shall be signed by a person duly authorised to do so. Tenders submitted by joint ventures of two or more firms shall be accompanied by the document of formation of the joint venture, in which is defined precisely the conditions under which the joint venture will function, its period of duration, the persons authorised to represent and obligate it, the participation of the several firms forming the joint venture, and any other information necessary to permit a full appraisal of its functioning.

| Number | Heading |
|--------|---|
| T2.2 | Returnable Schedules |
| C2.2 | Bills of Quantities |
| | All other attachments submitted by bidder |

C.2.13.5 *Delete the clause and replace with the following:*

The tender submission details are all described on the General Tender Information page. If it is not possible to submit the original tender and the required copies (see C.2.13.3) in a single envelope, then seal the original and each copy of the tender offer as separate packages marking the packages as "ORIGINAL" and "COPY" in addition to the aforementioned tender submission details.

Add the following to C.2.13.6:

C.2.13.6 A two-envelope procedure will **not** be followed (C.3.5).



-
- C.2.13.10 *Add the following after C.2.13.9:*
By signing the offer part of C1.1 Form of Offer and Acceptance the tenderer declares that all information provided in the tender submission is true and correct.
- C.2.13.11 The Employer shall not formally issue tender documents in electronic format and shall only issue tender documents in hardcopy. An electronic version of the issued tender documents, or elements thereof, may be made available to the tenderer at the Employer's discretion, upon written request in terms of this clause, subject to the following:
- a) Electronic copies of the issued tender documents, or parts thereof, will only be provided to tenderers who have been issued with the tender documents as contemplated in C.1.2 in hardcopy.
 - b) The electronic version shall not be regarded as a substitute for the issued tender documents.
 - c) The Employer shall not accept tenders submitted in electronic format. Only those tenders that have been completed on the issued hard copy tender document shall be considered, provided that printed Bills of Quantities, in the same format (that is, layout, billed items and quantities) as those issued electronically by the Employer, may be submitted with the tender as stated in C.2.13.2.
 - d) Where Addenda have been issued which amend the Bills of Quantities, then the printed Bills of Quantities shall take these into account. The pages of the issued Bills of Quantities should not be removed from the tender document.
 - e) The Employer accepts no responsibility or liability arising from any reliance on or use of the electronic version provided in terms of this clause. Tenderers are alerted to the fact that electronic versions of the tender documents may not reflect any notices or addenda that amend the tender document.
 - f) Any non-compliance with these provisions, including effecting any unauthorised alterations to the tender documents as contemplated in C.2.11, shall render the tender non-responsive. The Employer reserves the right to take any action against such tenderer allowed in law including, in circumstances where the tender had already been awarded, the right to cancel the contract.
 - g) In requesting the electronic version of the tender documents or parts thereof, the tenderer is deemed to have read, understood and accepted all of the above conditions.
- C.2.15 **Closing time**
Add the following to C.2.15.1 after the first sentence:
- C.2.15.1 The closing time for submission of tender offers is as stated in the Tender Notice and Invitation to Tender.
- C.2.16 **Tender offer validity**
Add the following to C.2.16.1 after the first sentence:
- C.2.16.1 The tender offer validity period is **45 weeks (180 Calendar days)**.
- C.2.17 **Clarification of tender offer after submission**
Add the following to C.2.17 at the end of the third sentence:
A tender will be rejected as non-responsive if the tenderer fails to provide any clarification or supporting documents requested by the Employer within the time for submission stated in the Employer's written request for such clarification or documents.
- C.2.18 **Provide other material**
Delete the following word in C.2.18.1:
- C.2.18.1 notarized
- Add the following to C.2.18.1 at the end of the first paragraph:*
Provide, on written request by the Employer, where the transaction value (tendered amount) inclusive of VAT **exceeds R 10 million:**
- a) audited annual financial statement for the past 3 years, or for the period since establishment if established during the past 3 years, if required by law to prepare annual financial statements for auditing;
 - b) a certificate signed by the tenderer certifying that the tenderer has no undisputed commitments for municipal services towards a municipality or other service provider in respect of which payment is overdue for more than 30 days;



- c) particulars of any contracts awarded to the tenderer by an organ of state during the past five years, including particulars of any material non-compliance or dispute concerning the execution of such contract;
- d) a statement indicating whether any portion of the goods or services are expected to be sourced from outside the Republic, and, if so, what portion and whether any portion of payment from the municipality or municipal entity is expected to be transferred out of the Republic.

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

Add the following after C.2.18.2:

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

C.2.18.4 Failure to fully cooperate could result in a tender being declared as non-responsive.
Compliance with Occupational Health and Safety Act, 85 of 1993
Tenderers are to note the requirements of the Occupational Health and Safety Act, 85 of 1993 and the Construction Regulations, 2014 issued in terms of Section 43 of the Act. The Tenderer shall be deemed to have read and fully understood the requirements of the above Act and Regulations and to have allowed for all costs in compliance therewith.
In this regard the Tenderer shall submit with his tender or upon request, appended to in T2.2 : Returnable Schedules, a draft Health and Safety Plan in respect of the Works in sufficient detail to demonstrate the necessary competencies and resources to perform the construction work all in accordance with the Act, Regulations and Health and Safety Specification in Part C3.5 Management in the Scope of Work.

C.2.23 **Certificates**
Add the following after the first sentence:
The tenderer is required to submit the following, All schedules and documents listed in Tender Data, which among other listed below:

C.2.23.1 **Evidence of tax compliance**
Tenderers shall be registered with the South African Revenue Service (SARS) and their tax affairs must be in order and they must be tax compliant subject to the requirements of clause C.2.1.4.2.h. In this regard, it is the responsibility of the Tenderer to submit evidence in the form of a valid Tax Clearance Certificate issued by SARS to the Employer included with this tender. The tenderer must also provide its Tax Compliance Status PIN number on the **Compulsory Enterprise Questionnaire**

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

Before making an award, the Stellenbosch Municipality must verify the bidder's tax compliance status. Where the recommended bidder is not tax compliant, the bidder should be notified of the non-compliant status and be requested to submit to the Stellenbosch Municipality, within 7 working day, written proof from SARS that they have made arrangement to meet their outstanding tax obligations. The proof of tax compliance submitted by the bidder must be verified by the Stellenbosch Municipality via CSD or e-Filing. The Stellenbosch Municipality should reject a bid submitted by the bidder if such bidder fails to provide proof of tax compliance within the timeframe stated herein.

Only foreign suppliers who have answered "NO" to all the questions contained in the Questionnaire to Bidding Foreign Suppliers section on the **Details of Tenderer** pages of the tender submission, are not required to register for a tax compliance status.

C.2.23.2 **Broad-Based Black Economic Empowerment Status Level Documentation**
In order to qualify for preference points, it is the responsibility of the tenderer to submit documentary proof, either as certificates, sworn affidavits or any other requirement prescribed in terms of the B-BBEE Act, of its B-BBEE status level of contribution in accordance with the applicable Codes of good practise as issued by the Department of Trade and Industry to be included with the tender submission.



Consortiums/Joint Ventures will qualify for preference points, provided that the **entity** submits the relevant certificate/scorecard in accordance with the applicable codes of good practise. Note that, in the case of unincorporated entities, a verified consolidated B-BBEE scorecard must be submitted in the form of a certificate with the tender.

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

The applicable code for this tender is the **Amended Codes for Measuring Broad-Based Black Economic Empowerment in the Construction Sector**.

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

Add the follow new clause after C.2.23.2

C.2.24 **Proposed Deviations and Qualifications**

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

The tenderer accept that the Employer will examine such deviations in terms of clause C.3.8.2 and shall not be bound to accept any such deviations or qualifications.

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

Add Clause:

C.2.24: General

C.2.24.1 Sealed tenders, with the "Tender Number and Title" clearly endorsed on the envelope, must be deposited in the tender box at the offices of the Stellenbosch Municipality, Plein Street, Stellenbosch.

C.2.24.2 The tender must be lodged by the Tenderer in the tender box in the Main Hall Entrance, Stellenbosch Municipal Offices, Plein Street, Stellenbosch

PLEASE NOTE:

Tenders that are deposited in the incorrect box will not be considered.

- Mailed, telegraphic or faxed tenders will not be accepted.
- Documents may only be completed in non-erasable ink.
- The use of correction fluid/tape is not allowed.
 - In the event of a mistake having been made, it shall be crossed out in ink and be accompanied by an initial at each and every alteration.
 - Alterations or deletions not signed by the Tenderer may render the tender invalid.
- All bids must be submitted in writing on the official forms supplied (not to be re-typed)
- All prices shall be quoted in South African currency and be INCLUSIVE of VAT.

C.2.24.3 **Where the value of an intended contract will exceed R1 000 000, 00 (R1 million) it is the bidder's responsibility to be registered with the South African Revenue Service (SARS) for VAT purposes in order to be able to issue tax invoices. The municipality will deem the price above R 1 000 000,00 (R1 million) to be VAT inclusive even if it is indicated that no VAT is charged.**

Please ensure that provision is made for VAT in these instances.

C.2.24.3.1 It is a requirement of this contract that the amount of value-added tax (VAT) must be shown clearly on each invoice.



- C.2.24.3.2 The amended Value-Added Tax Act requires that a Tax Invoice for supplies in excess of R3 000 should, in addition to the other required information, also disclose the VAT registration number of the recipient, with effect from 1 March 2005. The VAT registration number of the Stellenbosch Municipality is 4700102181.
- C.2.24.4 Any Tender received after the appointed time for the closing of Tenders shall not be considered but shall be filed unopened with the other Tenders received or may be returned to the Tenderer at his request.
- C.2.24.5 Tenders may not be telefaxed to the Municipality and therefore any tenders received by fax will not be considered.
- C.2.24.6 Tenders shall be opened in public at the Stellenbosch Municipal Offices as soon as possible after the closing time for the receipt of tenders.
- C.2.24.7 The Municipality shall have the right to summarily disqualify any Tenderer who, either at the date of submission of this tender or at the date of its award, is indebted to the Municipality in respect of any rental, levies, rates and/or service charges; ALTERNATIVELY;
- C.2.24.7.1 That an agreement be signed whereby the Tenderer agrees that a percentage or fixed amount at the discretion of the Municipality, be deducted from payments due to him for this tender, until the debt is paid in full.
- C.2.24.7.2 The tenderer shall declare all the Municipal account numbers in the Stellenbosch Area for which the enterprise or the proprietors or directors in their personal capacity is/ are responsible or co-responsible.



C.3 The Employer's undertakings

C.3.2 Issue Addenda

Delete the first sentence and replace with:

If necessary, issue addenda in writing that may amend or amplify the tender documents to each tenderer during the period from the date the tender documents are available until one week before the tender closing time stated in the Tender Data. The Employer reserves its rights to issue addenda less than one week before the tender closing time in exceptional circumstances.

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

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

C.3.4 Opening of tender submissions

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

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

C.3.8 Test for responsiveness

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

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

Add the following after clause C.3.8.2

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

Add the following two sub-clauses after C.3.8.2: C.3.8.3

C.3.8.3 Tenders will be considered non-responsive if, inter alia:

- i) the tender is not in compliance with the Scope of Work;
- ii) has not signed authority to sign bid certificate
- iii) the tenderer does not comply with the CIDB registration (active status) and contractor grading designation specified in C.2.1.1.2 above;
- iv) the tenderer has failed to clarify or submit any supporting documentation within the time for submission stated in the Employer's written request as stated in C.2.17;
- v) the tendering entity's experience, and tenderer's key staff and their experience as tendered in Schedules 18 and 21 has failed to achieve the minimum requirements in terms of criterion as stated in C.2.1.1.3 and C.2.1.1.4.
- vi) the tenderer has failed to register and attend the compulsory virtual tender clarification meeting and failed to attach the signed certificate.

Tenders may also be declared non-responsive if it is determined on reasonable grounds or evidence that the tenders are submitted by:

- vii) tenderers who, notwithstanding having submitted duly completed certificates of independent tender determination are nevertheless deemed to have knowledge of the contents of any other tenderer's offer and/or a certificate is not true and correct in every respect;
- viii) tenderers in a horizontal relationship which has the effect of substantially preventing or lessening competition in a market, subject to the exceptions as set out in section 4(1)(a) of the Competitions Act, 89 of 1998;
- ix) tenderers who are presumed to be firms engaged in a restrictive horizontal practice as contemplated in section 4(1)(b) read with section 2 of the Competitions Act, 89 of 1998;



- x) tenderers in a vertical relationship which has the effect of substantially preventing or lessening competition in a market, subject to the exceptions as set out in section 5(1) of the Competitions Act, 89 of 1998.

C.3.9 Arithmetical errors, omissions and discrepancies

Add the following after clause C.3.9.2

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

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

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

C.3.10 Clarification of a tender offer

Delete the clause and replace with the following:

The Employer may, after the closing date, request additional information or clarification from any tenderer, in writing on any matter affecting the evaluation of the tender offer or that could give rise to ambiguity in a contract arising from the tender offer, which written request and related response shall not change or affect their competitive position or the substance of the tenderer's offer. Such request may only be made in writing by the Director: Supply Chain Management using any means as appropriate.

C.3.11 Evaluation of tender offers

Add the following to Clause C.3.11:

"This tender will be evaluated according to Clause 4.2.2.1 Table 1 Standard Procurement Procedure PP2B Open Procedure according to the specific method presented in Clauses C.3.11.2 to C.3.11.8 below."

C.3.11.1 General

Add to Clause C.3.11.1 the following:

"Tenders that are eligible and responsive will be evaluated in terms of the preference points system prescribed in the following sections. The eligible tenderers will be evaluated based on the method: Price and Preference defined in C.3.11.2 to C.3.11.5."

Add the following new sub-clauses:

"C.3.11.2 Method: Price and Preference

The tenderer is evaluated on a balance between the price and preference. Points are scored for the financial offers and preference. The weighting of each component and the method of summation of points are presented in the Tender Data below.

The tenderer with the highest number of tender evaluation points is recommended for the award of the contract, unless there are compelling and justifiable reasons not to do so as described in C.3.11.6.

C.3.11.3 Scoring Financial Offers

Score price of responsive tender offers using the following formula:

$$W_F = W_1 \times (1 - (P - PM) / PM)$$

where:



W1 is the percentage score given to the financial offer and equals 80.
Pm is the comparative offer of the most favourable tender offer.
P is the comparative offer of tender offer under consideration.

C.3.11.4 Scoring preferences

Confirm that tenderers are eligible for the preferences claimed in accordance with Schedule 7 and reject all claims for preferences where tenderers are not eligible for such preferences.

Up to 20 preference evaluation points (WP) will be awarded to tenderers who are eligible for preferences in terms of Schedule MBD6.1: Preferencing Schedule (where preferences are granted in respect of B BBEE contribution) which is included in T2.2 Returnable Schedules. The terms and conditions of Schedule 7 shall apply in all respects to the tender evaluation process.

C.3.11.5 Total points and rank tenders

Calculate the total number of tender evaluation points (TEV) in accordance with the following formula:

$$T_{EV} = W_C + W_P$$

Rank tender offers from the highest number of tender evaluation points to the lowest. Recommend tenderer with the highest number of tender evaluation points for the award of the contract, unless there are compelling and justifiable reasons not to do so.

C.3.11.6 Risk Analysis

Notwithstanding compliance with regard to CIDB registration or any other requirements of the tender, the Employer will perform a risk analysis in respect of the following:

- a) reasonableness of the financial offer
- b) reasonableness of unit rates and prices
- c) the tenderer's ability to fulfil its obligations in terms of the tender document, that is, that the tenderer can demonstrate that he/she possesses the necessary professional and technical qualifications, professional and technical competence, financial resources, equipment and other physical facilities, managerial capability, reliability, capacity, experience, reputation, personnel to perform the contract, etc.; the Employer reserves the right to consider a tenderer's existing contracts with the Stellenbosch Municipality in this regard.

No tenderer will be recommended for an award unless the tenderer has demonstrated to the satisfaction of the Employer that he/she has the resources and skills required."

C.3.13 Acceptance of tender offer

Delete first sentence of C.3.13 and replace with the following):

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

- a) *Delete C.3.13 a) and replace with the following):*
is not under restrictions, has any principals who are under restrictions, or is not currently a supplier to whom notice has been served for abuse of the supply chain management system, preventing participation in the employer's procurement,

Add the following below C.3.13 f)

If an award cannot be made in terms of anything contained herein, the Employer reserves the right to consider the next ranked tenderer(s).

C.3.13.1 The Employer reserves the right not to make an award, or revoke an award already made, where the implementation of the contract may result in reputational risk or harm to the Stellenbosch Municipality as a result of (inter alia):

- a) reports of poor governance and/or unethical behaviour;



-
- b) association with known family of notorious individuals;
c) poor performance issues, known to the Stellenbosch Municipality;
d) negative social media reports; and
e) adverse assurance (e.g. due diligence) report outcomes.
- C.3.13.2 The Employer reserves the right to nominate an alternative bidder at the time when an award is made and in the event that a contract is terminated during the execution thereof, the Stellenbosch Municipality may consider the award of the contract, or non-award, to the alternative bidder in terms of the procedures included in its SCM Policy.
- C.3.13.3 The Employer shall notify the successful tenderer in writing of the decision of the Employer's Bid Adjudication Committee to award the tender to the successful tenderer. No rights shall accrue to the successful tenderer in terms of this notice.
- C.3.13.4 The Employer shall, at the same time as notifying the successful tenderer of the Bid Adjudication Committee's decision to award the tender to the successful tenderer, also give written notice to the other tenderers informing them that they have been unsuccessful.
- C.3.17 **Provide copies of the contract**
Add the following after the first sentence:
The number of paper copies of the signed contract to be provided by the Employer is one.

Add the following after C.3.18
- "C.3.19 Notice to successful and unsuccessful tenderers
- C.3.19.1 Before accepting the tender of the successful tenderer the Employer shall notify the successful tenderer in writing of the decision of the Employer's Bid Adjudication Committee to award the tender to the successful tenderer. No rights shall accrue to the successful tenderer in terms of this notice, and only once the processes described in C.3.13.2 and C.3.13.3 above have been completed can the Employer sign the Acceptance part of the Form of Offer and Acceptance.
- C.3.19.2 The Employer shall, at the same time as notifying the successful tenderer of the Bid Adjudication Committee's decision to award the tender to the successful tenderer, also give written notice to the other tenderers informing them that they have been unsuccessful.



T1.3 TENDER CONDITIONS (STANDARD CONDITIONS OF TENDER (CIDB))

C.1 General

C.1.1 Actions

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

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

Note:

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

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

C.1.2 Tender Documents

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

C.1.3 Interpretation

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

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

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

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

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

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

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

d) **fraudulent practice** means the misrepresentation of the facts in order to influence the tender process or the award of a contract arising from a tender offer to the detriment of the employer,



including collusive practices intended to establish prices at artificial levels;

C.1.4 Communication and employer's agent

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

C.1.5 Cancellation and Re-Invitation of Tenders

C1.5.1 An organ of state may, prior to the award of the tender, cancel a tender if-

- (a) due to changed circumstances, there is no longer a need for the services, works or goods requested; or
- (b) funds are no longer available to cover the total envisaged expenditure; or
- (c) no acceptable tenders are received.

C1.5.2 The decision to cancel a tender must be published in the CIDB website and in the government Tender Bulletin for the media in which the original tender invitation was advertised.

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 make a fresh tender offer, based on the same evaluation criteria, with or without adjusted weightings. Tenderers shall be advised when they are to submit their best and final offer.

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 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



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- 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 offer is the winning tender.

C.2.13 Submitting a tender offer

- C.2.13.1** Submit one tender offer only, either as a single tendering entity or as a member in a joint venture to provide the whole of the works, 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, tests and analysis

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

C.2.20 Submit securities, bonds and policies

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

C.2.21 Check final draft

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

C.2.22 Return of other tender documents

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

C.2.23 Certificates



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

C.3 The employer's undertakings

C.3.1 Respond to requests from the tenderer

C.3.1.1 Unless otherwise stated in the tender Data, respond to a request for clarification received up to five working days before the tender closing time stated in the Tender Data and notify all tenderers who drew procurement 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 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 B-BBEE status level and time for completion for the main tender offer only.

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

C.3.5 Two-envelope system

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

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

C.3.6 Non-disclosure

Not disclose to tenderers, or to any other person not officially concerned with such processes, information relating to the evaluation and comparison of tender offers, the final evaluation price and



recommendations for the award of a contract, until after the award of the contract to the successful tenderer.

C.3.7 Grounds for rejection and disqualification

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

C.3.8 Test for responsiveness

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

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

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

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

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

C.3.9 Arithmetical errors, omissions and discrepancies

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

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

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

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

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

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

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



quantities apply) to achieve the tendered total of the prices.

C.3.10 Clarification of a tender offer

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

C.3.11 Evaluation of tender offers

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

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

| | |
|---|--|
| The CIDB Standard Conditions of Tender are based on a procurement system that satisfies the following system requirements: | |
| Requirement | 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

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



C.3.12 Insurance provided by the employer

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

C.3.13 Acceptance of tender offer

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

- a) is not under restrictions, or has principals who are under restrictions, preventing participating in the employer's procurement,
- b) can, as necessary and in relation to the proposed contract, demonstrate that he or she possesses the professional and technical qualifications, professional and technical competence, financial resources, equipment and other physical facilities, managerial capability, reliability, experience and reputation, expertise and the personnel, to perform the contract,
- c) has the legal capacity to enter into the contract,
- d) is not insolvent, in receivership, under Business Rescue as provided for in chapter 6 of the Companies Act, 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.3.17 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

| | Pages |
|---|----------------|
| T2.1 Returnable Documents | 30 - 72 |
| T2.2 Additional Returnable Documents | 73 - 86 |



T2.1 Returnable Schedules

- T 2.1.1 Authority of Signatory
- T 2.1.2 Payments of Municipal Accounts
- T 2.1.3 Valid Tax Clearance
- T 2.1.4 Proof of Registration with Central Supplier Database
- T 2.1.5 Business Registration Documents
- T 2.1.6 VAT Registration Certificate
- T 2.1.7 Broad Based Black Economic Empowerment (BBBEE) Certificate
- T 2.1.8 Joint Venture (JV) Agreement
- T 2.1.9 Form MBD 6.1: Preference Points Claim Form in terms of the Preferential Procurement Regulations 2022
- T 2.1.10 Status of Concern Submitting Tender
- T 2.1.11 Proof of Registration with the Construction Industry Development Board (in the applicable category or higher)
- T 2.1.12 Declaration of Interest in Tender of Persons in Service of the State
- T 2.1.13 Compulsory Enterprise Questionnaire
- T 2.1.14 Declaration of Tenderer's Past Supply Chain Management (SCM) Practices
- T 2.1.15 Declaration Concerning Fulfilment of the Construction Regulations, 2014
- T 2.1.16 Certificate of Independent Bid Determination
- T 2.1.17 Declaration of Indemnity
- T 2.1.18 Record of Addenda to Tender Documents
- T 2.1.19 Schedule of Plant and Equipment
- T 2.1.20 Schedule of Proposed Subcontractors
- T 2.1.21 Schedule of Work Experience of The Tenderer – Current Contracts
- T 2.1.22 Schedule of Work Experience of The Tenderer – Completed Contracts
- T 2.1.23 Clarification meeting Certificate
- T 2.1.24 Declaration by Tenderer
- T 2.2.1 Financial References
- T 2.2.2 Estimated Monthly Cash Flow
- T 2.2.3 Personnel Schedule
- T 2.2.4 Quality Management Systems
- T 2.2.5 Preliminary Program of the Works
- T 2.2.6 Company Profile
- T 2.2.7 Contract Organogram
- T 2.2.8 Key Personnel Assigned to the Contract
- T 2.2.9 Curriculum Vitae of Contracts Manager
- T 2.2.10 Curriculum Vitae of Construction Manager
- T 2.2.11 Completion Certificates
- T 2.2.12 Letter of Good Standing with Compensation Fund
- C 1.1 Form of Offer and Acceptance
- C 1.2b Contract Data (Part 2) – Specified by the Contractor
- C 1.3 Form of Guarantee for Construction
- C 1.4 Occupational Health and Safety Agreement
- C 1.5 Protection of the Environment Declaration
- C 1.6 Insurance Broker's Warranty
- C 2.2 Bill of Quantities
- C 2.2 Declaration (In respect of completeness of Tender)



| |
|------------------|
| CHECKLIST |
|------------------|

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

| | | |
|----------|--|---------------------------------|
| T 2.1.1 | Authority of Signatory | Tick if completed and submitted |
| T 2.1.2 | Payments of Municipal Accounts | Tick if completed and submitted |
| T 2.1.3 | Valid Tax Clearance Pin | Tick if completed and submitted |
| T 2.1.4 | Proof of Registration with Central Supplier Database | Tick if completed and submitted |
| T 2.1.5 | Business Registration Documents | Tick if completed and submitted |
| T 2.1.6 | VAT Registration Certificate | Tick if completed and submitted |
| T 2.1.7 | Broad Based Black Economic Empowerment (BBBEE) Certificate | Tick if completed and submitted |
| T 2.1.8 | Joint Venture (JV) Agreement | Tick if completed and submitted |
| T 2.1.9 | Form MBD 6.1: Preference Points Claim Form in terms of the Preferential Procurement Regulations 2022 | Tick if completed and submitted |
| T 2.1.10 | Status of Concern Submitting Tender | Tick if completed and submitted |
| T 2.1.11 | Proof of Registration with the Construction Industry Development Board (<i>in the applicable category or higher</i>) | Tick if completed and submitted |
| T 2.1.12 | Declaration of Interest in Tender of Persons in Service of the State | Tick if completed and submitted |
| T 2.1.13 | Compulsory Enterprise Questionnaire | Tick if completed and submitted |
| T 2.1.14 | Declaration of Tenderer's Past Supply Chain Management (SCM) Practices | Tick if completed and submitted |
| T 2.1.15 | Declaration Concerning Fulfillment of the Construction Regulations, 2014 | Tick if completed and submitted |
| T 2.1.16 | Certificate of Independent Bid Determination | Tick if completed and submitted |
| T 2.1.17 | Declaration of Indemnity | Tick if completed and submitted |
| T 2.1.18 | Record of Addenda to Tender Documents | Tick if completed and submitted |
| T 2.1.19 | Schedule of Plant and Equipment | Tick if completed and submitted |
| T 2.1.20 | Schedule of Proposed Subcontractors | Tick if completed and submitted |
| T 2.1.21 | Schedule of Work Experience of The Tenderer – Current Contracts | Tick if completed and submitted |
| T 2.1.22 | Schedule of Work Experience of The Tenderer – Completed Contracts | Tick if completed and submitted |
| T 2.1.23 | Clarification meeting Certificate | Tick if completed and submitted |
| T 2.1.24 | Declaration by Tenderer | Tick if completed and submitted |



| | | |
|----------|--|---------------------------------|
| T 2.2.1 | Financial References | Tick if completed and submitted |
| T 2.2.2 | Estimated Monthly Cash Flow | Tick if completed and submitted |
| T 2.2.3 | Personnel Schedule | Tick if completed and submitted |
| T 2.2.4 | Quality Management Systems | Tick if completed and submitted |
| T 2.2.5 | Preliminary Program of the Works | Tick if completed and submitted |
| T 2.2.6 | Company Profile | Tick if completed and submitted |
| T 2.2.7 | Contract Organogram | Tick if completed and submitted |
| T 2.2.8 | Key Personnel Assigned to the Contract | Tick if completed and submitted |
| T 2.2.9 | Curriculum Vitae of Contracts Manager | Tick if completed and submitted |
| T 2.2.10 | Curriculum Vitae of Construction Manager | Tick if completed and submitted |
| T 2.2.11 | Completion Certificates | Tick if completed and submitted |
| T 2.2.12 | Letter of Good Standing with Compensation Fund | Tick if completed and submitted |
| C 1.1 | Form of Offer and Acceptance | Tick if completed and submitted |
| C 1.2b | Contract Data (Part 2) – Specified by the Contractor | Tick if completed and submitted |
| C 1.3 | Form of Guarantee for Construction | Tick if completed and submitted |
| C 1.4 | Occupational Health and Safety Agreement | Tick if completed and submitted |
| C 1.5 | Protection of the Environment Declaration | Tick if completed and submitted |
| C 1.6 | Insurance Broker's Warranty | Tick if completed and submitted |
| C 2.2 | Bill of Quantities | Tick if completed and submitted |
| C 2.2 | Declaration (In respect of completeness of Tender) | Tick if completed and submitted |



T2.1.1. AUTHORITY TO SIGN A BID

1. SOLE PROPRIETOR (SINGLE OWNER BUSINESS) AND NATURAL PERSON

1.1. I, _____, the undersigned, hereby confirm that I am the sole owner of the business trading as _____.

OR

1.2. I, _____, the undersigned, hereby confirm that I am submitting this tender in my capacity as natural person.

| | | | |
|-------------|--|------------|--|
| SIGNATURE: | | DATE: | |
| PRINT NAME: | | | |
| WITNESS 1: | | WITNESS 2: | |

2. COMPANIES AND CLOSE CORPORATIONS

2.1. If a Bidder is a COMPANY, a certified copy of the resolution by the board of directors, duly signed, authorising the person who signs this bid to do so, as well as to sign any contract resulting from this bid and any other documents and correspondence in connection with this bid and/or contract on behalf of the company **must be submitted with this bid**, that is, before the closing time and date of the bid

2.2. In the case of a CLOSE CORPORATION (CC) submitting a bid, a resolution by its members, authorizing a member or other official of the corporation to sign the documents on their behalf, **shall be included with the bid**.

PARTICULARS OF RESOLUTION BY BOARD OF DIRECTORS OF THE COMPANY/MEMBERS OF THE CC

| | |
|--|--|
| Date Resolution was taken | |
| Resolution signed by (name and surname) | |
| Capacity | |
| Name and surname of delegated Authorised Signatory | |
| Capacity | |
| Specimen Signature | |

| Full name and surname of ALL Director(s) / Member (s) | | | |
|---|--|-----|----|
| 1. | | 2. | |
| 3. | | 4. | |
| 5. | | 6. | |
| 7. | | 8. | |
| 9. | | 10. | |
| Is a CERTIFIED COPY of the resolution attached? | | YES | NO |

| | | | |
|-----------------------------------|--|-------|--|
| SIGNED ON BEHALF OF COMPANY / CC: | | DATE: | |
| PRINT NAME: | | | |



| | | | |
|------------|--|------------|--|
| WITNESS 1: | | WITNESS 2: | |
|------------|--|------------|--|

3. PARTNERSHIP

We, the undersigned partners in the business trading as _____ hereby authorize Mr/Ms _____ to sign this bid as well as any contract resulting from the bid and any other documents and correspondence in connection with this bid and /or contract for and on behalf of the abovementioned partnership.

The following particulars in respect of every partner must be furnished and signed by every partner:

| Full name of partner | Signature |
|----------------------------------|------------|
| | |
| | |
| | |
| | |
| | |
| SIGNED ON BEHALF OF PARTNERSHIP: | DATE: |
| PRINT NAME: | |
| WITNESS 1: | WITNESS 2: |

4. CONSORTIUM

We, the undersigned consortium partners, hereby authorize _____ (Name of entity) to act as lead consortium partner and further authorize Mr./Ms. _____ To sign this offer as well as any contract resulting from this tender and any other documents and correspondence in connection with this tender and / or contract for and on behalf of the consortium.

The following particulars in respect of each consortium member must be provided and signed by each member:

| Full Name of Consortium Member | Role of Consortium Member | % Participation | Signature |
|----------------------------------|---------------------------|-----------------|-----------|
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| SIGNED ON BEHALF OF PARTNERSHIP: | DATE: | | |
| PRINT NAME: | | | |
| WITNESS 1: | WITNESS 2: | | |



T2.1.2. MBD 10 – CERTIFICATE FOR PAYMENT OF MUNICIPAL SERVICES

DECLARATION IN TERMS OF CLAUSE 112(1) OF THE MUNICIPAL FINANCE MANAGEMENT ACT (NO.56 OF 2003)

I, _____, _____ (full name and ID no.), hereby acknowledge that according to SCM Regulation 38(1)(d)(i), the Municipality may reject the tender of the tenderer if any municipal rates and taxes or municipal service charges owed by the Tenderer or any of its directors/members/partners to the Stellenbosch Municipality, or to any other municipality or municipal entity, are in arrears for more than 3 (three) months.

I declare that I am duly authorised to act on behalf of _____ (name of the firm) and hereby declare, that to the best of my personal knowledge, neither the firm nor any director/member/partner of said firm is in arrears on any of its municipal accounts with any municipality in the Republic of South Africa, for a period longer than 3 (three) months.

I further hereby certify that the information set out in this schedule and/or attachment(s) hereto is true and correct. The Tenderer acknowledges that failure to properly and truthfully complete this schedule may result in the tender being disqualified, and/or in the event that the tenderer is successful, the cancellation of the contract.

| PHYSICAL BUSINESS ADDRESS(ES) OF THE TENDERER | MUNICIPAL ACCOUNT NUMBER |
|---|--------------------------|
| | |
| | |

FURTHER DETAILS OF THE BIDDER'S Director / Shareholder / Partners, etc.:

| Director / Shareholder / partner | Physical address of the Business | Municipal Account number(s) | Physical residential address of the Director / shareholder / partner | Municipal Account number(s) |
|----------------------------------|----------------------------------|-----------------------------|--|-----------------------------|
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |

NB: Please attach certified copy (ies) of ID document(s) and Municipal Accounts If the entity or any of its Directors/Shareholders/Partners, etc. rents/leases premises, a copy of the rental/lease agreement must be submitted with this tender.

- **PLEASE SUBMIT MUNICIPAL ACCOUNTS FOR THE FOLLOWING TWO MONTHS AFTER BID CLOSURE TO THE RELEVANT SCM PRACTITIONER SHOULD THE BID NOT BE AWARDED YET.**

| | | |
|------------------|-----------------|-------------|
| | | |
| Signature | Position | Date |



T2.1.3. VALID TAX CLEARANCE

In terms of Clause 14(1)(b) of the Municipal Supply Chain Management Policy, tenderers must ensure that they are up-to-date with their payments of taxes.

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

1. The tenderer must submit a Tax Compliance Status PIN to allow Supply Chain Management to verify the real-time compliance status.

| | |
|---------------------------|--|
| Tax Compliance Status PIN | |
|---------------------------|--|

2. In the case of a joint venture between two or more firms, the tenderer shall attach the PIN for each of the joint venture partners.
3. Copies of the TCC 001 form are available from any SARS branch office nationally or on the website, www.sars.gov.za
4. Applications for the TCC may also be made via eFiling. In order to use this provision, taxpayers will need to register with SARS as eFilers through the website, www.sars.gov.za.
5. The above requirements are also applicable to foreign bidders / individuals who wish to submit bids.

| | | | |
|---------------|--|---------------|--|
| SIGNATURE: | | NAME (PRINT): | |
| CAPACITY: | | DATE: | |
| NAME OF FIRM: | | | |



**T2.1.4. PROOF OF REGISTRATION WITH THE CENTRAL SUPPLIER DATABASE
(CSD)**

All businesses and suppliers wishing to conduct business with the Stellenbosch Municipality must register on the Central's Supplier Database.

MAAA



T2.1.5. BUSINESS REGISTRATION DOCUMENTS

Attach as part of your tender submission proof of valid registration to the companies and intellectual property commission documents of incorporation of company, close corporation, partnership, sole proprietor or a joint venture.

In the case of a joint venture, the tenderer shall include all the documents of all the entities involved in the joint venture.

Sole proprietors are exempted and are only required to submit a copy of their identification document and bidders tax clearance certificate.



T2.1.6. VAT REGISTRATION NUMBER

Tenderers must attach hereto a copy of their VAT registration as proof that they are a VAT vendor. In the case of a joint venture a VAT registration certificate must be submitted for the registered joint venture.

VAT REGISTRATION NO.....



T2.1.7. BROAD BASED BLACK ECONOMIC EMPOWERMENT (BBBEE) CERTIFICATE

1. Valuation of preference points is based on tenderers' scorecards in accordance with the Construction Sector Codes of Practice promulgated in Gazette 32305 on 5 June 2009. In terms of Government Notice 810 of 31 July 2009, only BBBEE Verification Certificates issued by Accredited Verification Agencies or Verification Agencies that are in possession of a valid pre-assessment letter from the South African National Accreditation System (SANAS) will be valid.
2. However, despite the above, all Verification Certificates issued by non-accredited Verification Agencies before 1 February 2010 will be valid for 12 (twelve) months from the date of issue on condition that the Verification Agency is registered with ABVA (see www.abva.co.za for details)
3. Tenderers shall therefore submit their company's scorecard by attaching to this page a valid BBBEE Verification Certificate. The BBBEE Verification Certificate must indicate the OWNERSHIP (Bo) details.
4. The Verification Certificate must be current, meaning that it must have been issued more recently than 12 (twelve) months prior to the tender closing date.
5. In the event of a Joint Venture (JV), a consolidated BBBEE Verification Certificates must be submitted for the JV or a score of zero points will be applied.

| | | | |
|---------------|--|---------------|--|
| SIGNATURE: | | NAME (PRINT): | |
| CAPACITY: | | DATE: | |
| NAME OF FIRM: | | | |



T2.1.8. CERTIFICATE OF AUTHORITY FOR JOINT VENTURES

This returnable schedule is to be completed by JOINT VENTURES

We, the undersigned, are submitting this tender offer in joint venture and hereby authorize Mr./Ms. _____
_____ authorized signatory of the Company/Close
Corporation/Partnership (name) _____, acting
in the capacity of lead partner, to sign all documents in connection with the tender offer and any contract resulting from it
on our behalf.

| | | | |
|---------------------------------|--|-------------|--|
| (i) Name of firm (Lead partner) | | | |
| Address | | | |
| | | Tel. No. | |
| Signature | | Designation | |

| | | | |
|-------------------|--|-------------|--|
| (ii) Name of firm | | | |
| Address | | | |
| | | Tel. No. | |
| Signature | | Designation | |

| | | | |
|--------------------|--|-------------|--|
| (iii) Name of firm | | | |
| Address: | | | |
| | | Tel. No. | |
| Signature | | Designation | |

| | | | |
|-------------------|--|-------------|--|
| (iv) Name of firm | | | |
| Address | | | |
| | | Tel. No. | |
| Signature | | Designation | |

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



T2.1.9. MBD6.1 – PREFERENCE POINTS CLAIM FORM IN TERMS OF THE PREFERENTIAL PROCUREMENT REGULATIONS 2022 – PURCHASES/SERVICES 90/10

NB:

Before completing this form, bidders must study the general conditions, definitions and directives applicable in respect of B-BBEE, as prescribed in the Preferential Procurement Regulations, 2022 and the Stellenbosch Preferential Procurement Policy 2022/23

This preference form must form part of all bids 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 and any other applicable preference

1. GENERAL CONDITIONS

1.1 The following preference point systems are applicable to all bids:

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

1.2

- a) The value of this bid is estimated to be less than R50 000 000 (all applicable taxes included) and therefore the 80/20 preference point system shall be applicable.

1.3 Points for this bid shall be awarded for:

- (a) Price; and
- (b) B-BBEE Status Level of Contributor.
- (c) Locality of supplier

1.4 The maximum points for this bid are allocated as follows:

| | POINTS |
|---|------------|
| PRICE | 80 |
| B-BBEE STATUS LEVEL OF CONTRIBUTOR | 10 |
| LOCALITY (see definition) | 10 |
| Total points for Price and Preferences must not exceed | 100 |

1.5 Failure on the part of a bidder to submit proof of B-BBEE Status level of contributor together with the bid, will be interpreted to mean that preference points for B-BBEE status level of contribution are not claimed.

1.6 Failure on the part of a bidder to submit proof of Locality together with the bid, will be interpreted to mean that preference points for Locality are not claimed.

1.7 The purchaser reserves the right to require of a bidder, either before a bid is adjudicated or at any time subsequently, to substantiate any claim in regard to preferences, in any manner required by the purchaser.

2. DEFINITIONS

- (a) **“B-BBEE”** means broad-based black economic empowerment as defined in section 1 of the Broad-Based Black Economic Empowerment Act;
- (b) **“B-BBEE status level of contributor”** means the B-BBEE status of an entity in terms of a code of good practice on black economic empowerment, issued in terms of section 9(1) of the Broad-Based Black Economic Empowerment Act;
- (c) **“bid”** 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 or services, through price quotations, advertised competitive bidding processes or proposals;



- (d) “**Broad-Based Black Economic Empowerment Act**” means the Broad-Based Black Economic Empowerment Act, 2003 (Act No. 53 of 2003);
- (e) “**EME**” means an Exempted Micro Enterprise in terms of a code of good practice on black economic empowerment issued in terms of section 9 (1) of the Broad-Based Black Economic Empowerment Act;
- (f) “**functionality**” means the ability of a tenderer to provide goods or services in accordance with specifications as set out in the tender documents.
- (g) “**Locality**” means the local suppliers and/or service providers that business offices are within the Municipal area of Stellenbosch (WC024).
- (h) “**price**” includes all applicable taxes less all unconditional discounts;
- (i) “**proof of B-BBEE status level of contributor**” means:
- 1) B-BBEE Status level certificate issued by an authorized body or person;
 - 2) A sworn affidavit as prescribed by the B-BBEE Codes of Good Practice;
 - 3) Any other requirement prescribed in terms of the B-BBEE Act;
- (j) “**QSE**” means a qualifying small business enterprise in terms of a code of good practice on black economic empowerment issued in terms of section 9 (1) of the Broad-Based Black Economic Empowerment Act;
- (k) “**Specific goals**” means specific goals as contemplated in section 2(1)(d) of the Act which may include contracting with persons, or categories of persons, historically disadvantaged by unfair discrimination on the basis of race, gender and disability including the implementation of programmes of the Reconstruction and Development Programme as published in Government Gazette No. 16085 dated 23 November 1994;
- (l) “**rand value**” means the total estimated value of a contract in Rand, calculated at the time of bid invitation, and includes all applicable taxes;

3. FORMULAE FOR PROCUREMENT OF GOODS AND SERVICES

4. POINTS AWARDED FOR PRICE

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

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

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

Where

- P_s = Points scored for price of bid under consideration
 P_t = Price of bid under consideration
 P_{min} = Price of lowest acceptable bid

4.2 FORMULAE FOR DISPOSAL OR LEASING OF STATE ASSETS AND INCOME-GENERATING PROCUREMENT

4.3 POINTS AWARDED FOR PRICE

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

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

Where

- P_s = Points scored for price of bid under consideration
 P_t = Price of bid under consideration



Pmax = Price of highest acceptable bid

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

- 5.1 In terms of Regulation 4 (2) and 5 (2) of the Preferential Procurement Regulations, preference points must be awarded to a bidder for attaining a specific goal specified for the tender
- 5.2 The tendering conditions will stipulate the specific goals, as contemplated in section 2(1)(d)(ii) of the Preferential Procurement Act, be attained.
- 5.3 A maximum of 20 points (80/20 preference points system) or 10 (90/10) preference points system), must be allocated for specific goals. These goals are :
 - (a) contracting with persons, or categories of persons, historically disadvantaged by unfair discrimination on the basis of race, gender or disability;
 - (b) Promotion of enterprises located in the municipal area (WCO24)
- 5.4 Regarding par 5.3 (a) at least 50% of the 20/10 points must be allocated to promote this goal and points will be allocated in terms of the BBBEE scorecard as follows.

| B-BBEE Status Level of Contributor | Number of Points for 80/20 Preference Points System | Number of Points for 90/10 Preference Points System |
|------------------------------------|---|---|
| 1 | 20 | 10 |
| 2 | 18 | 9 |
| 3 | 16 | 8 |
| 4 | 12 | 5 |
| 5 | 8 | 4 |
| 6 | 6 | 3 |
| 7 | 4 | 2 |
| 8 | 2 | 1 |
| Non-compliant contributor | 0 | 0 |

- 5.5 A tenderer must submit proof of its BBBEE status level contributor.
- 5.6 A tenderer failing to submit proof of BBBEE status level of contributor –
 - 5.6.1 may only score in terms of the 80/90-point formula for price; and
 - 5.6.2 scores 0 points out of 10/5 BBBEE status level of contributor, which is in line with section 2 (1) (d) (i) of the Act, where the supplier or service provider did not provide proof thereof.
- 5.7 Regarding par 5.3 (b) a maximum of 50% of the 20/10 points must be allocated to promote this goal. Maximum points will be allocated as follows.

| Locality of supplier | Number of Points for 80/20 Preference Points System | Number of Points for 90/10 Preference Points System |
|---|---|---|
| Within the boundaries of the municipality | 10 | 5 |
| Outside of the boundaries of the municipality | 0 | 0 |

6. BID DECLARATION

- 6.1 Bidders who claim points in respect of B-BBEE Status Level of Contribution and/or Locality must complete the following:

7. B-BBEE STATUS LEVEL OF CONTRIBUTOR CLAIMED IN TERMS OF PARAGRAPHS 1.4 AND 4.1

- 7.1 B-BBEE Status Level of Contributor: . =(maximum of 10 points)



(Points claimed in respect of paragraph 7.1 must be substantiated by relevant proof of B-BBEE status level of contributor.)

7.2 Within the boundaries of Stellenbosch Municipality (WC024)?

| | | | |
|-----|--------------------------|----|--------------------------|
| YES | <input type="checkbox"/> | NO | <input type="checkbox"/> |
|-----|--------------------------|----|--------------------------|

Address -

(Points claimed in respect of paragraph 7.2 must be substantiated by relevant proof that the business premises is situated in the Municipal area of Stellenbosch (WC024). A valid municipal account or proof of valid lease agreement must be attached)

SUB-CONTRACTING

7.2 Will any portion of the contract be sub-contracted?

(Tick applicable box)

| | | | |
|-----|--------------------------|----|--------------------------|
| YES | <input type="checkbox"/> | NO | <input type="checkbox"/> |
|-----|--------------------------|----|--------------------------|

7.2.1 If yes, indicate:

- i) What percentage of the contract will be subcontracted.....%
- ii) The name of the sub-contractor.....
- iii) The B-BBEE status level of the sub-contractor.....
- iv) Whether the sub-contractor is an EME or QSE

(Tick applicable box)

| | | | |
|-----|--------------------------|----|--------------------------|
| YES | <input type="checkbox"/> | NO | <input type="checkbox"/> |
|-----|--------------------------|----|--------------------------|

v) Specify, by ticking the appropriate box, if subcontracting with an enterprise in terms of Preferential Procurement Regulations,2017:

| Designated Group: An EME or QSE which is at last 51% owned by: | EME | QSE |
|---|-----|-----|
| Black people | √ | √ |
| Black people who are youth | | |
| Black people who are women | | |
| Black people with disabilities | | |
| Black people living in rural or underdeveloped areas or townships | | |
| Cooperative owned by black people | | |
| Black people who are military veterans | | |
| OR | | |
| Any EME | | |
| Any QSE | | |

8. DECLARATION WITH REGARD TO COMPANY/FIRM

8.1 Name of company/firm:.....

8.2 VAT registration number:.....

8.3 Company registration number:.....

8.4 TYPE OF COMPANY/ FIRM

- Partnership/Joint Venture / Consortium
- One person business/sole propriety
- Close corporation



- Company
 - (Pty) Limited
- [TICK APPLICABLE BOX]

8.5 DESCRIBE PRINCIPAL BUSINESS ACTIVITIES

.....

8.6 COMPANY CLASSIFICATION

- Manufacturer
 - Supplier
 - Professional service provider
 - Other service providers, e.g. transporter, etc.
- [TICK APPLICABLE BOX]

8.7 MUNICIPAL INFORMATION

Municipality where business is situated:

Registered Account Number:

Stand Number:.....

8.8 Total number of years the company/firm has been in business:.....

8.9 I/we, the undersigned, who is / are duly authorised to do so on behalf of the company/firm, certify that the points claimed, based on the B-BBE status level of contributor indicated in paragraphs 1.4 and 6.1 of the foregoing certificate, qualifies the company/ firm for the preference(s) shown and I / we acknowledge that:

- i) The information furnished is true and correct;
- ii) The preference points claimed are in accordance with the General Conditions as indicated in paragraph 1 of this form;
- iii) In the event of a contract being awarded as a result of points claimed as shown in paragraphs 1.4 and 6.1, the contractor may be required to furnish documentary proof to the satisfaction of the purchaser that the claims are correct;
- iv) If the B-BBEE status level of contributor has been claimed or obtained on a fraudulent basis or any of the conditions of contract have not been fulfilled, the purchaser may, in addition to any other remedy it may have –
 - (a) disqualify the person from the bidding 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 bidder or contractor, its shareholders and directors, or only the shareholders and directors who acted on a fraudulent basis, be restricted by the National Treasury 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.



| | | | |
|-------------------------|--|------------|--|
| SIGNATURE OF BIDDER(S): | | | |
| WITNESS 1: | | WITNESS 2: | |
| DATE: | | | |
| ADDRESS: | | | |
| | | | |
| | | | |



PLEASE COMPLETE IN FULL TO CLAIM POINTS, YOUR OWN SWORN AFFIDAVIT

SWORN AFFIDAVIT – B-BBEE EXEMPTED MICRO ENTERPRISE – GENERAL (DRAFT EXAMPLE)

(DO NOT USE)

I, the undersigned,

| | |
|--------------------------------|--|
| Full name & Surname | |
| Identity number | |

Hereby declare under oath as follows:

1. The contents of this statement are to the best of my knowledge a true reflection of the facts.
2. I am a Member / Director / Owner (**Select one**) of the following enterprise and am duly authorised to act on its behalf:

NB!

| | |
|---|---|
| Enterprise Name: | |
| Trading Name (If Applicable): | |
| Registration Number: | |
| Vat Number (If applicable) | |
| Enterprise Physical Address: | |
| Type of Entity (CC, (Pty)Ltd, Sole Prop etc.): | |
| Nature of Business: | |
| Definition of "Black People" | <p>As per the Broad-Based Black Economic Empowerment Act 53 of 2003 as Amended by Act No 46 of 2013 "Black People" is a generic term which means Africans, Coloureds and Indians –</p> <p>(a) who are citizens of the Republic of South Africa by birth or descent; or</p> <p>(b) who became citizens of the Republic of South Africa by naturalisation-</p> <p style="margin-left: 40px;">i. before 27 April 1994; or</p> <p style="margin-left: 40px;">ii. on or after 27 April 1994 and who would have been entitled to acquire citizenship by naturalization prior to that date;"</p> |
| Definition of "Black Designated Groups" | <p>"Black Designated Groups means:</p> <p>(a) unemployed black people not attending and not required by law to attend an educational institution and not awaiting admission to an educational institution;</p> <p>(b) Black people who are youth as defined in the National Youth Commission Act of 1996;</p> <p>(c) Black people who are persons with disabilities as defined in the Code of Good Practice on employment of people with disabilities issued under the</p> |



| | |
|--|--|
| | Employment Equity Act; (d) Black people living in rural and under developed areas; (e) Black military veterans who qualifies to be called a militaryveteran in terms of the Military Veterans Act 18 of 2011;" |
|--|--|

3. I hereby declare under Oath that:

- The Enterprise is _____% Black Owned using the flow-through principle as per Amended Code Series 100 of the Amended Codes of Good Practice issued under section 9 (1) of B-BBEE Act No 53 of 2003 as Amended by Act No 46 of 2013,
- The Enterprise is _____% Black Female Owned as per Amended Code Series 100of the Amended Codes of Good Practice issued under section 9 (1) of B-BBEE Act No 53 of 2003 as Amended by Act No 46 of 2013,
- The Enterprise is _____% Black Designated Group Owned as per Amended Code Series 100 of the Amended Codes of Good Practice issued under section 9 (1) of B-BBEE Act No 53 of 2003 as Amended by Act No 46 of 2013,
- Black Designated Group Owned % Breakdown as per the definition stated above:
 - Black Youth % = _____%
 - Black Disabled % = _____%
 - Black Unemployed % = _____%
 - Black People living in Rural areas % = _____%
 - Black Military Veterans % = _____%

- Based on the Audited Financial Statements/Financial Statements and other information available on the latest financial year-end of _____ (DD/MM/YYYY), the annual Total Revenue was R10,000,000.00 (Ten Million Rands) or less **NB!**
- Please Confirm on the below table the B-BBEE Level Contributor, **by ticking the applicable box.**

| | | |
|---------------------------|--|--|
| 100% Black Owned | Level One (135% B-BBEE procurement recognitionlevel) | |
| At least 51% Black Owned | Level Two (125% B-BBEE procurement recognition level) | |
| Less than 51% Black Owned | Level Four (100% B-BBEE procurement recognitionlevel) | |

- 4. I know and understand 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.
- 5. The sworn affidavit will be valid for a period of 12 months from the date signed by commissioner.

Deponent Signature: _____

Date : _____

 Commissioner of Oaths
 Signature & stamp

NB! ORIGINALLY CERTIFIED/ NOT COPY



T2.1.10. 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 or a co-operative:

(Mark the appropriate option below)

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

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 (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)). | 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. |
| 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. | 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. Copy of CM 29. |
| 5 | Sole Proprietary or a Partnership | <u>Copy of the Identity Document of:</u> a) Such Sole Proprietary, or b) Each of the Partners in the Partnership |



| If the Tendering Entity is a: | | Documentation to be submitted with the tender |
|-------------------------------|---------------|--|
| | | Copy of the Partnership agreement. |
| 6 | Co-operative | CIPRO CR2 - Copies of Company registration document. (The percentage of work to be done by each partner must clearly be indicated on Form RDB1 (or RDB2 as applicable) of the tender document: MBD6.1 Preference Points Claim Form in terms of the Preferential Procurement Regulations 2017). |
| 7 | Joint Venture | All the documents (as described above) as applicable to each partner in the JV as well as a copy of the Joint Venture agreement. (The percentage of work to be done by each partner of the joint venture must clearly be indicated in the Joint Venture Agreement). |

Note:

1. If the shares are held in trust provide a copy of the Deed of Trust (only the front page and pages listing the trustees and beneficiaries are required) as well as the Letter of Authority as issued by the Master of the Supreme Court, wherein trustees have been duly appointed and authorised, must be provided.
2. Include a copy of the Certificate of Change of Name (CM9) if applicable.

3. Registered for Vat Purposes in Terms of the Value-Added Tax Act, (Act No. 89 of 1991)

(Make an X in the appropriate space below)

Yes

| |
|--------------------------|
| <input type="checkbox"/> |
| <input type="checkbox"/> |

No

Registration number:

.....



T2.1.11. PROOF OF REGISTRATION WITH THE CONSTRUCTION INDUSTRY DEVELOPMENT BOARD (CIDB)

CIDB Contractor Registration Certificate

A Certificate of Contractors Registration issued by the Construction Industry Development Board (CIDB) shall be attached to this schedule.

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

| | | |
|--|--|--------------|
| Number of sheets appended by the tenderer to this schedule (If nil, enter NIL) | | |
| CRS Number: | | |
| SIGNATURE | | NAME (PRINT) |
| CAPACITY | | DATE |
| NAME OF FIRM | | |



T2.1.12. DECLARATION OF INTEREST IN TENDER OF PERSONS IN SERVICE OF STATE

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 and/or take an oath declaring his/her interest.
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 or her representative | |
| 3.2. | Identity Number | <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> |
| 3.3. | Position occupied in the Company (director, shareholder ² etc.) | |
| 3.4. | Company Registration Number | |
| 3.5. | Tax Reference Number | |
| 3.6. | VAT Registration Number | |

| | | | | | |
|-------------|--|------------|--------------------------|-----------|--------------------------|
| 3.7. | Are you presently in the service of the state? | YES | <input type="checkbox"/> | NO | <input type="checkbox"/> |
| 3.7.1. | If so, furnish particulars: | | | | |
| | | | | | |
| 3.8. | Have you been in the service of the state for the past twelve months? | YES | <input type="checkbox"/> | NO | <input type="checkbox"/> |
| 3.8.1. | If so, furnish particulars: | | | | |

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. an executive 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.



| | | | | |
|--------------|--|------------|--------------------------|-----------|
| | | | | |
| 3.9. | 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 | <input type="checkbox"/> | NO |
| 3.9.1. | If so, furnish particulars: | | | |
| | | | | |
| 3.10. | Are you aware of any relationship (family, friend, other) between a bidder and any persons in the service of the state who may be involved with the evaluation and or adjudication of this bid? | YES | <input type="checkbox"/> | NO |
| 3.10.1. | If so, furnish particulars: | | | |
| | | | | |
| 3.11. | Are any of the company's directors, managers, principal shareholders or stakeholders in the service of the state? | YES | <input type="checkbox"/> | NO |
| 3.11.1. | If so, furnish particulars: | | | |
| | | | | |
| 3.12. | Is any spouse, child or parent of the company's directors, managers, principal shareholders or stakeholders in the service of the state? | YES | <input type="checkbox"/> | NO |
| 3.12.1. | If so, furnish particulars: | | | |
| | | | | |
| 3.13. | 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 | <input type="checkbox"/> | NO |
| 3.13.1. | If so, furnish particulars: | | | |
| | | | | |



| 3.14. | Please provide the following information on ALL directors/shareholders/trustees/members below: | | |
|-----------------------|---|----------------------------|--|
| Full Name and Surname | Identity Number | Personal Income Tax Number | Provide State ³ Employee Number |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |

NB:

a) **PLEASE ATTACH CERTIFIED COPY(IES) OF ID DOCUMENT(S)**
 b) **PLEASE PROVIDE PERSONAL INCOME TAX NUMBERS FOR ALL DIRECTORS / SHAREHOLDERS / TRUSTEES / MEMBERS, ETC.**

4. DECLARATION

I, the undersigned (name) _____, certify that the information furnished in paragraph 3 above is correct.
 I accept that the state may act against me should this declaration prove to be false.

| | | | |
|-------------------|--|------|--|
| SIGNATURE | | DATE | |
| NAME OF SIGNATORY | | | |
| POSITION | | | |
| NAME OF COMPANY | | | |

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. an executive member of the accounting authority of any national or provincial public entity; or
- f. an employee of Parliament or a provincial legislature.



T2.1.13. COMPULSORY ENTERPRISE QUESTIONNAIRE

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

Section 1: Name of enterprise:

Section 2: VAT registration number, if any:

Section 3: CIDB registration number, if any:

Section 4: Particulars of sole proprietors and partners in partnerships

| Name* | Identity number* | Personal income tax number* |
|-------|------------------|-----------------------------|
| | | |
| | | |
| | | |

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

Section 5: Particulars of companies and close corporations

Company registration number

Close corporation number

Tax reference number

Section 6: Record of service of the state

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

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

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

| Name of sole proprietor, partner, director, manager, principal shareholder or stakeholder | Name of institution, public office, board or organ of state and position held | Status of service (tick appropriate column) | |
|---|---|---|-----------------------|
| | | current | Within last 12 months |
| | | | |
| | | | |
| | | | |

* Insert separate page if necessary



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

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

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

| Name of spouse, child or parent | Name of institution, public office, board or organ of state and position held | Status of service (tick appropriate column) | |
|---------------------------------|---|---|-----------------------|
| | | current | Within last 12 months |
| | | | |
| | | | |
| | | | |
| | | | |

* Insert separate page if necessary

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

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

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.

| | | | |
|---------------|--|---------------|--|
| SIGNATURE: | | NAME (PRINT): | |
| CAPACITY: | | DATE: | |
| NAME OF FIRM: | | | |



T2.1.14. DECLARATION OF TENDERER'S PAST SUPPLY CHAIN MANAGEMENT PRACTICES

1. This Municipal Bidding Document must form part of all bids invited.
2. It serves as a declaration to be used by municipalities and municipal entities in ensuring that when goods and services are being procured, all reasonable steps are taken to combat the abuse of the supply chain management system.
3. The bid of any bidder may be rejected if that bidder, or any of its directors have:
 - a. abused the municipality's / municipal entity's supply chain management system or committed any improper conduct in relation to such system;
 - b. been convicted for fraud or corruption during the past five years;
 - c. willfully neglected, reneged on or failed to comply with any government, municipal or other public sector contract during the past five years; or
 - d. been listed in the Register for Tender Defaulters in terms of section 29 of the Prevention and Combating of Corrupt Activities Act (No 12 of 2004).
4. In order to give effect to the above, the following questionnaire must be completed and submitted with the bid.

| | | | |
|-------|--|------------|-----------|
| 4.1 | Is the bidder or any of its directors listed on the National Treasury's database as a company or person prohibited from doing business with the public sector? <i>(Companies or persons who are listed on this database were informed in writing of this restriction by the National Treasury after the audi alteram partem rule was applied).</i> | Yes | No |
| 4.1.1 | If so, furnish particulars: | | |
| 4.2 | Is the bidder or any of its directors listed on the Register for Tender Defaulters in terms of section 29 of the Prevention and Combating of Corrupt Activities Act (No 12 of 2004)? <i>(To access this Register enter the National Treasury's website, www.treasury.gov.za, click on the icon "Register for Tender Defaulters" or submit your written request for a hard copy of the Register to facsimile number (012) 3265445).</i> | Yes | No |
| 4.2.1 | If so, furnish particulars: | | |
| 4.3 | Was the bidder or any of its directors convicted by a court of law (including a court of law outside the Republic of South Africa) for fraud or corruption during the past five years? | Yes | No |



| | | | |
|-------|--|------------|-----------|
| 4.3.1 | If so, furnish particulars: | | |
| 4.4 | Does the bidder or any of its directors owe any municipal rates and taxes or municipal charges to the municipality / municipal entity, or to any other municipality / municipal entity, that is in arrears for more than three months? | Yes | No |
| 4.4.1 | If so, furnish particulars: | | |
| 4.5 | Was any contract between the bidder and the municipality / municipal entity or any other organ of state terminated during the past five years on account of failure to perform on or comply with the contract? | Yes | No |
| 4.5.1 | If so, furnish particulars: | | |

5. CERTIFICATION

I, the undersigned (full name), _____, certify that the information furnished on this declaration form true and correct.

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

| | | | |
|---------------|--|---------------|--|
| SIGNATURE: | | NAME (PRINT): | |
| CAPACITY: | | DATE: | |
| NAME OF FIRM: | | | |



T2.1.15. DECLARATION CONCERNING FULFILMENT OF THE CONSTRUCTION REGULATIONS, 2014

In terms of the Construction Regulations, 2014 (hereinafter referred to as the Regulations), promulgated on 07 February 2014 in terms of the Occupational Health and Safety Act, 1993 (Act No 85 of 1993) the Employer shall not appoint a contractor to perform construction work unless the Contractor can satisfy the Employer that his/her firm has the necessary competencies and resources to carry out the work safely and has allowed adequately in his/her tender for the due fulfilment of all the applicable requirements of the Act and the Regulations.

Tenderers shall answer the questions below:

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

(Tick)

| | |
|-----|--------------------------|
| YES | <input type="checkbox"/> |
| NO | <input type="checkbox"/> |

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

(Tick)

| | |
|--|--------------------------|
| Own resources, competent in terms of the Regulations (refer to 3 below) | <input type="checkbox"/> |
| Own resources, still to be hired and/or trained (until competency is achieved) | <input type="checkbox"/> |
| Specialist subcontract resources (competent) - Specify: | |
| | |
| | |
| | |
| | |
| | |
| | |

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

.....

.....

.....

.....

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

.....



.....

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

.....

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

(Tick)

| | |
|-----|--|
| YES | |
| NO | |

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

1.

ID NO:

(Name in Print):

2.

ID NO:

(Name in Print):



T2.1.16. CERTIFICATE OF INDEPENDENT BID DETERMINATION

1. This Municipal Bidding Document (MBD) must form part of all bids invited.
2. Section 4 (1) (b) (iii) of the Competition Act No. 89 of 1998, as amended, prohibits an agreement between, or concerted practice by, firms, or a decision by an association of firms, if it is between parties in a horizontal relationship and if it involves collusive bidding (or bid rigging).⁴ Collusive bidding 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:
 - 3.1. take all reasonable steps to prevent such abuse;
 - 3.2. reject the bid of any bidder if that bidder or any of its directors has abused the supply chain management system of the municipality or municipal entity or has committed any improper conduct in relation to such system; and
 - 3.3. cancel a contract awarded to a person if the person committed any corrupt or fraudulent act during the bidding process or the execution of the contract.
4. This MBD serves as a certificate of declaration that would be used by institutions to ensure that, when bids are considered, reasonable steps are taken to prevent any form of bid-rigging.
5. In order to give effect to the above, the attached Certificate of Bid Determination (MBD 9) must be completed and submitted with the bid:

CERTIFICATE OF INDEPENDENT BID DETERMINATION:

In response to the invitation for the bid made by:

STELLENBOSCH MUNICIPALITY

I, the undersigned, in submitting the accompanying bid, hereby make the following statements that I certify to be true and complete in every respect:

1. I have read and I understand the contents of this Certificate;
2. I understand that the accompanying bid will be disqualified if this Certificate is found not to be true and complete in every respect;
3. I am authorized by the bidder to sign this Certificate, and to submit the accompanying bid, on behalf of the bidder;
4. Each person whose signature appears on the accompanying bid has been authorized by the bidder to determine the terms of, and to sign, the bid, on behalf of the bidder;
5. For the purposes of this Certificate and the accompanying bid, I understand that the word "competitor" shall include any individual or organization, other than the bidder, whether or not affiliated with the bidder, who:
 - 5.1. has been requested to submit a bid in response to this bid invitation;
 - 5.2. could potentially submit a bid in response to this bid invitation, based on their qualifications, abilities or experience; and

⁴ 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.



- 5.3. provides the same goods and services as the bidder and/or is in the same line of business as the bidder
6. The bidder has arrived at the accompanying bid independently from, and without consultation, communication, agreement or arrangement with any competitor. However, communication between partners in a joint venture or consortium⁵ will not be construed as collusive bidding.
7. In particular, without limiting the generality of paragraphs 6 above, there has been no consultation, communication, agreement or arrangement with any competitor regarding:
- 7.1. prices;
 - 7.2. geographical area where product or service will be rendered (market allocation)
 - 7.3. methods, factors or formulas used to calculate prices;
 - 7.4. the intention or decision to submit or not to submit, a bid;
 - 7.5. the submission of a bid which does not meet the specifications and conditions of the bid; or
 - 7.6. bidding with the intention not to win the bid.
8. In addition, there have been no consultations, communications, agreements or arrangements with any competitor regarding the quality, quantity, specifications and conditions or delivery particulars of the products or services to which this bid invitation relates.
9. The terms of the accompanying bid have not been, and will not be, disclosed by the bidder, directly or indirectly, to any competitor, prior to the date and time of the official bid opening or of the awarding of the contract.
10. I am aware that, in addition and without prejudice to any other remedy provided to combat any restrictive practices related to bids and contracts, bids that are suspicious will be reported to the Competition Commission for investigation and possible imposition of administrative penalties in terms of section 59 of the Competition Act No. 89 of 1998 and or may be reported to the National Prosecuting Authority (NPA) for criminal investigation and or may be restricted from conducting business with the public sector for a period not exceeding ten (10) years in terms of the Prevention and Combating of Corrupt Activities Act No. 12 of 2004 or any other applicable legislation.

| | | | |
|---------------|--|---------------|--|
| SIGNATURE: | | NAME (PRINT): | |
| CAPACITY: | | DATE: | |
| NAME OF FIRM: | | | |

⁵ 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.



T2.1.17. DECLARATION OF INDEMNITY

I,, the undersigned for an on behalf of (herein referred to as "the Contractor") indemnify and safeguard the Nelson Mandela Bay Municipality and its Employees against all action, suits, proceedings, claims, demands, costs and expenses whatsoever which may be instituted, brought or sent, or may be incurred or be payable by the Council arising out of or in connection with any damage, death or injury caused or alleged to have been caused by or as a result of any act, omission by the contractor and/or the Contractors Employees or Employees arising out of work done in connection with or arising out of the following contract.

Contract number :
 Contract description :
 :
 :
 :

Full name and Surname: Signature:
 Place: Date:

Capacity:
 For and on behalf of:

To completed by a Commissioner of Oath:
 I hereby declare that the above Declaration was made before me.

Full Name and Surname of Commissioner of Oath:
 ID number:
 Signature:



T2.1.18. RECORD OF ADDENDA TO TENDER DOCUMENTS

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

| No. | Date | Title or Details |
|-----|------|------------------|
| 1. | | |
| 2. | | |
| 3. | | |
| 4. | | |
| 5. | | |
| 6. | | |
| 7. | | |
| 8. | | |
| 9. | | |
| 10. | | |
| 11. | | |
| 12. | | |
| 13. | | |
| 14. | | |
| 15. | | |

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.

| | | | |
|---------------|--|---------------|--|
| SIGNATURE: | | NAME (PRINT): | |
| CAPACITY: | | DATE: | |
| NAME OF FIRM: | | | |



T2.1.19. SCHEDULE OF PLANT AND EQUIPMENT

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

DETAILS OF MAJOR EQUIPMENT THAT IS OWNED BY AND IMMEDIATELY AVAILABLE FOR THIS CONTRACT.

| QUANTITY | DESCRIPTION | SIZE | CAPACITY |
|----------|-------------|------|----------|
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |

Attach additional pages if more space is required.

DETAIL OF MAJOR EQUIPMENT THAT WILL BE HIRED, ORE ACQUIRED FOR THIS CONTRACT IF MY / OUR TENDER IS ACCEPTED.

| QUANTITY | DESCRIPTION, | SIZE | CAPACITY |
|----------|--------------|------|----------|
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |

Attach additional pages if more space is required.

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

| | | | |
|--------------|--|--------------|--|
| SIGNATURE | | NAME (PRINT) | |
| CAPACITY | | DATE | |
| NAME OF FIRM | | | |



T2.1.20. SCHEDULE OF SUBCONTRACTORS

I/we the tenderer, notify the Stellenbosch Municipality that it is our intention to employ the following Subcontractors for work in this contract.

| SUBCONTRACTORS | | | | |
|--|---|--|---|-------------------------------|
| Category / Type | Subcontractor Name; Address; Contact Person; Tel. No. | | Items of work (pay items) to be undertaken by the Subcontractor | Estimated cost of Work (Rand) |
| 1. | Name of firm | | | |
| | Contact person | | | |
| | Tel No | | | |
| | Address | | | |
| 2. | Name of firm | | | |
| | Contact person | | | |
| | Tel No | | | |
| | Address | | | |
| 3. | Name of firm | | | |
| | Contact person | | | |
| | Tel No | | | |
| | Address | | | |
| 4. | Name of firm | | | |
| | Contact person | | | |
| | Tel No | | | |
| | Address | | | |
| 5. | Name of firm | | | |
| | Contact person | | | |
| | Tel No | | | |
| | Address | | | |
| Number of sheets appended by the tenderer to this schedule (If nil, enter NIL) | | | | |

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

| | | | |
|--------------|--|--------------|--|
| SIGNATURE | | NAME (PRINT) | |
| CAPACITY | | DATE | |
| NAME OF FIRM | | | |



T2.1.21. SCHEDULE OF WORK EXPERIENCE OF THE TENDERER – CURRENT CONTRACTS

| CURRENT CONTRACTS | | | | |
|---|---|----------------|------------------------------|----------------|
| EMPLOYER (Name, Tel, Fax, Email) | Contact Person (Name, Tel, Fax, Email) | NATURE OF WORK | VALUE OF WORK (INCL. VAT) | DATE COMPLETED |
| Name | Name | | | |
| Tel | Tel | | | |
| Fax | Fax | | | |
| Email | Email | | | |
| Name | Name | | | |
| Tel | Tel | | | |
| Fax | Fax | | | |
| Email | Email | | | |
| Name | Name | | | |
| Tel | Tel | | | |
| Fax | Fax | | | |
| Email | Email | | | |
| Name | Name | | | |
| Tel | Tel | | | |
| Fax | Fax | | | |
| Email | Email | | | |
| Name | Name | | | |
| Tel | Tel | | | |
| Fax | Fax | | | |
| Email | Email | | | |
| Name | Name | | | |
| Tel | Tel | | | |
| Fax | Fax | | | |
| Email | Email | | | |
| Attach additional pages if mores space is required.Number of sheets appended by the tenderer to this schedule (If nil, enter NIL) | | | | |
| SIGNATURE | | NAME (PRINT) | | |
| CAPACITY | | DATE | | |
| NAME OF FIRM | | | | |



T2.1.22. SCHEDULE OF WORK EXPERIENCE OF THE TENDERER – COMPLETED CONTRACTS

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

| COMPLETED CONTRACTS | | | | | | |
|-------------------------------------|--|---|--|----------------|------------------------------|----------------|
| EMPLOYER (Name, Tel, Fax, Email) | | Contact Person (Name, Tel, Fax, Email) | | NATURE OF WORK | VALUE OF WORK (INCL. VAT) | DATE COMPLETED |
| Name | | Name | | | | |
| Tel | | Tel | | | | |
| Fax | | Fax | | | | |
| Email | | Email | | | | |
| Name | | Name | | | | |
| Tel | | Tel | | | | |
| Fax | | Fax | | | | |
| Email | | Email | | | | |
| Name | | Name | | | | |
| Tel | | Tel | | | | |
| Fax | | Fax | | | | |
| Email | | Email | | | | |
| Name | | Name | | | | |
| Tel | | Tel | | | | |
| Fax | | Fax | | | | |
| Email | | Email | | | | |

Attach additional pages if more space is required.

| | |
|--|--|
| Number of sheets appended by the tenderer to this schedule (If nil, enter NIL) | |
|--|--|

| | | | |
|--------------|--|--------------|--|
| SIGNATURE | | NAME (PRINT) | |
| CAPACITY | | DATE | |
| NAME OF FIRM | | | |



T2.1.23. CLARIFICATION MEETING CERTIFICATE

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

| | | | |
|----------------|--|-----------|--|
| NAME & SURNAME | | | |
| CAPACITY | | | |
| NAME OF FIRM | | | |
| ADDRESS | | | |
| | | | |
| | | | |
| TELEPHONE NO | | FAX NO: | |
| E-MAIL | | SIGNATURE | |

NB: Please note that no latecomers will be allowed.

*For all compulsory briefing sessions/site meetings/clarification meetings, bids received from interested bidders that did not attend the meeting or arrived later than predetermined date and time, will be **disqualified**.*



T2.1.24. DECLARATION BY TENDERER

I / We acknowledge that I / we am / are fully acquainted with the contents of the conditions of tender of this tender document and that I / we accept the conditions in all respects.

I / We agree that the laws of the Republic of South Africa shall be applicable to the contract resulting from the acceptance of *my / our tender and that I / we elect *domicillium citandi et executandi* (physical address at which legal proceedings may be instituted) in the Republic at:

I / We accept full responsibility for the proper execution and fulfillment of all obligations and conditions devolving in me / us under this agreement as the principal liable for the due fulfillment of this contract.

I / We furthermore confirm I / we satisfied myself / ourselves as to the corrections and validity of my / our tender; that the price quoted cover all the work / items specified in the tender documents and that the price(s) cover all my / our obligations under a resulting contract and that I / we accept that any mistake(s) regarding price and calculations will be at my / our risk.

I / We furthermore confirm that my / our offer remains binding upon me / us and open for acceptance by the Purchases / Employer during the validity period indicated and calculated from the closing date of the bid.

| | | | |
|--------------|--|--------------|--|
| SIGNATURE | | NAME (PRINT) | |
| CAPACITY | | DATE | |
| NAME OF FIRM | | | |
| WITNESS 1 | | WITNESS 2 | |



T2.2.1. FINANCIAL REFERENCES

The tenderer shall attach to this form a letter from the bank at which he/she declares he/she conducts his/her account. The contents of the bank's letter must state the credit 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 with the submission may render the tenderer's offer unresponsive in terms of the tender condition F3.8.

The tenderers banking details as they appear below shall be completed.

In the event that the tenderer is a joint venture enterprise, details of all members of the joint venture shall be similarly provided and attached to this form.

| Description | Details |
|--|---------|
| Name of account holder | |
| Account number | |
| Name of bank | |
| Branch name | |
| Branch code | |
| Bank rating (current rating, attach letter from bank) | |
| Bank and branch 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.

| | | | |
|--------------|--|--------------|--|
| SIGNATURE | | NAME (PRINT) | |
| CAPACITY | | DATE | |
| NAME OF FIRM | | | |



T2.2.2. ESTIMATED MONTHLY CASH-FLOW

The Tenderer shall state below the estimated value of work to be completed every month, based on his preliminary programme, his tendered unit rates and submission of his Payment certificate to the Employer. The amounts for Contingencies and Contract Price Adjustment must not be included. The Tenderer must make note of any cash-flow restrictions.

| Payment Certificate No. | Amount (VAT Included) | | | | | Cumulative cash flow |
|---|-----------------------|-------------|-----|---------------|-------|----------------------|
| | a | b | a-b | | | |
| | Payments Received | Expenditure | | Net cash flow | | |
| 1 | None | | d | | j=d | |
| 2 | | | e | | k=j+e | |
| 3 | | | f | | l=k+f | |
| 4 | | | g | | m=l+g | |
| 5 | | | h | | n=m+h | |
| 6 | | | etc | | etc | |
| 7 | | | | | | |
| 8 | | | | | | |
| 9 | | | | | | |
| 10 | | | | | | |
| 11 | | | | | | |
| 12 | | | | | | |
| 13 | | | | | | |
| 14 | | | | | | |
| 15 | | | | | | |
| Maximum negative cash flow: take the largest negative number in the last column and write it here | | | | | | |

From what sources will you fund the above amount (e.g. funds internally available, bank overdraft, loan, partner (his source), etc.)



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.

| | | | |
|--------------|--|--------------|--|
| SIGNATURE | | NAME (PRINT) | |
| CAPACITY | | DATE | |
| NAME OF FIRM | | | |



T2.2.3. PERSONNEL SCHEDULE

Tenderer to insert number of personnel he proposes employing on this contract (for information purposes.)

| Job Description | Permanent Staff | Temporary staff from local community |
|---------------------------|-----------------|--------------------------------------|
| Contract Manager | | |
| Construction Manager | | |
| Health and Safety Officer | | |
| Quantity Surveyor | | |
| Surveyors | | |
| General Foremen | | |
| Clerks | | |
| Operators | | |
| Bricklayers | | |
| Learner Bricklayers | | |
| Steel fixers | | |
| Watchmen | | |
| Labourers | | |
| * Other | | |
| * Other | | |
| * Other | | |
| * Other | | |
| * Other | | |

* To be filled in by Tenderer

| | | | |
|--------------|--|--------------|--|
| SIGNATURE | | NAME (PRINT) | |
| CAPACITY | | DATE | |
| NAME OF FIRM | | | |



T2.2.4. QUALITY MANAGEMENT SYSTEMS

Briefly describe the construction quality system incorporated by the tenderer in his organisation and which will be applicable to this Contract.

| | Internal | External | Name of responsible Company /or Person (In case of Person give years' experience and qualification) |
|---|----------|----------|---|
| Survey: Setting out of the works and control | | | |
| SANAS accredited Testing Laboratory | | | |
| Additional quality systems | | | |

| | | | |
|--------------|--|--------------|--|
| SIGNATURE | | NAME (PRINT) | |
| CAPACITY | | DATE | |
| NAME OF FIRM | | | |



T2.2.5. PRELIMINARY PROGRAM OF THE WORKS

The tenderer must attach to this page the preliminary program of the works.



T2.2.6. COMPANY PROFILE

The tenderer must attach to this page the company profile.



T2.2.7. CONTRACT ORGANOGRAM

The tenderer must attach to this page the organogram for the contract of the personnel he intends using.



T2.2.8. KEY PERSONNEL ASSIGNED TO THE CONTRACT

Curriculum vitae (CV) and qualifications must be submitted for each of the key personnel proposed in the table below. The CV must specifically include the qualifications, years of experience, courses completed and experience in construction contracts of a similar value and higher and nature. Contactable referees must also be provided.

Each key person shall be cross referenced to and labelled to correspond to the organogram as per schedule T2.2.8 so as to indicate which role the person in question is proposed to fulfil in the Contract.

| Job Description | Full Name | Qualification | Years of Experience |
|--|------------------|----------------------|----------------------------|
| Contracts Manager | | | |
| Construction Manager (contractors representative in terms of clause 4.12.2 of the GCC 2015) | | | |
| Health and Safety Officer | | | |

* - To be filled in by Tenderer

| | | | |
|---------------------|--|---------------------|--|
| SIGNATURE | | NAME (PRINT) | |
| CAPACITY | | DATE | |
| NAME OF FIRM | | | |



T2.2.9. CURRICULUM VITAE OF CONTRACTS MANAGER

The tenderer shall attach to the page the Curriculum vitae (CV) and qualifications as stipulated in the Tender Data for the Contracts Manager.

All experience by the proposed contracts manager must be shown. Relevant experience as a contracts manager must be highlighted.



T2.2.10. CURRICULUM VITAE OF CONSTRUCTION MANAGER

The tenderer shall attach to page the Curriculum vitae (CV) and qualifications as stipulated in the Tender Data for the Construction Manager.

All experience by the proposed construction manager must be shown. Relevant experience as a construction manager must be highlighted.



T2.2.11. COMPLETION CERTIFICATES

The tenderer shall attach to this page the three completion certificate in similar value and similar scope of work as prescribed in terms of the additional conditions of tender.



T2.2.12. LETTER OF GOOD STANDING WITH COMPENSATION FUND

The tenderer must attach to this page a copy of the letter of good standing with the Compensation Fund



Part C1: Agreements and Contract Data

| | Pages |
|---|------------------|
| C1.1 Form of Offer and Acceptance | 99 – 101 |
| C1.2a Contract Data (data provided by the Employer) | 102 – 113 |
| C1.2b Contract Data (data provided by the Contractor) | 114 |
| C1.3 Form of Guarantee for Construction | 115 – 117 |
| C1.4 Occupational Health and Safety Agreement | 118 |
| C1.5 Protection of the Environment Declaration..... | 119 |
| C1.6 Insurance Broker’s Warranty | 120 |
| C1.7 Contract of Temporary Employment as Community Liaison Officer | 121 - 123 |



C1.1 Form of Offer and Acceptance

Offer

The employer, identified in the acceptance signature block, has solicited offers to enter into a contract for the procurement of:

CONTRACT NO. B/SM 27/24: EERSTE RIVER FLOOD REHABILITATION STRUCTURES - AGRICULTURAL HALL

The tenderer, identified in the offer signature block, 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 authorized, signing this part of this form of offer and acceptance, the tenderer offers to perform all of the obligations and liabilities of the contractor under the contract including compliance with all its terms and conditions according to their true intent and meaning for an amount to be determined in accordance with the conditions of contract identified in the contract data.

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

Rand

..... (in words);

R(in figures)

This offer may be accepted by the employer by signing the acceptance part of this form of offer and acceptance and returning one copy of this document to the tenderer before the end of the period of validity stated in the tender data, whereupon the tenderer becomes the party named as the contractor in the conditions of contract identified in the contract data.

Signature(s)

Name(s)

Capacity

for the tenderer

(Name of organization/tenderer)

(Address of organization/tenderer)

.....

Name and signature of witness

.....

Date

| For official use. | | |
|---|----|----|
| INITIALS OF OFFICIALS AT TENDER OPENING | | |
| 1. | 2. | 3. |



C1.2a Contract Data

Contract Data provided by the Employer

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

Copies of these conditions of contract may be obtained on the tenderer's own cost from the SAICE Tel: 011-805 5947

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

| No. | Clause | Description |
|-----|----------|--|
| 1 | 1.1.1.5 | The commencement date shall be the date on which the contractor receives a copy of the signed form of offer and acceptance and schedule of deviations if applicable, unless otherwise agreed. |
| 2 | 1.1.1.13 | The Defects Liability Period is 12 months , measured from the date of the Certificate of Completion. |
| 3 | 1.1.1.14 | The time for achieving Practical Completion is 12 months calculated from the Commencement Date. |
| 4 | 1.1.1.15 | Name of Employer is: STELLENBOSCH MUNICIPALITY , represented by the Director: Infrastructure Services and/or such other person or persons duly authorised thereto by the Employer in writing and is referred to in this Contract Document by the terms "Employer", "Stellenbosch Municipality" or "Council" as the context provides. |
| 5 | 1.1.1.16 | The Employer's agent is JG Afrika (Pty) Ltd an employee authorised to do so. Add the following to the clause: Any reference to the term "Engineer" in this Contract shall mean "Employer's Agent" and vice versa. |
| 6 | 1.1.1.17 | Add the following to the clause: Any reference to the term "Engineer's Representative" in this Contract shall mean "Employer's Agent's Representative" and vice versa |
| 7 | 1.1.1.26 | The pricing strategy is: Re-measurement Contract. |
| 8 | 1.1.1.35 | Add the following additional definition to Clause 1.1: "Cost" means all expenditure reasonable incurred (or to be incurred) by the Contractor, whether on or off the Site, including overhead and similar charges, but does not include profit. |
| 9 | 1.1.1.36 | Add the following additional definition to Clause 1.1: Letter of Notification " means the letters of formal notification (for placement onto the Municipality's Roads and Stormwater Contractor Panel) signed by the Employer, of the decision of the Municipality's Bid Adjudication Committee sent to all tenderers. The notification of the decision does not form part of the Employer's Acceptance of the successful tenderers Offers and no rights shall accrue." |
| 10 | 1.2.1.2 | The address of the Employer is: <u>Physical address:</u> 71 Plein Street STELLENBOSCH 7600 <u>Postal address:</u> PO Box 17 STELLENBOSCH 7599 |



| No. | Clause | Description |
|-----|--------|---|
| | | <ul style="list-style-type: none"> • Construction Regulations, 2014. • Site specific health & Safety Specification and Baseline risk assessment prepared by the Employer in terms of the construction regulations 2014. • Environmental Management Programme and General Authorisation. • Any and all other relevant & applicable laws, regulations, statutory provisions and agreements. |
| 15 | 4.3.3 | <p>Add the following new clause:</p> <p>Contractor's Designer</p> <p>The Contractor and his designer shall accept full responsibility and liability for compliance with the Occupational Health and Safety Act, 1993 (Act 85 of 1993) and the Construction Regulations, 2014, for the design of the Temporary Works and those parts of the Permanent Works which the Contractor is responsible to design in terms of the Contract.</p> |
| 16 | 4.12.2 | <p>The contractors appointed Health & Safety Officer, Construction Manager and General Foreman shall be on site at all times when work is being performed.</p> <p>Notwithstanding the requirements of this clause, the Contractors appointed Construction manager, General Foreman and Health & Safety Officer shall be solely dedicated to this contract and shall be on site at all times when work is being performed.</p> |
| 17 | 4.12.4 | <p>Add the following new sub- clause:</p> <p>The Contractor shall submit a comprehensive progress report at least 48 hours prior to the monthly site meetings. The progress report shall consist of at least the following documents:</p> <ul style="list-style-type: none"> • Approved programme indicating the base programme, actual and planned percentage complete of each item including the "time now" line; • A summary of the progress to date; • Updated realistic cash flow; • Any delays encountered or anticipated, including rainfall statistics for the month; • An information required schedule indicating any information or drawings required; • Plant and Labour Report; <p>Failure to submit the complete progress report will result in a fine of R10,000 being deducted from the next payment certificate by the Employers Agent.</p> |
| 18 | 4.12.5 | <p>As-built records</p> <p>The Contractor shall prepare, and keep up-to-date, a complete set of 'as-built' records of the execution of the Works, showing the exact as-built locations, sizes and details of the work as executed. These records shall be kept on the Site and shall be used exclusively for the purposes of this Clause. Two copies shall be supplied to the Employer's Agent prior to the commencement of the Tests on Completion.</p> <p>In addition, the Contractor shall supply to the Employer's Agent as-built drawings of the Works, showing all Works as executed, and submit them to the Employer's Agent for review. The Contractor shall obtain the consent of the Employer's Agent as to their size, the referencing system, and other relevant details.</p> <p>The Works shall not be considered to be completed for the purposes of the issuing of the Completion Certificate</p> |
| 19 | 5.3.1 | <p>The documentation required before Commencement of the Works is carried out:</p> <ul style="list-style-type: none"> • Health and Safety Plan (Refer to Clause 4.3) • Initial Programme (Refer to Clause 5.6) • Security (Refer to Clause 6.2) • Insurance (Refer to Clause 8.6) • Letter of good standing with the Compensation Commission |



| No. | Clause | Description |
|-----|----------|---|
| | | <ul style="list-style-type: none"> • Letter of Good Standing with the Civil Engineering Bargain Council • CV's & qualifications of key personnel <p>Commencement of work shall take place within 28 days of the commencement date.</p> |
| 20 | 5.4.2 | <p>Access to and possession of the Site shall not be exclusive to the Contractor, but as set out in section below.</p> <p>The Contractor shall bear all costs and charges for special and temporary rights of way required by him in connection with access to the Site. The Contractor shall also provide at his own cost any additional facilities outside the Site required by him for the purposes of the Works.</p> <p>The contractor shall upon approval of clause 5.3.1 requirements be granted access to establish site (site camp). Upon 100% completion of the site (site camp) or to the Employers Agent satisfaction, access to and possession to the remainder of the site will be granted.</p> |
| 21 | 5.8.1 | <p>Delete the words "between sunset and sunrise" in the first line and replace with "outside normal working hours".</p> <p>Normal working hours shall be those as stated in the applicable Sectorial Determination applicable to a 5 (five) day week (Monday to Friday) from 07:00 to 17:00.</p> <p>Non-working days are Saturdays and Sundays.</p> <p>Special non-working days are :</p> <ul style="list-style-type: none"> • Public holidays, • Election day of local government and national elections (when applicable), and • The official builder's holiday up to a maximum of 25 calendar days per holiday (including special non-working days). |
| 22 | 5.8.1.5 | <p>Add the following to the clause:</p> <p>The cost of supervision by the Employer's Agent or his representatives outside of normal working hours (Monday to Friday) in accordance with this Clause shall be to the Contractor's account.</p> |
| 23 | 5.11.2 | <p>Add the following additional clause:</p> <p>The Employer's Agent reserves the right to suspend portions of the Works if there are any test results outstanding (including level control), as required in terms of the relevant standardised or project specific specifications.</p> |
| 24 | 5.12.2.2 | <p>Add the following to the clause:</p> <p>No extension of time will be granted in respect of any delays attributed to normal climatic conditions. Normal climatic conditions shall be deemed to include normal rainfall and associated wet conditions and materials, strong winds and extremes of temperature.</p> <p>However, in the event that delays to critical activities exceed the number of working days listed below for each month, then abnormal climatic conditions shall be deemed to exist, and an extension of time may be claimed in accordance with the provisions of Clause 5.12.</p> <p>During the execution of the Works, the Employer's Agent's Representative will certify a day lost due to rainfall only if at least 75% of the work force and plant on site could not work during that specific working day.</p> <p>The number of days quoted below shall be regarded as a fair estimate of the delays to be anticipated and allowed for under normal climatic conditions where inclement weather prevents or disrupts critical work.</p> <p>January 2 days</p> |



| No. | Clause | Description |
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| | | <p>February 2 days March 3 days April 4 days May 8 days June 9 days July 9 days August 8 days September 5 days October 4 days November 2 days December 2 days</p> <p>Claims for delays for abnormal climatic conditions shall be accompanied by substantiating facts and evidence, which shall be submitted timeously as each day or half-day delay is experienced. Extension of time as a result of rainfall shall be calculated monthly being equal to the number days certified by the Employer's Agent's Representative as lost due to rainfall, less the number of days allowed for above, which could result in a negative figure for certain months. The total extension of time for which the Contractor may apply, shall be the cumulative algebraic sum of the monthly extensions. Should the sum thus obtained be negative, the extension of time shall be taken as NIL. It shall be further noted that where the critical path is not affected, no extension of time for abnormal climatic conditions or for any other reason will be entertained.</p> |
| 25 | 5.12.2.4 | <p>Amend the clause to read as follows:</p> <p>Any disruption which is entirely beyond the Contractor's control except for internal (contractors own or his subcontractors labour) unrest, disruptions, strikes, lock-outs, etc.</p> |
| 26 | 5.12.3 | <p>Delete clause 5.12.3 and replace with the following:</p> <p>"If an extension of time is granted, the Contractor shall be paid such proven additional costs based on tendered rates including for special non-working days, if applicable, as are appropriate regarding any other compensation which may have already been granted in respect of the circumstances concerned."</p> |
| 27 | 5.12.5 | <p>Add the following to Clause 5.12</p> <p>5.12.5 Critical Path Provision</p> <p>A delay in so far as extension of time is concerned, will be regarded as a delay only if, on a claim by the Contractor in accordance with the General Conditions of Contract, the Employer's Agent rules that all progress on an item or items of work on the critical path of the approved programme for the carrying out 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.</p> |
| 28 | 5.13.1 | <p>The penalty for failing to complete the whole of the Works is R20,000.00 per calendar day.</p> |
| 29 | 5.14.1 | <p>The requirements for achieving Practical Completion will be determined by the Employer's Agent in consultation with the Contractor and Employer, but will as a minimum entail the following:</p> <ul style="list-style-type: none"> • Full access to the completed works by the Employer. |
| 30 | 5.16.3 | <p>The latent defect period is 10 years.</p> <p>The latent defects period shall commence on the date of the final approval certificate.</p> |
| 31 | 5.14.5.5 | <p>Delete Clause 5.14.5.5 and replace with:</p> |



| No. | Clause | Description |
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| | | "Insurance of the works shall continue until the expiration of the Defects Liability Period, in terms of the new Clause 8.6 contained in this Contract Data." |
| 32 | 6.2.1 | <p>Replace the wording "as selected" in Clause 6.2.1 with "as stated".</p> <p>The security to be provided by the Contractor shall be a fixed performance guarantee of ten per cent (10%) of the Contract Sum.</p> <p>The fixed performance guarantee shall be from an approved Insurance Company or Financial institution that is registered with the Financial Services Board in terms of the Financial Intelligence Centre Act.</p> <p>The fixed performance guarantee shall be jointly and severally bound with the Contractor, in accordance with the provisions of the Form of Guarantee. Any other form of security including a retention money guarantee is not permitted.</p> <p>The wording of the fixed performance guarantee shall be identical to the pro-forma provided under Clause C1.3: Form of Performance Guarantee."</p> |
| 33 | 6.2.2 | <p>Replace the entire contents of Clause 6.2.2 with the following:</p> <p>"If the Contractor fails in his obligations to provide the stated security within the period stated in Clause 5.3.2, or if the fixed performance guarantee shall differ from the pro-forma provided under Clause C1.3: Form of Performance Guarantee of the Contract Data, the Employer may terminate the Contract in terms of Clause 9.2."</p> |
| 34 | 6.2.3 | <p>Replace the entire contents of Clause 6.2.3 with the following:</p> <p>"The Contractor shall ensure that the fixed performance guarantee remains valid and enforceable until the issue of the Certificate of Completion."</p> |
| 35 | 6.8.2 | <p>The value of the certificates issued shall be adjusted in accordance with the Contract Price Adjustment Schedule with the following values:</p> <p>The value of "x" is 0.15</p> <p>The values of the coefficients are:</p> <p>a = 0.15 [Labour] b = 0.20 [Contractor's equipment] c = 0.55 [Material] d = 0.10 [Fuel]</p> <p>The urban area nearest the site is Stellenbosch.</p> <p>Data for the Contract Price Adjustment Schedule</p> <p>The indices for "L", "P", "M" and "F" are the following as published by Statistics South Africa.</p> <p>"L" is the "<u>Labour Index</u>" and shall be the Consumer Price Index (Additional Tables), Table 4 – CPI for the Western Cape, for All Items as published in the Statistical Release P0141 by Statistics South Africa.</p> <p>"P" is the "<u>Plant Index</u>" and shall be the Construction Materials Price Indices, Table 4 – Mining and Construction Plant and Equipment, for Plant and Equipment as published in the Statistical Release P0151.1 of Statistics South Africa.</p> <p>"M" is the "<u>Materials Index</u>" and shall be the Construction Materials Price Indices, Table 6 – Civil Engineering Material, for Civil Engineering Material - Total as published in the Statistical Release P0151.1 of Statistics South Africa.</p> <p>"F" is the "<u>Fuel Index</u>" and shall be the Producer Price Index, Table 1 - PPI for Final Manufactured Goods for Diesel as published in the Statistical Release P0142.1 of Statistics South Africa.</p> |



| No. | Clause | Description |
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| | | The base month is the month prior to the tender closing. |
| 36 | 6.8.3 | <p>Variation in cost of special material</p> <p>The Contract Price shall be subject to price adjustment for variations in the cost of special materials. The following material is classified as special material:</p> <ul style="list-style-type: none"> ○ Net bitumen content of all penetration grade bituminous products, measured in ton. ○ MC-30 Cut back Bitumen, measured in ton <p>The net amount of any variation incurred shall be determined from the ex-refinery rate for bitumen at time of purchase relative to that of the base month for the supplier (refinery) of bitumen actually used to produce the relevant bituminous product.</p> |
| 37 | 6.10.1.5 | The percentage advance on materials on site not yet built into the Permanent Works is 80%. |
| 38 | 6.10.1.7 | <p>Add the following to sub-clause 6.10.1.7:</p> <p>“... or any other fines or penalties that become due under the Contract.”</p> |
| 39 | 6.10.3 | <p>Replace the entire contents of Clause 6.10.3 with the following:</p> <p>“Payment of the amounts referred to in Clauses 6.10.1.1, 6.10.1.2, 6.10.1.3 and 6.10.1.4 shall be subject to a retention by the Employer of an amount (called the “retention money”), being the percentage retention stated in the Contract Data, of the said amounts due to the Contractor, until the retention money reaches the “Limit of retention money” stated in the Contract Data.”</p> <p>The percentage retention shall be ten per cent (10%) of payments due up to the “Limit of retention money” which shall be five per cent (5%) of the contract sum.</p> |
| 40 | 6.10.4 | <p>Amend the following clause:</p> <p>Replace the wordings “within 7 days” and “within 28 days” in Clause 6.10.4 with the wording “within 5 working days” and “within 30 days”.</p> |
| 41 | 7.2.1 | <p>Add at the end of Clause 7.2.1 :</p> <p>Unless otherwise directed in writing by the Engineer, materials for the Permanent Works shall be new and unused.</p> |
| 42 | 8.3 | <p>Amend sub-clause 8.3.1.12 of clause 8.3 as follows:</p> <p>“The design, specification or instruction of the Employer’s Agent, Employer (represented by an employee authorised to do so), or defects in the materials supplied by the Employer for incorporation in the Works”.</p> |
| 43 | 8.6.3 | <p>In the event of any occurrence which is likely to give rise to a claim under the insurance arranged by the Employer, the Contractor or sub-Contractor shall</p> <ul style="list-style-type: none"> (a) in addition to any statutory requirement or other requirements contained in the Conditions of Contract, immediately notify the Employer’s Insurance Brokers by telephone or in writing giving the circumstances, nature and an estimate of the loss or damage; (b) complete a Claims Advice Form available from the Insurance Brokers to whom the form shall be returned without delay – a copy shall be sent to the Employer’s Agent; (c) negotiate the settlement of claims with the Insurers through the Employer’s Insurance Brokers, subject to the settlement being approved by the Employer. <p>The Employer and Insurers shall have the right to make all and any enquiries, either on the site or elsewhere, as to the cause and results of any such occurrence and the Contractor shall give full facilities for carrying out such enquiries.</p> |
| 44 | 8.6.4 | Any amount which becomes payable as a result of a claim by the Contractor under the insurance effected by the Employer shall be paid net of the deductibles to the Employer, who shall pay the said amount to |



| No. | Clause | Description |
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| | | the Contractor upon rectification, repair or reinstatement of the loss or damage, but this provision shall not in any way affect the Contractor's obligations, liabilities and responsibilities in terms of the Contract. |
| 45 | 8.6.5 | Submission of a Tender shall be deemed as acceptance by the Contractor that he is satisfied with the scope of the insurances effected by the Employer. |
| 46 | 8.6.6 | <p>The Contractor and/or Sub-Contractor shall provide, as a minimum, the following:</p> <ul style="list-style-type: none"> (a) Proof of registration with the Department of Labour as an employer, in terms of the Compensation for Occupational Injuries and Diseases Act 1993, as amended (b) Common Law Liability Insurance for the duration of the Contract Period and with a minimum Limit of Indemnity of not less than R1 000 000 for any one accident (c) Insurance on an All Risks basis for construction plant, equipment and other things (except those intended to incorporation into the works) brought onto the site to the full value of such construction plant, equipment and other things (d) Motor Vehicle Liability Insurance, comprising a minimum of Balance of Third Party motor risks, including Passenger Liability, subject to a minimum limit of R2,5 million (e) Where the Contract involves manufacturing and/or fabrication of the works or part thereof at premises other than the site, the Contractor shall satisfy the employer that all materials and equipment for incorporation in the works are adequately insured during manufacture and/or fabrication. In the event of the Employer having an insurable interest in such works during manufacture or fabrication, then such interest shall be noted by endorsement to the Contractor's Policies of Insurance (f) Imported equipment or component parts or materials to be supplied in terms of this Contract which require any process of assembly or finishing in South Africa prior to delivery to the site are to be insured by the Contractor up to the commencement of transit to site of the assembled or finished equipment, component parts or materials, unless special arrangements are made with the Employer. <p>These insurances shall be maintained in force for the duration of the Contract, including any Defects Liability Period and in respect of Sub-Contractors, the Contractor shall be deemed to have complied with the provisions of the requirements relating to insurance by ensuring that the Sub-Contractors have effected such insurance.</p> |
| 48 | 8.6.7 | The Contractor may effect, at his own cost, any insurance additional to that effected by the Employer which he deems necessary in his own interests. The Employer reserves the right to call for full information regarding such insurances. |
| 49 | 8.6.8 | The insurances to be provided by the Contractor and Sub-Contractor shall be effected with Insurers on terms approved by the Employer (which approval shall not be unreasonably withheld) and the Contractor shall, if required by the employer, produce to the employer the Policy or Policies of insurance and the receipts for payment of the current premiums. |
| 50 | 8.6.9 | If the Contractor fails to effect and keep in force the insurances referred to, then the employer may effect and keep in force any such insurance and pay such premium or premiums as may be necessary for that purpose and, from time to time, deduct the amount paid by the Employer from any monies due or which may become due to the Contractor or recover same as a debt from the Contractor. |
| 51 | 8.6.10 | <p>Where the Contractor is responsible for the appointment of Sub-Contractors, then the Contractor shall</p> <ul style="list-style-type: none"> (a) ensure that potential and appointed Sub-Contractors are aware of the whole content of this Special Conditions of Contract Clause; and (b) ensure the compliance of Sub-Contractors with this Special Conditions of Contract clause, where applicable. |
| 52 | 8.6.11 | The Contractor warrants that he shall give all notices and shall observe all the terms and conditions and requirements of all insurances applicable to this Contract. |



| No. | Clause | Description |
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| 53 | 9.1.4 | <p>Replace Clause 9.1.4 with the following:</p> <p>“Up to the time of termination of the contract by either party in terms of this Clause, or until the Contractor gives notice in terms of this Clause to terminate the contract and the Contractor is precluded from exercising his right to terminate the contract because the Employer agrees to bear any resultant additional costs provided for in Clause 9.1.2.2 hereof, the Contractor:</p> <p>a) will be entitled to an extension of calendar time for working days lost as may be approved by the Employers Agent, and</p> <p>b) will be reimbursed the cost of delay to be agreed with the Employers Agent.</p> <p>Where the circumstances described in Clauses 9.1.1 and 9.1.2 are applicable only to a certain portion of the contract, the Engineer will decide after consulting the Contractor, to what extent the contract as a whole is affected and whether or not a claim in terms of this Clause can be submitted.</p> <p>No payment will be made in terms of this Clause after the expiry of the due completion date.</p> |
| 54 | 10.3.2 | <p>Amicable settlement in terms of Clause 10.4 shall be contemplated for all disputes prior to referring any dispute to adjudication or arbitration. The parties may appoint an impartial third party to assist with the amicable settlement, but this is optional and is subject to written agreement between the parties.</p> |
| 55 | 10.5.1 | <p>Dispute resolution shall be by ad-hoc adjudication.</p> |
| 56 | 10.5.3 | <p>The number of Adjudication Board Members to be appointed is one (1).</p> |
| 57 | 10.7.1 | <p>The determination of disputes which are unresolved in terms of Clause 10.5.3 shall be by arbitration.</p> |
| 58 | | <p>Add the following additional:</p> <p>1. Details to be confidential</p> <p>“The Contractor shall treat the details of the Works comprised in this Contract as private and confidential (save in so far as may be necessary for the purposes hereof) and shall not publish or disclose the same or any particulars thereof in any trade or technical paper elsewhere without the prior written consent of the Employers Agent .”</p> <p>2. Unbundling of Municipal Infrastructure Assets</p> <p>The unbundling or componentization of the Property, Plant and Equipment (PPE) assets is required to update the Fixed Asset Register (FAR) as well as for effective asset maintenance and provision of services. The FAR will annually be updated for all assets and components. All new assets to be recorded on the FAR would there for have to be unbundled into its constituent components and all components be recorded on the FAR under the parent asset. The unbundling of primary assets into secondary components will be to a level that is sufficient for GRAP 17 compliance. Generally, the componentization of the PPE assets will be based on the component value, type of component (civil, electrical & mechanical) as well as anticipated lifespan of the component.</p> <p>The unbundling of projects may only commence once the project is complete, all cost is known, including retention fees, and the following documents are available:</p> <ul style="list-style-type: none"> ○ Final bill of quantities; ○ As-built plans; ○ Completion certificate; and ○ Final payment certificate. <p>All capital expenditure per project or per capital suspense must be verified in order to ensure that the total expenditure on a project is included, that is professional fees, actual cost, retention fees and all other relevant expenditure.</p> |



| No. | Clause | Description | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
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| | | <p>Once the final cost is determined, then the unbundling of the project commences. The total project cost should be broken down to a component level.</p> <p>The following information should be provided for each component of the capital asset once the project has been unbundled:</p> <ul style="list-style-type: none"> ○ Asset description; ○ Original cost; ○ Capital suspense account; ○ WIP Asset code; ○ Expected useful life; ○ Acquisition date (Equal to the date of last expenditure, except retention); ○ Start depreciation date; ○ Asset Class as per Asset hierarchy <p>All unbundled capital assets must be captured spatially by geo referencing it in ESRI or Arcmap or a compatible spatial program. In doing so the replaced or upgraded capital assets must be identified.</p> <p>When a replacement or upgrade is identified, the following information must be provided, the asset code, the portion in units that is replaced or in the case of a complete replacement an indications to this extend.</p> <p>The GIS layer for as-built plans must be updated independently for the capital asset register layer. All information must be made available in electronic format to the Asset and IT section</p> <p>Find below list of generic components per asset type is listed below for ROADS, but additional/ special components would however also have to be considered when unbundling assets.</p> <p style="text-align: center;">MFMA — Local Government Capital Asset Management Guideline</p> <div style="text-align: right; margin-right: 50px;"> </div> <table border="1" style="margin-left: auto; margin-right: auto; border-collapse: collapse; text-align: center;"> <thead> <tr> <th colspan="3">USEFUL LIFE IN YEARS</th> </tr> <tr> <th>MIN</th> <th></th> <th>MAX</th> </tr> </thead> <tbody> <tr> <td colspan="3">ROADS (Roads, Pavements, Bridges & Storm Water)</td> </tr> <tr> <td colspan="3">BRIDGES</td> </tr> <tr> <td colspan="3">Vehicle</td> </tr> <tr> <td></td> <td>Bridges - Concrete</td> <td>60 - 80</td> </tr> <tr> <td></td> <td>Bridges - Steel</td> <td>40 - 50</td> </tr> <tr> <td></td> <td>Bridges - Timber</td> <td>25 - 40</td> </tr> <tr> <td colspan="3">Pedestrian</td> </tr> <tr> <td></td> <td>Bridges - Concrete</td> <td>60 - 80</td> </tr> <tr> <td></td> <td>Bridges - Steel</td> <td>40 - 50</td> </tr> <tr> <td></td> <td>Bridges - Timber</td> <td>25 - 40</td> </tr> <tr> <td colspan="3">Railway</td> </tr> <tr> <td></td> <td>Bridges - Concrete</td> <td>60 - 80</td> </tr> <tr> <td></td> <td>Bridges - Steel</td> <td>40 - 50</td> </tr> <tr> <td></td> <td>Bridges - Timber</td> <td>25 - 40</td> </tr> <tr> <td colspan="3">Reinforced retaining walls</td> </tr> <tr> <td></td> <td>Earth</td> <td>10 - 15</td> </tr> <tr> <td></td> <td>Concrete</td> <td>25 - 30</td> </tr> <tr> <td></td> <td>Expansion and construction joints</td> <td>15 - 20</td> </tr> </tbody> </table> | USEFUL LIFE IN YEARS | | | MIN | | MAX | ROADS (Roads, Pavements, Bridges & Storm Water) | | | BRIDGES | | | Vehicle | | | | Bridges - Concrete | 60 - 80 | | Bridges - Steel | 40 - 50 | | Bridges - Timber | 25 - 40 | Pedestrian | | | | Bridges - Concrete | 60 - 80 | | Bridges - Steel | 40 - 50 | | Bridges - Timber | 25 - 40 | Railway | | | | Bridges - Concrete | 60 - 80 | | Bridges - Steel | 40 - 50 | | Bridges - Timber | 25 - 40 | Reinforced retaining walls | | | | Earth | 10 - 15 | | Concrete | 25 - 30 | | Expansion and construction joints | 15 - 20 |
| USEFUL LIFE IN YEARS | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| MIN | | MAX | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| ROADS (Roads, Pavements, Bridges & Storm Water) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| BRIDGES | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Vehicle | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Bridges - Concrete | 60 - 80 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Bridges - Steel | 40 - 50 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Bridges - Timber | 25 - 40 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Pedestrian | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Bridges - Concrete | 60 - 80 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Bridges - Steel | 40 - 50 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Bridges - Timber | 25 - 40 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Railway | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Bridges - Concrete | 60 - 80 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Bridges - Steel | 40 - 50 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Bridges - Timber | 25 - 40 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Reinforced retaining walls | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Earth | 10 - 15 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Concrete | 25 - 30 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Expansion and construction joints | 15 - 20 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |



| No. | Clause | Description | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
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| | | MFMA — Local Government Capital Asset Management Guideline | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | <table border="1" style="margin-left: auto; margin-right: 0;"> <thead> <tr> <th colspan="3" style="text-align: center;">USEFUL LIFE IN YEARS</th> </tr> <tr> <th style="width: 33%;">MIN</th> <th style="width: 33%;"></th> <th style="width: 33%;">MAX</th> </tr> </thead> <tbody> <tr> <td colspan="3">STORM WATER</td> </tr> <tr> <td colspan="3">Culverts</td> </tr> <tr> <td style="text-align: center;">25</td> <td style="text-align: center;">-</td> <td style="text-align: center;">40</td> </tr> <tr> <td colspan="3">Concrete</td> </tr> <tr> <td style="text-align: center;">40</td> <td style="text-align: center;">-</td> <td style="text-align: center;">60</td> </tr> <tr> <td colspan="3">Armco</td> </tr> <tr> <td style="text-align: center;">25</td> <td style="text-align: center;">-</td> <td style="text-align: center;">40</td> </tr> <tr> <td colspan="3">Drains</td> </tr> <tr> <td colspan="3">Earthworks</td> </tr> <tr> <td style="text-align: center;">80</td> <td style="text-align: center;">-</td> <td style="text-align: center;">100</td> </tr> <tr> <td colspan="3">Concrete lining</td> </tr> <tr> <td style="text-align: center;">25</td> <td style="text-align: center;">-</td> <td style="text-align: center;">50</td> </tr> <tr> <td colspan="3">Stop banks</td> </tr> <tr> <td style="text-align: center;">40</td> <td style="text-align: center;">-</td> <td style="text-align: center;">50</td> </tr> <tr> <td colspan="3">Pipes</td> </tr> <tr> <td style="text-align: center;">25</td> <td style="text-align: center;">-</td> <td style="text-align: center;">50</td> </tr> <tr> <td colspan="3">Coastal</td> </tr> <tr> <td colspan="3">Structure (Retaining walls)</td> </tr> <tr> <td style="text-align: center;">20</td> <td style="text-align: center;">-</td> <td style="text-align: center;">40</td> </tr> <tr> <td colspan="3">Piers</td> </tr> <tr> <td style="text-align: center;">60</td> <td style="text-align: center;">-</td> <td style="text-align: center;">80</td> </tr> <tr> <td colspan="3">Storm water outfalls</td> </tr> <tr> <td style="text-align: center;">60</td> <td style="text-align: center;">-</td> <td style="text-align: center;">80</td> </tr> <tr> <td colspan="3">ROADS</td> </tr> <tr> <td colspan="3">Kerb and channels</td> </tr> <tr> <td style="text-align: center;">40</td> <td style="text-align: center;">-</td> <td style="text-align: center;">50</td> </tr> <tr> <td colspan="3">Municipal roads - Asphalt surface</td> </tr> <tr> <td style="text-align: center;">10</td> <td style="text-align: center;">-</td> <td style="text-align: center;">20</td> </tr> <tr> <td colspan="3">- Asphalt layer</td> </tr> <tr> <td style="text-align: center;">30</td> <td style="text-align: center;">-</td> <td style="text-align: center;">50</td> </tr> <tr> <td colspan="3">- Concrete surface</td> </tr> <tr> <td style="text-align: center;">10</td> <td style="text-align: center;">-</td> <td style="text-align: center;">30</td> </tr> <tr> <td colspan="3">- Concrete layer</td> </tr> <tr> <td style="text-align: center;">30</td> <td style="text-align: center;">-</td> <td style="text-align: center;">50</td> </tr> <tr> <td colspan="3">- Gravel surface</td> </tr> <tr> <td style="text-align: center;">3</td> <td style="text-align: center;">-</td> <td style="text-align: center;">10</td> </tr> <tr> <td colspan="3">National roads - Asphalt surface</td> </tr> <tr> <td style="text-align: center;">10</td> <td style="text-align: center;">-</td> <td style="text-align: center;">20</td> </tr> <tr> <td colspan="3">- Asphalt layer</td> </tr> <tr> <td style="text-align: center;">30</td> <td style="text-align: center;">-</td> <td style="text-align: center;">50</td> </tr> <tr> <td colspan="3">- Concrete surface</td> </tr> <tr> <td style="text-align: center;">10</td> <td style="text-align: center;">-</td> <td style="text-align: center;">30</td> </tr> <tr> <td colspan="3">- Concrete layer</td> </tr> <tr> <td style="text-align: center;">30</td> <td style="text-align: center;">-</td> <td style="text-align: center;">50</td> </tr> <tr> <td colspan="3">- Gravel surface</td> </tr> <tr> <td style="text-align: center;">3</td> <td style="text-align: center;">-</td> <td style="text-align: center;">10</td> </tr> <tr> <td colspan="3">Provincial roads - Asphalt surface</td> </tr> <tr> <td style="text-align: center;">10</td> <td style="text-align: center;">-</td> <td style="text-align: center;">20</td> </tr> <tr> <td colspan="3">- Asphalt layer</td> </tr> <tr> <td style="text-align: center;">30</td> <td style="text-align: center;">-</td> <td style="text-align: center;">50</td> </tr> <tr> <td colspan="3">- Concrete surface</td> </tr> <tr> <td style="text-align: center;">10</td> <td style="text-align: center;">-</td> <td style="text-align: center;">30</td> </tr> <tr> <td colspan="3">ROADS</td> </tr> <tr> <td colspan="3">Kerb and channels</td> </tr> <tr> <td style="text-align: center;">40</td> <td style="text-align: center;">-</td> <td style="text-align: center;">50</td> </tr> <tr> <td colspan="3">Municipal roads - Asphalt surface</td> </tr> <tr> <td style="text-align: center;">10</td> <td style="text-align: center;">-</td> <td style="text-align: center;">20</td> </tr> <tr> <td colspan="3">- Asphalt layer</td> </tr> <tr> <td style="text-align: center;">30</td> <td style="text-align: center;">-</td> <td style="text-align: center;">50</td> </tr> <tr> <td colspan="3">- Concrete surface</td> </tr> <tr> <td style="text-align: center;">10</td> <td style="text-align: center;">-</td> <td style="text-align: center;">30</td> </tr> <tr> <td colspan="3">- Concrete layer</td> </tr> <tr> <td style="text-align: center;">30</td> <td style="text-align: center;">-</td> <td style="text-align: center;">50</td> </tr> <tr> <td colspan="3">- Gravel surface</td> </tr> <tr> <td style="text-align: center;">3</td> <td style="text-align: center;">-</td> <td style="text-align: center;">10</td> </tr> <tr> <td colspan="3">National roads - 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| 40 | Concrete | | | 40 | - | 60 | Armco | | | 25 | - | 40 | Drains | | | Earthworks | | | 80 | - | 100 | Concrete lining | | | 25 | - | 50 | Stop banks | | | 40 | - | 50 | Pipes | | | 25 | - | 50 | Coastal | | | Structure (Retaining walls) | | | 20 | - | 40 | Piers | | | 60 | - | 80 | Storm water outfalls | | | 60 | - | 80 | ROADS | | | Kerb and channels | | | 40 | - | 50 | Municipal roads - Asphalt surface | | | 10 | - | 20 | - Asphalt layer | | | 30 | - | 50 | - Concrete surface | | | 10 | - | 30 | - Concrete layer | | | 30 | - | 50 | - Gravel surface | | | 3 | - | 10 | National roads - Asphalt surface | | | 10 | - | 20 | - Asphalt layer | | | 30 | - | 50 | - Concrete surface | | | 10 | - | 30 | - Concrete layer | | | 30 | - | 50 | - Gravel surface | | | 3 | - | 10 | Provincial roads - Asphalt surface | | | 10 | - | 20 | - Asphalt layer | | | 30 | - | 50 | - Concrete surface | | | 10 | - | 30 | ROADS | | | Kerb and channels | | | 40 | - | 50 | Municipal roads - Asphalt surface | | | 10 | - | 20 | - Asphalt layer | | | 30 | - | 50 | - Concrete surface | | | 10 | - | 30 | - Concrete layer | | | 30 | - | 50 | - Gravel surface | | | 3 | - | 10 | National roads - Asphalt surface | | | 10 | - | 20 | - Asphalt layer | | | 30 | - | 50 | - Concrete surface | | | 10 | - | 30 | - Concrete layer | | | 30 | - | 50 | - Gravel surface | | | 3 | - | 10 | Provincial roads - Asphalt surface | | | 10 | - | 20 | - Asphalt layer | | | 30 | - | 50 | - Concrete surface | | | 10 | - | 30 |
| USEFUL LIFE IN YEARS | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| MIN | | MAX | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| STORM WATER | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Culverts | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
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| Drains | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Earthworks | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
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| Concrete lining | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
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| - Concrete surface | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
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| - Concrete layer | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
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| - Gravel surface | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
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| Provincial roads - Asphalt surface | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
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| - Asphalt layer | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
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| - Concrete surface | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
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| No. | Clause | Description | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
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| | | <table border="1" style="margin-left: auto; margin-right: 0;"> <thead> <tr> <th colspan="3" style="text-align: center;">USEFUL LIFE IN YEARS</th> </tr> <tr> <th style="width: 33%;">MIN</th> <th style="width: 33%;">-</th> <th style="width: 33%;">MAX</th> </tr> </thead> <tbody> <tr> <td style="text-align: center;">30</td> <td style="text-align: center;">-</td> <td style="text-align: center;">50</td> </tr> <tr> <td style="text-align: center;">3</td> <td style="text-align: center;">-</td> <td style="text-align: center;">10</td> </tr> <tr> <td style="text-align: center;">10</td> <td style="text-align: center;">-</td> <td style="text-align: center;">30</td> </tr> <tr> <td style="text-align: center;">30</td> <td style="text-align: center;">-</td> <td style="text-align: center;">60</td> </tr> <tr> <td style="text-align: center;">15</td> <td style="text-align: center;">-</td> <td style="text-align: center;">20</td> </tr> <tr> <td style="text-align: center;">10</td> <td style="text-align: center;">-</td> <td style="text-align: center;">15</td> </tr> <tr> <td style="text-align: center;">10</td> <td style="text-align: center;">-</td> <td style="text-align: center;">20</td> </tr> <tr> <td style="text-align: center;">15</td> <td style="text-align: center;">-</td> <td style="text-align: center;">30</td> </tr> <tr> <td style="text-align: center;">25</td> <td style="text-align: center;">-</td> <td style="text-align: center;">40</td> </tr> <tr> <td style="text-align: center;">40</td> <td style="text-align: center;">-</td> <td style="text-align: center;">50</td> </tr> <tr> <td style="text-align: center;">40</td> <td style="text-align: center;">-</td> <td style="text-align: center;">50</td> </tr> <tr> <td style="text-align: center;">15</td> <td style="text-align: center;">-</td> <td style="text-align: center;">20</td> </tr> <tr> <td style="text-align: center;">10</td> <td style="text-align: center;">-</td> <td style="text-align: center;">15</td> </tr> <tr> <td style="text-align: center;">5</td> <td style="text-align: center;">-</td> <td style="text-align: center;">15</td> </tr> <tr> <td style="text-align: center;">20</td> <td style="text-align: center;">-</td> <td style="text-align: center;">30</td> </tr> </tbody> </table> | USEFUL LIFE IN YEARS | | | MIN | - | MAX | 30 | - | 50 | 3 | - | 10 | 10 | - | 30 | 30 | - | 60 | 15 | - | 20 | 10 | - | 15 | 10 | - | 20 | 15 | - | 30 | 25 | - | 40 | 40 | - | 50 | 40 | - | 50 | 15 | - | 20 | 10 | - | 15 | 5 | - | 15 | 20 | - | 30 |
| USEFUL LIFE IN YEARS | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| MIN | - | MAX | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
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| 30 | - | 60 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
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| 15 | - | 30 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 25 | - | 40 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 40 | - | 50 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 40 | - | 50 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 15 | - | 20 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 10 | - | 15 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 5 | - | 15 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 20 | - | 30 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | <ul style="list-style-type: none"> - Concrete layer - Gravel surface Crash barriers Retaining walls Overload control centres <li style="padding-left: 20px;">Electronic hardware <li style="padding-left: 20px;">Other equipment Pedestrian footpaths Street lighting Subways Traffic islands Traffic lights Traffic lights – coastal Traffic signs Toll road plazas | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |



C1.2b Contract Data

Data provided by the Contractor

| No. | Clause | Description |
|-----|-----------------------|---|
| 1 | 1.1.1.9 1.2.1.2 | The Contractor is: The Contractor's address for receipt of communications and notices is : Telephone: Facsimile: Address (Postal) : Address (Physical) : |
| 2 | 6.4.1.3, 6.5.1.2.3 | The percentage allowance to cover mark-up charges (incl. profit and overheads) is 7.5% |



C1.3 Form of Guarantee for Construction

PERFORMANCE GUARANTEE

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

GUARANTOR DETAILS AND DEFINITIONS

“Guarantor” means:

Physical address:

“Employer” means:

“Contractor” means:

“Employer’s Agent” means:

“Works” means:

“Site” means:

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

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

Amount in words:

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

Amount in words:

Type of Performance Guarantee: Fixed

“Expiry Date” means: Date of issue of the Certificate of Completion



CONTRACT DETAILS

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

1. FIXED PERFORMANCE GUARANTEE

- 1.1. Where a fixed PERFORMANCE Guarantee has been selected. The Guarantor's liability shall be limited to the amount of the Guarantee Sum.
- 1.2. The Guarantor's period of liability shall be from and including the date on which the Performance Guarantee is signed, up to and including the Expiry Date, or the date of issue by the Employer's Agent of the Certificate of Completion of the Works, or the date of payment in full of the Guaranteed Sum, whichever occurs first.
- 1.3. The Employer's Agent and/or the Employer shall advise the Guarantor in writing of the date on which the Certificate of Completion of the Works has been issued.

2. CONDITIONS APPLICABLE TO FIXED PERFORMANCES GUARANTEES:

- 2.1. The Guarantor hereby acknowledges that:
 - 2.1.1. Any reference in this Performance Guarantee to the Contract is made for the purpose of convenience and shall not be constructed as any intention whatsoever to create an accessory obligation or any intention whatsoever to create a suretyship.
 - 2.1.2. Its obligation under this Performance Guarantee is restricted to the payment of money.
- 2.2. Subject to the Guarantor's maximum liability referred to in 1.1, the Guarantor hereby undertakes to pay the Employer the sum certified upon receipt of the documents identified in 2.2.1 to 2.2.3:
 - 2.2.1. A copy of a first written demand issued by the Employer to the Contractor stating that payment of a sum certified by the Employer's Agent in an Interim or Final Payment Certificate has not been made in terms of the Contract and failing such payment within seven (7) calendar days, the Employer intends to call upon the Guarantor to make payment in terms of 2.2.2;
 - 2.2.2. A first written demand issued by the Employer to the Guarantor at the Guarantor's physical address with a copy to the Contractor stating that a period of seven (7) days has elapsed since the first written demand in terms of 2.2.1 and the sum certified has still not been paid;
 - 2.2.3. A copy of the aforesaid payment which entitles the Employer to receive payment in terms of the Contract of the sum certified in 2.2.
- 2.3. Subject to the Guarantor's maximum liability referred to in 1.1, the Guarantor undertakes to pay to the Employer the Guaranteed Sum or the full outstanding balance upon receipt of a first written demand from the Employer to the Guarantor at the Guarantor's physical address calling up this Performance Guarantee, such demand stating that:
 - 2.3.1. The Contract has been terminated due to the Contractor's default and that this Performance Guarantee is called up in terms of 2.3; or
 - 2.3.2. A provisional or final sequestration or liquidation court order has been granted against the Contractor and that the Performance Guarantee is called up in terms of 2.3; and
 - 2.3.3. The aforesaid written demand is accompanied by a copy of the notice of termination and/or the provisional/final sequestration and/or the provision liquidation court order.
- 2.4. It is recorded that the aggregate amount of payments required to be made by the Guarantor in terms of 2.2 and 2.3 shall not exceed the Guarantor's maximum liability in terms of 1.1.
- 2.5. Where the Guarantor has made payment in terms of 2.3, the Employer shall upon the date of issue of the Final Payment Certificate submit an expense account to the Guarantor showing how all monies received in terms of this Performance Guarantee have been expended and shall refund to the Guarantor any resulting surplus. All monies refunded to the Guarantor in terms of the Performance Guarantee shall bear interest at the prime overdraft rate by the Employer's Bank compounded monthly and calculated from the date payment was made by the Guarantor to the Employer until the date of refund.
- 2.6. Payment by the Guarantor in terms of 2.2 or 2.3 will only be made within seven (7) calendar days upon receipt of the first written demand to the Guarantor.



-
- 2.7. Payment by the Guarantor in terms of 2.3 will only be made against the return of the original Performance Guarantee by the Employer.
 - 2.8. The Employer shall have the absolute right to arrange his affairs with the Contractor in any manner which the Employer may consider fit and the Guarantor shall not have right to claim his from this Performance Guarantee on account of any conduct alleged to be prejudicial to the Guarantor.
 - 2.9. The Guarantor chooses the physical address as stated above for the service of all notices for all purposes in connection herewith.
 - 2.10. This Performance Guarantee is neither negotiable nor transferable and shall expire in terms of 1.2, where after no claims will be considered by the Guarantor. The original of this Guarantee shall be returned to the Guarantor after it has expired.
 - 2.11. This Performance Guarantee, with the required demand notices in terms of 2.2 or 2.3, shall be regarded as a liquid document for the purposes of obtaining a court order.
 - 2.12. Where the Performance Guarantee is issued in the Republic of South Africa the Guarantor hereby consents in terms of Section 45 of the Magistrate's Courts Act No 32 of 1944, as amended, to the jurisdiction of the Magistrate's Court of any district having jurisdiction in terms of Section 28 of the said Act of section 28 of the said Act, notwithstanding that the amount of the claim may exceed the jurisdiction of the magistrate's Court.

Signed at

Date

Guarantor's signatory (1)

Capacity

Guarantor's signatory (2)

Capacity

Witness signatory (1)

Witness signatory (2)



C1.4 Occupational Health and Safety Agreement

TO BE COMPLETED ON AWARD OF CONTRACT

AGREEMENT MADE AND ENTERED INTO BETWEEN THE STELLENBOSCH MUNICIPALITY (HEREINAFTER CALLED THE "EMPLOYER") AND

.....
(Contractor/Mandatory/Company/CC Name)

IN TERMS OF SECTION 37(2) OF THE OCCUPATIONAL HEALTH AND SAFETY ACT, 85 OF 1993 AS AMENDED.

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

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

COID ACT Registration Number:

OR Compensation Insurer: Policy No.:

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

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

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

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

Signed at on the day of 20....

Witness

Mandatory

Signed at on the day of 20

Witness

for and on behalf of
STELLENBOSCH MUNICIPALITY



C1.5 Protection of the Environment Declaration

TO BE COMPLETED ON AWARD OF CONTRACT

The Contractor will not be given right of access to the Site until this form has been signed

CONTRACT NO.: B/SM XXX/23

CONTRACT TITLE: EERSTE RIVER FLOOD REHABILITATION STRUCTURES - AGRICULTURAL HALL

I/ we,.....{Contractor} record as follows:

1. I/ we, the undersigned, do hereby declare that I/ we am/ are aware of the increasing requirement by society that construction activities shall be carried out with due regard to their impact on the environment.
2. In view of this requirement of society and a corresponding requirement by the Employer with regard to this Contract, I/ we will, in addition to complying with the letter of the terms of the Contract dealing with protection of the environment, also take into consideration the spirit of such requirements and will, in selecting appropriate employees, plant, materials and methods of construction, in-so-far as I/ we have the choice, include in the analysis not only the technical and economic (both financial and with regard to time) aspects but also the impact on the environment of the options. In this regard, I/ we recognise and accept the need to abide by the "precautionary principle" which aims to ensure the protection of the environment by the adoption of the most environmentally sensitive construction approach in the face of uncertainty with regard to the environmental implications of construction.
3. I/ we declare that I/ we have read and understood the contents of the Environmental Management Programme (which is comprised of the Environmental Management Specification and its Annexures) for this Contract, and that I/ we understand my/our responsibilities in terms of enforcing and implementing the Environmental Management Programme. I/ we also declare that I/ we have made appropriate provision in my/ our pricing of the Bills of Quantities items for the Environmental Management Programme.
4. I/ we acknowledge and accept the right of the Employer to deduct, should he so wish, from any amounts due to me/ us, such amounts (hereinafter referred to as fines) as the Employers Agent shall certify as being warranted in view of my/ our failure to comply with the terms of the Contract dealing with protection of the environment, subject to the following:
 - 4.1 The Employers Agent, in determining the amount of such fine, shall take into account, *inter alia*, the nature of the offence, the seriousness of its impact on the environment, the degree of prior compliance/non-compliance, the extent of the Contractor's overall compliance with environmental protection requirements and, in particular, the extent to which he considers it necessary to impose a sanction in order to eliminate/reduce future occurrences
 - 4.2 The Employers Agent shall, with respect to any fine imposed, provide me/ us with a written statement giving details of the offence, the facts on which the Employers Agent has based his assessment and the terms of the Contract (by reference to the specific clause) which has been contravened.

Signed Date.....
 CONTRACTOR



C1.6 Insurance Broker's Warranty

TO BE COMPLETED ON AWARD OF CONTRACT

Pro Forma



Letterhead of Contractor's Insurance Broker

Date _____

STELLENBOSCH MUNICIPALITY
PO Box 17
Stellenbosch
7600

Dear Sir

CONTRACT NO.: **B/SM XXX/23**

CONTRACT TITLE: **EERSTE RIVER FLOOD REHABILITATION STRUCTURES - AGRICULTURAL HALL**

NAME OF CONTRACTOR: _____

I, the undersigned, do hereby confirm and warrant that all the insurances required in terms of the abovementioned contract have been issued and/or in the case of blanket/umbrella policies, have been endorsed to reflect the interests of the Stellenbosch Municipality with regard to the abovementioned contract, and that all the insurances and endorsements, etc., are all in accordance with the requirements of the contract.

I furthermore confirm that all premiums in the above regard have been paid.

Yours faithfully

Signed: _____

For: _____



Part C2: Pricing Data

| | Pages |
|--------------------------------------|------------------|
| C2.1 Pricing Assumptions..... | 108 - 109 |
| C2.2 Bills of Quantities..... | 110 - 114 |



1. C2.1 Pricing Assumptions

C2.1.1 Measurement and payment shall be in accordance with the relevant provisions of the COLTO Standard Specification for Road and Bridge Works for State Road Authorities (1998 edition) as amended in the Scope of Works.

C2.1.2 The units of measurement described in the Pricing Schedule are metric units. Abbreviations used in the Pricing Schedule are as follows:

| | | |
|----------------------|---|-----------------------|
| % | = | percent |
| h | = | hour |
| ha | = | hectare |
| kg | = | kilogram |
| kl | = | kilolitre |
| km | = | kilometre |
| km-pass | = | kilometre-pass |
| kPa | = | kilopascal |
| kW | = | kilowatt |
| l | = | litre |
| m | = | metre |
| mm | = | millimetre |
| m ² | = | square metre |
| m ² -pass | = | square metre-pass |
| m ³ | = | cubic metre |
| m ³ -km | = | cubic metre-kilometre |
| MN | = | meganewton |
| MN.m | = | meganewton-metre |
| MPa | = | megapascal |
| No. | = | number |
| Prov sum | = | Provisional sum |
| PC Sum | = | Prime Cost sum |
| R/only | = | Rate only |
| sum | = | lump sum |
| t | = | ton (1000kg) |
| W/day | = | Work day |

C2.1.3 For the purpose of the Pricing Schedule, the following words shall have the meanings assigned to them:

| | |
|-------------|---|
| Unit: | The unit of measurement for each item of work as defined in the COLTO Standard Specification for Road and Bridge Works for State Road Authorities (1998 edition). |
| Quantity: | The number of units of work for each item. |
| Rate: | The payment per unit of work for which the Service Provider 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 Pricing Schedule, the Scope of Work or elsewhere, but of which the quantity of work is not measured in units. |
| Prime cost: | Is a specific type of Provisional Sum where payment is made on the production of invoices showing the cost price of the implementation or installation of the service required. Services rendered in this manner carry a mark-up for which a rate is offered at tender stage to cover all the tenderer's handling, supervision and liability costs in providing the item or services. Any percentage adjustment or lump sum mark-up against the Prime cost for handling fee, profits, etc. shall not be negative. |



| | |
|---------|---|
| | <p>Provisional Sum: Means a sum (if any) which is specified in the contract as a provisional sum, for the execution of any part of the works or the supply of plant, materials or services under sub-clause 13.5 (Provisional sums). Any percentage adjustment or lump sum mark-up against the Provisional Sum for handling fee, profits, etc. shall not be negative.</p> |
| C2.1.4 | <p>Unless otherwise stated, items are measured net in accordance with the drawings, and no allowance is made for waste.</p> |
| C2.1.5 | <p>It will be assumed that prices included in the bills of quantities are based on Acts, Ordinances, Regulations, By-laws, International Standards and National Standards that were published 28 days before the closing date for tenders. (Refer to www.sabs.co.za for information standards)</p> |
| C2.1.6 | <p>The prices and rates in the Pricing Schedule are fully inclusive prices for the work described under the items. Such prices and rates cover all costs and expenses that may be required in and for the execution of the work described in accordance with the provisions of the Scope of Work, and shall cover the cost of all general risks, liabilities and obligations set forth or implied in the Contract Data, as well as overhead charges and profit. These prices will be used as a basis for assessment of payment for additional work that may have to be carried out. A complete breakdown of all rates in electronic format (Excel) on a separate CD must be submitted with the completed pricing schedule. The rates are to be clearly referenced to the relevant pay item numbers, with each rate broken down into its labour, materials, plant, fuel, overhead charges and profit components.</p> |
| C2.1.7 | <p>Where the Scope of Work requires detailed drawings and designs or other information to be provided, all costs associated therewith are deemed to have been provided for and included in the unit rates and sum amount tendered such items.</p> |
| C2.1.8 | <p>An item against which no price is entered will be considered to be covered by the other prices or rates in the Pricing Schedule. A single lump sum will apply should a number of items be grouped together for pricing purposes.</p> |
| C2.1.9 | <p>The quantities set out in the Pricing Schedule are approximate and do not necessarily represent the actual amount of work to be done. The quantities of work accepted and certified for payment will be used for determining payments due and not the quantities given in the Pricing Schedule.</p> |
| C2.1.10 | <p>Reasonable compensation will be received where no pay item appears in the Pricing Schedule in respect of work required in terms of the Contract and which is not covered in any other pay item.</p> |
| C2.1.11 | <p>The short descriptions of the items of payment given in the Pricing Schedule are only for the purposes of identifying the items. More details regarding the extent of the work entailed under each item appear in the Scope of Work.</p> |
| C2.1.12 | <p>The item numbers appearing in the Pricing Schedule refer to the corresponding item numbers in the COLTO Standard Specification for Road and Bridge Works for State Road Authorities (1998 edition)</p> |
| C2.1.13 | <p>The pricing schedules are provided electronically on the Compact Disc. A printout of the entire completed pricing schedule must be signed and attached to the tender as well as an electronic copy of the priced pricing schedule together with the breakdown of rates. In the event of any discrepancy between the signed printed copy, and the electronically submitted copy, the tender rates in the signed copy will govern. The item numbers and description of the PDF document will govern. For all addenda issued relating to the pricing schedule, the item numbers, description and quantities of the issued document will govern.</p> |



C2.2 Bills of Quantities

Bid specifications may not make any reference to any particular trade mark, name, patent, design, type, specific origin or producer, unless there is no other sufficiently precise or intelligible way of describing the characteristics of the work, in which case such reference must be accompanied by the words "or equivalent".



Schedule:

| Number | Item Description | Unit | Quantity | Rate (ex VAT) | Amount R (ex VAT) |
|-----------|--|----------------|----------|---------------|-------------------|
| 13.01 | CONTRACTORS ESTABLISHMENT ON SITE AND GENERAL OBLIGATIONS | | | | |
| B13.01.01 | Contractor's general obligations | | | | |
| | (a) Fixed obligations | L/Sum | 1.0 | | |
| | (b) Value-related obligations | L/Sum | 1.0 | | |
| | (c) Time-related obligations | Month | 4.0 | | |
| 51.00 | PITCHING, STONEMASONRY AND PROTECTION AGAINST EROSION | | | | |
| B51.01 | Stone pitching: | | | | |
| | (a) Grouted stone pitching on a concrete foundation | | | | |
| | (i) Stone pitching layer 150mm thick, from insitu rock material. Bat ties shot fixed to RC walls at 600mm centers both directions and built into stone masonry cladding. | m ² | 270 | | |
| 51.04 | Concrete pitching and block paving | | | | |
| | (a) Prefabricated concrete paving blocks for sidewalk pavement | | | | |
| | (i) 100 mm thick | m ² | 195 | | |
| 52.00 | GABIONS | | | | |
| 52.03 | Gabions: | | | | |
| | (a) Galvanized gabion boxes | | | | |
| | (i) 1 x 1x1 m Gabions- 3.5mm galvanised wire | m ³ | 65 | | |
| 58.00 | LANDSCAPING AND PLANTING PLANTS | | | | |
| 58.03 | Preparing the areas for grassing: | | | | |
| | (i) Topsoil obtained from other sources by the contractor (including all haul) | m ³ | 50 | | |



| | | | | | |
|--------|--|--|--|-------|--|
| 58.04 | Grassing: (f) Handsowing | m ² | 60 | | |
| 58.09 | Trees and shrubs: (b) Planting and establishing: (i) Trees (ii) Shrubs | No No | 3 20 | | |
| 58.10 | Extra work for landscaping | Prov sum | 1.0 | 20000 | |
| 61.00 | FOUNDATIONS FOR STRUCTURES | | | | |
| 61.02 | Excavation: (a) Excavating soft material situated within the following successive depth ranges: (i) 0 m up to 2 m (ii) Exceeding 2 m and up to 4 m (iii) Exceeding 4 m and up to 6 m (b) Extra over sub-item 61.02(a) for excavation in hard material irrespective of depth (c) Extra over subitem 61.02(a) for additional excavation required by the engineer after the excavation has been completed (d) Extra over subitem 61.02(a) for excavation by hand | m ³ m ³ m ³ m ³ m ³ | 250 190 1 44 44 484 | | |
| B61.03 | Access and drainage: (a) Access (b) Drainage where no access has been provided (c) Additional Lateral support | L/sum L/sum L/sum | 1 1 1 | | |
| 61.04 | Backfill to excavations utilising: (a) Material from the excavation (b) Imported material- G5 Material compacted as specified on Drawing 6005-ST-CO-001 | m ³ m ³ | 90 515 | | |
| 61.05 | Fill within a restricted area (extra over item 33.01) | m ³ | 605 | | |



| | | | | | |
|--------|---|--------------------|--------|--|--|
| 61.06 | Overhaul in excess of 1,0 km on excavated material and on material imported for backfill, foundation fill and fill for caissons | m ³ -km | 15 000 | | |
| 61.08 | Foundation fill consisting of: | | | | |
| | (a) Mass concrete Class 15/19 - As instructed by Engineer | m ³ | 25 | | |
| | (b) Concrete screed Class 15/19 100 mm thick | m ³ | 26 | | |
| 61.13 | Dowel bars | | | | |
| | (a) High tensile bars | | | | |
| | (i) 25mm diam 0.6m length | kg | 535 | | |
| 62.00 | FALSEWORK, FORMWORK AND CONCRETE FINISH | | | | |
| 62.02 | Vertical formwork to provide : | | | | |
| | (a) Class F1 Finish to | | | | |
| | (i) Foundations | m ² | 80 | | |
| | (ii) Walls | m ² | 266 | | |
| | (a) Class F2 Finish to | | | | |
| | (i) Walls | m ² | 345 | | |
| B62.09 | Unformed Surafces | | | | |
| | b) Steel Floated finish- Class U3 | | | | |
| | i) Top of walls | m ² | 1 | | |
| 63.00 | STEEL REINFORCEMENT FOR STRUCTURES | | | | |
| 63.01 | Steel reinforcement for: | | | | |
| | (i) Mild steel bars | | | | |
| | (a) Foundations | t | 0.4 | | |
| | (b) Walls | t | 0.1 | | |
| | (ii) High yield stress steel bars (Type C) | | | | |
| | (a) Foundations | t | 9 | | |
| | (b) Walls | t | 11 | | |
| 64.00 | CONCRETE FOR STRUCTURES | | | | |
| 64.01 | Cast in situ concrete: | | | | |
| | (a) Class 30/19 | | | | |
| | (i) Foundations | m ³ | 75 | | |



| | | | | | |
|--------|---|----------------|-----|--|---|
| | (ii) Walls | m ³ | 95 | | |
| 66.00 | NO-FINES CONCRETE, JOINTS, BEARINGS, BOLT GROUPS FOR ELECTRIFICATION, PARAPETS AND DRAINAGE FOR STRUCTURES | | | | |
| B66.05 | Expansion joints: | | | | |
| | (a) EJ (as per Detail on Drawings 6005-ST-CO-001) | m | 106 | | |
| | (b) Dowel bars chemically anchored to existing stone walls (as per Detail on Drawings 6005-ST-CO-001) | No. | 12 | | |
| B66.19 | Drainage pipes and weepholes: | | | | |
| | (a) Drainage pipes: | | | | |
| | 65mm Dia perforated subsoil drain wrapped in Bidim encased in 400x400 19mm stone blanket, wrapped in bidim (Grade A2)- Along length of wall, at the back face (as per Drawing 6005-ST-CO-001) | m | 63 | | |
| | (b) Weep holes: | | | | |
| | (i) 50mm dia. thermo-plastic pipe in walls, at 1.5m centers | No. | 42 | | |
| A | Total amount before VAT | | | | R |
| B | 10% Contingency fees | | | | R |
| | Total of A and B | | | | R |
| | 15% VAT | | | | R |
| | Total amount after VAT | | | | |
| | (Carried this amount over to the Form of Offer and Acceptance) on Page 87 | | | | |
| | | | | | |



| | |
|--|--|
| | |
|--|--|

DECLARATION (In respect of completeness of Tender)

STELLENBOSCH MUNICIPALITY
PO Box 17
Stellenbosch
7600

I/we, the undersigned, do hereby declare that these are the properly priced Bills of Quantities forming Part C2.2 of this Contract Document containing 115 pages in consecutive order upon which my/our tender for **CONTRACT B/SM 27/24 : EERSTE RIVER FLOOD REHABILITATION STRUCTURES - AGRICULTURAL HALL** have been based. If I/we have submitted a printed version of the Bills of Quantities, I/we warrant that no amendments have been made to it from the original, other than amendments issued in any Addenda in terms of Clause C.3.2 in Part T1.2 Tender Data.

SIGNATURE OF TENDERER/S

DATE



PART C3: SCOPE OF WORK

| | Page |
|--|-------------|
| C3.1 Description of the Works | 117 |
| C3.2 Engineering | 122 |
| C3.3 Procurement | 123 |
| C3.4 Construction | 124 |
| C3.5 Management | 200 |
| C3.6 Annexes | |

Status

Should any requirement or provision in the parts of the Scope of Work conflict with any requirement of any Standardised Specification, or any drawings, the order of precedence, unless otherwise specified, is:

Drawings
Scope of Work (Parts C3.1, C3.4, C3.5 and C3.6)
Model Preambles for Trades 2008



C3.1 DESCRIPTION OF THE WORKS

CONTENTS

- 3.1.1 EMPLOYER'S OBJECTIVES
- 3.1.2 OVERVIEW OF THE WORKS
- 3.1.3 EXTENT OF THE WORKS
- 3.1.4 LOCATION OF THE WORKS
- 3.1.5 TEMPORARY WORKS

C3.1.1 EMPLOYER'S OBJECTIVES

The Stellenbosch Municipality's objective is to repair flood damage on the Eerste River where the damage endangers continued use of municipal infrastructure. The main areas under this contract are listed below:

- The underpinning and protection of the historic Agricultural Building where the recent flood demolished the stone-pitch retaining wall and exposed the foundation.

The description of the project contained in the Scope of Work is merely an outline of the Contract Works and shall not limit the work to be carried out by the Contractor under this Contract.

C3.1.2 OVERVIEW OF THE WORKS

C3.1.2.1 General Description

The completed flood repairs will be to repair flood damage in a "like-for-like" manner to be within the existing river management plan.

The construction activities essentially comprise but are not limited to the following:

3.1.2.2 Repair of flood damaged foundation of the historic Farm Hall Building on Eerste River north bank.

- Construct coffer channeling along riverbed to divert summer low flows to the south bank.
- Support exposed building foundation to prevent any failures during construction activities.
- Construct stepped foundation underpinning as per drawings.
- Construct new reinforced concrete retaining wall.
- Clad retaining wall with stone-pitching to match existing downstream stone pitch wall.
- Install gabions along foundation.
- Reinstate riverbed.
- Finish top of fill with segmented paving.
- Accommodation and management of traffic during construction.

C3.1.2.3 Key Activities

The general scope of works includes but is not limited to the following:

- Photographical record of the current state of existing road, bridge, heritage components, and built infrastructure adjacent to the site.
- Site Establishment and de-establishment.
- Clearing the site.
- Obtaining of all necessary wayleaves and working permits.
- Obtaining all necessary approvals for traffic accommodation of the Works.
- Verifying the location and protection of existing services.
- Survey to check controls.
- Method statements for connecting new works to existing works
- Traffic accommodation to construct road works
- Installing underground services and ancillary works
- Method statements and design details for construction of temporary works
- Method statements and design details for construction lateral support systems
- Method statements for all significant bridge construction activities
- Storm water management of the site
- Construct flood/slope protection works;

- Dust and construction debris control (i.e. ensuring road surfaces are kept clean of construction spillage and debris).

C3.1.2.6 Location of the works

Figure 3.1 indicates the location of the Agricultural Hall Building, Eerste River inside Stellenbosch Municipal area.

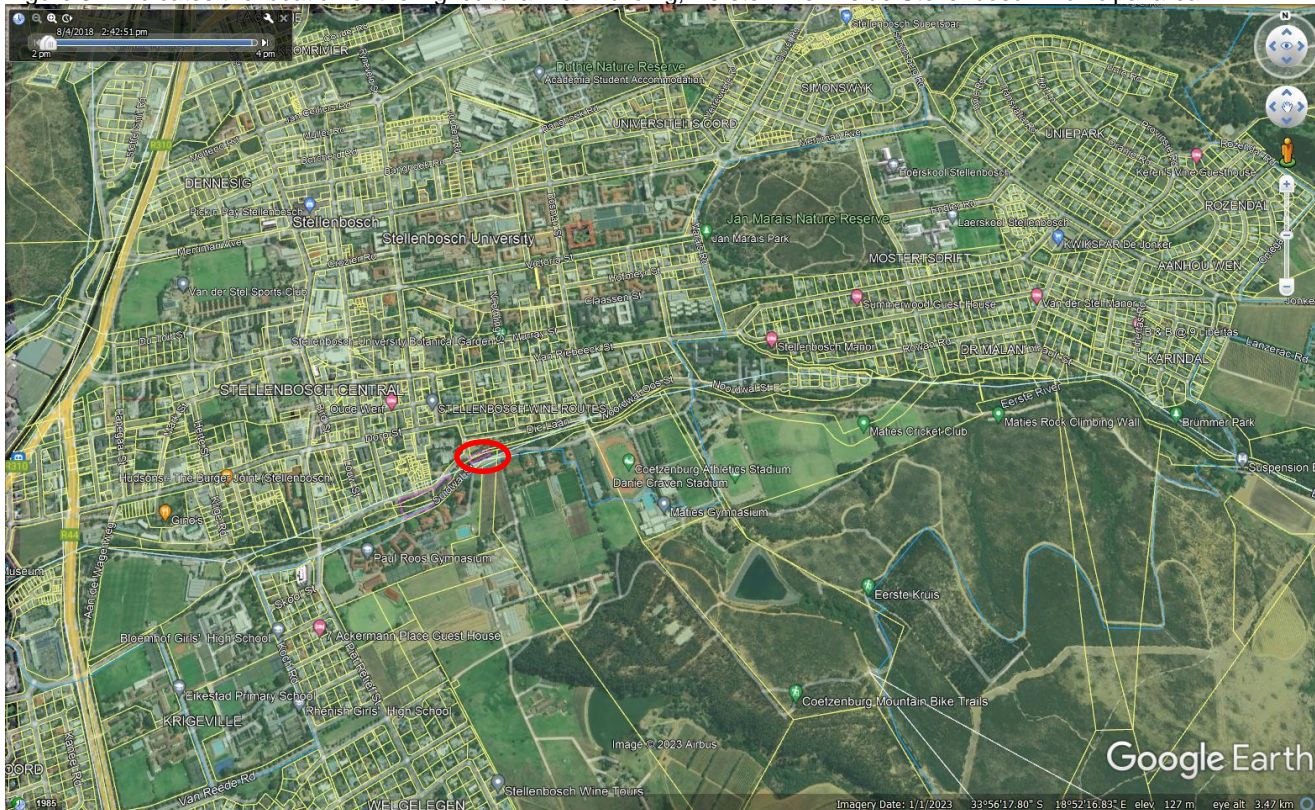


Figure 3.1: Site location (Google Earth)

C3.1.2.7 Boundaries of the site

The successful tenderer(s) will be required to work within the existing river bed, within the boundaries of the Stellenbosch municipal area as indicated on the layout drawing.

C3.1.2.8 Occupation of the site

Access to the site will be given to the Contractor on the Commencement Date of the Works.

The site of the works is on public open space and public roads, which will remain in use during the work. No road may be closed, and traffic shall be accommodated.

C3.1.3 EXTENT OF THE WORKS

Work that is to be carried out under the Contract is as provided for in the Bill of Quantities. However, if during construction conditions are found to differ from those anticipated, the Municipality reserves the right to modify the extent of the work to suit the prevailing conditions and circumstances. Variations introduced in this manner will be measured and paid for at the rates tendered for appropriate items listed elsewhere in the Schedule of Quantities or in the absence of such rates, as extra work.

The work to be undertaken by the Contractor shall include the following:

C3.1.3.1 Accommodation of Existing Services

There could be several services that are located adjacent to the construction sites and will need to be accommodated during construction. The Contractor will apply for wayleaves with the responsible service provider timeously, so that the relocation of services does not impact on the Works. The Contractor will include provision for all activities related to the accommodation of services in his programme.

Prior to any excavation by machine, the Contractor shall make every effort to obtain all relevant drawings, indicating the position of potential existing services. Where any live existing services are anticipated, the Contractor shall be expected to

excavate by hand to expose all such services and confirm location before commencing any work in their vicinity all in accordance with approved wayleaves. Care shall be taken by the Contractor to protect all existing services, unless they are confirmed to be abandoned or will be replaced as part of this project.

If any known existing service is damaged, that should have been located or protected by the Contractor, the Contractor shall be required to carry the cost of the repair of that service.

C3.1.3.2 Temporary Works

(a) General

A photographic survey of existing infrastructure, that could be impacted by construction activities, must be concluded before any construction plant / equipment is established onto site. This record will serve as proof of the state of the existing infrastructure pre-construction. Any damages to the road pavement, buildings, electrical mini sub, services, etc. will be repaired by the Contractor at their own cost.

The Contractor is also responsible to provide to the Employer's Agent a detailed survey of the installed services in electronic format (dwg format) before the issuing of the Works Completion Certificate. Failing to issue the aforesaid data will delay the issuing of the Works Completion Certificate.

(b) Heritage Considerations

In addition, the Heritage report containing structure measurements, construction details, and photographic records of existing structural elements should be completed, submitted.

(c) Design of temporary falsework, formwork, pre-cast beam installation etc.

The Contractor is responsible for the design of all temporary works on site.

All temporary work designs shall be performed by an ECSA-registered Professional Engineer or Technologist with the relevant experience in accordance with the appropriate specifications and codes. The temporary works shall be executed in accordance with the provisions of the Occupational Health and Safety Act and the Construction Regulations.

All temporary works so designed shall be finally inspected and signed-off by the Contractor's Competent Person, who shall be an ECSA-registered Professional Engineer or Technologist with the relevant experience, before the permanent works commence.

C3.1.3.3 Accommodation of traffic

Traffic impacted on this project:

- Pedestrian bridge downstream of the Agricultural Hall building.
- The above traffic need to be managed and kept active at all stages.

C3.1.3.4 Roadworks

(a) Road geometry

None

(b) Existing Pavement Layers

None

C3.1.3.5 Structural Works

The construction work will be done to accommodate traffic. Note specific traffic peak early morning and at the end of normal business day.

C3.1.3.6 Heritage Aspects

Heritage aspect to take note off:

- The Agricultural Hall is a historic building.
- Finishing of retaining walls to match existing along river.
- Protection of existing trees.

C3.1.3.7 Stormwater

- (a) Drainage to accommodate:
- Manage existing river summer flow.
 - Stormwater pipe inlets
 - Inlet headwalls and wingwalls
 - Discharge chutes
 - Drainage channels
 - Subsurface drains
- (b) Erosion protection
- Gabions
 - Stone pitching

C3.1.3.8 Ancillary Works

- (a) Road Markings and road signs

None.

- (b) Street Lighting

None.

- (c) Pedestrian Walkways

Pedestrian walkways to be constructed to match existing and as per drawings.

C3.1.3.9 Construction Constraints

The main construction constraints are:

- Working in partial widths and limited road closures.
- Working in close proximity to vehicular and pedestrian traffic
- Property accesses will need to be maintained at all times.
- Working in close proximity to protected trees.

C3.1.4 CONTRACTOR'S CAMP SITE, POWER SUPPLY AND OTHER SERVICES

The Stellenbosch Municipality will identify an area that can be used as a camp site. The campsite shall be fenced off and comprise of site offices, ablution facilities, a sheltered area for workers and an area to stockpile materials. The Contractor is responsible for making all the necessary arrangements for the acquisition, establishment and subsequent removal and reinstatement of his camp site. He is responsible for ensuring that the requirements of the relevant land owner and all competent authorities having powers of sanction over the area on which the camp site is established are met. The final location and layout of the camp site shall be approved by the Municipality before establishment commences.

The Contractor shall make his own arrangements concerning the provision of water, electricity and other services for the campsite and office facilities.

No direct payment will be made for the provision of electrical and other services. The cost thereof shall be deemed to be included in the rates and amounts tendered for the various items of work for which these services are required.

C3.1.5 CONSTRUCTION IN CONFINED AREAS

If it is necessary for the Contractor to work within confined and restricted areas, no additional payment will be made for work done in such areas.

C3.1.6 WATER FOR CONSTRUCTION PURPOSES

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.

C3.1.7 WAYLEAVES AND PERMITS

The Contractor shall be responsible for ensuring that he obtains all wayleaves and permits from the relevant service authorities for working over, under or near services. In order to facilitate such approval the Employer will provide all available details,

plans and drawings of the services on the site to the Contractor. The Employer will assist the Contractor to obtain necessary wayleaves, however this will not limit the Contractors obligations in terms of the Contract, to comply with the provisions or by-laws of any local statutory body.

C3.1.8 EXISTING SERVICES

The following shall apply for all construction activities.

Before the Contractor commences operations, he must discuss with and have the approval of the Employer, authority or owner concerned regarding the method he proposes to use for relocating or safe guarding any services and existing works he may encounter during construction.

Any details of existing services shown on drawings may not be accurate therefore, where required, the Contractor shall arrange with authority concerned to point out services on site.

The Contractor shall locate all known services and safeguard any existing services or works he locates or may encounter during construction. The Contractor shall obtain clearance from the authority concerned before commencement of work in the proximity of the existing services.

The Contractor shall be responsible for any damage to such existing services or existing works in the execution of this contract and shall reimburse the Employer, authority or the owner concerned for any repairs required or damages incurred.

The Contractor shall be responsible for immediately notifying the Employer and the authorities concerned regarding and damage caused to public services and existing works.

Any alteration to services shall be carried out by the Authority concerned unless the Contractor is instructed otherwise.

The Contractor shall provide the necessary assistance during any operations necessary in connection with the removal, alteration or safeguarding of any public service.

The Contractor is not permitted to cut off and roots from protected vegetation or tree roots which may cause the trees to become unstable, before consulting the Engineer or designated person.

The Contractor shall assume full responsibility where any person in his service either directly or indirectly causes and damage to known services. The Contractor shall bear the cost of repair of any such damage.

C3.2 ENGINEERING / DESIGN

CONTENTS

- 3.2.1 DESIGN SERVICES
- 3.2.2 DRAWINGS PREPARED BY THE EMPLOYER

3.2.1 DESIGN SERVICES

Unless otherwise stated, the Employer is responsible for the design of the permanent Works as reflected in the Contract documents, and for the production of the final Record Drawings.

The Contractor is responsible for the design of all necessary temporary works and their compatibility with the permanent Works and for the design and layout of traffic deviations, all subject to the guidelines and principles given in the Project Specifications and shown on the Drawings.

The Contractor shall also be responsible for the design of all propriety products required for this Contract subject to the specified design and performance criteria.

3.2.2 DRAWINGS PREPARED BY THE EMPLOYER

The work shall be carried out in accordance with the following drawings, that are included in Volume 4: Drawings for Works and Structures that form part of the Contract documents:

| Discipline | Plan Title | Drawing Number |
|------------|---|----------------|
| Civil | Keyplan, Drawing Index and Locality Map | 6005-C-CO-001 |

| Discipline | Plan Title | Drawing Number |
|------------|---|----------------|
| Structural | Agricultural Building Underpinning and Retaining Wall Concrete Layout, Sections and Details | 6005-ST-CO-002 |

The reduced Drawings that form part of the tender documents shall be used for tender purposes only.

The Contractor will be supplied with 3 unreduced paper prints of each of the Drawings required for construction. These copies are issued free of charge and the Contractor shall make any additional copies he may require at his own cost.

Only figured dimensions shall be used and the Drawings shall not be scaled unless otherwise instructed. The Employer shall supply all figures / dimensions omitted from the Drawings.

The levels given on the Drawings are subject to confirmation on site, and the Contractor shall submit all levels to the Employer for confirmation before he commences any structural construction work. The Contractor shall also check all clearances given on the Drawings and shall inform the Employer of any discrepancies.

The Contractor shall ensure that accurate as-built records are kept of all infrastructure installed or relocated during the Contract. The position of pipe bends, 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 Employer's Agent's Representative on a regular basis.

The Completion Certificate shall not be issued until the Contractor has furnished the Employer's Agent's Representative with all information that is required to complete the record Drawings.

C3.3 PROCUREMENT

CONTENTS

3.3.1 PREFERENTIAL PROCUREMENT

3.3.1. PREFERENTIAL PROCUREMENT

The Works shall be executed in accordance with the conditions associated with the granting of preferences detailed in the **Preference Schedule** where preferences are granted in respect of B-BBEE contribution.

Financial penalties, as described in the **Preference Schedule**, shall be applied in the event that the Contractor is found to have breached any of the conditions contained in the **Preference Schedule** (unless proven to be beyond the control of the Contractor).

Notwithstanding the application of penalties, the Contractor's attention is drawn to other sanctions that may be applied by the Employer (listed in the **Preference Schedule**) with due consideration to the circumstances.

C3.4 CONSTRUCTION

CONTENTS

1. APPLICABLE STANDARDISED SPECIFICATIONS
2. WAYLEAVES, PERMISSIONS AND PERMITS

1. APPLICABLE STANDARDISED SPECIFICATIONS

Where reference is made to Standard Methods of Testing Road Construction Materials: Technical Methods for Highways (TMH1), 1979 in the Specifications or the Standard Specifications, it shall be replaced by the South African National Standards (SANS) 3000 series.

2. WAYLEAVES, PERMISSIONS AND PERMITS

The Contractor shall be responsible for obtaining all of the necessary wayleaves, permissions or permits applicable to working near any existing services or other infrastructure on Site, and shall ensure that any wayleaves, permissions or permits obtained by the Employer's Agent prior to the award of the contract are transferred into the Contractor's name.

The Contractor shall abide by any conditions imposed by such wayleaves, permissions or permits.

The Contractor shall ensure that all wayleaves, permissions and permits are kept on Site and are available for inspection by the relevant service authorities on demand.

The Contractor shall also ensure that any wayleaves in respect of electricity services are renewed timeously every three months.



C3.4 CONSTRUCTION: CONTENTS

- 3.4.1 PART A: SPECIFICATIONS
- 3.4.2 PART B: PROJECT SPECIFICATIONS REFERRING TO THE STANDARD SPECIFICATIONS
- 3.4.3 PART C: ENVIRONMENTAL SPECIFICATIONS
- 3.4.4 PART D: LABOUR AND TRAINING SPECIFICATIONS
- 3.4.5 PART E: ADDITIONAL SPECIFICATIONS FOR SPECIFIC WORKS (not required for this contract)
- 3.4.6 PART F: SUPPLEMENTRY SPECIFICATIONS FOR WORKS NOT COVERED BY STANDARD SPECIFICATIONS
- 3.4.7 PART G: OCCUPATIONAL HEALTH AND SAFETY SPECIFICATIONS

C3.4.1 PART A: SPECIFICATIONS

The following Specifications, as listed below, are relevant and shall apply to this Contract:

(a) Standard Specifications

Where reference is made to the Standard Specifications in this contract, it shall mean the **COLTO Standard Specifications for Road and Bridge Works for State Road Authorities 1998**, prepared by the Committee of Land Transport Officials complete with any corrections and amendments applicable at the time of tendering.

The tenderer shall obtain / purchase it from the South African Institution of Civil Engineering (SAICE), Private Bag X200, Halfway House 1685, Tel: (011) 805 5947, Fax: (011) 805 5971, e-mail: civilinfo@saice.org.za. This document may also be inspected, by appointment, at the offices of the Employer and the Employer's Agent during normal office hours.

(b) Project Specifications

Amendments to, omissions from or additions to the Standard Specifications, as defined above, that may be required in connection with this specific Project are bound in Part B: Project Specifications referring to the Standard Specifications.

In addition, the following project specifications shall also apply to this Contract:

- (i) Specifications for environmental management bound in **Part C: Environmental Specifications**
- (ii) Specifications for labour and training requirements bound in **Part D: Labour and Training Specifications**
- (iii) Additional specifications for specific works bound in **Part E: Additional Specifications for Specific Works** (not required for this contract)
- (iv) Supplementary specifications bound in **Part F: Supplementary Specifications for Works not covered by Standard Specifications**.
- (v) Specifications for health and safety bound in **Part G: Occupational Health and Safety Specifications**

C3.4.2 PART B: PROJECT SPECIFICATIONS REFERRING TO THE STANDARD SPECIFICATIONS

Amendments to the standard specifications are included in this Part B: Project Specifications referring to the Standard Specifications.

- (i) The Project Specifications form an integral part of the Contract documents and supplement the Standard Specifications.
- (ii) The event of any discrepancy between the Project Specifications and a part of the Standard Specifications, the Schedule of Quantities, or the Drawings with regard to the scope or quality of the Works, the Project Specifications shall take precedence.
- (iii) The Standard Specifications, which form part of this Contract, have been written to cover all phases of work normally required for road contracts, and they may therefore cover items not applicable to this particular Contract.

In certain clauses the standard specifications allow a choice to be specified in the project specifications between alternative materials or methods of construction and for additional requirements to be specified to suit a particular contract. Details of such alternatives or additional requirements applicable to this contract are contained in this part of the Project Specifications.

It also contains some additional specifications required for this particular Contract.

The number of each clause and each payment item in this part of the Project Specifications consists of the prefix B followed by a number corresponding to the number of the relevant clause or payment item in the Standard Specifications. The number of a new clause or a payment item which does not form part of a clause or a payment item in the Standard Specifications and which is included here, is also prefixed by B followed by a new number. The new numbers follow on the last clause or item number used in the relevant section of the Standard Specifications.

SECTION 1100: DEFINITIONS AND TERMS

B1115 GENERAL CONDITIONS OF CONTRACT

Replace clause 1115 with the following:

“The General Conditions of Contract for Construction Works (3rd Edition) 2015 (GCC 2015) published by the South African Institution of Civil Engineering, together with the Special Conditions of Contract forming part of the Contract.

All General Conditions of Contract references in the COLTO Standard Specifications for Road and Bridge Works are to the COLTO General Conditions of Contract for Road and Bridge Works for State Road Authorities. Consequently, all references in the COLTO Standard Specifications have to be amended accordingly to reflect the appropriate General Conditions of Contract relevant for the contract. The COLTO Standard Specifications have been scrutinized and the clauses, which refer to the COLTO General Conditions of Contract, identified. Each COLTO clause reference is tabulated in Table 1115/1 below (context of reference is also given) together with the relevant equivalent clause in the SAICE General Conditions of Contract for Construction Works applicable for this contract.

Whereas every effort has been made to include all of the affected clauses in the Table, there may be some omissions. In every case, however, the SAICE General Conditions of Contract for Construction Works, as amended by the special conditions of contract in the contract data, shall apply and the contractor shall be responsible for interpretation of the equivalent clause.

Table 1115/1

| REFERENCING COLTO STANDARD SPECIFICATIONS TO THE COLTO GENERAL CONDITIONS OF CONTRACT AND RELEVANT SAICE GENERAL CONDITIONS OF CONTRACT FOR CONSTRUCTION WORKS 2015 | | | | | |
|--|----------------|--|--|--|--|
| COLTO Standard Specification | | COLTO General Conditions of Contract 1998 (GCC) | | SAICE General Conditions of Contract for Construction Works: 3rd Edition 2015 | |
| Clause No | Page No | Clause No | Description or Reference | Clause No | Description or Reference |
| 1115 | 1100-2 | | Definition of GCC | | Definition of SAICE |
| 1202 | 1200-2 | 15 | Construction programme | 5.6 | Programme |
| 1115 | 1100-2 | | Definition of GCC | | Definition of SAICE |
| 1202 | 1200-2 | 15 | Construction programme | 5.6 | Programme |
| 1206 | 1200-3 | 14 | Setting out of works and beacons | | Omitted |
| 1209(e) | 1200-5 | 52(2) | Valuation of material brought onto site | 6.10.2 | Valuation of material brought onto site |
| 1210 | 1200-5 | 54 | Certificate of practical completion | 5.14 | Completion |
| 1212(l) | 1200-7 | 49(2) | CPA on alternative designs | 6.8.2 | CPA on alternative designs |
| 1215 | 1200-9 | 45 | Extension of time for completion due to abnormal rainfall. | 5.12 | Extension of time for completion due to abnormal rainfall. |
| 1217 | 1200-10 | 35 | Care of the works | 8.2 | Care of the works |
| 1303(iii) | 1300-1 | 49 | Price adjustment Item 13.01 (a) | 6.8 | Price adjustment Item 13.01 (a) |
| 1303(iii) | 1300-2 | 49 | Price adjustment Item 13.01 (b) | 6.8 | Price adjustment Item 13.01 (b) |
| 1303(iii) | 1300-1 | 53 | Variations exceeding 20% | 6.11 | Variations exceeding 15% |
| 1303(iii) | 1300-2 | 53 | Variations exceeding 20% | | Variations exceeding 15% |
| 1303 | 1300-2 | 12 | Payment Item 13.01 (c) | 5.2 | Commencement of the Works |
| 1303 | 1300-2 | 45 | Payment Item 13.01 (c) | 5.12 | Payment Item 13.01 (c) |
| 1403(c)(ii) | 1400-4 | 40(1) | Variation for rented accommodation | 6.4 | Variation for rented accommodation |
| 1505 | 1500-3 | 40(1) | Variation for temporary drainage | 6.4 | Variation for temporary drainage |
| Item 15.08 | 1500-8 | 48 | Payment of Provisional Sum | 6.6 | Payment of Provisional Sum |
| Item 15.09 | 1500/8 | 48 | Payment of Provisional Sum | 6.6 | Payment of Provisional Sum |
| Item 15.11 | 1500-8 | 48 | Payment of Provisional Sum | 6.6 | Payment of Provisional Sum |

| REFERENCING COLTO STANDARD SPECIFICATIONS TO THE COLTO GENERAL CONDITIONS OF CONTRACT AND RELEVANT SAICE GENERAL CONDITIONS OF CONTRACT FOR CONSTRUCTION WORKS 2015 | | | | | |
|---|---------|---|--|---|--|
| COLTO Standard Specification | | COLTO General Conditions of Contract 1998 (GCC) | | SAICE General Conditions of Contract for Construction Works: 3rd Edition 2015 | |
| Clause No | Page No | Clause No | Description or Reference | Clause No | Description or Reference |
| Note (2) | 3100-4 | 40 | Payment for prospecting for materials | 6.5.2 | Payment for prospecting for materials |
| 3204(b)(iii) | 3200-2 | 40 | Payment for oversize material | 6.5.2 | Payment for oversize material |
| 3303(b) | 3300-2 | 2 | Employer's Agent's decisions, with reference to materials classification | 3.2 | Employer's Agent's decisions, with reference to materials classification |
| 5803(c) | 5800-3 | 40 | Variation, for landscaping | 6.4 | Variation, for landscaping |
| 5805(d) | 5800-4 | 40 | Variation, for grassing | 6.4 | Variation, for grassing |
| Item 58.10 | 5800-10 | 48 | Payment for Extra Work | 6.4 | Payment for Extra Work |
| 8103(c) | 8100-1 | 40 | Variation, for testing material | 6.4 | Variation, for testing material |
| Item 81.03 | 8100-26 | 22 | Clearance of site on completion, with reference to core drilling | 5.15 | Clearance of site on completion, with reference to core drilling |

Add the following new clauses:

B1156 OTHER DEFINITIONS

The COLTO Standard Specification for Roads and Bridges has been written for all Contractors, Employers and Employer's Agents. Similarly, the Works and the Site are not defined and the general nature of the entities and elements that collectively constitute construction under a contract are characterized by the use of lower-case letters throughout.

These Project Specifications continue to use lowercase spellings in order to avoid the appearance of the upper case and lower-case words to describe or prescribe the same elements of work required on this project. However, for the purposes of this contract the following definitions shall apply:

- (a) **Contractor:** The Contractor and the contractor is the same persona defined under clause 1.1.1.9 of the General Conditions of Contract, but who will only be formally identified by the completed form of Acceptance C1.1.2 in this document and which will be bound into the final contract document.
- (b) **Employer:** The Employer and employer is the same persona, and is defined in C1.2.3 Contract Specific Data, and clause 1.1.1.15 of the General Conditions of Contract.
- (c) **Employer's Agent:** The Employer's Agent and engineer is the same persona, and is defined in the C1.2.3 Contract Specific Data, and clause 1.1.1.16 of the General Conditions of Contract.
- (d) **Schedule of quantities:** The terms "Schedule of Quantities", (used throughout the standard specifications) and "Bill of Quantities", (used in all other documents forming part of this contract), are synonymous.
- (e) **Specifications:** All specifications forming part of the Contract whether they appear in the standard specifications, the project specifications or on the drawings, or any other specifications referred to in the said Specifications, or be they written instructions given to the Contractor.
- (f) **Standard Specifications:** The Standard Specifications for Road and Bridge Works prescribed by the employer and forming part of the Contract.
- (g) **Project Specifications:** Any Specifications appearing under this heading and forming part of the Contract, and containing any amendments to, omissions from or additions to the Standard Specifications that may be required in connection with a specific project.

B1157 PROCESS CONTROL

Process control is the responsibility of the Contractor and refers to all testing requirements to be executed during the Works to ensure that the completed permanent Works comply with the Specifications and Drawings prior to proceeding with the following task or activity.

B1158 ACCEPTANCE CONTROL

Acceptance control is the responsibility of the Employer's Agent and refers to all testing requirements to be executed during the Works to determine the acceptability or otherwise of the materials and workmanship of the Works as executed by the Contractor.

It is the responsibility of the Contractor to ensure that completed work is presented in writing to the Employer's Agent timeously for acceptance in order to ensure that necessary sampling and testing can be performed as required.

B1159 AGGREGATE SIZE

Where reference is made in this Specification or the Standard Specifications to aggregate size, nominal aggregate size or maximum aggregate size, the aggregate size as listed shall be replaced with the new corresponding aggregate size as indicated in the following Table:

| Aggregate size | New aggregate size |
|-----------------------|---------------------------|
| 26,5 | 28 |
| 19 | 20 |
| 13,2 | 14 |
| 9,5 | 10 |
| 6,7 | 7 |
| 4,75 | 5 |
| 2,36 | 2 |
| 1,18 | 1 |

B1160 COMPACTION

The standard for compaction efforts shall change from Modified AASHTO Density as per TMH1 Test Method to Maximum Dry Density (MDD) as per SANS 3001. Where reference is made to compaction or of Modified AASHTO Density in the tender documentation or the Standard Specifications or wherever there is conflict between the tender documentation and the Standard Specifications, the SANS 3001 Specification and terminology shall govern.

B1161 SANS BITUMEN SPECIFICATIONS

Where reference is made in this Specification or the Standard Specifications to the SABS / SANS bitumen Specifications, the following new SANS Specification shall apply:

SANS 4001-BT1:2014 - Penetration Grade Bitumen's
 SANS 4001-BT2:2012 - Cutback Bitumen
 SANS 4001-BT3:2014 - Anionic Bitumen Road Emulsion
 SANS 4001-BT4:2014 - Cationic Bitumen Road Emulsion
 SANS 4001-BT5:2014 - Inverted Bitumen Emulsion

On this Contract where a SANS Specification exists, all products shall conform to the Specification and shall bear the inspection seal or brand mark of the SABS (South African Bureau of Standards)."

SECTION 1200: GENERAL REQUIREMENTS AND PROVISIONS

B1202 SERVICES

Add the following after the first paragraph of clause 1202 of the specifications:

“Various types of services, both overhead and underground, exist within the boundaries of the site. It is envisaged that it will be necessary for the Contractor to arrange for the removal, relocation or protection of existing services. Should any work become necessary due to unforeseen circumstances then all work shall be done strictly in accordance with the requirements of the relevant service owner and in accordance with the requirements of these project specifications and the standard specifications where applicable.”

Add the following:

“EXISTING SERVICES

Prior to commencing work, the Contractor shall confer with all service providers and authorities concerned and obtain the necessary permits, authorisations and wayleaves for working in close proximity to overhead and underground services and shall satisfy himself that he has obtained all the relevant information required to complete the contract safely and successfully. The Contractor is to carry out his works with the minimum interference to existing services. He shall co-operate with all service providers and authorities concerned and he shall be solely responsible for carrying out the following operations and checks:

- (i) He shall inform all service providers and authorities in good time before the correct stage of the construction is reached for the laying and/or relaying of any particular services.
- (ii) He shall set out the lines and levels of kerbs, pipes, culverts and any other necessary features of the Contract in order that service providers and authorities are able to lay and/or relay services correctly.

It shall be clearly understood that obtaining the necessary permits, authorisations and wayleaves and any extra work, such as the removal of any portion of the works already executed either by the Contractor or other service providers or/and authority and its subsequent re-execution, which is caused by the Contractor's failure to observe and carry out his responsibilities as specified, will be at his own cost.

The Contractor shall clearly indicate on his programme, when he intends to submit his applications/notifications, when he requires a response and when he intends to commence work on or near an affected service, for each service provider and/or service line. In the event that one or more of these activities is delayed, in the opinion of the Contractor, by the service provider or authority concerned, the Contractor shall notify the Employer's Agent within one working day of the delay commencing of the type and extent of the delay.

As a nominal allowance, the Contractor shall allow at the least the following periods for the dealing with services:

Electrical, water, sewer and telecommunications services:

Obtain work permit: 1 month from date of application.

Obtain quotation for relocation of services: 1 month.

Identify subcontractor/mobilisation of service provider to relocate services: 3 months.

Relocation of services: dependent on service, Contractor to determine.

Commissioning of service: 1 week.

The cost of repairing any damage to services, due to miscalculations or negligence on the part of the Contractor or his failure to carry out the duties set out in this clause, shall be borne by the Contractor.

Protection of overhead and underground services

Services and sub-surface obstructions likely to be affected by the work, based on available records and surveys, have been shown on the drawings. Although every care has been exercised in the presentation of the available data, the Employer cannot and does not vouch for the accuracy or completeness of the information shown. Whenever the Contractor deems it necessary to determine the exact location of an existing service or obstruction, he shall, make any examination that he and the Employer's Agent consider desirable in advance of the work. The Employer does not accept any liability for loss, damage or delay to the Contractor as a result of the non-location or inaccurate location of services or obstructions.

Where no underground services are shown on the drawings or scheduled, but the possibility of their presence can be reasonably inferred, the Contractor shall in collaboration with the Employer's Agent, search for such services to establish their positions well in advance of the work. A full report shall then be submitted in good time to the Employer's Agent, to enable the necessary arrangements for the protection, removal or diversion of the services before work is commenced in their vicinity.

In the event of damage to existing services, the Contractor shall take such immediate action as is necessary to prevent further damage or danger to life or property and shall immediately notify the Employer's Agent who will issue instructions as to the necessary repairs or protective measures to be taken. The cost thereof shall be borne by the Contractor irrespective of

whether the repairs or protective measures were carried out by him or by or on behalf of the service authority or department concerned.

As soon as an underground service not shown on the drawings is discovered, it shall be deemed to be a known service and the Contractor will be held responsible for any subsequent damage to it. If such service is damaged during the course of its discovery, the Contractor will be reimbursed for the cost of making good such damage, unless it is established by the Employer's Agent that the Contractor did not exercise reasonable diligence and care and that the damage was avoidable.

(b) Existing services

Existing services shall include any service which has been temporarily taken out of service to allow for the execution of the Works or which has been taken out of service as a result of an event which necessitated the execution of the Works.

(c) Condition of existing services

The Contractor acknowledges that he has inspected and examined all known existing services and all existing services subsequently discovered, as contemplated in (a) above and is satisfied that all such services were in an acceptable and serviceable state at the commencement of the Works, alternatively, upon discovery thereof as contemplated in (a) above.

In the event of a dispute as to the acceptability and/or serviceability of an existing service at the commencement of the Works or upon the discovery of such service, the Contractor shall bear the onus of proving that the service in question was not in an acceptable and/or serviceable state at the commencement of the Works.

(d) Maintenance, protection and relocation of existing services

During the course of the Works, all existing services including traffic signals, watermains, sewers and stormwater reticulation, electricity transmission and telephone lines, cables, poles and conduits whether in service or not shall be protected, supported and maintained to the satisfaction of the service authority or department concerned and the Employer's Agent. The Contractor shall bear the cost of protection and limitations on working processes, in accordance with the service providers requirements, as a result of working over, under or near services, and for all known services affected by the scope of works.

Where a bank of underground ducts, cables, etc are crossed over a distance of less than 1.0 m they shall be regarded as a single crossing. Hydrants under pressure, watermain valve covers and manholes shall be kept unobstructed and accessible at all times.

Where the existing stormwater system is affected by the roadworks, drainage pipes and structures will have to be upgraded, adapted or demolished and new drainage pipes and structures constructed.

The covers and frames of service manholes and catch pits will have to be adjusted where they are affected by the roadworks.

(e) Work in close proximity to existing services

The Contractor shall note that as a general provision work within three (3) meters of telecommunications and electrical services is restricted and the use of mechanical plant in these areas is generally prohibited. No pegs or stakes shall be driven into the ground in the vicinity of underground services unless their exact positions have been determined.

The Contractor shall take the above into account in the drawing up of his construction programme and in the calculation of his tendered rates, and shall note that no additional payment or compensation will be allowed for any additional costs or delays incurred as a result of compliance with any regulations, except as measured and paid under the items listed in the Bill of Quantities.

The Contractor shall allow all reasonable access to the representatives of any provider or authority for the purpose of maintaining, laying and/or relaying any services, cables or mains during the period of the Contract.

Permanent alterations to existing services ordered in writing by the Employer's Agent, and for which no separate provision has been made in the Bill of Quantities, will be paid for under Dayworks if required.

(f) Street lighting

Street lighting, cabling and electrical equipment to be installed by a Selected Subcontractor during the Contract. The Contractor will be required to obtain a quotation from three suitable Subcontractors to carry out the street lighting work. The Contractor will be responsible for the excavation and subsequent backfilling of trenches for the various cabling while the Subcontractor will be responsible for laying of the underground cables and the installation of the street lighting.

B1204 PROGRAMME OF WORK

(a) General requirements

Delete the first paragraph and replace with the following:

“The Contractor shall submit his programme to the Employer’s Agent for approval within the time stated in the Contract data. The programme shall be in the form of a bar chart (Gantt chart) or any other time-activity form acceptable to the Employer’s Agent, and shall clearly show:

- (i) The proposed rate of progress in order to complete the Works within the required period as tendered, showing the various activities, their durations and proposed resourcing levels (major plant and labour) for each element of the Works. Sufficient detail shall be provided to enable the Employer’s Agent to be able to gauge construction progress. All activities, including establishment on site, trimming and finishing and the completion of all minor ancillary works are to be included in the programme.
- (ii) A work breakdown structure that identifies all major work activities, scheduled start and end dates for each activity, the linkage of activities and any dependencies (time or resource related) between them.
- (iii) The sequence of activities clearly identifying floats and those activities that fall on the critical path. Key dates in respect of work to be carried out, information required or due delivery,
- (iv) The anticipated value of work to be done during each month.

When drawing up his programme, the Contractor shall, inter alia, shall clearly indicate and make allowance as separate items for:

All special non-working days, shut-down periods and breaks defined in the Contract Data.

Expected weather conditions and their effects.

Known physical conditions and artificial obstructions.

The accommodation and safeguarding of public traffic.

Dealing with, altering and installing services.

Constraints imposed as a result of the requirement that immediate settlements of the material underlying the Site must be induced by backfilling after partial completion of the abutments. Construction of the abutments to beam seat level and launching of the beams can only be completed after immediate settlements have taken place.

Constraints imposed as a result of working adjacent to the existing access bridge and in the Dwars River.

The bridge approach fills to be built and left to stand for 60 days to allow monitoring for any possible settlement (Employer’s Agent may decide to shorten period should on-site survey monitoring prove safe to do so.)

All other actions required in terms of this contract.

The following details shall be submitted together with the programme:

The number of working hours per day, working days per week, assumed holiday or shut down periods on which the programme is based.

The overall labour and major plant resource levels on which the programme is based.

The detailed traffic accommodation proposals on which the programme is based (road or lane closures, lengths of sections to be worked, timing etc.).

The Contractor shall base his initial programme of work on the scope of the work as described in the Project Specification and the Schedule of Quantities. This programme shall be reviewed on a regular basis by the Contractor in accordance with changing circumstances, delays and amendments to the work ordered by the Employer’s Agent as a result of further examinations made by him.

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

It should be noted that the Contractor shall provide a detailed programme giving detail on times allowed for the various activities as well as resource or other limitations affecting the programme, since the approved programme may be used to evaluate any claims in terms of the general conditions of contract for extensions of time. **The programme must indicate the task or item considered essential for the successful completion of the Works and which must commence within 28**

days of the Contractor being awarded access to the Site. For this Contract, the Employer's Agent considers this to be the proposed New Banghoek River Bridge. Approval of the initial programme by the Employer's Agent shall only be confirmation that all the requirements and restrictions have been incorporated and that the Contractor has shown that he is capable of completing the Works before the Completion Date and to serve as the basis for the determining the effect of any delays on the Period of Completion.

The Contractor shall submit to the Employer's Agent, at least one working day before each monthly site meeting copies of the following:

- (i) The Contract programme with progress charts and programme graphs updated to reflect the actual progress to date and a summary of progress on site over the month preceding the Site meeting. The programme is to be submitted/provided in both .pdf and an activated MS Project (2007)(.mpp) format, or other similar approved. If the programme is not provided in MS Project (2007)(.mpp) format, the Contractor shall provide two (2) licensed copies of the proprietary software programme used to the Employer's Agent and make allowance for training two (2) personnel from the Employer's Agent on operating and reviewing the software. The costs of providing such licenses and training shall be borne by the Contractor and shall be deemed to be included in the Contractor's rates.
- (ii) Details of activities running late, indicating what steps have been or will be taken to ensure that the Work is completed within the specified time.
- (iii) A report on all labour, plant and materials on site.

The Employer's Agent shall open and maintain a comprehensive list of all delays, detailing the reason for the delay, the date and time the delay commenced, the duration, the activities affected by the delay and whether the delay is attributable to the Contractor or the Employer.

B1205 WORKMANSHIP AND QUALITY CONTROL

Add the following to the second paragraph:

“The Contractor's commercial laboratories shall be subject to approval by the Employer's Agent. The Contractor's attention is also drawn to the requirements in section 8100 for the submission to the Employer's Agent and Employer for prior approval of certain materials and mix designs accompanied by the relevant test results.”

Replace the third paragraph with the following:

“The intensity of control and of tests to be conducted by the Contractor in terms of these obligations shall meet but, not be limited to, that specified in clause B8209 and shall be adequate to ensure that proper control is being exercised.”

Insert the following paragraph between the third and fourth paragraph:

“Within two weeks of the site handover, the Contractor shall submit to the Employers Agent or his approval, the quality assurance system he proposes using. The Contractor shall discuss and agree with the Employer's Agent any proposed changes before their instigation. The system shall record the lines and levels of responsibility and indicate the method by which testing procedures will be conducted.”

Add the following at the end of this clause:

“The Employer's Agent shall, for the purpose of acceptance control on products and workmanship, assess test results and measurements in accordance with the provisions of Section 8200 of the Standard Specifications (Quality Control Scheme 1, Judgement Plan B). Where small quantities of work are involved, a lot shall mean a full day's production for a specific item of work subject to acceptance control testing.

The Employer's Agent will not pay claims for delays to the Works resulting from the awaiting of test results. Testing shall be arranged as promptly as possible, and it will be in the Contractor's own interest to submit material samples, concrete cubes or other components for testing in good time to avoid delays.”

B1206 THE SETTING-OUT OF THE WORK AND PROTECTION OF BEACONS

Replace the first paragraph with the following:

“Any basic reference pegs and benchmarks established on the Site by the Employer's Agent shall be given to the Contractor with the particulars thereof in sufficient time to enable the contractor to meet his approved programme. The Contractor shall comply with all legal provisions in regard to surveying and setting out work.”

“It may be required that the Contractor establish additional reference and control beacons for the setting-out and control of the works. The position of the works shall generally be as indicated on the drawings but shall be confirmed on site by the

Employer's Agent."

Add the following at the end of the fourth paragraph:

"Existing road markings, particularly road junction / intersection lines, the divergent/convergent lines of ramp at interchanges and no overtaking barriers are also elements of the road that require proper setting out. The Contractor shall prove to the Employer's Agent that critical reference points have been satisfactorily recorded for later reinstatement before any work commences that will obliterate the existing markings."

Add the following at the end of the fifth paragraph:

"Property beacons and trigonometrical survey beacons that have been displaced or destroyed without the consent of the Employer's Agent, shall be replaced by a registered land surveyor, who shall certify such replacement, and the cost thereof shall be borne by the Contractor." tender rates."

B1207 NOTICES, SIGNS AND ADVERTISEMENTS

Replace the second paragraph with the following:

"At each end of the Works at locations determined by the Employer's Agent, the Contractor shall provide and erect contract signboards of sound, weatherproof construction, painted by an approved firm of sign writers in accordance with the details shown on the drawings."

Delete the final paragraph and replace with the following:

"All signboards erected in accordance with the drawings or as approved advertisements for the Contractor's establishment, shall be removed at the same time as the Contractor's disestablishment. The Completion Certificate shall not be issued and payment under Subitem 13.01(a) for the final instalment of 15% of the tendered lump sum shall not be made unless all the Contract signboards, advertisements, notices and temporary signs have been removed.

B1209 PAYMENT

(b) Rates to be inclusive

Add the following:

"No value added tax shall be included in the Contractor's tendered rates or amounts. Payment of value added tax (VAT) shall be made under a separate item in the Summary of Schedule(s) in C2.2 Bill of Quantities in C2 Pricing Data."

(c) The meanings of certain phrases in payment clauses

(i) Procuring and furnishing ... (material)

Add the following:

"Payment for procuring and furnishing material from commercial sources shall include for all transport costs, irrespective of distance hauled."

(e) Materials on the site

Add the following:

"No material in borrow pits shall qualify for payment as materials on site. The Employer's Agent may at his sole discretion allow payments under "Materials on Site" in respect of any construction materials if stored off-site, providing that:

The Site selected for this purpose is approved by the Employer's Agent.

The Site is physically separated from any production plant or operation.

Only materials for use under this contract are stockpiled on such site/land.

The Contractor has provided proof of an agreement with the owner of such land that the owner has no objection to using the land for these purposes and has no claim whatsoever on any materials stockpiled on such land.

A suitable payment guarantee, as required in terms of Clause 6.10 of General Conditions of Contract"

Add the following new subclauses:

"(g) Work in confined areas

Except where provided for in the Specifications and the Schedule of Quantities in the pricing data no extra payment shall be

made nor shall any claim for additional payment be considered for construction in confined areas. The omission of standard pay items from the Schedule of Quantities shall be taken to be deliberate and any additional costs incurred shall be included in the bulk rate.

(h) Trade names

Where materials are specified under trade names, tenders must be based on these materials. Equivalent materials may be submitted as alternative tender offers in the tender and the Employer's Agent may, after receipt of tenders, approve the use of equivalent materials.

(i) Payment certificates

With reference to Clause 6.10.1 of the General Conditions of Contract, the Contractor shall, at his own expense, submit to the Employer's Agent one set of A4-sized paper copies of the monthly statement for payment."

B1210 CERTIFICATE OF PRACTICAL COMPLETION OF THE WORKS

Add the following paragraphs after item (h):

"Notwithstanding that there might be natural or programmed sections of the Works that will result in them being completed in their entirety before other sections, no consideration shall be given to the issuing of Practical Completion Certificates for portions of the Works. The use of any completed roadway or portions of the work, whether for unhindered use by the public or for accommodation of traffic while other portions are being constructed, shall not constitute use or occupation by the Employer.

In addition to the listed specified items of work and regardless of the degree of beneficial occupation by the Employer, the Works shall be considered for practical completion only if the following criteria also have been met:

The estimated cost to complete the outstanding work is less than 2% of the tendered value of work plus the cost of any variation or extra work orders, but excluding CPA and VAT.

The written list of outstanding items of work can be completed within 28 days of the list having been accepted in writing by the Contractor.

Any information in the Contractor's possession, which is required by the Employer's Agent and has been requested in writing, has been supplied.

B1212 ALTERNATIVE DESIGNS AND OFFERS

Add the following to the end of subclause 12.12(m):

"The provision for contract price adjustment in the original Tender Summary must not under any circumstances be altered in an alternative offer."

B1214 CONTRACTOR'S ACTIVITIES IN RESPECT OF PROPERTY OUTSIDE THE ROAD RESERVE AND OF SERVICES MOVED, DAMAGED OR ALTERED

Under Subclause (e) replace the opening paragraph with:

"Should the Contractor use land not provided by the Employer for the purpose of his own establishment, Employer's Agent's offices, or storing of equipment or materials required for construction or disposal, it shall be subject to the following:"

and add the following sub-subclauses:

"(vi) That lease agreements are concluded with the owner or owners of such land for the full period that such areas are required. The leases shall provide for possible extensions to match the duration of the Contract. The lease agreements shall also provide for the Contract being terminated by Contractor's default or liquidation and the resulting possibility for them to be taken over by a succeeding Contractor.

(vii) That copies of lease agreements shall be submitted to the Employer's Agent prior to signature by the signing parties, and copies lodged with the Employer's Agent after signing. Notwithstanding the Employer's Agent's approval of the conditions of a lease the Contractor shall be solely responsible for adherence to the terms of the agreements.

(viii) Adherence to the principles of the environmental management plan and legal obligations.

(xi) Compliance with the conditions as imposed by the Water Use Licence (as applicable)"

B1215 EXTENSION OF TIME RESULTING FROM ABNORMAL RAINFALL

In the heading of this clause replace the word “RAINFALL” with “WEATHER”

Delete the entire clause and replace with the following:

“No extension of time will be granted in respect of any delays attributed to normal climatic conditions. Normal climatic conditions shall be deemed to include normal rainfall and associated wet conditions and materials, strong winds and extremes of temperature. However, in the event that weather related delays to critical activities exceed the number of working days listed in Table B1215/1 for each month, then abnormal climatic conditions shall be deemed to exist, and an extension of time may be claimed in accordance with the provisions of Clause 5.12.2.2 of the General Conditions of Contract.

The number of days quoted in Table B1215/1 shall be regarded as a fair estimate of the delays to be anticipated and allowed for under normal climatic conditions where inclement weather prevents or disrupts critical work.

Claims for delays for abnormal climatic conditions shall be accompanied by substantiating facts and evidence, which shall be submitted timeously as each day or half-day delay is experienced.

It shall be further noted that where the critical path is not affected, no extension of time for abnormal climatic conditions or for any other reason will be entertained.

For the purposes of calculating an extension of time due to climatic conditions in terms of Clause 5.12.2 as amended of the General Conditions of Contract, the number of days in excess of the number of working days anticipated to be lost due to climatic conditions shown in Table B1215/1 shall be taken into account:

Table B1215/1

| ANTICIPATED DAYS LOST DUE TO NORMAL CLIMATIC CONDITIONS | | | |
|--|-------------------------|--------------|-------------------------|
| Month | “n” Working days | Month | “n” Working days |
| January | 2 | July | 9 |
| February | 2 | August | 8 |
| March | 3 | September | 5 |
| April | 4 | October | 4 |
| May | 8 | November | 2 |
| June | 9 | December | 2 |

The Employer’s Agent will certify a day lost due to climatic conditions only if:

no work on the critical path according to the latest approved programme for completion of the Works could be carried out during that specific working day or if;

only 30% or less of the work force and plant planned for that specific day, could work.

The extension of time as a result of climatic conditions will be calculated monthly as being equal to the number of days certified by the Employer’s Agent as lost due to climatic conditions, less the number of days in table B1215/1, provided the resultant value is a positive number otherwise the extension of time is taken to be nought.

The total extension for the Contract will be the sum of the monthly extensions. Extension of time for six-day working weeks and parts of a month shall be calculated pro rata.

The Contractor shall submit to the Employer’s Agent claims for all time lost due to inclement weather within 1 working day of the claim day. A record of inclement weather shall be kept by the Contractor and recorded at site meetings on a regular basis. The onus is on the Contractor to prove these claims.”

B1217 PROTECTION OF THE WORKS AND REQUIREMENTS TO BE MET BEFORE CONSTRUCTION OF NEW WORK ON TOP OF COMPLETED WORK IS COMMENCED

Renumber the existing paragraph (g) to become paragraph (h) and insert the following new paragraph (g):

“(g) Concrete elements adjoining a surface which is to receive a sprayed bituminous application or slurry application shall be covered with protective material prior to such operations to prevent the concrete from being stained with bituminous binder.”

Add the following:

(i) Prior to the start of any excavation in the existing pavements on any part of the Works, the Contractor shall submit to the Employer's Agent for approval a method statement for the execution of that part of the work. The Contractor is responsible for the protection of the underlying pavement layers and the drying out and/or keeping dry of such excavations. The Contractor's program shall make provision for the speedy backfilling of the excavations and the drainage thereof if inundation cannot be prevented.

The Contractor shall at his own cost shall be responsible for the repair of pavement layers which have been damaged due to his own Works or his neglect to submit his planning to the Employer's Agent for approval, or to adhere to approved precautionary measures.

(j) All rehabilitation shall be in accordance with the controls as set in the approved EMP"

B1219 WATER

Add the following:

"The Contractor shall make the necessary arrangements and connections for the provision of water required by him for the execution of the Works.

The Contractor shall note that the necessary permission must be obtained from the Department of Water and Sanitation for the abstraction of water from streams and rivers.

The Contractor shall arrange for chemical tests to be carried out to confirm the suitability of his proposed water sources for use as drinking water and for use in the concrete batching and the construction of layer works. The Contractor shall ensure that these tests also include testing for salinity and sugar content levels."

B1224 THE HANDING-OVER OF THE ROAD RESERVE

Amend the heading to read: "THE HANDING-OVER AND OCCUPATION OF THE SITE"

Add the following:

"The Site of the Works shall consist of the entire works area including accesses required for construction of the Works as defined by the limits of construction shown on the Drawings. It shall also include any additional lengths of road required for the placement of advanced warning road signs and/or traffic accommodation measures beyond the limits of construction as shown on the Drawings. Where consistent with the context, the Site shall also include areas outside of the road reserve required for construction camps, borrow areas, spoil areas and stockpile areas. The exact extent of the site and its boundaries will be verified once the Site is handed over to the Contractor.

Upon being given access to the site the Contractor shall immediately assume responsibility for the entire site as defined in the specifications and verified. Personnel and plant shall not enter property beyond the boundary of the Site irrespective of whether or not the boundary is fenced.

Prior to the commencement of work the Contractor and the Employer's Agent shall together carry out a joint inspection of the road section. During such an inspection, notes shall be made of all damaged fences, guardrails, signs and any other notable problems or features that exist at the time of gaining access or hand-over. The following matters should be agreed at the time of handing-over:

- (i) The limits, lengths, widths and areas of construction.
- (ii) The location of kilometer markers and reference beacons
- (iii) The scope of remedial / repair or preparatory work measures (patching, crack sealing, etc.) to be executed by the Contractor.
- (iv) The location of stockpile areas and the responsibilities of the Contractor with regard to the road reserve area and the stockpile sites (fencing, re-establishment, height of stockpile, etc.).
- (v) The method of accommodation of public traffic with regard to safety, sight distances, interference with existing road signs and road markings both within the work area and providing advance warning before the work area.
- (vi) The method of construction and supervisory control measures
- (vii) The protection of existing bridge joints, concrete kerbs/channels, rumble strips and road studs where necessary.
- (viii) Sign-off in terms of compliance with the Environmental Management Programme and relevant conditions of the

environmental authorisation and the water use licence (as applicable).”

B1229 SABS CEMENT SPECIFICATIONS

Add the following to this clause:

“Where reference is made in this Specification or the Standard Specifications to the Cement Specifications, e.g. SABS 471: Portland cement and rapid hardening Portland cement, it shall be replaced with the new specification:

SABS EN 197-1 “Cement compositions, specifications and conformity criteria.
Part 1: Common cements.

| Cement Grade | Cement Type | Approximate old product name | New Alpha | New Blue Circle | New NPC | New PPC | New Slagment |
|--------------|-----------------|------------------------------|----------------------|-----------------|-------------|-----------|--------------|
| 52.5 | CEM I | Rapid hardening | Rapid Hard | Duracast | Eagle Super | - | - |
| 42.5R | CEM I | Rapid hardening | - | - | - | Rapo | - |
| 42.5 | CEM I | OPC* | Portland cement | Duratech | - | OPC | - |
| | CEM I | LASRC | - | - | - | LASRC | - |
| | CEM II A-S | PC 15SL | - | - | Eagle Plus | - | - |
| | CEM II B-S | RH30SL | - | - | Eagle Plus | - | - |
| 32.5R | - | - | - | - | - | - | |
| 32.5 | CEM II A-V | PC 15FA | All Purpose Cement | - | - | Surebuild | - |
| | CEM II A-W | PC15FA | - | - | - | Surebuild | - |
| | CEM II A-L | - | All purpose Cement | - | - | Surebuild | - |
| | CEM II B-V or W | PC25FA/PFAC* | - | Structrete | - | Surecrete | - |
| | CEM IIIA | PBFC | - | BFC | Eagle Pro | - | PBFC |
| | CEM IIIA | RHSL | - | - | - | - | RHSL |
| 22.5 | MC 22.5X | PFAC*** | Multi Purpose Cement | Durabuild | - | - | - |
| | MC22.5X | PFAC*** | - | Buildcrete | - | - | - |
| 12.5 | MC 12.5 | Walcrete | Mortar Cement | Wallcrete | - | Masonry | - |
| | MC 12.5 | Mortacem | - | - | - | - | - |

- Notes: * OPC cements previously performed approximately as CEM 1 32,5R products
 ** PC25FA cements under the old standards achieved lower compressive strengths than the OPC's of the time
 *** Some PFAC cements meet the new standard for MC 22,5X. Others required modification before meeting the requirements for MC 22,5X

B1230 MATERIALS

Add the following:

The Contractor, when using materials that are required to comply with any Standard Specification, shall, if so ordered, furnish the Employer's Agent with certificates showing that the materials do so comply. Where so specified, materials shall bear the official mark of the appropriate authority. Samples ordered or specified shall be delivered to the Employer's Agent office on the Site free of charge.

Where proprietary products have been specified, similar products may be used subject to the prior written approval of the Employer's Agent.

Unless otherwise specified, all proprietary materials shall be used and placed in strict accordance with the relevant manufacturer's current published instructions.

Unless anything to the contrary is specified, all manufactured articles or materials supplied by the Contractor for the permanent Works shall be unused.

Earth, stone, gravel, sand, and all other materials excavated or present on the site or within the road reserve, or in borrow areas shall not become the property of the Contractor, but will be at his disposal only in so far as they are approved for use on the Contract.

Existing structures on the site shall remain the property of the Employer and except as and to the extent required elsewhere in the Contract, shall not be interfered with by the Contractor in any way.

Materials to be included in the Works shall not be damaged in any way and, should they be damaged on delivery or by the Contractor during handling, transportation, storage, installation or testing they shall be replaced by the Contractor at his own expense.

All places where materials are being manufactured or obtained for use in the Works, and all the processes in their entirety connected therewith shall be open to inspection by the Employer's Agent (or other persons authorised by the Employer's Agent) at all reasonable times, and the Employer's Agent shall be at liberty to suspend any portion of work which is not being executed in conformity with these specifications".

The Contractor shall satisfy himself that any quarry selected for use provides the necessary mined material in accordance with the Specification.

SECTION 1300: CONTRACTOR'S ESTABLISHMENT ON SITE AND GENERAL OBLIGATIONS

B1302 GENERAL REQUIREMENTS

(a) Camps, constructional plant and testing facilities

Add the following after the first paragraph:

"The Contractor shall liaise with the landowners to use the Site camp. No separate payment shall be made and costs shall be included in the rates provided.

The Contractor shall make his own arrangements concerning establishment of the camp site, supply of water, electrical power and all other services. No direct payment will be made for the provision of water, electrical and other services and the cost thereof shall be deemed to be included in the rates and amounts tendered for the various items of work for which these services are required."

(c) Legal and contractual requirements and responsibilities to the public

Add the following as a second paragraph:

"There has been recent legislation promulgated by Government that imposes mutual obligations on the employer and contractor in the performance of their duties to society and to the built and natural environment. To assist the Contractor in understanding and assessing his obligations, and thus to make allowances for the cost of compliance with this legislation, the following additional specifications are included in the Project Specifications:

Part C of C3.4 Construction of the Scope of Works contains the Environmental Management Programme for this project. Its provisions regulate the contractor's construction methods to ensure responsible conduct and treatment of the environment relevant to the project. No separate payment mechanism has been made available for the Contractor to allow for his compliance with relevant environmental legislation. Separate payment items are included in these provisions. However, non-compliance with these provisions may lead to the imposition of penalties and the potential for a formal rectification process (depending on the nature of the non-compliance) in terms of Section 24G of the National Environmental Management Act (Act No. 107 of 1998) (as amended).

Part D of C3.4 Construction of the Scope of Works contains provisions that regulate the Contractor's construction methods for compliance with Government's initiatives towards the use of local labour in construction, black economic empowerment and the use of targeted enterprises and labour (local resources). Separate pay items for labour obligations and training are included in these provisions. However, non-compliance with these provisions may lead to the imposition of penalties.

Section G of C3.4 Construction of the Scope of Works contains the Specification that regulates the Contractor's construction methods so far as to ensure health and safety of his Employees and of the public. Separate new pay item(s) are included in these provisions to allow the Contractor to make separate provision for the cost of health and safety measures during the construction process."

Add the following new subclauses:

(d) Housing

The Contractor shall not erect any housing or other accommodation facilities on the Site of the Works and shall make all the necessary arrangements for accommodation of his personnel and site staff off the Site of the Works.

(e) Services

The Contractor shall at his own expense, make the necessary connections to any utility services required by him for the execution of the Works.

(f) Contractor's ablution facilities

The Contractor shall provide a portable chemical latrine unit at each temporary or traffic control facility. The latrine units shall be serviced daily and kept in a hygienic and orderly state to the approval of the Employer's Agent. No separate payment shall be made for this requirement and the costs thereof shall be deemed to be included in the rates tendered for the Contractor's time-related obligations."

B1303 MEASUREMENT AND PAYMENT

| Item | Unit |
|-------------|-------------|
|-------------|-------------|

B13.01 The Contractor's general obligations:

In the 17th paragraph (the fourth last paragraph) under item 13.01 replace the second sentence with the following:

“The tendered rate will be paid monthly, pro rata for parts of a month from the Commencement Date of the Contract in terms of clause 5.2 of the General Conditions of Contract, until the Due Completion Date as defined in clause 1.1.1.14 of the General Conditions of Contract, provided that – “

Add the following after the fourth paragraph:

“The combined total tendered for subitems (a), (b) and (c) shall not exceed 15% of the Tender Sum (excluding CPA, contingencies and VAT).”

Add the following after the fifth paragraph:

“Measurement of the initial 50% component of the fixed P&G’s will not be released until the following information has been provided to the satisfaction of the Employer’s Agent:

- (i) Training Plan;
- (ii) Contract Participation Goal (CPG) Plan;
- (iii) Environmental Management Plan;
- (iv) Traffic Accommodation Plan;
- (v) Quality Assurance Plan;
- (vi) Site facilities for the Employer’s Agent including the laboratory is provided and commissioned/calibrated;
- (vii) Instruction to Commence Works has been issued.”

Add the following after the eleventh paragraph:

“Measurement of the monthly time related P&G amount shall be measured as the progress of the Works on the critical path items on the latest approved programme, provided that no additional payment in this regard shall be made if;

- (i) Health and Safety issues reported at the most recent audit have not been resolved and closed out to the satisfaction of the Employers Agent in this regard;
- (ii) Environmental issues reported at the most recent audit have not been resolved and closed out to the satisfaction of the Employer’s Environmental Control Officer in this regard;
- (iii) All information requested by the Employer’s Agent in writing to be provided before the certificate measurement date, has not been provided;
- (iv) And Quality Control issues reported to contractor have not been resolved and closed out to the satisfaction of the Employer’s Agent.”

Add the following payment items:

B13.02 Provisional sums

| | |
|--|---------------------|
| Protection, relocation or reinstatement of services | Prime Cost (PC) Sum |
| Handling cost and profit in respect of subitem B13.02(a) | percentage (%) |
| Advertising..... | Prime Cost (PC) Sum |
| Handling cost and profit in respect of subitem B13.02(c) | percentage (%) |
| 20 mm DCP (dynamic cone penetrometer)..... | No |
| Handling cost and profit in respect of subitem B13.02(c) | percentage (%) |
| 3 m Straight Edge (light aluminium)..... | No |
| Handling cost and profit in respect of subitem B13.02(c) | percentage (%) |
| Camera..... | PC sum |
| Handling cost and profit in respect of subitem B13.02(c) | percentage (%) |

Excavating and backfilling of trenches for the installation of electrical cables by others..... m³

The Prime Cost Sums allowed shall be controlled and expended as stipulated in Clause 6.6 of the Conditions of Contract.

The Prime Cost Sum allowed under item (a) shall be expended to cover the costs of the protection, relocation and/or reinstatement of existing services by service owners or using approved selected subcontractors in accordance with the General Conditions of Contract. Only items of work ordered by the Employer's Agent for which there is no applicable measurement and payment item in the Bill of Quantities will be measured and paid for under this item.

The Prime Cost sum allowed under items (c) shall be expended to cover the actual cost of keeping the public informed with whatever means including the publication of notifications, press releases and advertisements in the local press, regarding traffic accommodation arrangements.

The tendered percentage for items (b) and (d) is a percentage of the amount actually spent under the relevant subitems and shall include full compensation for all charges and incidental costs of the Contractor, profit and overheads in connection therewith, including traffic accommodation, procuring Subcontractors, effecting payment for such work, and the Contractor shall have no further claims for compensation in respect of work executed by himself or Subcontractor.

Payment of above Prime Costs shall not be subject to contract price adjustment.

| Item | Unit |
|-----------------------------------|-------------|
| B13.03 Contract signboards | number (No) |

The unit of measurement shall be the number of contract signboards provided in accordance with the drawings and erected at the locations as instructed by the Employer's Agent.

The tendered rate shall include full compensation for procuring and furnishing all materials, and for the manufacturing of the Contract signboards complete as specified on the Drawings. It shall also include for the delivery and erection of the signs complete as specified at the locations instructed by the Employer's Agent, and for their removal on completion of the Contract."



SECTION 5100: PITCHING, STONEMASONRY AND PROTECTION AGAINST EROSION

B5102 MATERIALS

Delete the second paragraph and replace with the following:

"Unless a suitable stone can be located on site, the stone for pitching shall be obtained from commercial sources, but from whatever source, its use shall be subject to the prior approval of the Employer's Agent."

B5103 STONE PITCHING

(b) Grouted stone pitching

Replace "one part of cement to every six parts of sand..." with "... one part of cement to every three parts of sand..." in the first paragraph:

B5105 STONE MASONRY WALLS

(c) Cemented-mortared stone walls

Add the following:

"Stone cladding to RC walls shall include batt-tie wall ties at 0.6m center to center spacings in both directions, shot fixed to RC walls and built into the stone masonry cladding. The rate shall also include sourcing and separating material on site for use in stone cladding wall were instructed by the Engineer."

B5106 SEGMENTAL BLOCK PAVING

(a) General

Delete the second paragraph and replace with the following:

"The bedding sand and the top 150 mm of the earthworks below the paving shall be treated with a commercial weedkiller according to the manufacturer's requirements. No paving work shall be permitted before this procedure has been completed.

No additional payment will be made for applying the weedkiller and the various items listed for this work shall be deemed to include the cost of applying the weedkiller."

(d) Edge beams

Add the following to this Clause:

"Concrete edge beams shall have their exposed surfaces rendered to a Class U2 surface finish."

B5109 MEASUREMENT AND PAYMENT

| | |
|-------------|-------------|
| Item | Unit |
|-------------|-------------|

Amend item 51.03 as follows:

"B51.03 Stone masonry walls:"

| | |
|--|-----------|
| Cleaning crack with hot compressed air and sealing using Class CC-E1 modified binder crack sealant | metre (m) |
|--|-----------|

| | |
|-------------|-------------|
| Item | Unit |
|-------------|-------------|

"B51.03 Stone masonry walls:

| | |
|---|--------------------------------------|
| (c) Cemented-mortared stone walls..... | square metres (m²) |
|---|--------------------------------------|



SECTION 5200: GABIONS

B5201 SCOPE

Add the following:

"This section also covers backfilling behind gabion protection walls."

B5202 MATERIALS

(a) Wire

Replace the entire subclause with the following:

"Gabions of hexagonal woven double twist 80 mm x 100 mm mesh to SANS 1580:2005 with 2,7 mm dia. wire and 3,4mm outer dia. selvedge wire all galvanized or Galfan coated to EN 10244-2, and diaphragms at 1m spacings.

Both galvanized wire and Galfan coated wire Gabion Boxes and Gabion Mattresses to SANS1580:2005 are acceptable and approved."

(b) PVC-coated wire

Add to the subclause the following:

"The extruded PVC coating of mean wall thickness of 0,50mm."

(d) Galvanizing

Insert the following after "wire" in the first line:

", including binding wire,"

(e) Wire mesh

Add the following to the end of subclause 5202(e):

"The diameter of the wire and the size of the mesh shall be as follows:

| | Depth (m) | Mesh size (mm) | Wire diameter (mm) |
|---------------|----------------------|---------------------------|-------------------------------|
| Gabion boxes: | 0,5 m and over | 80 x 100 | 2,7 |
| Mattresses: | 0,2 m to 0,3 m | 80 x 100 | 2,7 |

(f) Filter fabric below the gabions

Add the following at the end of subclause 5202(f):

"In the case of the filter fabric used to line the earth faces of the gabion boxes or mattresses constructed under this contract, the following properties shall apply:

Penetration load (minimum) 3500 Newton
 Puncture resistance (maximum) 15 mm
 Water percolation (minimum) 20 litre / m² / sec"

B5203 CONSTRUCTING GABION CAGES

(d) Binding and connecting wire

Replace the existing paragraph with the following:

"Sufficient binding and bracing wire for all the tying to be done during construction of the gabions as specified in Clause 5204 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 (refer to clause 5202(d)), and shall have diameters of 2,2 mm and 3,4 mm respectively."

B5204 CONSTRUCTING GABIONS

(c) 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 Employer's Agent. 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."

(d) Rock filling

Add the following subclauses:

"(iii) Filling the boxes

Filling shall be carried out only whilst gabion boxes are under tension. Filling material shall consist of stone so placed to produce a neat face and line with a minimum of voids.

Internal horizontal bracing wire shall be provided at 330 mm vertical centres in 1.0 m deep units at a ratio of four to every 1,0 m³ of filling. These bracing wires shall be wrapped around two mesh wires and extended from front to back so positioned to ensure a neat face and line free of excessive bulges and depressions. Gabion boxes shall be filled in stages and horizontal bracing wires inserted as filling is brought up.

Similar bracing wires used vertically shall be provided in 0.5 m deep gabions at 330 mm horizontal centres where water falls directly onto the gabions or where a neat face is required.

Tension on the gabion boxes shall be released only when they are sufficiently full to prevent the mesh from slackening.

Gabion boxes shall be overfilled by 20 to 50 mm above their tops to allow for subsequent settlement of the filling.

(iv) Final wiring

Closing and wiring down of lids shall proceed as soon as practicable after filling operations and certainly in the likelihood of storms or floods during construction.

Lids shall be stretched tight over the filling with bars and wired down securely through each mesh along all edges, ends and diaphragms. The ends of all tying and bracing wires shall be turned into the gabion box on completion of all lacing operations.

Tightness of mesh, well packed filling and secure lacing is essential in all structures.

(v) Cutting and folding mesh

Gabion mesh may only be cut, folded and wired together for the purpose of forming mitre joints, angles, curves or slopes which are not possible to construct using standard rectangular gabions. Such mesh shall be cut neatly, surplus mesh shall either be completely removed, or folded back, or folded and tightly wired to an adjacent gabion face. The cut edges of the mesh shall be securely laced together with binding wire."

Add the following new Clause:

"B5206 BACKFILLING BEHIND GABION EROSION PROTECTION WALLS

The material used for the backfilling behind gabion erosion protection walls can be approved "cut to spoil" material. The Contractor shall ascertain from the Employer's Agent which "cut to spoil" material can be used for the backfilling. The density of backfilling behind gabion erosion protection walls shall be at least 85% of modified AASHTO density."

SECTION 5800: LANDSCAPING AND PLANTING PLANTS

B5801 SCOPE AND DEFINITION

(a) *Delete this paragraph and replace with*

“This section includes all areas affected by construction activities. It includes landscaping, grassing, rehabilitation, erosion protections and planting trees and shrubs.

(b) **Definition**

WEEDS

Delete the following:

“(as listed in bulletin 413 issued by the Department of Agriculture, Directorate of Agricultural Information)”

and replace it with:

“(as listed in the Conservation of Agricultural Resources Act)”

B5802 MATERIALS

(e) **Grass sods**

Delete “until they are placed” and add “once placed for planting”.

(i) Nursery-grown sods

Add the following:

“The sods shall be free of weeds, weed seeds, insects and fungal diseases.”

(ii) Veld sods

Add the following:

“The sods shall be free of weeds, weed seeds, insects and fungal diseases.”

(g) **Topsoil**

Add the following at the end of the first paragraph:

“The Contractor shall be responsible for the control of any germination of weed seeds within topsoil used on site.”

Add the following at the end of the second paragraph:

“Areas such as stockpiles, borrow pits and spoil sites shall be stripped of all topsoil before work may commence within the area. Should a larger site for any of the above be required during construction, the Contractor shall refer to the Dedicated Environmental Officer (DEO) for best practice methods on ensuring the preservation of the additional stripped topsoil.”

Add the following paragraph:

“The topsoil shall be kept free of all foreign material generated during construction. This shall include all stone and bituminous products. Topsoiling shall not be accepted should it contain any of the above material.”

B5804 PREPARING THE AREAS FOR PLANTS

(b) **Areas which do not require topsoil**

Replace:

“50 mm” with “20 mm” and “15 0mm” with “20 mm”

Add the following:

“In areas with large natural rock, i.e. not blasted or excavated rock, these rocks may be placed so as to look like a natural part of the landscape”

Add the following sub-clause:

“(g) Removal of undesirable vegetation

During the course of the Contract the Employer’s Agent may instruct the Contractor to physically remove undesirable vegetation from within the road reserve. Such an operation will take place before the flowering stage of the undesirable vegetation upon written instruction from the Employer’s Agent, but shall not relieve the Contractor of his obligation towards weeding sodded, grassed areas as described under 5806(a) and any area directly affected by any construction activity. Should the Contractor fail to respond to the written instruction from the Employer’s Agent for the removal of the aforementioned undesirable vegetation before flowering, the Contractor shall be held contractually responsible for any growth or seeding of said vegetation for a period of not less than twenty-four (24) months in the affected area.”

B5805 GRASSING

(a) Planting grass cuttings

2nd paragraph – remove “be covered with 30 mm of approved soil”. Replace with:

“have the root system of the grass cuttings thoroughly planted within the topsoil layer to ensure good growth. No part of the grass root system shall be left protruding from the topsoil”.

Remove “and, when sufficiently dry, shall be rolled with a light agricultural roller”

(b) Sodding

Add the following:

“Grass sods obtained from a commercial grass farm shall be used for the following:

A 1m wide strip shall be placed next to the road edge where no gravel shoulder exists.

A 0,5m wide strip shall be placed adjacent to all concrete-lined drains. Full sodding must be used for grass-lined drains. This sodding shall extend over the entire drainage channel, including the tops of the sides. The use of grass sods will commence from the point of acceptance of water, up to the safe discharge of water. No area shall be left without grass sods within the drainage channel should it provide a risk of erosion.

A minimum of a 1m wide strip shall be placed over the shoulder breakpoint for all fill slopes.

Full sodding to be used for all slopes steeper than 1:2. Any slope that exceeds 3m in width shall be sodded, the type of which shall be determined by the slope.”

(f) Sowing by hand

Delete the following:

“If approved by the engineer,”

Replace the second sentence with:

“The top 20mm of prepared topsoil shall be raked away in sections, the seed shall then be spread uniformly within the prepared area. The top 20 mm topsoil shall then be raked over the seedbed, ensuring an even thickness. This method is to be systematic, and where applicable, follow the contours of any slopes.”

Add the following:

“The thickness of the topsoil layer shall be as specified by the Employer’s Agent. The preparation of the soil for areas to be grassed is to include scarifying just before sowing the grass seed. Should erosion of any kind (by animal, wind or rain) have occurred before the Contractor applies the grass seed, the slope shall be re-instated, at the Contractor’s cost, to its original, erosion free state before seeding.

The types and mixtures of seeds to be used shall be as specified in the Project Specifications. The Contractor shall be solely responsible for establishing an acceptable grass cover, and any approval by the Employer’s Agent of seed mixtures intended for use by the Contractor shall not relieve him of his responsibility”.

B5807 TREES AND SHRUBS

(a) Positions of trees and shrubs

Add the following:

“(x) No median shall be planted with shrubs, should the median width be less than 10m wide.”

B5808 GENERAL

Add the following subitems:

“(f) **Weeding**

The Contractor shall maintain all areas affected by construction activities free of all undesirable plant species. They shall be removed before the flowering stage of each species. Should the Contractor fail to remove the alien plant species before flowering he shall be held responsible for alien plant removal within the affected area, for an additional period of one year, over and above the contractual one-year Defects Liability Period.

The method for the removal of undesirable plant species shall be either by hand, which shall include the removal of the complete root system, or by chemical means, through the use of a registered selective herbicide. A registered, licensed pest control operator, licensed for the industrial application of herbicides, shall only administer the application of the herbicide.

g) Establishment of vegetation within areas disturbed by construction activities

The Employer’s Agent shall assess any area within the construction boundaries that has been disturbed by construction activities, but which is not scheduled for formal revegetation within the Contract. The assessment shall include whether re-vegetation is required. These disturbed areas, none the less remain the Contractor’s responsibility for the removal of alien vegetation.

SECTION 6100: FOUNDATIONS FOR STRUCTURES

B6103 GENERAL

a) Subsurface Data

Add the following:

“It is expressly understood that, while all subsurface information is given in good faith, the correctness of the information furnished is not guaranteed. Where the actual foundation conditions encountered are considerably at variance with conditions visualised and described in the Contract documents and those terms for which the rate or price provided for in the Contract is rendered unreasonable or inapplicable, such other rate or price consistent with the rates set out in the Contract shall be fixed as set out in Clause 6.8.1 of the General Conditions of Contract subject always to a founding depth variation not exceeding 2.5 m in any foundation component (except piling depth) of the permanent structure not, by itself, being held to constitute cause for variation for the Contract rates or prices.”

B6104 ACCESS AND DRAINAGE

c) Additional Lateral Support

Add the following:

This Item may be scheduled as a provisional sum to cover payment for

- a) Ensuring stability of a particular structure or any service or other part of the Works that has been specified in the project specifications, or described adequately elsewhere at the tender stage, and that may be at risk because of the proximity of the slope of a face excavated in terms of 5.1.1.2(b).
- b) Lateral support ordered by the Engineer to ensure the stability of a feature or abnormality that cannot be described adequately at tender stage.

Where support in terms of a) or b) above is ordered by Engineer, the method may be agreed between the Engineer and the Contractor, but the rate for a) above shall cover cost of designing (if designed by the Contractor), providing, installing, maintaining, and removing lateral support that is provided to preserve the stability of the structure, service or other part of the Works, as specified. Payment for b) above will be at the price to be agreed upon or, if agreement cannot be reached, at daywork rates.

Where additional support is measured by area, the area will be computed by multiplying the vertical depth by the length of the face or faces ordered to be supported.”

d) Drainage

Add the following:

“Where dewatering and keeping dry of excavations has not been billed separately as per item 61.03 “Access and Drainage”, it shall be deemed to be included in the rates tendered and paid for excavation and backfill.”

B6105 EXCAVATION

a) General

Add the following:

“Excavation required for diverting, channelling or widening streams within 5.0m of concrete structures shall be measured and paid for under item 61.02. Excavations beyond the 5.0m limit shall be measured and paid for under the appropriate items in Sections 2100 and 3300.”

c) Excavation

Add the following paragraphs:

“Where excavation is in soft material, the final 0.75m and in the case of hard material, the final 0.25m of material shall be removed using suitable hand tools such as pick and shovel or pneumatic tools.

During construction of the river bridges the Contractor will only be permitted to construct, subject to the approval of the Directorate of Water Affairs, low level causeways access the rivers that cause negligible backing up and cofferdams around the piers and abutments for the construction of the foundations using material excavated in the road prism consisting of natural alluvial deposits of sand boulders, etc. These obstructions must be removed at the end of the Contract and the river and banks restored to their original condition.

g) The safety of excavations

Add the following paragraph:

“The design for shoring, signing of the drawings and inspection prior to construction of the permanent works of excavations to ensure it is safe shall be undertaken by the Contractor’s competent person, who shall be a professional Employer’s Agent with the relevant experience. The Contractor shall ensure that all temporary works undertaken shall comply with the relevant sections of the Occupational Health and Safety Act and the Construction Regulations”.

B6106 FOUNDING

Add the following clause at the end of the last paragraph:

“Where foundation slabs or pile caps are cast directly against the face of the excavations, the volume of concrete measured for payment shall be the total volume of concrete placed or the volume based on the plan dimensions detailed on the drawings plus a 100mm allowance for over break on each applicable side whichever is the lesser. No formwork to the footing shall be measured when the concrete is cast against the face of the excavations”.

B6109 FOUNDATION FILL

In the 5th paragraph, 7th line delete “60” substitute “45”.

Add the following after the 6th paragraph:

“Concrete blinding shall extend 100mm all-round beyond the horizontal dimensions of all formed footings to facilitate placing of the formwork, unless otherwise directed by the Employer’s Agent.

In the case of structures where excessive ground water is encountered, the blinding layer may extend over the full plan area of the base of the excavation and beyond the edge of the foundation where required. Payment shall be made for the quantity of concrete calculated as the product of the specified thickness of blinding layer and the actual area of blinding placed subject to a maximum distance of 500 mm beyond the edge of the foundation.”

B6113 FOUNDATION PILING

j) Precast concrete piles

(i) Manufacture

Add the following:

“The Contractor shall check the design of the piles to accommodate the external loads and applied bending moments as a result of handling, transportation storing and driving. All pile designs shall comply with the requirements of BS 8004 and TMH 7, Part 3 as applicable, and shall contain at least the minimum steel as shown on the drawings.

The piles are designed to transmit the total load imposed upon them.

The Contractor shall submit details of the pile driving criteria and the design sent to the Employer’s Agent for approval at least 4 weeks before driving any piles”

l) Driving the piles

Add the following:

“Based on the information furnished on the drawing, the Contractor shall submit details to the Employer’s Agent at least 2 weeks before driving any piles, the methods he proposes to use to drive each pile to its full depth in one continuous operation (with due allowance for coupling time). Partially driven piles shall not be permitted to stand overnight due to the dissipation of pore water pressure.”

p) Determining pile lengths

Add the following:

“It is required that the top section of each pile has a minimum length of 2.5 m below the pile cap before the coupler or such greater length as specified by the Employer’s Agent. The Contractor shall submit to the Employer’s Agent for approval the minimum length he proposes to use.”

u) Load test

General

Insert the following as a first paragraph at the beginning of this clause:

“The Employer’s Agent may require that a trial pile(s) be installed and load tested prior to the commencement of the piling works proper. The Employer’s Agent may require that the installation of such trial pile(s) be measured and paid for separately, thus not forming part of the working piles installed later on.”

Insert the word “working” between the words “selected” and “piles” in the first sentence of the next paragraph.

Insert the following after “subclause 8112 (c)“:

“All types of load tests on piles shall be classified as special tests in accordance with Clause 8115. The normal compression type of load test procedure on a pile is covered under clause 8112(c). Other types of pile load tests (e.g. internally jacked systems) may however be required. Clear provision is to be made in the project specifications (under a clause B8112(c)) and on the drawings, and in the Bill of Quantities under a clause B8117 item B81.02, for such alternative types of pile load tests classified as special tests.”

x) Nuclear integrity testing

Delete this subclause and replace it with the following:

“(x) Pile integrity testing (PIT)

(i) Calibration piles

Before piling on any site is to commenced with, the Contractor shall (per pile construction site) construct a 5.0m long calibration pile of the same pile type, same method of construction as the piles in the bridge or structure or wall, same diameter, and same concrete mix and reinforcing. The location of this calibration pile (at any particular site) will be selected in agreement with the Employer’s Agent.

(ii) Provisions with regard to pile cap construction

Results from integrity tests on the piles for each pile cap must be evaluated and submitted to the Employer’s Agent for approval, before any work on the pile cap itself may commence. Tests on the calibration pile must be done at the same time or before tests on the first working pile are undertaken.

(iii) Pile integrity test method

The purpose of integrity testing is to prove that the construction techniques employed to create a bored or augured pile is satisfactory in terms of quality assurance with respect to aspects such as necking of concrete in the pile shafts, checking concrete cover to reinforcement, checking for honeycombing or grout loss, segregation of aggregate inclusion and for large cracks or voids.

(1) Cross-Hole Sonic Logging (CSL) and optional Base Integrity Test

(aa) Overview

This method is used to verify the integrity of the pile shaft particularly in the case of larger diameter piles.

By sending ultrasonic pulses through concrete from one probe to another (probes located in parallel tubes), the CSL procedure inspects the drilled shaft structural integrity and extent and location of defects, if any. At the receiver probe, pulse arrival-time and signal strength are both affected by the concrete. For equidistant tubes, uniform concrete yields consistent arrival times with reasonable pulse wave speed and signal strengths. Non-uniformities such as contamination, soft concrete, honeycombing, voids, or inclusion exhibit delayed arrival times with reduced signal strength.

An optional Base Integrity Test (in order to establish the quality of the pile base/end bearing contact via the CSL tubes) Specification is included at the end of this section.

(bb) Personnel Requirements

The CSL consultant shall have a registered professional Employer’s Agent supervising the testing and interpretation of results. The CSL consultant shall be an independent testing agency with at least 3 years experience in CSL testing. The consultant’s qualifications and the specifications for the equipment used shall be submitted to the Employer’s Agent for approval prior to beginning bored or augured pile shaft installation.

(cc) Equipment requirements

A Cross Hole Analyser (CHA) that meets the following minimum requirements:

(1) Computer based CSL data acquisition system for display of signals during data acquisition, with a minimum 12 bit A/D converter with a sampling frequency of at least 500 000Hz, and recording of all pulse signals for full analysis and individual inspection.

Note: Converting signals with low noise using high A/D resolution and sampling rates is important to obtain quality data and allow proper full data interpretation.

(2) Ultrasonic transmitter and receiver probes capable of producing records at a minimum frequency of 50 000Hz with good signal amplitude and energy through good quality concrete. The probes shall be less than 28mm in diameter and shall freely descend through the full depth of properly installed access tubes in the drilled shafts.

(3) Two depth sensors to independently determine transmitter and receiver probe depths.

(4) Triggering of the recording system time base with transmitted ultrasonic pulse.

(dd) Access tube preparation

The access tubes in each drilled shaft are indicated on the Drawings. Every drilled shaft shall be equipped with access tubes to permit inspection by CSL. All permanent drilled shafts are to be tested by CSL. 50 mm (minimum) nominal diameter 3mm wall thickness mild steel tubes are specified for access for the probes in each drilled shaft. Typically 3 to 4 tubes are used, although up to 6 may be used in larger piles. Round tubes with regular internal diameter free of defects and obstructions, including any tubes joints, to permit the free, unobstructed passage of the probes shall be used. Tubes shall be watertight and free from corrosion with clean internal and external faces to ensure a good bond between the concrete and tubes. Tubes may be extended with mechanical couplings. Duct tape or other wrapping materials to seal the joints and butt welding of joints are prohibited. Tubes shall be installed by the Contractor such that the CSL probes will pass through the entire length of the tube without binding. Ensure that the access tubes are plumb and verify that unobstructed passage of the probes is achievable before the CSL consultant arrives.

Note: If an existing pile does not contain access tubes, access holes can be installed by coring a borehole in the concrete. Locate cored holes about 150 mm inside the reinforcement cage. Log core holes and include descriptions of any inclusions or voids. For pile drilled shafts with access tubes that do not allow the probe to pass through the entire length of the tube due to poor workmanship, replacement access holes may be provided by core drilling.

Fit the tubes with watertight shoe in the bottom and a removable cap on the top. Secure the tubes at regular intervals not to exceed 1,0m to the interior of the reinforcement cage. Install the tubes uniformly and equidistantly around the circumference such that each tube is spaced parallel for the full length and at the maximum distance possible from each adjacent tube. Tubes should be spaced as far as possible from the main axial reinforcing steel. Extend the tubes to within 300 mm of the bottom of the pile, and at least 1,0m above the drilled shaft tops, and at least 0. 6m, but no more than 1.5 m above the ground surface. Do not damage the tubes during installation of the reinforcement cage.

Note: Do not allow the tube to rest on the bottom of the drilled shaft excavation.

After placement of the reinforcement cage, fill the access tubes with clean fresh water as soon as possible but within at the latest one hour of concrete placement. Cap the tube tops to prevent debris from entering the access tubes. Do not apply excessive torque, hammering or other stresses that could break the bond between the tube and concrete when removing caps from the tubes.

Note: The tubes should preferably be filled with water prior to concrete placement, but MUST be filled with water within at most 4 hours after placing concrete to prevent debonding of the access tubes due to differential temperatures.

(ee) Test sequence

Test the drilled shaft no sooner than 3 calendar days after placement of all concrete in any drilled shaft, but within 10 days after placement and prior to loading for test drilled shafts, or within 45 days after placement on production drilled shafts.

Note: CSL testing can be performed any time after concrete installation, although 2 days is usually the minimum acceptable wait. Because the concrete strength and quality generally increases as the concrete cures, longer wait times are usually desirable, particularly if minimum pulse wave speeds are specified or to reduce result variability between drilled shafts or even as a function of depth in a single drilled shaft. However, if PVC tubes are used, long wait times increase the tube debonding, which is detrimental to the test. Production of drilled shaft installation and subsequent construction influence the dates of CSL testing.

After all CSL testing has been completed, and after acceptance of the drilled shaft by the Employer's Agent, the Contractor shall remove the water in the tubes, place grout tubes extending to the bottom of the access tube, and fill all access tubes in the drilled shafts with grout.

(ff) Test procedures

Prior to CSL testing, the Contractor shall provide the Employer's Agent and CSL consultant with a record of all drilled shaft lengths with elevations of the top and bottom, and installation dates of all drilled shafts. The access tubes shall be clearly labelled for identification by the CSL consultant.

The CSL testing shall be performed with the transmitter and receiver probes in the same horizontal plane in parallel tubes unless test results indicate potential defects, in which case the questionable zone may be further evaluated with angled tests (source and receiver vertically offset in the tubes). Using the labelling established for the tubes, perform CSL testing between all adjacent perimeter access tube pairs and across at least two major diagonals within the drilled shafts with more than four tubes, additional logs in other diagonal tube pairs may be required to estimate the extent of the defect.

Lower the probes from the top, effectively measuring the access tube lengths. Pull the probes simultaneously, taking CSL measurements at intervals of 50mm or less from the bottom to the top of the drilled shaft. Defects indicated by late pulse arrival times and significantly lower amplitude/energy signals shall be immediately reported to the Employer's Agent. Additional tests such as the offset elevation CSL testing may be required by the Employer's Agent to further evaluate the extent of such defects. If debonding between the access tube and the concrete is indicated by the CSL results, an alternative test method will be required to determine the integrity of the concrete in the debonded region.

Note: In case defects are detected, additional tests or analysis options may include CSL tomography, Gamma-gamma nuclear density logging, sonic echo or impact response tests, high strain dynamic pile testing, static load testing, or concrete coring. If the drilled shaft is cored, an accurate log of the cores that include depth and core recovery shall be kept, and core and coring logs shall be properly identified and given to the Employer's Agent.

(gg) Results

Present the results of the CSL in a written report within five (5) working days of completion of testing. The report shall include presentation of CSL logs for all tested tube pairs including:

- (1) Presentation of the traditional signal peak diagram as a function of time plotted versus depth.
- (2) Computed initial pulse arrival time or pulse wave speed versus depth.
- (3) Computed relative pulse energy or amplitude versus depth.

A CSL log shall be presented for each tube pair. Defect zones, if any, shall be indicated on the logs and their extent and location discussed in the report text. Defect zones are normally (see Note below also) defined by an increase in arrival time of more than 20% relative to the arrival time in a nearby zone of good concrete, indicating a slower pulse velocity.

Note: Because the tubes might not be perfectly straight or even parallel, a fixed absolute limit of a wave speed value cannot be used for evaluation. It should also be noted that if the referenced good concrete exceeds the specifications, then a concrete with a local 20% wave speed reduction might still exceed the specifications.

The log for each tube pair shall be clearly identified and oriented relative to the structure. The Employer's Agent shall have five (5) working days to evaluate the results and determine whether the drilled shaft construction is acceptable or not. The Contractor shall not perform any load testing or other construction associated with these drilled shafts until after acceptance by the Employer's Agent. If the drilled shaft is accepted by the Employer's Agent, the Contractor may then proceed with construction. If the Employer's Agent determines the drilled shaft is not acceptable, the drilled shaft must be cored, repaired or replaced by the Contractor at the Contractor's expense and with no increase in contract time.

(hh) Base integrity test

In order to establish the quality of the pile/base rock contact, a base integrity test shall be performed. This shall be accomplished in the following manner:

- (1) The 85mm diameter tubes for the "Cross Hole Sonic Logging" shall be installed to within 300mm of the base pile of the pile. The base of the tubes shall be sealed square with a watertight seal.
- (2) NX (55mm) diameter cores shall be drilled within 85mm diameter tubes, through the remaining 300mm of pile concrete and for a distance of 1200mm into the rock at the toe of the pile. The core shall be carefully retrieved with drill string lengths and datums noted. This core shall be marked and carefully placed inside a plastic sheath such that the actual condition of the interface between pile and rock is not disturbed. The core shall be temporarily stored in a core box for later inspection.

At the completion of the test, and when instructed by the Employer's Agent, the complete assembly to the top of the pile shall be filled with non-shrink grout of at least 30 MPa strength. The hole shall be filled from the bottom up.

The basis of payment shall be in accordance with pay items 61.37, 61.38 and 61.39.

Impulse or Impact Frequency Response (IFR) or "Tapping" Method

(aa) Overview

These tests have a depth limitation with respect to checking the pile shaft quality, this being typically 20 to 30 pile diameters. The pile head is struck with a handheld hammer, which sends low strain stress waves down the pile shaft. The pile concrete shall have attained an age of at least 3 days. This induced stress wave is reflected off the pile toe, as well as off any other discontinuities along the pile shaft. This reflected wave gets recorded by a handheld accelerometer pressed against the top of the pile, and converted into a velocity-time trace presented on-screen as velocity versus pile depth. This is non-intrusive test and can be implemented on all types of cast in situ or grouted in situ piles of 250mm diameter and upwards.

Interpretation of the resulting graph will typically yield the following:

- (1) Significant inclusions (5-10 % of pile shaft area).
- (2) Horizontal cracks (or joints).
- (3) Pile necking.
- (4) Changes in surrounding soil layers.

(bb) Personnel requirements

The IFR consultant shall have a registered professional Employer’s Agent supervising the testing and interpretation of results. The IFR consultant shall be an independent testing agency with at least 3 years experience in IFR testing. The consultant’s qualifications and the specifications for the equipment used shall be submitted to the Employer’s Agent for approval prior to testing.

(cc) Pile head preparation

Piles shall be tested from the cut-off level in sound concrete (about 50mm above pile cap soffit level). Helical shear links shall be removed to allow ample swing area for the hammer. A level hammer area of about 100mm diameter shall be prepared in the pile centre by using scabblers, hammer and chisel. For the geophone, an area of about 80mm diameter shall be similarly prepared close to the pile perimeter.

(dd) Results

Written report in an easy to read and understand format, shall be submitted within five (5) working days of completion of the testing. The report shall include all IFR logs, as well as interpretation of the data.

B6115 MEASUREMENT AND PAYMENT

Delete pay item 61.50 and replace it with the following items for Pile Integrity Testing (PIT):-

| “Item | Unit |
|---|-------------------|
| B61.50 Pile Integrity Testing on Driven piles | |
| (a) Constructing 4.0 m long reinforced concrete/ grout calibration bored piles of (indicate diameter(s)) inclusive of the required number of 85 mm diameter mild steel | number (No) |
| (b) Providing and installing 85 mm diameter mild steel tubes used for “Cross Hole Sonic Logging” in all designated piles (per pile construction site) | metre (m) |
| (c) Impact Frequency Response (IFR) tests and interpreted results (per pile diameter and per pile construction site) | number (No) |
| (d) Cross-Hole Sonic Logging tests and interpreted results (per pile diameter and per pile construction) | metre of pile (m) |
| (e) Base integrity tests (per designated pile, per pile construction site): | |
| (i) Establishment on the site for core Drilling (as per COLTO pay item 61.37) | lump sum (LS) |



- (ii) Moving equipment and assembling it at each location/pile position where cores are to be drilled (as per COLTO pay item 61.38)number (No)
- (iii) Drilling the cores (diameter indicated) in:
 - (aa) Concretemetre (m)
 - (bb) Founding formation:
 - (1) Irrespective of hardnessmetre (m)
 - (2) With a hardness of (hardness indicated)metre (m)
- (iv) Log of cored datanumber (No)

The unit of measurement shall be the number of cores logged. The tendered rate shall include full compensation for the log of the core data by a qualified person, who shall be approved by the Employer's Agent. The core logging shall be done in general accordance with the "Guidelines for soil and rock logging" compiled by the Geotechnology Workshop and published by SAICE in 1990.

- (v) Grouting up all CSL tubes after successful testingcubic metre (m³)

The unit of measurement shall be the volume of grout used to fill all the tubes used for sonic testing and the cores.

The tendered rate shall include full compensation for the grout, equipment and all labour used to fill the tubes and cores. The grout shall have a compressive strength of at least 30 MPa.

The unit of measurement for subitem (a) shall be the number of 4.0 m long calibration reinforced concrete bored piles provided complete with the required number (and length) of 85 mm mild steel tubes to facilitate CSL testing and constructed similarly to the proposed working piles.

The unit of measurement for subitem (b) for the 85 mm nominal diameter mild steel tubes shall be the metre of approved 3mm thick tubes provided and installed into all designated piles of various diameters in accordance with the Specification.

The unit of measurement for subitem (c), viz for the Impact Frequency Response tests shall be the number of designated piles tested by the IFR method as compensation for establishment on site, procurement, preparation, conducting and supervising the tests and full compensation for the proper evaluation and reporting of the results and findings to the Employers Agent, by the IFR consultant.

The unit of measurement for subitem d), i.e. the CSL tests, shall be the metre of pile shaft fully tested (for all designated piles) using the Cross-Hole Sonic Logging method, and shall include full compensation for establishment and removal of all specialised equipment and expert personnel as well as for all materials, for the preparation and conducting and supervising the tests as well as full compensation for the proper evaluation and reporting of the results as well as the interpreted findings/conclusions/recommendations to the Employer's Agent by the CSL consultant".

SECTION 6200: FALSEWORK, FORMWORK AND CONCRETE FINISH

B6204 DESIGN

a) General

Add the following:

“The Contractor shall submit to the Employer’s Agent at least 4 weeks before the structure is scheduled for construction a detailed analysis showing the effect of the stresses that will be induced by the Contractor’s chosen method of construction. The cost of any additional prestressing, reinforcing steel, concrete, etc. required as a result of the Contractor’s chosen method of construction shall be to the Contractor’s account. No construction shall commence until the Employer’s Agent has given his written approval.”

b) Falsework

“Unless instructed otherwise by the Employer’s Agent, the Contractor shall submit his design criteria and detailed drawings of the staging to the formwork. The design, signing of the Drawings and inspection of the falsework prior to construction of the permanent works shall be undertaken by the Contractor’s competent person, who shall be a professional Employer’s Agent with the relevant experience.”

B6205 CONSTRUCTION

b) Formwork

(i) General

Add the following:

“Formwork to faces of structures with a gradient equal to or greater than ten vertical to one horizontal shall be classified as vertical formwork.

Formwork to faces of structures with a gradient less than ten vertical to one horizontal, or equal to or greater than one vertical to ten horizontals, shall be classified as inclined formwork.

Formwork to faces of structures with a gradient of less than one vertical to ten horizontal shall be classified as horizontal formwork.”

(ii) Formwork to exposed surfaces

Add the following:

“The formwork at construction joints shall have moulding strips 25mm x 25mm neatly butted and set at the position of the construction joint”.

(vi) Permanent formwork

Add the following paragraph:

“Anchor ties shall be designed to resist full buoyancy forces and details of such shall be submitted to the Employer’s Agent for approval. Void formers shall be held in position in order that no movement exceeding 1% of the deck thickness takes place during concreting.”

d) Class F3 surface finish

Replace the second paragraph with the following:

“The use of steel forms shall be permitted to form surfaces for which Class F3 surface finish has been specified, provided that only undamaged forms shall be used for such work and that the forms shall be subject to the approval of the Employer’s Agent.”

B6210 MEASUREMENT AND PAYMENT

| Item | Unit |
|------|------|
|------|------|

| | |
|---|--|
| B62.04 Inclined Formwork to provide (class of finish indicated as F1, F2, F3 or board) surface finish to (description of member to which applicable) | |
|---|--|



Delete the entire note at the end of this pay item.

Item

Unit

Add the following items:

B62.09 Unformed Surface:

(b) Steel-floated finish..... meters squared (m²)

SECTION 6300: STEEL REINFORCEMENT FOR STRUCTURES

B6306 PLACING AND FIXING

Replace the second and third paragraphs with the following:

“The concrete cover for all structural concrete shall be within the acceptance ranges shown in Table B6404/6. Prior to fixing the steel, samples of the proposed cover and spacer blocks shall be submitted to the Employer’s Agent along with a written statement for in situ manufacture, if applicable, for approval.

Overlap of steel reinforcement bars shall be such that the cover to the lapped bars remains constant at the specified cover.”

B6307 COVER AND SUPPORT

Amend the second paragraph as follows:

Replace the second sentence, commencing with:

“Where no cover is indicated...shown in Table 6306/1” with the sentence “Where no cover is indicated, the Contractor shall inform the Employer’s Agent who shall after consultation with the design Employer’s Agent indicate the required cover in writing and the as-built drawings shall indicate such cover”.

Add the following to the end of the fifth paragraph:

“Concrete cover and spacer blocks shall be made using the same cement and aggregate type as the main concrete with the same water/ cement ratio so that differences in shrinkage, thermal movements and strain are minimised. Cover blocks shall be water cured by submersion for a minimum of 7 days and thereafter kept submerged in water until immediately before fixing onto reinforcing steel. Where concrete cover blocks, subsequent to fixing, have visually dried out they shall be remoistened by an appropriate method so that they are damp before the placing of concrete. Only semi-spherical concrete cover blocks shall be used. Where fixing wire is inserted into cover blocks, it shall be galvanised. Cover and spacer blocks manufactured from other materials e.g. plastic or wood, shall not be permitted. All cover blocks regardless of the type of material manufactured from, shall not be visible on exposed concrete surfaces.”

Delete Table 6306/1 in its entirety.

Add the following paragraph:

“Where the concrete cover specified has not been achieved after cover tests have been carried out in accordance with clause B8106(j), reduced payment as determined under clause B8212 shall be applied to all the relevant pay items under section 6300.”

B 6310 MEASUREMENT AND PAYMENT

| Item | Unit |
|------|------|
|------|------|

B63.01 Steel reinforcement for :

Add the following sub-item:

| | |
|---|---------|
| (f) Extra-over item 63.01 (e) for galvanizing of reinforcement..... | ton (t) |
|---|---------|

The unit of measurement shall be the ton of reinforcing steel hot-dip galvanized with an 85 micrometre coating in accordance with the detail on the drawings, SABS ISO 1461, and the Standard Specifications, clause 6705 (m) (iii).

The tendered rate shall include full compensation for all materials, tools and equipment required to galvanize the specific bars of steel as required as well as transporting and handling costs.

SECTION B6400: CONCRETE FOR STRUCTURES

B6401 SCOPE

Add the following paragraph:

“The Contractor shall take and submit samples of materials and/or mixtures to the Employer’s Agent who must approve mix designs before construction work can commence.”

B6402 MATERIALS

a) Cement

Replace the colon at the end of the first paragraph with a comma, and add the following:

“taking into account the adoption of the new SANS 50197-1:2000 code for cements: (refer to C&CI website www.cnci.org.za)”

Add the following paragraphs:

“The type of cement to be used in any concrete element shall take into account the environmental conditions and durability requirements at the location of the Site of the Works, and shall be as approved by the Employer’s Agent.

With the exception of the standard SANS approved cement blends supplied by the primary cement producers, the blending of CEM1 and extenders shall not be permitted unless specifically approved by the Employer’s Agent on the basis of an acceptable quality assurance procedure.

b) Aggregates

Delete the remainder of the sentence after “exceed” in sub-clause (i)(1) and replace with the following:

“150% of that of the reference norite aggregate or any of the other three reference aggregates”

Delete the remainder of the sentence after “exceed” in sub--clause (i)(2) and replace with the following:

“200% and of the coarse aggregate 175% of that of the reference norite aggregate or any of the other three reference aggregates”

Delete the remainder of the sentence after “exceed” in the first paragraph of sub-clause (i)(3) and replace with the following:

“235% of that of the reference norite aggregate or any of the other three reference aggregates”

Delete the entire last paragraph of sub-sub-sub-clause (i)(3) commencing with “The drying shrinkage of concrete...”

Add the following sub-sub-clause:

“(vi) The maximum chloride ion content of fine aggregate shall be 0,03% by mass of aggregate as specified by SANS 1083:2002. Where concrete is situated in a chloride environment the value shall be reduced from 0,03% to 0,01%.”

d) Water

Add the following:

“Water for concrete other than prestressed concrete, shall not contain chlorides, calculated as sodium chloride, in excess of three thousand parts per million (3000 ppm) nor sulphates, calculated as sodium sulphate, in excess of two thousand parts per million (2000 ppm).

Water for curing concrete shall not contain impurities in sufficient amount to cause discolouration of the concrete or produce etching of the surface.

No sea-water or water containing salts shall be used.

No water shall be added on site to ready mix concrete prior to placing to improve workability. All concrete delivered to site shall be checked for workability using the slump cone test and slump measured outside of the limit set from the design mix shall be rejected.”

e) Admixtures

Add the following sub-sub-clauses:

“(v) Admixtures, which have a retarding effect on the rate of hydration of the cement, may not be used when the concrete temperature is below 20°C.

“(vi) A retarding admixture shall be used if the temperatures of concrete mixes using cements of strength class 42.5 or higher is between 20 to 30°C or where the ambient temperature is between 20 to 30°C.”

Add the following:

“Note: Only admixtures of the type that do not increase the water content of the mix will be considered by the Employer’s Agent. In addition, no admixtures shall be added on site to ready mix concrete prior to placing to improve workability.”

B6404 CONCRETE QUALITY

a) General

Insert the following paragraph after the second paragraph:

“When structural concrete prefixed ‘W’ is shown on the drawings, it shall, in addition to the strength requirement, comply with the durability requirements specified in sub-clause 6404(h), ‘W’ class concrete shall not apply to minor structural elements such as side drains and catch pits except in very severe environmental conditions of exposure. Requirements for concrete quality (including any durability requirements) for concrete pavements are found in Section 7100 of the Specifications.”

b) Strength concrete

Replace the sixth paragraph with the following:

“Where concrete is designated by the prefix “W”, e.g. class W30/19, such designations shall denote concrete achieving the durability criteria specified in the relevant tables under sub-clause B6404(h).”

Add the following sub-clauses:

“h) Concrete durability

(i) General

Concrete designated by the prefix ‘W’ shall, in addition to the requirements of sub-clause 6404(b) comply with the durability parameters described below. Durability is influenced by the materials used in the concrete, their mix proportions, transporting, placing, compacting and, in particular, curing of the finished cover concrete (concrete layer between the outermost layer of steel reinforcement and the exposed outer surface of the concrete element). The tests required to prove durability performance of the placed concrete are given under sub-clause B8106(i).

It is the Employer’s Agent’s responsibility to approve the component materials and their mix properties, however it is the Contractor’s responsibility to utilise acceptable component material and to achieve mix properties complying to the Specifications. It is the Contractor’s responsibility to design and blend materials to produce concrete of the specified quality

(ii) Durability parameters

Water sorptivity: Sorptivity is sensitive to surface effects and may be used to assess the effectiveness of initial curing.

Oxygen permeability: Permeability is sensitive to changes in the coarse pore fraction and thus a means of assessing compaction of concrete. It is used to quantify the microstructure of the concrete and sensitive to macro-defects such as voids and cracking.

Chloride conductivity: Chloride conductivity provides a method of characterisation of concretes in the marine environment and is used to assess the chloride resistance of concrete.

Cover concrete: Cover concrete is the outer concrete layer that protects reinforcing steel. Concrete cover is a requirement for all concrete whether specified as durability concrete (Class “W”) or normal reinforced concrete.

Individual Cover Depth Individual cover depth measurement determined.

Measurement (CDM): by an electromagnetic cover meter, complying with BS 1881, Part 204.

Average Cover: The average of at least 30 individual CDM’s per m² determined on a clearly identified area.

Overall Cover: The mean average cover determined for the scanned area per structure.

Scan Area: Areas of approximately 1 m², randomly distributed over the entire structure, representing at least 5% of total surface area for that structure.

Individual bar reading: A minimum of 3 linear CDM's, spaced at 100mm intervals, representing a single bar of reinforcement.

Capped CDM: The value applied to all CDM's in excess of the maximum allowed CDM, determined by the Employer's Agent (e.g. 40 mm (specified cover) + 15mm (upper limit) = 55 mm) or

Capped Value: A value in mm, assigned to a cover reading where the raw reading exceeds the specified cover, plus a value (mm) specified by the Employer's Agent.

Quick/Linear Scan: For evaluation of cover depth measurements taken perpendicular to closest rebar in a line covering required area to be scanned.

Image/Block/Grid Scan: Provides an overview of rebar layout. Measurements taken over a square meter clearly indicating position of first and second layer of rebar.

Notes:

Water sorptivity and Oxygen Permeability tests are required to assess carbonation resistance.

Water sorptivity, permeability and chloride conductivity tests are required to assess chloride resistance.

Concrete cover: Concrete cover is a dimensional indicator of cover concrete depth, and it varies according to the requirements of the different environmental exposure classes.

When tested in accordance with the test protocols described in B8106 for each potential durability parameter, the concrete shall meet the limits listed in tables B6404/4 and B6404/6.

(iii) Cement content

In order to meet the durability criteria, the proportions of cementitious binder used shall be determined to suit the fine and coarse aggregate and cement type used in order to achieve the durability limits specified in Tables B6404/4 and B6404/6 under the Acceptance Category of "Concrete made, cured and tested in the laboratory."

In order to avoid the possibility of Alkali Silica Reaction (ASR), the following shall be taken into account when designing the mixes:

Where the cementitious contents is less than 350kg/m³, the maximum equivalent sodium monoxide content (calculated as Na₂O) permitted shall be 0.60%, unless a test certificate from the CSIR (Built Environment) is provided stating that the long term testing has proved the aggregate to be non-reactive.

Where the cement content exceeds 350kg/m³, the maximum equivalent sodium monoxide content permitted shall be 2.1kg/m³ of concrete.

Where potentially reactive aggregate is used, the maximum cement content shall be 400kg/m³ and the equivalent sodium oxide (Na₂O) content permitted shall be 2.4 kg/m³ of concrete.

The Contractor shall prior to the use of cement provide test certificates from an approved laboratory confirming the equivalent sodium oxide (Na₂O) content of the batch of cement to be used.

Special literature should be consulted e.g. Fulton's Concrete Technology.

Environmental Classes of Exposure

For this project, the environmental classes for carbonation and chloride exposure for the different structural elements are as shown below in Table B6404/3.

TABLE B6404/3: ENVIRONMENTAL CLASSES OF EXPOSURE FOR ELEMENTS OF STRUCTURE

| Element | Carbonation Environment (OPI) | Chloride Environment (Chloride Conductivity) |
|-----------------|-------------------------------|--|
| Foundations | n/a | n/a |
| Substructures | XC4 | n/a |
| Superstructures | XC3 | n/a |

(v) Acceptance ranges

TABLE B6404/4: DURABILITY PARAMETERS ACCEPTANCE RANGES

| Acceptance Category | Test No./ Description/ Unit | |
|---------------------|-----------------------------|--|
| | | |
| | | |



| | Water Sorptivity (mm// h) | Oxygen Permeability (log scale) | | | |
|--|-----------------------------|---------------------------------|----------------|-----------------|-----------------------|
| | | Parapets | Sub-structures | Super-structure | Etc for other members |
| Concrete made, cured and tested in the laboratory using Trial Panels | <10.0 | >9.4 | >9.6 | >9.4 | >9.4 |
| Full acceptance of in situ using Test Panels | <10.0 | >9.0 | >9.2 | >9.0 | >9.0 |
| Conditional acceptance of in situ concrete based on results of Test Panels | Not applicable ² | 9 – 9.4 | 9.2 – 9.6 | 9 – 9.4 | 9 – 9.4 |
| Rejection based on results of Test Panels | Not applicable ² | <9 | <9.2 | <9 | <9 |

Notes:

- 1) A value has been given, but the value to be adopted shall be based on the results from design mixes.
- 2) Although no value has been given due to ongoing research, values above 12 are regarded as poor-quality concrete.
- 3) For purposes of interpretation, substructure is deemed to be all supporting elements below the deck (superstructure), including buried lengths of columns, etc, but excluding foundation elements like bases and spread footings.

TABLE B6404/6: DURABILITY PARAMETERS ACCEPTANCE RANGES: COVER FOR ALL CONCRETE TYPES

| Test No. | Description of Test | Specified Cover (mm) | Acceptance Range | |
|--------------|--------------------------------------|----------------------|------------------------------|---|
| | | | Min | Max |
| | | | Overall cover | Overall cover |
| B8106(g)(iv) | Concrete cover to reinforcement (mm) | 30 to 80 | 85% of specified cover – 5mm | Specified cover + 15 mm or where member depth is less than 300 mm the limit accepted in writing by Design Engineer. |

(v) Site Testing

To ensure that the concrete has been placed, compacted and cured correctly, a number of tests shall be carried out on the concrete by an approved laboratory.

(vi) Non-compliance with specified criteria

The Contractor should also note that there is specific provision made for curing of concrete under payment item B64.07 of the project specification. The amount priced under this item will be subject to reduced payments should the durability tests indicated under B8106(h) fail to meet the required targets. Similarly, failure to achieve the required durability test results will be sufficient cause to apply partial payment factors for all the pay items of the elements of the structure under sections 6300 and 6400 of the standard and project specifications or in some cases the removal of the rejected concrete.

Add the following sub-clauses:

“i) **Mix design approval procedures**

(i) General

The compressive strength achieved on ‘W’ class concrete shall generally exceed the characteristic strength class structurally required. The Contractor shall note that the process of finalising ‘W’ class mix designs could take up to two months. In order to expedite the process, the Contractor must submit samples of aggregate and cement to an approved laboratory within seven

days of the Commencement Date. Should 'W' class concrete be required before the mix design is finalised, the Employer's Agent will approve a preliminary mix design in consultation with the Contractor.

(ii) Laboratory designs and site tests based on Trial Panels

Good mix design practice is essential, and the following criteria shall be taken into consideration when pricing and determination of the mix design:

- 1) Selection of sands and aggregates to achieve a good grading is important if the desirable concrete density and durability have to be achieved.
- 2) The selection and use of the correct cement grade and type for the environmental conditions (and not based solely on costs) is fundamental.
- 3) Water: cement ratios are critical, dictating both the structural strength and the durability requirements

Mix proportions for the concrete to be used on site need to be determined by an approved laboratory, Cylindrical specimens, 70 ± 2mm in diameter shall be made or cored from a trial panel during the laboratory trial mix for performance of tests B8106(g)(i), (ii) (if required).

Note that concrete cubes are not cored for durability testing during design trial mix stage or during the construction stage.

Testing for approval purposes shall be carried out by an accredited laboratory approved by the Employer's Agent, the costs of which are deemed to be included in the Contractor's rates for structural concrete. Concrete as designed shall satisfy the limits set out in Table B6404/4 under the heading "Concrete made, cured and tested in the laboratory, using Trial Panels". It is therefore a requirement that the trial panels be cast on the Site and the cores extracted and tested in the laboratory as part of the mix design approval process. Where the site is remote from the laboratory, the Trial Panels may be cast at the laboratory in accordance with the requirements of sub-clause B8106(g).

It will be necessary for the Contractor to establish a target mean strength with a margin above the minimum requirement so that small fluctuations due to material changes or workmanship can be accommodated. In general, mean target strength = characteristic strength + 1,645xS_n.

Once the mix is approved, the target mean compressive strength for quality control purposes for durability class concrete shall be the mean compressive strength obtained from the mix that satisfies the durability requirements."

B6407 PLACING AND COMPACTION

Add the following:

"b) Placing

Casting of the in-situ parapets or placing of precast parapets shall only commence after removal of the deck staging, and in addition, in the case of prestressed decks, the stressing must be complete. Where specified on the drawings the top of the parapets after placing shall follow the pre-camber levels specified on the drawings to allow for future creep effects. This is of particular importance on the edges of very long skew decks and prestressed simply supported decks. The levels of the top rail of each panel of the balustrades/parapets shall be confirmed in writing by the Employer's Agent's design engineer."

B6408 CONSTRUCTION JOINTS

a) General

Add the following:

"No construction joints other than those indicated on the drawings will be permitted without the written approval of the Employer's Agent. In all cases the proposed method of forming the joint shall be discussed and agreed with the Employer's Agent."

B6409 CURING AND PROTECTION

Add the following to the end of sub-clause 6409(f):

"Where a curing compound is used, it shall consist of an approved water based low viscosity clear wax emulsion applied in accordance with the manufacturer's instructions."

Add the following paragraphs to the end of this sub-clause:

"Where curing by retention of formwork is used as the only method of curing the concrete, it must be left in place for the minimum period specified in Table 6206/1 but in no instance shall it be less than 7 days.

The materials used for formwork shall take into account properties such as thermal insulation and moisture absorption when assessing the suitability of the material, to the approval of the Employer's Agent.

If impermeable curing membranes are to be used as a curing method, they shall be installed at the same time as formwork is removed and no portion of a concrete surface may be left unprotected for a period in excess of 2 hours. If the surface is an unformed finish e.g. top of deck slab, then the surface must be protected immediately by appropriate methods approved by the Employer's Agent after it is finished, without damage to that surface, since it is vulnerable to plastic shrinkage cracking due to high rates of evaporation while the concrete is still in a plastic state. Plastic shrinkage and settlement shall not be permitted on any of the structural elements since it compromises the durability of the concrete. In order to prevent early settlement and shrinkage of the concrete, the concrete placed shall be re-vibrated after initial compaction while the concrete is still in a plastic state. Any remedial measures shall be as approved in writing by the Employer's Agent. On bridge decks, the top surface shall be cured using the method described in Clause 6409(d) i.e. "Constantly spraying the entire area of exposed surfaces with water".

For all normal concrete and durability concrete (Class W) curing shall be excluded from the make-up of rates for measurement under items B64.01 and B64.02 and will be paid for separately under pay item B64.07. Where the application of a curing compound is used, the type and nominal application rate thereof shall be as specified in the Bill of Quantities or to the manufacturer's nominal specified rates."

B6410 ADVERSE WEATHER

Add the following sub-clause:

"d) Temperature and hydration of concrete

Site batched concrete: The temperature of concrete delivered to site shall be within the range 10°C to 30°C. Concrete which has a temperature outside of this range shall not be placed in the structure.

Ready mix concrete: In the case of ready mix concrete the temperature limits at point of delivery shall be as specified in SANS 878 2004 unless the Employer's Agent has specified other limits due to specific design requirements. If slump loss occurs at concrete temperatures of over 30°C and more than two hours after mixing, the concrete shall be rejected. Also, if after addition of allowed water the concrete begins to stiffen again such as to place in doubt that full compaction and finishing can be achieved, the concrete shall be rejected.

Care must also be taken not to cast concrete onto hot steel shutters as this might induce cracking.

The rate of hydration of the cement in the concrete shall be such that the concrete can be placed and properly compacted within 2 hours after the addition of water to the mix ingredients. The initial set of the concrete shall not be unduly delayed due to inappropriateness of admixtures or cement type, which could promote bleeding."

B6413 PRECAST CONCRETE

Add the following final paragraph:

"Precast concrete units shall comply with the requirements of the latest SANS 986:2006 Specification.

Prior to the manufacture of any units the manufacturer shall submit his Quality Plan to be approved by the Employer's Agent. The quality plan must incorporate all requirements and frequency for durability index testing i.e., Sorptivity, Oxygen Permeability, Chloride Conductivity (if required) and Cover Testing. As part of the Quality Plan submitted for approval, copies of calibration certificates of both gauges used for proof loads and cover meters used at the factory shall be supplied to the Employer's Agent. The originals of these certificates shall at all stages also be available for inspection at the factory premises. The manufacturer shall check each precast unit for cover compliance, and random checking of units shall not be permitted. The Employer's Agent's Representative may visit the factory at any stage to ascertain adherence to the quality plan including test results from the durability index testing as well as to check covers before delivery to site. Any substandard cover shall result in the applicable structural element or part thereof being rejected. Should the manufacturer not be adhering to their Quality Plan the Employer's Agent may exercise the right to reject the use of products from the manufacturer concerned. The Employer shall also be informed in all such cases.

For durability requirements due to the reduced cover provided for precast culverts, all such durability testing shall be done in accordance with clause B6404(h). "

B6414 QUALITY OF MATERIALS AND WORKMANSHIP

a) Criteria for compliance with the requirements

Add the following paragraphs after the first paragraph:

"The cores shall be taken from the Trial Panels cast using the design mixes made in the laboratory. Where the site is remote

from the laboratory, the Trial Panels may be cast at the laboratory in accordance with the requirements of sub-clause B8106(g).

In the event that for 'W' classed concrete strength requirements the actual achieved average cube strengths of an element are less than 85% of the target mean strength needed to meet durability requirements or less than 100% of the target mean strength to meet strength requirements, it may result in the durability parameters not meeting the prescribed targets and the Employer's Agent will instruct the taking of cores from the test panel and structure for additional testing. The cost of these in situ tests shall be borne by the Contractor.

The approved quality control criteria for process control testing for durability concrete shall be coring and testing of test panels. The frequency of manufacture and coring of test panels shall be as ordered by the Employer's Agent and indicated in Tables B8106/1 and B8106/2.

Tests B8106(g)(i), (ii) and (iii) (when required), shall be conducted on cores extracted from the test panels when the concrete reaches the age of at least 28 days. To allow for variability in the material potential, the type of chloride conductivity values shall be limited to 90% of the values indicated in Table B6404/5. Test no. B8106(g)(iv) shall be conducted to confirm that the specified depth of concrete cover has been achieved. The frequency of these tests shall be as described under item B8106(g). The test results shall be accepted or rejected on the criteria set out in Table B6404/4 and B6404/5 based on the following categories:

(i) Full acceptance

Concrete shall be accepted unconditionally, and full payment shall be made.

(ii) Conditional acceptance

Concrete may be accepted, based on the cube strength and durability index results with a warning that construction methods be examined to improve the durability criteria. A reduced payment shall be applied to all the relevant pay items of the specific element under B6300 where the cover requirements are not achieved and B6400 where the oxygen permeability and strength requirements are not achieved for the non-conforming element or concrete pour as set out in Tables B8212/1 and B8212/2. The decision to accept the substandard concrete at reduced payment shall rest solely with the Employer.

Should the test result(s) indicate conditional acceptance of the element tested, the Contractor shall have the option of carrying out additional tests (on 4 extracted cores) on that element of the structure, at his own expense to confirm or disapprove the original test result(s). These cores shall be extracted within 56 days from the date of the element being cast.

Should the additional test confirm the original test result, then the original test result shall serve to determine payment in accordance with Tables B8212/1 and B8212/2.

Should the additional test show that the structure meets the targets, the penalty shall be halved."

(iii) Rejection

The concrete shall be removed and replaced with fresh concrete at the expense of the Contractor, as directed by the Employer's Agent.

B6415 DEMOLITION AND REMOVAL OF EXISTING STRUCTURAL CONCRETE

Add the following at the end of paragraph (a):

"Existing reinforcement removed on surfaces not extended with new work shall be exposed by the careful local removal of the surrounding concrete and cut neatly at a depth of 30 mm below the finished concrete surface. Cavities so formed shall be made good using an approved proprietary non-shrink cementitious repair mortar complying with the requirements of clause B8120. No separate payment will be made for this work, the cost thereof being deemed included in the relevant rate for demolition."

Add the following at the end of paragraph (b):

"Concrete shall be removed to neat lines by saw cutting 30mm deep grooves along the specified cut lines."

B6416 MEASUREMENT AND PAYMENT

Add the following at the beginning of clause 6416:

"Note that pay items B64.01, B64.06 and B64.07 below are only applicable to durability concrete prefixed 'W'."

Item

Unit

B64.01 Cast in situ concrete

Amend the descriptions of subitems 64.01(a) and (b) to read as:

- "(a) Durability Concrete (Class W)cubic metre (m³)
 - (i) Indicate part of structure and strength e.g. Piers (W30/20))
 - (ii) Etc for other parts of structure
- (b) Normal Concretecubic metre (m³)
 - (i) Indicate part of structure and strength e.g. Blinding (15/20)
 - (ii) Etc for other parts of structure

In the case of cast in situ concrete, delete "curing and protecting the concrete," in the sixth line of the description of the tendered rate for item 64.01.

Add the following after the second paragraph in the rate make-up:

"The Contractor shall note that the strengths indicated above are to meet structural requirements only. In order for the durability criteria to be achieved, it may result in higher strengths being required. Target mean strengths to be achieved for durability purposes may therefore be higher than those shown above, as discussed under sub-clauses B6406(b) and B6404(h)(ii). All durability testing costs required for process control testing shall be included in the rate make-up for durability class concrete."

Item **Unit**

B64.06 Demolishing existing concrete

Amend the payment paragraph as follows:

"The tendered rate shall include full compensation for all labour, plant (including access and craneage) and equipment (including concrete cutters) required to demolish the existing concrete (irrespective of strength) and the disposal of the product of the demolishing to a borrow pit within a free-haul distance of 15 km. The tendered rate shall also include full compensation for any necessary measures to ensure no debris falls into rivers or surfaces where damage is possible and for any debris that has fallen into rivers to be recovered.

Payment shall distinguish between plain and reinforced concrete. For the purposes of this item, reinforced concrete is defined as concrete containing at least 0,2% of steel reinforcement measured by volume "made pro-rata to the quantity of all structural concrete, which is placed on the Contract. Payment will only be made if all the necessary measures required to ensure that the concrete is placed at the temperature specified are implemented".

Add the following payment items at the end of clause B6416:

Item **Unit**

B64.07 Curing of concrete:

- (a) (Indicate structural element and surface to be cured)
(Tenderer to specify method of curing)square metre (m²)
- (b) Etc. for various elements
(Tenderer to specify method of curing) square metre (m²)

The unit of measurement shall be the square metre of completed concrete element cured using an approved method as described in clause B6409 of these Project Specifications.

The tendered rates shall include full compensation for providing the curing agent and applying it to the fresh concrete surface by means of an approved pressure distributor (or other approved methods of application) in accordance with the manufacturer's specified nominal rates of application. Wet fine mist spray curing is also permitted providing it is done for 7 days. Payment will also be made under this item if this is the preferred method to be used. Should no curing method be specified at time of tender then it will be assumed wet fine mist spray curing is to be done. Partial payment shall be applied in the event that the engineer allows conditional acceptance.



SECTION B6600: NO-FINES CONCRETE, JOINTS, BEARINGS, PARAPETS AND DRAINAGE FOR STRUCTURES

B6603 JOINTS IN STRUCTURE

a) Materials

(i) General

Add the following after the last paragraph:

“It is a firm requirement that all Contracts have full Agrément certification for bridge deck joints, with the target date for new applications for Agrément assessment one year from receipt and acceptance by Agrément South Africa of each application. Proof of original acceptance of application by Agrément is required in such a case.

(1) current Agrément assessments: 1 September 2010.

(2) new applications for Agrément assessment one year from receipt and acceptance by Agrément South Africa of each application. Proof of original acceptance of application by Agrément is required in such a case.”

(g) Installing the expansion joints

Delete the first paragraph and replace with the following:

“All deck expansion joints shall be installed by approved specialist subcontractors only. Installed deck expansion joints shall have the following guarantees:

- Proprietary joints - 15 years
- Asphalt plug type joints - 10 years
- Concrete nosings (replacement) - 10 years
- Joint sealant - 5 years

All deck expansion joints will only be considered for use on this Contract if the manufacturer has obtained Agrément certification. New applications for Agrément assessment takes up to one year from receipt to acceptance by Agrément South Africa.”

B6604 BEARINGS FOR STRUCTURES

(e) Proprietary Bearings

Construction

Delete the final three (3) paragraphs of subclause (e)(v)(7) and replace with the following:

“Applying two coats of epoxy MIO paint, with each coat a minimum of 75 micrometers of dry-film thickness and of a dark grey colour.

Applying a semi-gloss, acrylic polyurethane (2 pack) finish with a minimum of 50 micrometers of dry-film thickness and of light grey colour.

Surfaces in contact with concrete shall be sprayed with zinc, but not painted, so that it complies with the requirements of SABS 1391 part 1 for type Zn 150 surfacing.”

B6608 MEASUREMENT AND PAYMENT

Item **Unit**

B66.05 EXPANSION JOINTS

Add the following item:

(b) Dowel Bars
 Dowel bars to be chemically anchored to existing structures. Rate shall include..... Number of (No.)

galvanised bars, epoxy and installation costs.

B66.19 DRAINAGE PIPES AND WHEEPHOLES

Add the following item:

- (a) Drainage pipes
 i) Perforated drainage pipes - M65 subsoil drain wrapped in Grade 2 geotextile meters(m)
 encased in 400x400 19mm stone blanket, wrapped in geotextile Grade 2

| Item | Unit |
|--|-----------|
| B66.04 Installation of proprietary expansion joints | metre (m) |

Add the following to the measurement clause:

“The joint shall comprise the complete joint assembly shown on the drawings including termination details and recesses at parapets with cover plates and fixings. For sub-item (a) the roadway expansion joints will be measured per linear metre along the length of the joint between the inside faces of the concrete parapets.”

| Item | Unit |
|--------------------------------------|-----------|
| B66.05 Expansion Joints | metre (m) |

Add the following to the measurement clause of sub-clause (b):

“The joint measured shall be the complete joint shown on the drawings including termination details and recesses at balustrades and cover plates and fixings.”

Add the following to the end of the second paragraph:

“The tendered rate for subitems (a) and (b) shall also include for water test required to prove the joint. The water shall be ponded and maintained to a minimum depth of 150mm above the top of the joint for a period of one hour each. Testing should follow the installation of the various sections of joints to take advantage of the existing traffic accommodation and each test shall cover the length of each joint installed (generally half width of bridge)”.

| Item | Unit |
|-----------------------------------|-----------|
| B66.06 Filled Joints | metre (m) |

Add the following to the end of the second paragraph:

“The tendered rate for subitems (a) and (b) shall also include for water test required to prove the joint. The water shall be ponded and maintained to a minimum depth of 150mm above the top of the joint for a period of one hour each. Testing should follow the installation of the various sections of joints to take advantage of the existing traffic accommodation and each test shall cover the length of each joint installed (generally half width of bridge)”.

| Item | Unit |
|---------------------------------------|-----------|
| B66.15 Concrete parapets | metre (m) |

Add the following to this clause:

“The tendered rate shall include for sealing of joints between balustrade units as shown on the drawings.

| Item | Unit |
|------------------------------------|-----------|
| B66.16 Steel railings | metre (m) |

Add the following to the end of the second paragraph:

“The tendered rate shall also include full compensation for all labour, plant and materials for the manufacture and erection of the Balau timber frame between the steel posts as detailed on drawing No. C1900iR5151”.

SECTION 8100: TESTING MATERIALS AND WORKMANSHIP

B8102 TESTING METHODS

Add the following new paragraph at the start of clause 8102:

“Where reference is made to any TMH test method in the project specifications or the COLTO Standard Specifications, such reference shall be replaced with the relevant current published SANS test method.”

Add the following new paragraph at the start of clause 8102:

“Where reference is made to any TMH test method in the project specifications or the COLTO standard specifications, such reference shall be replaced with the relevant current published SANS test method.”

Insert the following:

“(a) Materials Manual Volume 2 of the Provincial Administration: Western Cape.”

Renumber items (a) – (f) to read (b) – (g)

B8106 TESTING THE CONCRETE

Add the following sub-clauses:

“(g) Trial panels for durability concrete (W class concrete)

For all different durability class mixes, trial panels shall be constructed on the site. Each trial panel shall be constructed using the same type of concrete mix, shuttering type, placing and curing methods (including application rates of curing compounds if applicable) as to be used on the final structural element to be constructed. The dimensions of such a trial panel shall be 1,0m wide, 1,0m high and 150 mm thick. The panel shall generally be constructed vertically. It is suggested that 2 lifting hooks be cast into the panel to facilitate lifting, moving or disposal of panel. However, for decks two panels shall be constructed; one cast vertically (to equate to the vertical faces) and one horizontally (to equate to the top floated surface). It most likely will be that one trial panel will be required for substructures (piers, abutments, retaining walls, etc.) and another two for the decks due to type of casting and curing methods.

The test area for taking of cores (taken in horizontal direction) shall not be less than 150 mm from all horizontal and vertical edges.

The costs for construction of the trial panels shall be deemed to be included under pay item 64.01.

Add the following new sub-clause:

“(h) Testing for concrete durability

Durability predictions for durability concrete prefixed ‘W’ will be based on the following tests that shall be carried out by the Contractor:

- (i) Oxygen permeability
- (ii) Water sorptivity
- (iii) Chloride conductivity
- (iv) Depth of concrete cover.

Notes:

The test methods shall be as described below.

Test No. (iii) may only be required where specified (e.g. within a chloride environment along the coast or where chlorides are present in ground water). This test will, nevertheless, be used as a concrete mix acceptance test at the start of the Contract and repeated every time that the Contractor makes significant changes to the mix during the project (including changes to the materials supply sources). Test No. (iv) shall be conducted using an approved calibrated electromagnetic cover meter.

A laboratory approved by the Employer’s Agent shall carry out testing. For test no’s (i) and (ii) (and (iii) when required), cores of 68 ± 2 mm diameter shall be extracted from the test panel when the concrete reaches the age of at least 28 days and tested for the durability criteria set out in clause B6404 (h) and used to determine the payment as per Table B8212/1. A sample for the purposes of durability testing is as defined in Table 8106/1. These cores for durability testing shall be extracted from additional cubes taken (as shown in Table 8106/2) over and above that required to assess the compressive strengths as shown in Table 8206/2 of the standard specifications. Durability testing shall only be required for concrete specified as durability concrete with the prefix “W”. The number of samples to be taken shall be as shown in Table B8106/2.

Table 8106/1 : Table showing minimum additional core/cube numbers for one (1) sample for durability tests (based on two (2) cores per cube)



| Testing requirement | Laboratory curing | Site curing & exposure | Total |
|---|------------------------------|------------------------------|------------------------|
| Chlorides & Sorptivity | 4+2=6 cores (3 cubes) | 4+2=6 cores (3 cubes) | 12 cores (6 cubes) |
| Oxygen Permeability & Sorptivity | 4+2=6 cores (3 cubes) | 4+2=6 cores (3 cubes) | 12 cores (6 cubes) |
| Chlorides, Oxygen Permeability & Sorptivity | 4+4+2= 10 cores (5 cubes) | 4+4+2= 10 cores (5 cubes) | 20 cores (10 cubes) |

Note:

As indicated in the table, only 2 cores are required for Sorptivity and 4 each for Oxygen Permeability and Chloride Conductivity (if required)

Table 8106/2 : Number of samples required for durability testing where durability concrete is specified

| Element | No. of samples (n) to taken (see Table B8106/1 for definition of one (1) sample and number of cores and required cubes per sample) |
|--|--|
| Bridge Decks (<100m ³) | 1 (per pour) |
| Bridge Decks (101m ³ to 200m ³) | 2 (per pour) |
| Bridge Decks (200m ³ and greater) | 3 (per pour) |
| Bridge Piers/Abutments | 1 (per element) |
| Bridge/Culvert Parapets | 1 (per element) |
| Culvert walls/wingwalls | 1 (per wall section) |
| Culvert bottom slabs | 1 (per element) |
| Culvert top slabs | 1 (per element) |
| Retaining walls | 1 (per wall section) |
| All bases | 1 (per element/pour) |

Additional cores shall be taken from the additional cubes and tested for the durability criteria where the compressive strength is found to be below 85% of the target mean strength required for durability.

Half of the additional cubes taken per pour/element to be cored for durability shall be placed on the site where the structural element is being cast so as to simulate similar environmental conditions and the other half per pour/element cured in the laboratory under controlled conditions. Initially this method of sampling will be used to check the variability of site curing versus laboratory cured on the durability index results. Once the Employer's Agent is satisfied with the variability of the site curing versus laboratory curing on the durability index results, he shall instruct the Contractor to place all the additional cubes on site for curing.

In addition to coring of the additional cubes the Employer's Agent will instruct the Contractor as to which structural elements are to be cored and tested for the durability criteria. The Employer's Agent will indicate the positions at which the cores will be extracted. Filling of the holes left by the drilling of the cores shall be the responsibility of the Contractor and shall be carried out using an approved proprietary non-shrink repair mortar so as to restore structural integrity and durability of the structural element tested.

If the test results indicate that the durability requirement has not been achieved, then the structural element shall be cored and tested for the durability criteria. The Employer's Agent will indicate the positions at which the cores will be extracted. The costs for testing of the structure shall be borne by the Contractor. Filling of the holes left by the drilling of the cores shall be the responsibility of the Contractor and shall be carried out using an approved proprietary non-shrink repair mortar so as to restore structural integrity and durability of the structural element tested.

Note that if testing has to be undertaken on decks and walls, the cores shall be taken on the exposed faces of the concrete i.e. the soffit and sidewall face taking care not to cut the reinforcing bars. Where the cores do contain pieces of reinforcing steel, they shall not be used for the tests. The cores shall be extracted through the cover concrete from the constructed concrete element and a slice (25 ± 2 mm thick) shall then be cut from the outer surface of this core such that the slice is representative of the middle layer of the cover concrete i.e. the middle layer being a 25 mm thick slice of concrete, 5 mm from the exposed outer surface extending in towards the reinforcement) and tested for all three tests. The Employer's Agent will indicate the positions at which the cores will be extracted.

Test no. (iv) (non-destructive) shall be conducted to confirm that the specified depth of concrete cover has been achieved. The cover meter tests shall cover at least 1m² for every 10m² exposed. The average cover of the 1 m² subjected to the test shall be used to determine the payment as per Table B8212/2 unless the Contractor chooses to carry out additional tests as detailed in the final paragraph of clause B6414 (a). The cover meter must be calibrated for each project by using a separate trail panel constructed with typical reinforcement. Cover meters shall comply with the relevant modern standards (e.g. EN55011, 50082-1, 6100-6-1, 6100-6-2, 6100-6-3, 6100-6-4 and BS18881 Part 204).

Critical elements for cover surveys are parapets, deck edges including underside of cantilevers, lower portions of columns and abutments and walls. Should any of these areas shows deficiencies, the Employer’s Agent may order additional cover tests on other areas at the Contractors costs.

The procedure for testing for depth of reinforcement from concrete surface shall be in accordance with the manufacturer’s requirements for the relevant electromagnetic cover meter. The number of readings taken of the layer of rebar closest to the concrete surface to each 1m² to be tested shall be such that an accurate average cover can be determined for the tested area. For the purposes of calculating the average depth of cover bars that have covers 10 mm or greater than what is specified shall be ignored in the calculations.

The methodology and latest revisions for the durability index tests are available at the University of Cape Town’s web address at www.civil.uct.ac.za

B8117 MEASUREMENT AND PAYMENT

Add the following new payment item

| Item | Unit |
|--|--------------------------------|
| B81.04 (a) Provision for Commercial Laboratory Services | Prime Cost Sum (PC Sum) |
| B81.04(b) Handling costs and profit in respect of subitem B81.04(a) above | Percentage (%) |

“The Prime Cost sums allowed shall be controlled and expended as stipulated in clause 6.6 of the conditions of contract.

The Prime Cost sum allowed for under subitem B81.04 (a) shall be expended to cover the actual costs, determined on a quotation basis, for any additional laboratory work which may be ordered by the Employer’s Agent other than that which is required by the Contractor under his contractual obligations.

The tendered percentage for subitem B81.04 (b) is a percentage of the amount actually spent under the relevant subitems and shall include full compensation for all charges and incidental costs of the Contractor, profit and overheads in connection therewith.”

SECTION 8200 : QUALITY CONTROL (SCHEME 1)

B 8201 SCOPE

Add the following paragraph:

Quality Control Scheme 1 as specified in Section 8200 shall apply to this contract.

B8204 GENERAL REQUIREMENTS

(d) Outliers

(ii) Method 2, shall apply to this contract using the critical values for the different value of n from the following added tables for the different product properties.

Table B8204(d)3

| Critical C-values for the outlier test for granular material ($C_{0,99}(N)$ – sigma values) | | | | | | | | | |
|---|--------------|--|------|------|------|------|-------|-------|-----|
| No | Compaction % | Sieve Size (only for G1 & G2 basecourse), mm | | | | | | | PI |
| | | 26.5 | 19.0 | 13.2 | 4.75 | 2.00 | 0.425 | 0.075 | |
| 4 | 4.1 | 6.1 | 8.5 | 8.5 | 7.3 | 5.6 | 3.6 | 3.2 | 2.4 |
| 5 | 4.4 | 6.4 | 9.0 | 9.0 | 7.7 | 5.9 | 3.9 | 3.3 | 2.5 |
| 6 | 4.6 | 6.7 | 9.4 | 9.4 | 8.0 | 6.2 | 4.0 | 3.5 | 2.7 |
| 7 | 4.7 | 6.9 | 9.7 | 9.7 | 8.3 | 6.3 | 4.1 | 3.6 | 2.8 |
| 8 | 4.8 | 7.1 | 9.9 | 9.9 | 8.5 | 6.5 | 4.2 | 3.7 | 2.8 |
| 9 | 4.9 | 7.2 | 10.1 | 10.1 | 8.6 | 6.6 | 4.3 | 3.7 | 2.9 |
| ≥10 | 4.9 | 7.3 | 10.2 | 10.2 | 8.7 | 6.7 | 4.4 | 3.8 | 2.9 |

Table B8204(d)4

| Critical C-values for the outlier test for asphalt layers ($C_{0,99}(N)$ – sigma values) | | | | | | | | | | |
|--|---------|----------------|------|------|------|------|-------|-------|---------|------|
| No | Density | Sieve Size, mm | | | | | | | Bitumen | VIMS |
| | | 26.5 | 19.0 | 13.2 | 4.75 | 2.36 | 0.300 | 0.075 | | |
| 3 | 2.9 | 5.6 | 6.7 | 7.6 | 7.8 | 7.2 | 6.2 | 2.3 | 0.4 | 2.1 |
| 4 | 3.2 | 6.1 | 7.3 | 8.6 | 8.5 | 7.9 | 6.8 | 2.5 | 0.4 | 2.3 |
| 5 | 3.3 | 6.4 | 7.7 | 9.0 | 9.0 | 8.4 | 7.2 | 2.6 | 0.5 | 2.4 |
| 6 | 3.5 | 6.7 | 8.0 | 9.4 | 9.4 | 8.7 | 7.5 | 2.7 | 0.5 | 2.5 |
| 7 | 3.6 | 6.9 | 8.3 | 9.7 | 9.7 | 9.0 | 7.7 | 2.8 | 0.5 | 2.6 |
| 8 | 3.7 | 7.1 | 8.5 | 9.9 | 9.9 | 9.2 | 7.9 | 2.9 | 0.5 | 2.7 |
| 9 | 3.7 | 7.2 | 8.8 | 10.1 | 10.1 | 9.4 | 8.1 | 3.0 | 0.5 | 2.7 |
| ≥10 | 3.8 | 7.3 | 8.7 | 10.2 | 10.2 | 9.4 | 8.1 | 3.0 | 0.5 | 2.8 |

| Critical C-values for the outlier test for surfacing aggregate ($C_{0,99}(N)$ – sigma values) | | | | | | | | | | |
|---|----------------|------|------|-----|-----|------|------|-------|-------|--|
| No | Sieve Size, mm | | | | | | | | | |
| | 26.5 | 19.0 | 13.2 | 9.5 | 6.7 | 4.75 | 2.36 | 0.425 | 0.075 | |
| 3 | 2.1 | 2.0 | 2.0 | 1.8 | 2.4 | 1.8 | 2.3 | 1.8 | 0.9 | |
| 4 | 2.3 | 2.2 | 2.2 | 2.0 | 3.2 | 2.0 | 2.5 | 2.0 | 1.0 | |
| 5 | 2.4 | 2.3 | 2.3 | 2.1 | 4.0 | 2.1 | 2.6 | 2.1 | 1.1 | |
| 6 | 2.5 | 2.4 | 2.4 | 2.2 | 4.6 | 2.2 | 2.7 | 2.2 | 1.1 | |
| 7 | 2.6 | 2.5 | 2.5 | 2.2 | 5.6 | 2.2 | 2.8 | 2.2 | 1.2 | |
| 8 | 2.7 | 2.6 | 2.5 | 2.3 | 6.4 | 2.3 | 2.9 | 2.3 | 1.2 | |
| 9 | 2.7 | 2.6 | 2.5 | 2.3 | 7.2 | 2.3 | 2.9 | 2.3 | 1.2 | |
| ≥10 | 2.7 | 2.6 | 2.5 | 2.3 | 8.0 | 2.3 | 3.0 | 2.3 | 1.2 | |

Table B8204(d)5



| Critical C-values for the outlier test for cemented layers (C _{0,99(N)} – sigma values) | | | | | |
|--|--------------|------|--------|-----|-----|
| No | Compaction % | UCS | | PI | CBR |
| | | Lime | Cement | | |
| 3 | 4,4 | 1,1 | 1,6 | 3,3 | 22 |
| 4 | 4,9 | 1,2 | 1,7 | 3,6 | 24 |
| 5 | 5,1 | 1,3 | 1,8 | 3,9 | 26 |
| 6 | 5,4 | 1,3 | 1,9 | 4,0 | 27 |
| 7 | 5,5 | 1,4 | 1,9 | 4,1 | 28 |
| 8 | 5,7 | 1,4 | 2,0 | 4,2 | 28 |
| 9 | 5,8 | 1,4 | 2,0 | 4,3 | 29 |
| ≥10 | 5,8 | 1,5 | 2,0 | 4,4 | 29 |

B8206 JUDGEMENT PLAN B

Replace **Table 8206/1** with the following table in controlling the characteristic properties in accordance with this judgement scheme.

| Structure | Characteristics, Properties |
|-------------------------------|--|
| Gravel pavement layers | Relative compaction |
| Crushed stone base or subbase | Relative compaction |
| Asphalt base and surfacing | Relative compaction Binder content of mix Voids in mix (VIM) Grading |
| Chemically stabilised layers | Relative compaction Stabiliser agent content by UCS determinations Unconfined Compressive Strength |
| Concrete | Compressive Strength |

(a) Taking samples and testing the properties.

Add the following to the first paragraph of this clause:

“A valid concrete compressive strength test result, the sample size (n), is the average of 3 test specimens (concrete cubes) from a single batch of concrete tested at the same age.”

(d) Determining the judgement limits

Values of constants

Replace Table 8206/3 with the following table,

Table 8206/3

VALUES OF CONSTANTS n, L_s, L'_s AND Ø

| Material | Properties | Minimum Sample Size n | L _s (Lower Specification limit) | L' _s (Upper Specification limit) | Ø |
|--------------------------------|---|-----------------------|--|---|----|
| Selected Subgrade | Relative compaction | 6 | Top 95% Bottom 93% Sand 100% | - | 15 |
| Subbase | Relative compaction | 6 | 97% | - | 15 |
| Gravel base | Relative compaction | 6 | 100% and if stabilised 98% | - | 15 |
| Crushed Stone Subbase or base | Relative compaction | 6 | See subclause 3602 (a) | | 15 |
| | Grading | | See table 3602/4 | | |
| Asphalt base or surfacing | Relative compaction Binder content Voids in mix (VIM) | 6 | See note 1 | | 15 |
| | Gradings | | See table 4213/1 | | |
| Chemically stabilised layers | Relative compaction | 6 | Upper/Single layer 96% Lower Layer 95% | | 15 |
| | Cementitious binder content by UCS determinations | | See subclause 3506 (b)(ii) | | - |
| | Unconfined Compressive Strength | | See table 3402/5* | | |
| Strength concrete (structural) | Compressive strength (28 days) | See table 8206/2 | See note 3 | | 5 |
| Pavement concrete | Compressive strength (28 days) | 6 | See subclause 7103(d) | | 5 |

*In table 3402/5 change the material before treatment to read at least G5 qualify for C3 and C4 criteria's.

B8208 CONDITIONAL ACCEPTANCE

(a) General

Amend the first paragraph to read:

"Any lot which does not comply with the requirements for acceptance plan B may be conditionally accepted should the value of the sample mean lie within the rejection limits given in Clause 8211."

(c) Criteria for conditional acceptance

Replace the last paragraph with the following:

"The rejection limits for this contract shall be determined in accordance with statistical criteria as provided for in Clause 8211 : Determination of Rejection Limits in accordance with statistical criteria."

B8209 PROCESS CONTROL BY THE CONTRACTOR

Add the following to the first paragraph:

"As part of his quality control system, the contractor shall carry out the minimum number of testing as stated in table 8209/1

and submit the results to the engineer when completing the engineer's form: Request for Approval of Work. The stated requirements may be replaced by alternative proven and approved requirements in the event of a manufacturing plant being accredited in terms of SABS 0157."

**Table 8209/1
PROCESS CONTROL**

| SECTION | ITEM | PROPERTIES TO CONTROL | TESTING FREQUENCY (Min no per lot) |
|-------------|---|---|---|
| 2100 | Subsoil drainage - geotextile - filter material | - Refer clause B8116 - Grading | - Refer clause B8116 - 1 per 500 m ³ at source; min. 3 per stockpile |
| 2200 | Prefabricated culverts - concrete units - backfilling - in situ concrete | - Cracks & chips - Density - Slump | - every unit - 3 per 300 mm lift - 1 per batch |
| 2300 | Concrete-lined drains - in situ material - concrete | - Density - Slump | - 1 every 50 m; min. 3 per lot - 1 per batch |
| 3300 | Ordinary fill & roadbed - material - profile (cut & fill) | - CBR - fill - roadbed - Density - Slope batter | - 1 per 5000 m ³ at source; min. 3 per lot - 1 per 3000 m ² ; min. 3 - 1 per 1000 m ² per 150 layer; min. 4 - set out toe pegs every 2 m lift (fills) or 3 m drop (cuts) |
| 3400 & 3600 | Selected, subbase & gravel base - material - layer profile | - CBR - Grading, Atterberg limits - Density - Levels | - 1 per 2500 m ³ at source - 1 per 2500 m ³ at source - 6 per section - min. 50 per section |
| 3500 | Chemical stabilisation | - Agent content - Agent distribution | - calculated mass per m ³ - 10 canvas patches per section for bulk distribution |
| 4200 | Asphalt base, surfacing - aggregate - mix | - Strength, durability, shape, Atterberg limits, deleterious mat. - Aggregate grading - Grading and binder - Marshall - Batching temperature - Binder storage temp. | - 1 per 2000 m ³ in stockpile - 1 per 400 m ³ in stockpile - 1 per 100 t (min. 6 per day) - 2 per day - 1 per batch - 1 per day |
| 4300-4600 | Chip & spray Slurry | - Aggregate strength, shape, grading, dust - Water compatibility - Application rates - Aggregate grading, deleterious materials, hardness, Atterberg limits - Water compatibility - Mass measuring device - Spread rate | - 1 per 30 m ³ , min. 5 per stockpile. - 1 litre per source. - complete record to be kept. - 1 per 1000 m ³ , min. 5 per source. - 1 litre per source. - Calibration certificate; to be checked weekly. - Complete record to be kept. |



| SECTION | ITEM | PROPERTIES TO CONTROL | TESTING FREQUENCY (Min no per lot) |
|---------|-----------------------------------|-----------------------|---------------------------------------|
| 6400 | Concrete-structures - concrete | - Slump | - 1 per batch |

B8210 ROUTINE TESTS AND INSPECTION BY THE ENGINEER

Amend the last sentence of the first paragraph to read:

“The testing frequencies and sample and lot sizes for quality control testing shall be in accordance with Table: 8210/1, but will generally be in accordance with the requirements of the Employer’s materials manual.”



Table 8210/1

| Pavement Layer | Properties to be tested | Sample per Lot size |
|-----------------------------------|--|---|
| Roadbed and Fill (upper 150mm) | Relative compaction Grading Atterberg Limits MDD/OMC CBR | } >6 depending on lot size see form S-LAY-TPG2-E 4 or 6 first lot (trial section) and thereafter 1 per lot for sequential testing 1 |
| Upper and Lower Selected Layers | Relative Compaction Grading Atterberg Limits MDD/OMC CBR | } >6 depending on lot size see form S-LAY-TPG2-E 4 or 6 first lot (trial section) and thereafter 1 per lot for sequential testing 1 |
| Granular Subbase | Relative Compaction Grading Atterberg Limits MDD/OMC CBR | } >6 depending on lot size see form S-LAY-TPG2-E 4 or 6 first lot (trial section) and thereafter 1 per lot for sequential testing 1 |
| Cemented Subbase Before Treatment | Grading Atterberg Limits | } >6 depending on lot size see form S-LAY-TPG2-E |
| After treatment FORM A. | MDD/OMC | 4 or 6 first lot (trial section) and thereafter 1 per lot for sequential testing 1 |
| | CBR Relative Compaction UCS | } >6 depending on lot size see form S-LAY-TPG2-E |
| Granular Base | Relative Compaction Grading Atterberg Limits BRD/OMC Flakiness Fractured Faces or Elongation | } >6 depending on lot size see form S-LAY-TPG2-E 4 or 6 first lot (trial section) and thereafter 1 per lot for sequential testing 1 1 (If alluvial ie round pebbles) |
| Asphalt Base and Surfacing | Relative Compaction Binder Content Grading VIM MTRD (Rice density) BRD Stability and Flow | >6 depending on the lot size |
| Surfacing Seals | Grading Dust and Fines Content Flakiness ALD Durability Tests (i) ACV and/or (ii) 10% Fact Wet & Dry | >5 per delivery per stockpile and thereafter random during construction of the seal. 1 |

Note:

- (1) A minimum of 4 tests per lot can be allowed for unforeseen circumstances but shall be at the Employer's Agent's discretion.
- (2) Confined areas (lots) due to their size and nature are normally subjected to lesser testing than that which is prescribed, which can be allowed for as long as the quality of the material tested can be established for acceptance control purposes.

3.4.3 PART C: ENVIRONMENTAL SPECIFICATIONS

This part of the Project Specifications contains comprehensive additional standardised specifications for environmental matters not covered by the Standard Specifications.

The number of each clause and each payment item in this part of the Specifications is prefixed with a “C” to differentiate these clauses and items as additional Works.

The following additional specifications are covered under this part of the Specifications:

SECTION C1000: ENVIRONMENTAL MANAGEMENT

Contents

C1001 SCOPE

This section covers the methods by which proper environmental controls are to be implemented by the Contractor. The provisions of this Environmental Management Programme (EMP) are binding on the Contractor during the construction period and the Defects Liability Period of the Contract. This Project Specification shall be read in conjunction with all the documents that comprise the Contract documents for this Contract. In the event that any conflict occurs between the terms of the EMP or the environmental authorization (if applicable), and the other Project Specifications, the terms herein shall prevail.

The EMP covers construction activities that will impact on the environment, specifications with which the Contractor shall comply in order to protect the environment from the identified impacts and actions that shall be taken in the event of non-compliance.

C1002 DEFINITIONS

(a) Alien Species: (a) a species that is not an indigenous species; or (b) an indigenous species translocated or intended to be translocated to a place outside its natural distribution range in nature, but not an indigenous species that has extended its natural distribution range by natural means of migration or dispersal without human intervention as set out in the National Environmental Management: Biodiversity Act (Act No. 10 of 2004) (NEM:BA). Control of alien species shall be in terms of the Alien and Invasive Species lists and linked controls as gazetted under NEM:BA.

(b) Construction Activity: a construction activity is any action taken by the Contractor, his subcontractors, suppliers or personnel during the construction process.

(c) Environment: environment means the surroundings within which humans exist and that could be made up of:

- (i) the land, water and atmosphere of the earth;
- (ii) micro-organisms, plant and animal life;
- (iii) any part or combination of (i) and (ii) and the interrelationships among and between them; and
- (iv) the physical, chemical, aesthetic and cultural properties and conditions of the foregoing that influence human health and well-being.

(d) Environmental Aspect: an environmental aspect is any component of a Contractor's construction activity that is likely to interact with the environment.

(e) Environmental Impact: an impact or environmental impact is the change to the environment, whether desirable or undesirable, that will result from the effect of a construction activity within the road width and limits that define the construction site. An impact may be the direct or indirect consequence of a construction activity.

(f) Environmental Authorisation (EA): an EA is a written decision from the Department of Environmental Affairs, (DEA), that records its approval or disapproval of a planned undertaking to improve, upgrade or rehabilitate a section of road and the mitigating measures required to prevent or reduce the effects of environmental impacts during the life of a contract. It is noted that for the purposes of this process, this may be a formal indication that the activity may proceed without further need for authorisation.

(g) Road Reserve: the road reserve is a corridor of land, defined by co-ordinates and proclamation, within which the road, including access intersections or interchanges, is situated. A road reserve may, or may not, be bounded by a fence.

(h) Road Width: for the purposes of the EMP, the road width is defined as the area within the road reserve i.e. fence line to fence line, but also includes all areas beyond the road reserve that affected by the continuous presence of the road, e.g. a reach of a water course.

C1003 IDENTIFICATION OF ENVIRONMENTAL ASPECTS AND IMPACTS

The Contractor shall identify likely aspects before commencing with any construction activity. Examples of environment aspects include waste generation, stormwater discharge, pollutant emission, soil erosion, deformation or destruction of environment. Thereafter the Contractor shall programme his work in such a way that each cause and effect of a construction activity is also identified and the activity planned so as to prevent any impact from happening.

If prevention is not practicable, or in the event of mishap or misapplication, the Contractor shall provide plans and measures for the Employer's Agent's approval, which will limit and contain the magnitude, duration and intensity of the impact. In such a scenario, the onus remains on the Contractor to indicate why avoidance of an impact was not possible, along with motivation as to why the mitigation measure proposed will limit or reverse environmental impacts.

The Contractor shall demonstrate that he is capable of carrying out any repair and reinstatement of the damaged environment.

These requirements shall be concurrent with the time constraints to produce an approved construction programme according to clause 5.6 of the General Conditions of Contract and clause B1204 of the project specifications. Such mitigating actions must be supported by task specific Construction Method Statements which must be approved prior to implementation.

Construction according to best industry practice will play an important role in avoiding the occurrence of an Impact. The Contractor's attention is drawn, in this regard, to C1008. Environmental Management of Construction Activities.

C1004 LEGAL REQUIREMENTS

(a) General

This EMP, which forms an integral part of the Contract documents, informs the Contractor as to his duties in the fulfilment of the project objectives, with particular reference to the prevention and mitigation of environmental impacts caused by construction activities associated with the project. The Contractor should note that obligations imposed by the EMP are legally binding in terms of environmental statutory legislation and in terms of the General Conditions of Contract that pertain to this project. In the event that any rights and obligations contained in this document contradict those specified in the standard or other Project Specifications then the latter shall prevail.

(b) Statutory and other applicable legislation

It is expected that the Contractor is conversant with all legislation pertaining to the environment, including provincial and local government ordinances, which may be applicable to the Contract.

C1005 ADMINISTRATION OF ENVIRONMENTAL OBLIGATIONS

(a) Appointment of a Designated Environmental Officer (DEO)

For the purposes of implementing the conditions contained herein, the Contractor shall submit to the Employer's Agent for approval the appointment of a nominated representative of the Contractor as the DEO for the Contract. The request shall be given, in writing, at least fourteen days before the start of any work clearly setting out reasons for the nomination, and with sufficient detail to enable the Employer's Agent to make a decision. The Employer's Agent will, within seven days of receiving the request, approve, reject or call for more information on the nomination. Once a nominated representative of the Contractor has been approved he/she shall be the DEO and shall be the responsible person for ensuring that the provisions of the EMP are complied with during the life of the Contract. The Employer's Agent will be responsible for issuing instructions to the Contractor where environmental considerations call for action to be taken. The DEO shall submit regular written reports to the Employer's Agent, but not less frequently than once a month.

The Employer's Agent shall have the authority to instruct the Contractor to replace the DEO if, in the Employer's Agent's opinion, the appointed officer is not fulfilling his/her duties in terms of the requirements of the EMP or this specification. Such instruction will be in writing and shall clearly set out the reasons why a replacement is required.

(a) Administration

Before the Contractor begins each construction activity the DEO shall give to the Employer's Agent a written statement setting out the following:

- (i) The type of construction activity.
- (ii) Locality where the activity will take place.
- (iii) Identification of the environmental aspects and impacts that might result from the activity.
- (iv) Methodology for impact prevention for each activity and associated aspects.
- (v) Methodology for impact containment for each activity and associated aspects.
- (vi) Emergency/disaster incident and reaction procedures.
- (vii) Treatment and continued maintenance of impacted environment.

The Contractor may provide such information in advance of any or all construction activities provided that new submissions shall be given to the Employer's Agent whenever there is a change or variation to the original.

The Employer's Agent may provide comment on the methodology and procedures proposed by the DEO, but he shall not be responsible for the Contractor's chosen measures of impact mitigation and emergency / disaster management systems. However, the Contractor shall demonstrate at inception and/or at least once during the Contract that the approved measures and procedures function properly.

The Contractor shall comply with the requirements of Clause 1217 of the COLTO Standard Specifications for Roads and Bridges and Clauses 8.1.2 and 5.15.1 of the General Conditions of Contract with regard to responsibility and care for / preservation of the environment.

C1006 TRAINING

(a) Designated Environmental Officer (DEO)

The Designated Environmental Officer (DEO) must be appropriately trained in environmental management and must possess the skills necessary to impart environmental management to all personnel involved in the Contract. This should be substantiated by proof of direct relevant environmental experience, preferably for linear project developments of a similar nature to the project at hand.

(b) Employees

The Contractor shall ensure that adequate environmental training takes place and all employees are given an induction presentation on environmental awareness. Where possible, the presentation needs to be conducted in the language of the employees. Environmental awareness training should, as a minimum, include the following:

- (i) The importance of conformance with all environmental policies;
- (ii) The environmental impacts, actual or potential, of their work activities;
- (iii) The environmental benefits of improved personal performance;
- (iv) Their roles and responsibilities in achieving conformance with the environmental policy, procedures and management systems, including emergency preparedness and response requirements;
- (v) The potential consequences of departure from specified operating procedures; and
- (vi) The mitigation measures required to be implemented when carrying out their work activities.

In the case of permanent staff, the Contractor shall provide evidence that such induction courses have been presented. In the case of new staff (including contract labour), the Contractor shall inform the Employer's Agent when and how he intends concluding its environmental training obligations.

C1007 ACTIVITIES/ASPECTS CAUSING IMPACTS

A list of possible causes of environmental impacts that occur during construction activities is given in Table 7/1: Activities and associated aspects that cause environmental impacts during construction activities, which is to be found at the end of this section. This list is not exhaustive, and shall be used for guideline purposes only.

C1008 ENVIRONMENTAL MANAGEMENT OF CONSTRUCTION ACTIVITIES

(a) Site establishment

- (i) Site plan

In accordance with subclause 1302(a) of the COLTO Standard Specifications the Contractor shall establish his construction camps, offices, workshops and testing facilities on the site in a manner that does not adversely affect the environment. However, before construction can begin, the Contractor shall submit to the Employer's Agent for his approval, plans of the exact location, extent and construction details of these facilities and the impact mitigation measures the Contractor proposes to put in place. It is noted that such plans must include the position of material storage areas, laydown areas along the road alignment, and critically, the position and extent for spoil sites (temporary or permanent). No material may be spoilt to land without relevant approvals being in place.

The camp site shall be selected with due regard to the environment and sensitive areas. The site offices should not be sited in steep areas, as this will increase soil erosion. Preferred locations would be on flat areas. The camp site and site offices must not be placed in close proximity to wetlands or watercourses.

The plans shall detail the locality as well as the layout of the waste treatment facilities for litter, refuse, sewage and workshop-derived effluents. It is also recommended that the ablution facilities, aggregate stockpiles, spoil areas and hazardous material stockpiles are located as far away as possible from any water course, stream or river as possible. Regardless of the chosen site, the Contractor's intended mitigation measures shall be indicated on the plan.

The site plan shall be submitted prior to the start of construction. Detailed, electronic colour photographs shall be taken of the proposed site before any clearing may commence. These records are to be kept by the Employer's Agent as a baseline for consultation during rehabilitation of the site.

- (i) Vegetation

The Contractor has a responsibility to inform his staff of the need to be vigilant against any practice that will have a harmful effect on vegetation.

The natural vegetation encountered on the site is to be conserved and left as intact as possible. Vegetation planted at the site shall be indigenous, and must be appropriate to the vegetation of the specific area (i.e. endemic) and in accordance with instructions issued by the Employer's Agent.

Only trees and shrubs directly affected by the works, and such others as may be indicated by the Employer's Agent in writing, may be felled or cleared. In wooded areas where natural vegetation has been cleared out of necessity, same specie indigenous trees as previously existing in the area shall be re-established.

Section 5800 of the COLTO Standard Specification for landscaping, planting and the rehabilitation of the grass cover shall be strictly adhered to.

Appropriate seed mixes for use in rehabilitation shall be determined in consultation with a horticulturist, with appropriate experience in the locality. Such a person should preferably be a registered professional (PrSciNat) in terms of the South African Council for Natural Scientific Professions (SACNASP) in the field of botany or ecology, or with validation, another appropriate registration.

Any proclaimed weed or alien species that propagates during the Contract period shall be cleared by hand and before seeding. Mechanisms for removal of weed species should be in line with approved procedures provided from entities such as the South African National Biodiversity Institute (SANBI).

(ii) Restoration

The area where the site offices were erected will require rehabilitation at the end of the Contract. All construction material, including concrete slabs and braai areas shall be removed from the site on completion of the Contract.

(iii) Water

Safe drinking water for human consumption shall be available at the site offices and at other convenient locations on site. All water used on the site must be taken from a legal source and comply with recognized standards for potable and other uses.

The Contractor shall comply with the provisions of the National Water Act and its Regulations for taking water from rivers or streams and the use thereof. Water used for any purpose other than for human usage must be from a licenced source, approved for the specific intended usage – this includes all surface and groundwater sources (i.e. borehole or watercourse water may only be used if permission has been sought and obtained from the Department of Water and Sanitation (DWS) for the proposed usage).

If water is stored on site distinction shall be made between drinking water and multi-purpose water storage facilities.

All effluent water from the camp / office sites shall be disposed of in a properly designed and constructed system, situated so as not to adversely affect water sources (streams, rivers, dams etc). Washing of clothes and bathing in rivers or streams is strictly forbidden. Wastewater which is contaminated with soaps, detergents, grease, oils and other undesirable materials shall be collected in conservancy tanks and disposed of safely into a licenced wastewater treatment facility.

Stormwater on the camp site must be controlled in such a manner that it does not become contaminated.

(iv) Fires and cooking facilities

The Contractor shall provide adequate facilities for his staff so that they are not encouraged to supplement their comforts on site by accessing what can be taken from the natural surroundings. Fires shall only be allowed in facilities or equipment specially constructed for this purpose. Where instructed by the Employer's Agent, a firebreak shall be cleared and maintained around the perimeter of the camp and office sites. Firefighting equipment shall be supplied by the Contractor at suitable locations.

The Contractor shall ensure that energy sources are available at all times for construction and supervision personnel for heating and cooking purposes. No wood or brush material may be sourced from the surroundings.

(b) Sewage treatment

Particular reference in the site establishment plan shall be given to the treatment of sewage generated at the site offices, site laboratory and staff accommodation and at all localities on the site where there will be a concentration of labour. Sanitary arrangements should be to the satisfaction of the Employer's Agent, the local authorities and comply with legal requirements.

Safe and effective sewage treatment will require one of the following sewage handling methods: septic tanks and soak-aways, dry-composting toilets such as "enviro loos", or the use of chemical toilets which are supplied and maintained by a subcontractor.

The type of sewage treatment will depend on the geology of the area selected, the duration of the Contract and proximity (availability) of providers of chemical toilets. Such toilets should be available in a minimum ratio of 1 unit to every 15 staff members. Should a soak-away system be used, it shall not be closer than 800 metres from any natural water course or water retention system. The waste material generated from these facilities shall be serviced on a regular basis. The positioning of the chemical toilets shall be located in consultation with the Employer's Agent.

Toilets and latrines shall be easily accessible and shall be positioned within walking distance from wherever employees are employed on the works. Use of the veld for this purpose shall not, under any circumstances, be allowed.

Outside toilets shall be provided with locks and doors and shall be secured to prevent them from blowing over. The toilets shall also be placed outside areas susceptible to flooding and a minimum of 100 meters from any watercourses or stormwater drainage. The Contractor shall arrange for regular emptying of toilets and shall be entirely responsible for enforcing their use and for maintaining such latrines in a clean, orderly and sanitary condition to the satisfaction of the Employer's Agent.

(c) Waste management

The Contractor's intended methods for waste management and waste minimisation shall be implemented at the start of the Contract. All personnel shall be instructed to dispose of all waste in the proper manner. No waste may be disposed of to site, rather it must be disposed of to a licenced and appropriate disposal site.

(i) Solid waste

Solid waste shall be stored in an appointed area in covered, tip proof metal drums for collection and disposal. A refuse control system shall be established for the collection and removal of refuse to the satisfaction of the Employer's Agent. Disposal of solid waste shall be at a licensed landfill site or at a site approved by the DEA or their delegated competent authority (e.g. Western Cape Department of Environmental Affairs and Development Planning (DEA&DP)) in the event that an existing operating landfill site is not within reasonable distance from the site offices and staff accommodation. No waste shall be burned or buried at or near neither the site offices, nor anywhere else on the site, that is, waste may only be disposed of at the approved solid waste disposal site.

(ii) Litter

No littering by construction workers shall be allowed. During the construction period, the facilities shall be maintained in a neat and tidy condition and the site shall be kept free of litter. Measures shall be taken to reduce the potential for litter and negligent behaviour with regard to the disposal of all refuse. At all places of work the Contractor shall provide litter bins, containers and refuse collection facilities for later safe disposal to approved sites. A concerted effort shall be made to collect and dispose of materials suitable for recycling separately from other solid waste. In this regard, collection systems that allow for waste separation at source should be adopted (i.e. separate bins for paper, glass, cans, plastic, organic waste).

(iii) Hazardous waste

Hazardous waste such as bitumen, tar, oils etc. shall be disposed of in an approved landfill site. Dedicated and secure holding areas for such wastes must be allowed for in the site camp and must ensure no spillage or contamination prior to removal for final disposal. This area may be combined with the hazardous material storage area so long as all items are clearly indicated and the combined area is managed appropriately.

Special care shall be taken to avoid spillage of tar or bitumen products, such as binders or pre-coating fluid, to avoid water-soluble phenols from entering the ground or contaminating water.

Under no circumstances shall the spoiling of tar or bituminous products on the Site, over embankments, in borrow pits or any burying, be allowed. Unused or rejected tar or bituminous products shall be returned to the supplier's production plant. No spillage of tar or bituminous products shall be allowed on site. Affected areas shall be promptly reinstated to the satisfaction of the Employer's Agent.

(iv) Plant and equipment

The Contractor's management and maintenance of his plant and machinery will be strictly monitored according to the criteria given below, regardless whether it is serviced on the Site (i.e. at the place of construction activity or at a formalised workshop). All parked plant must be provided with drip trays positioned appropriately so as to ensure no hazardous substance spillage (e.g. fuel or oil).

(v) Safety

All the necessary handling and safety equipment required for the safe use of petrochemicals and oils shall be provided by the Contractor to, and used or worn by, the staff whose duty it is to manage and maintain the Contractor's and his subcontractor's and supplier's plant, machinery and equipment.

(vi) Hazardous material storage

Petrochemicals, oils and identified hazardous substances shall only be stored under controlled conditions. All hazardous materials (e.g. tar or bitumen binders) shall be stored in a secured, appointed area that is fenced and has restricted entry. Storage of tar or bituminous products shall only take place using suitable containers to the approval of the Employer's Agent.

The Contractor shall provide proof to the Employer's Agent that relevant authorisation to store such substances has been

obtained from the relevant authority. In addition, hazard signs indicating the nature of the stored materials shall be displayed on the storage facility or containment structure. Before containment or storage facilities can be erected the Contractor shall furnish the Employer's Agent with details of the preventative measures he proposes to install in order to mitigate against pollution of the surrounding environment from leaks or spillage. The preferred method shall be a concrete floor that is bunded. Any deviation from the method will require proof from the relevant authority that the alternative method proposed is acceptable to that authority. The proposals shall also indicate the emergency procedures in the event of misuse or spillage that will negatively affect an individual or the environment.

(vii) Fuel and gas storage

Fuel should be stored in a secure area in a steel tank supplied and maintained by the fuel suppliers. Leakage of fuel shall be avoided. An adequate bund wall, 110% of volume, shall be provided for fuel and diesel areas to accommodate any spillage or overflow from these substances. The area inside the bund wall shall be lined with an impervious lining to prevent infiltration of the fuel into the soil.

Gas welding cylinders and LPG cylinders shall be stored in a secure, well-ventilated area.

(viii) Oil and lubricant waste

Fuel tanks, pumps and all equipment using oil, diesel, etc. must have drip trays. Used oil, lubricants and cleaning materials from the maintenance of vehicles and machinery shall be collected in a holding tank and sent back to the supplier. Water and oil should be separated in an oil trap. Oils collected in this manner, shall be retained in a safe holding tank and removed from site by a specialist oil recycling company (e.g. linked to the Rose Foundation) for disposal at approved waste disposal sites for toxic/hazardous materials. Oil collected by a mobile servicing unit shall be stored in the service unit's sludge tank and discharged into the safe holding tank for collection by the specialist oil recycling company.

All used filter materials shall be stored in a secure bin for disposal off site. Any contaminated soil shall be removed and replaced. Soils contaminated by oils and lubricants shall be collected and disposed of at a facility designated by the local authority to accept contaminated materials.

(c) Clearing the site

In all areas where the Contractor intends to, or is required to clear the natural vegetation and soil, either within the road reserve, or at designated or instructed areas outside the road reserve, a plan of action, including the phasing / sequence of clearance, shall first be submitted to the Employer's Agent for his approval.

The plan shall contain a photographic record and chainage/land reference of the areas to be disturbed. This shall be submitted to the Employer's Agent for his records before any disturbance/stockpiling may occur. The record shall be comprehensive and clear, allowing for easy identification during subsequent inspections.

The Contractor shall be held responsible for re-establishment of grass within the road reserve boundaries for all areas disturbed during road construction. This includes, for example, service roads, stockpile areas, Stop/Go facilities, windrows and wherever material generated for, or from, road construction has to be stored temporarily or otherwise within the road reserve, or at designated or instructed areas outside the road reserve. This responsibility shall extend until expiry of the Defects Liability Period.

(d) Soil management

(i) Topsoil

Topsoil shall be removed from all areas where physical disturbance of the surface will occur and shall be stored and adequately protected. The Contract will provide for the stripping and stockpiling of topsoil from the site for later re-use. Topsoil is considered to be the natural soil covering, including all the vegetation and organic matter. Depth may vary at each site.

The areas to be cleared of topsoil shall include the storage areas. The position of such topsoil storage areas shall be presented on the site layout for approval. All topsoil stockpiles and windrows shall be maintained throughout the Contract period in a weed-free condition. Weeds appearing on the stockpiled or windrowed topsoil shall be removed by hand.

Soils contaminated by hazardous substances shall be disposed of at an approved Department of Water Affairs and Forestry waste disposal site.

The topsoil stockpiles shall be stored, shaped and sited in such a way that they do not interfere with the flow of water to cause damming or erosion, or itself be eroded by the action of water. Stockpiles of topsoil shall not exceed a height of 2 meters, and if they are to be left for longer than 6 months, shall be analysed, and if necessary, upgraded before replacement. Stockpiles shall be protected against infestation by weeds.

The Contractor shall ensure that no topsoil is lost due to erosion – either by wind or water. Areas to be topsoiled and grassed shall be done so systematically to allow for quick cover and reduction in the chance of heavy topsoil losses due to unusual

weather patterns. The Contractor's programme shall clearly show the proposed rate of progress of the application of topsoil and grassing. The Contractor shall be held responsible for the replacement, at his own cost, for any unnecessary loss of topsoil due to his failure to work according to the progress plan approved by the Employer's Agent. The Contractor's responsibility shall also extend to the clearing of drainage or water systems within and beyond the boundaries of the road reserve that may have been affected by such negligence.

(ii) Subsoil

The subsoil is the layer of soil immediately beneath the topsoil. It shall be removed, to a depth instructed by the Employer's Agent, and stored separately from the topsoil if not used for road building. The position of such topsoil storage areas shall be presented on the site layout for approval. This soil shall be replaced in the excavation in the original order it was removed for rehabilitation purposes. If this re-use is not possible, such material will be deemed spoil and must be disposed of in a legal manner.

(e) Drainage

The quality, quantity and flow direction of any surface water runoff shall be established prior to disturbing any area for construction purposes. Cognisance shall be taken of these aspects and incorporated into the planning of all construction activities. Before a site is developed or expanded, it shall be established how this development or expansion will affect the drainage pattern. Recognised water users / receivers shall not be adversely affected by the expansion or re-development. Surface water runoff must be managed to minimise erosion. No water source shall be polluted in any way due to proposed changes.

Streams, rivers, pans, wetlands, dams, and their catchments shall be protected from erosion, direct or indirect spillage of pollutants such as refuse, garbage, cement, concrete, sewage, chemicals, fuels, oils, aggregate, tailings, wash water, organic materials and bituminous or tar products.

The Contractor shall submit to the Employer's Agent his proposals for prevention, containment and rehabilitation measures against environmental damage of the identified water and drainage systems that occur on the site. Consideration shall be given to the placement of sedimentation ponds or barriers where the soils are of a dispersive nature or where toxic fluids are used in the construction process. The sedimentation ponds must be large enough to contain runoff so that they function properly under heavy rain conditions. The mechanisms used should be appropriate to the nature of the area and the potential impacts.

All works within 100 meters of a watercourse, or 500 meters of a wetland shall comply with the requirements of the SANRAL *Drainage Manual* in terms of appropriate working methods that will limit potential impacts and/or damage to the environment.

(f) Earthworks and layerworks

This 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 comply with the requirements of subclauses C1008(e) and C1008(g) and 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 (DMR), that before entry into any quarry or borrow pit, an mining Environmental Management Programme (EMPR) meeting the requirements of both the Minerals and Petroleum Resources Development Act (Act No. 49 of 2008) (MPRDA) and the National Environmental Management Act (Act No. 107 of 1998) (NEMA) for the establishment, operation and closure of the quarry or borrow pit shall have been approved by the Department. As a part of the authorisation, an EMP will be approved controlling the operation of the borrow pit or quarry.

It is the responsibility of the Contractor to ensure that he obtains from the Employer's Agent, a copy of the approved EMP with linked authorisations prior to entry into the quarry or borrow pit. The conditions / controls imposed by the relevant EMP 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 approved EMP and this Specification the former shall apply. The cost of complying with the requirements shall be deemed to be included in existing rates in the Bill of Quantities.

(ii) Excavation, hauling and placement

The Contractor shall provide the Employer's Agent with detailed method statement of his intended construction processes prior to starting any cut or fill or layer. The method statement shall detail the number of personnel and plant to be used and the measures by which the impacts of pollution (noise, dust, litter, fuel, oil, 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 ensure that at work closure at the end of every day the site is left in a safe condition from rainfall overnight or over periods when there is no construction activity.

(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 liability 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 Employer's Agent for his approval. The location of these spoil sites shall have signed approval from the affected landowner before submission to the Employer's Agent. All spoil disposed of to land in excess of 25 tonnes must be done in compliance with a waste management licence (WML), or to a site that is approved to accept the material under a relevant environmental authorisation or WML.

No spoil site shall be located within 500 meters of any watercourse, this is taken to include wetland areas.

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 hazardous or toxic wastes shall be prohibited unless special measures are taken to prevent leaching of the toxins into the surrounding environment. Such special measures shall require the approval of the relevant provincial or national authority. The same shall apply for the disposal of solid waste generated from the various camp establishments. The Employer's Agent will assist the Contractor in obtaining the necessary approval if requested by the Contractor.

Spoil sites will be shaped to fit the natural topography. These sites shall receive a minimum of 75 mm topsoil and be grassed with the recommended seed mixture. Slopes shall not exceed a vertical: horizontal ratio of 1:3. Only under exceptional circumstances will approval be given to exceed this ratio. Appropriate grassing measures to minimise soil erosion shall be undertaken by the Contractor. This will include both strip and full sodding. The Contractor may motivate to the Employer's Agent for other acceptable stabilising methods. The Engineer may only approve a completed spoil site at the end of the Defects Liability Period upon receipt from the Contractor of a landowner's clearance notice and an Engineer's certificate certifying slope stability. The Contractor's costs incurred in obtaining the necessary certification for opening and closing of spoil sites shall be deemed to be included in the tendered rates for spoiling.

(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 Employer's Agent for his approval, together with the Contractor's proposed measures for prevention, containment and rehabilitation against environmental damage.

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:

- (1) Positioned and sloped to create the least visual impact;
- (2) Constructed and maintained so as to avoid erosion of the material and contamination of surrounding environment; and
- (3) 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, topsoiled, grassed and maintained at the Contractor's cost until clearance from the Employer's Agent 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 detritus of material from road construction activities may not be swept off the road and left unless specifically instructed to do so by the Employer's Agent

In all cases, the Employer's Agent 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.

In addition, the Contractor shall, prior to any drilling of holes in preparation for blasting, supply the Employer's Agent with a locality plan of the blast site on which shall be shown the zones of influence of the ground and air shock-waves and expected limits of fly-rock. The plan shall show each dwelling, structure and service within the zones of influence and record all details of the dwellings/structures/services including existing positions, lengths and widths of cracks, as well as the condition of doors, windows, roofing, wells, boreholes etc. The Contractor, alone, shall be responsible for any costs that can be attributed to blasting activities, including the collection of fly-rock from adjacent lands and fields. The submission of such a plan shall not in any way absolve the Contractor from his responsibilities in this regard. The Contractor shall also indicate to the Employer's

Agent the manner in which he intends to advertise to the adjacent communities and/or road users the time and delays to be expected for each individual blast.

(g) Batching sites

Asphalt plants are considered scheduled processes listed in Category 1 of the National Environmental Management: Air Quality Act, 2004 (Act No. 39 of 2004) (NEM:AQA). Should the use of an asphalt plant be considered on site, the Contractor shall be responsible to obtain the necessary permit from the Department of Environmental Affairs, regardless of where they are sited.

Crushing plants and concrete batching plants, whether sited inside or outside of defined quarry or borrow pit areas, shall be subject to the requirements of the Department of Mineral Resources legislation, as well as the applicable industrial legislation that governs gas and dust emissions into the atmosphere. Such sites will be subject to regular inspections by the relative authorities during the life of the project.

In addition, the selection, entry onto, operation, maintenance, closure and rehabilitation of such sites shall be the same as for those under subclause C1008(h)(iii), with the exception that the Contractor shall provide additional measures to prevent, contain and rehabilitate against environmental damage from toxic/hazardous substances. In this regard the Contractor shall provide plans that take into account such additional measures as concrete floors, bunded storage facilities, linings to drainage channels and settlement dams. Ultimate approval of these measures shall be from the relevant national authority, as shall approval of closure. The Employer's Agent will assist the Contractor in his submissions to the relevant authority.

Effluent from concrete batch plants and crusher plants shall be treated in a suitable designated sedimentation dam to the legally required standards to prevent surface and groundwater pollution. The designs of such a facility should be submitted to the Employer's Agent for approval.

The Contractor shall invite the relevant department to inspect the site within 2 months after any plant is commissioned and at regular intervals thereafter, not exceeding 12 months apart.

(h) Spillages

Streams, rivers and dams shall be protected from direct or indirect spillage of pollutants such as refuse, garbage, cement, concrete, sewage, chemicals, fuels, oils, aggregate, tailings, wash water, organic materials and tar or bituminous products. In the event of a spillage, the Contractor shall be liable to arrange for professional service providers to clear the affected area.

Responsibility for spill treatment lies with the Contractor. The individual responsible for, or who discovers, a hazardous waste spill must report the incident to Designated Environmental Officer (DEO) or to the Employer's Agent immediately on discovery / occurrence. The DEO will assess the situation in consultation with the Employer's Agent and act as required. In all cases, the immediate response shall be to contain the spill. The exact treatment of polluted soil / water shall be determined by the Contractor in consultation with the DEO and the Employer's Agent. Areas cleared of hazardous waste shall be re-vegetated according to the Employer's Agent instructions. Depending on the scale of the spill, the DWS and relevant environmental authorities will need to be notified and a structured removal and remediation process will need to be approved.

Should water downstream of the spill be polluted, and fauna and flora show signs of deterioration or death, specialist hydrological or ecological advice will be sought for appropriate treatment and remedial procedures to be followed. The requirement for such input shall be agreed with the Employer's Agent.

The costs of containment and rehabilitation shall be for the Contractor's account, including the costs of specialist input.

(i) Areas of specific importance

Any area, as determined and identified as sensitive or of special interest within the site shall be treated according to the express instructions contained in these specifications or the approved EMP. The Contractor may offer alternative solutions to the Employer's Agent in writing should he consider that construction will be affected in any way by the hindrance of the designated sensitive area or feature. However, the overriding principle is that such defined areas requiring protection shall not be changed. Every effort to identify such areas within the site will have been made prior to the project going out to tender. The discovery of other sites with archaeological or historical interest that have not been identified shall require *ad hoc* treatment.

(i) Archaeological sites

If an artefact on site is uncovered, work in the immediate vicinity shall be stopped immediately. The Contractor shall take reasonable precautions to prevent any person from removing or damaging any such article and shall immediately upon discovery thereof inform the Employer's Agent of such discovery. Heritage Western Cape (HWC), as provincial delegated authority for the South African Heritage Resources Agency (SAHRA), is to be contacted in terms of the needs going forward, including the appointment of an archaeological consultant. Work may only resume once clearance is given in writing by the archaeologist.

(ii) Graves and middens

If a grave or midden is uncovered on site, or discovered before the commencement of work, then all work in the immediate vicinity of the graves/middens shall be stopped and the Employer’s Agent informed of the discovery. The HWC (or SAHRA) should be contacted and in the case of graves, arrangements made for an undertaker to carry out exhumation and reburial. The undertaker will, together with HWC / SAHRA, be responsible for attempts to contact family of the deceased and for the site where the exhumed remains can be re-interred.

(j) Noise control

The Contractor shall endeavour to keep noise generating activities to a minimum. Noises that could cause a major disturbance, for instance blasting and crushing activities, should only be carried out during daylight hours. Compliance with the appropriate legislation with respect to noise shall be mandatory.

Should noise generating activities such as drilling have to occur at night the people in the vicinity of the drilling shall be warned about the noise well in advance and the activities kept to a minimum.

(k) Dust control

Dust suppression measures shall be implemented if and when required. Dust caused by strong winds shall be controlled by means of water spray vehicles. Dust emission from batching plants shall be subject to the relevant legislation and shall be the subject of inspection by the relevant Department of Mineral Resources. Note that the dust control mechanisms should take into account issues such as water scarcity and the nature of the receiving environment.

(l) Alien vegetation

The Contractor shall be held responsible for the removal of alien vegetation within the road reserve disturbed during road construction. This includes, for example, service roads, stockpile areas, Stop/Go facilities, windrows and wherever material generated for or from road construction has been stored temporarily or otherwise within the road reserve. This responsibility shall extend for the duration of the Defects Liability Period.

C1009 RECORD KEEPING

The Employer’s Agent and the Designated Environmental Officer (DEO) will continuously monitor the Contractor’s adherence to the approved impact prevention procedures and shall issue to the Contractor a notice of non-compliance whenever transgressions are observed. The DEO shall document the nature and magnitude of the non-conformance in a designated register, the action taken to discontinue the non-conformance, the action taken to mitigate its effects and the results of the actions. The non-conformance shall be documented and reported to the Employer’s Agent in a monthly report.

Copies of any Environmental Authorisation and linked EMPs for specific borrow pits or quarries used on the project shall be kept on site and made available for inspection by visiting officials from the Employer or relevant environmental departments.

Waste disposal records / proof shall be held on site for scrutiny.

C1010 COMPLIANCE AND PENALTIES

The Contractor shall act immediately when such notice of non-compliance is received and correct whatever is the cause for the issuing of the notice. Complaints received regarding activities on the construction site pertaining to the environment shall be recorded in a dedicated register and the response noted with the date and action taken. This record shall be submitted with the monthly reports and a verbal report given at the monthly site meetings.

Any avoidable non-compliance with the above-mentioned measures shall be considered sufficient ground for the imposition of a penalty. The value of the penalty will be in accordance with current environmental legislation. Any damage arising from or caused by the non-compliance shall be rectified at the Contractor’s own cost.. The imposition of such a penalty shall not preclude the relevant provincial or national authority from applying an additional penalty in accordance with its statutory powers. Any non-compliance with the agreed procedures of the EMP is a transgression of the various statutes and laws that define the manner by which the environment is managed.

Failure to redress the cause shall be reported to the relevant authority for them to deal with the transgression, as it deems fit.

C1011 MEASUREMENT AND PAYMENT

| | |
|-------------|-------------|
| Item | Unit |
|-------------|-------------|

C10.01 The Contractor’s obligations in respect of environmental management:

- | | |
|---|-------|
| (a) Designated Environmental Officer (DEO)..... | month |
| (b) Environmental aspects and impacts..... | month |

- (c) Provision of environmental emergency measures.....Provisional Sum (Prov Sum)
- (d) Contractor's charge to allow for handling costs and profit in respect of subitem C10.01(c).....percentage (%)

Payment of the monthly rate tendered in subitem (a) shall include full compensation for all costs resulting from the recruitment and employment of a Designated Environmental Officer, the control and management, the onsite hands-on and in-house training, and the assistance rendered to personnel, staff and equipment engaged in construction and other tasks on the site of Works. The cost of the on-site training facility if specified is measured and paid for under item D10.04 of the Bill of Quantities.

The tendered monthly rate for subitem (b) shall include full compensation for complying with the requirements in respect of the EMP as specified.

The provisional sum allowed under subitem (c) shall be expended to cover the costs incurred in complying with the requirements in respect of the provision of environmental emergency measures. The expenditure shall be controlled as stipulated in clause 6.6 of the General Conditions of Contract.

The tendered percentage for subitem (d) is a percentage of the amount actually spent under subitem (c) and shall include full compensation for the Contractor's handling costs and profit in respect of the provision of environmental emergency measures.

Table 7.1: Mechanisms That Cause Environmental Impacts During Construction Activities

| MECHANISMS THAT CAUSE ENVIRONMENTAL IMPACTS DURING CONSTRUCTION ACTIVITIES | | | | | | |
|--|-----------------------------------|---|---|---|---|--|
| Section | Contents | Environmental Impacts | | | | |
| | | Pollution Type | Deformation of Landscape | Soil erosion | Alien Vegetation | Sensitive Areas |
| 1300 | Camp Establishment | Waste treatment Hazardous waste Water supply Spillage Storage | Selection of site Preserve indigenous vegetation Preserve topsoil | Selection of site Preserve indigenous vegetation Preserve topsoil | Preserve indigenous vegetation Preserve topsoil Management of weeds | No clearance of vegetation in excess of 300 m ² will be allowed. |
| 1400 | Housing, Offices and laboratories | Waste treatment Hazardous waste Water supply Spillage Storage Noise/lights | Selection of site Preserve indigenous vegetation Preserve topsoil Demarcate sensitive areas | Selection of site Preserve indigenous vegetation Preserve topsoil | Preserve indigenous vegetation Preserve topsoil Management of weeds | No clearance of vegetation in excess of 300 m ² will be allowed. |
| 1500 | Accommodation of Traffic | Waste treatment Hazardous waste Water supply Spillage Storage Noise/lights Dust control | Selection of site Preserve indigenous vegetation Preserve topsoil Demarcate sensitive areas Maintenance of windrows | Selection of site Preserve indigenous vegetation Preserve topsoil | Preserve indigenous vegetation Preserve topsoil Management of weeds | No deviations into undisturbed or designated sensitive areas will be allowed |
| 1600 | Overhaul | Spillage Storage Noise/lights Dust control Exhaust fumes Washing waste | Turning circles Parking areas | Restrict access to sensitive areas | Protection of indigenous vegetation Preserve topsoil | Restrict access to sensitive areas |
| 1700 | Clearing and grubbing | Waste treatment Hazardous waste Water supply Noise /lights Dust control | Selection of site Preserve indigenous vegetation Preserve topsoil | Selection of site Preserve indigenous vegetation Preserve topsoil | Protection of indigenous vegetation Preserve topsoil | Limit clearance and avoid sensitive areas |
| 2100 to 2400 | Drainage | Waste treatment Hazardous waste Water supply Spillage Storage | Selection of site Preserve indigenous vegetation Preserve topsoil | Selection of site Preserve indigenous vegetation Preserve topsoil | Preserve indigenous vegetation Preserve topsoil Management of weeds | Separation of clean and dirty streams, with only clean allowed to be released into sensitive areas |
| 3100 | Borrow pits | Waste treatment Hazardous waste Water supply Spillage | Selection of site Preserve indigenous vegetation Preserve topsoil | Selection of site Preserve indigenous vegetation Preserve topsoil | Preserve indigenous vegetation Preserve topsoil Management of | No borrow-pit to be allowed in a defined sensitive area. All permits to be in |



| MECHANISMS THAT CAUSE ENVIRONMENTAL IMPACTS DURING CONSTRUCTION ACTIVITIES | | | | | | |
|---|------------------------------------|--|---|---|---|---|
| Section | Contents | Environnemental Impacts | | | | |
| | | Pollution Type | Deformation of Landscape | Soil erosion | Alien Vegetation | Sensitive Areas |
| | | Storage | | | weeds | place prior to taking materials. |
| 3200 | Stockpiling | Waste treatment Hazardous waste Water supply Spillage Storage | Selection of site Preserve indigenous vegetation Preserve topsoil | Selection of site Preserve indigenous vegetation Preserve topsoil | Preserve indigenous vegetation Preserve topsoil Management of weeds | All positions of stockpiles to be confirmed and approved prior to commencement. Temporary lay-down areas to be confirmed. |
| 3300 | Mass Earthworks | Waste treatment Hazardous waste Water supply Spillage Storage | Selection of site Preserve indigenous vegetation Preserve topsoil | Selection of site Preserve indigenous vegetation Preserve topsoil | Preserve indigenous vegetation Preserve topsoil Management of weeds | Avoid sensitive areas |
| 3400 to 3900 | Pavement layers | Waste treatment Hazardous waste Water supply Spillage Storage Noise / lights Dust control | Selection of site Preserve indigenous vegetation Preserve topsoil Demarcate sensitive areas Maintenance of windrows | Selection of site Preserve indigenous vegetation Preserve topsoil | Preserve indigenous vegetation Preserve topsoil Management of weeds | |
| 4100 | Asphalt works / sealing operations | Waste treatment Hazardous waste Water supply Spillage Storage Noise / lights Dust control Smoke control Storage of materials | Selection of site Preserve indigenous vegetation Preserve topsoil Turning circles Parking areas | Selection of site Preserve indigenous vegetation Preserve topsoil | Preserve indigenous vegetation Preserve topsoil | |
| 5000 | Ancillary roadworks | Waste treatment Hazardous waste Water supply Spillage Storage | Selection of site Preserve indigenous vegetation Preserve topsoil | Selection of site Preserve indigenous vegetation Preserve topsoil | Preserve indigenous vegetation Preserve topsoil Management of weeds | |
| 6000 | Structures | Waste treatment Hazardous waste Water supply Spillage Storage | Selection of site Preserve indigenous vegetation Preserve topsoil | Selection of site Preserve indigenous vegetation Preserve topsoil | Preserve indigenous vegetation Preserve topsoil Management of weeds | |
| 7000 | Concrete pavements etc. | Waste treatment Hazardous waste Water supply Spillage Storage | Selection of site Preserve indigenous vegetation Preserve topsoil | Selection of site Preserve indigenous vegetation Preserve topsoil | Preserve indigenous vegetation Preserve topsoil Management of weeds | Avoid sensitive areas |

3.4.4 PART D: LABOUR AND TRAINING SPECIFICATIONS

This part of the Project Specifications contains comprehensive additional standardised specifications for matters not covered by and work which is not carried out in terms of the Standard Specifications.

The number of each clause and each payment item in this part of the Project Specification is prefixed with a D to differentiate these clauses and items as additional works.

The following additional works are covered under this part of the Project Specifications:

SECTION D1000: LABOUR AND TRAINING REQUIREMENTS

D1001 SCOPE

This section covers aspects that relate to the engagement and training of labour recruited from local communities in the execution of the Contract Works as an integral part of the Government's broad-based Black Economic Empowerment Programme.

D1002 DEFINITIONS

The definitions given in the Conditions of Contract, the Contract data and the Works Specifications, together with the following additional definitions shall, unless the context dictates otherwise, apply:

- (a) 'Key Personnel' means all contract managers, site agents, materials and survey technicians, trainers, supervisors, foremen, skilled plant operators and the like, and all other personnel in the permanent employ of the Contractor or Subcontractor who possess special skills and/or who play key roles in the Contractor's or subcontractor's operation.
- (b) 'Labourer' means a worker statutorily defined as employees in the Basic Conditions of Employment Act, 1997, who is temporarily or permanently employed by the Contractor and subcontractors to perform prescribed work on this contract. 'Labour' means labourers or workers who are not part of key personnel of the Contractor nor his subcontractors.
- (c) 'Labour Register' means the list of available local labourers compiled by the Community Liaison Officer in accordance with the results of his negotiations with the Contractor and the local community subsequent to the award of the Contract.
- (d) 'Local Labour' means labourers or workers who resides permanently within the local communities in the target area(s) as defined by the Employer in the Project Specifications and who are temporarily or permanently employed by the Contractor and Subcontractors and normally paid on an hourly rate basis to perform prescribed work tasks on the Contract.
- (e) 'Wage' means the actual amount paid periodically to labour employed by the main Contractor and his Subcontractors after all deductions made in terms of the law (e.g. UIF) and exclusive of all company overheads and other benefits such as protective clothing, transport etc.

D1003 CONTRACTUAL REQUIREMENTS

The Contractor shall comply with the following relevant legislation:

- (i) Basic Conditions of Employment Act 75 of 1997
- (ii) Labour Relations Act 66 of 1995
- (iii) Employment Equity Act 55 of 1998 (Chapters 1 and 2)
- (iv) Occupational Health and Safety Act 85 of 1993
- (v) Compensation for Occupational Injuries and Diseases Act 130 of 1993
- (vi) Skills Development Act of 1998

D1006 EMPLOYMENT OF LOCAL LABOUR

(a) General

- Unskilled 100% - All unskilled labour to be sourced from the Stellenbosch Area, preferably from the project area.
- Semi-skilled (may not be zero) – Some semi-skilled persons must be required from within the Stellenbosch area.
- Skill dependent on the contract.

(b) Selection of local labourers

The Contractor shall advise the Employer's Agent in writing of the various categories of local labourers required for construction and the number of local labourers required in each category, together with the personal attributes which he considers desirable that each category of local labourers shall possess, taking due cognizance of the provisions of the Contract relating to training.

The Contractor shall select local labourers from the applicants in the labour register, taking cognizance of the following principles:

No potential local labourer shall be precluded from being employed by the Contractor on the execution of the works by virtue of his lack of skill in any suitable operation forming part of the works unless

all available vacancies have been or can be filled by labourers who already possess suitable skills, or the completion period allowed in the Contract, or the remaining portion of the Contract period (as the case may be) is insufficient to facilitate the creation of the necessary skills;
Preference shall be given to the long-term unemployed and single heads of households;
The Contractor shall, in so far as is reasonably practicable, accommodate the applicants' expressed preferences regarding the types of work for which they are selected;
The selection process shall make provision for, but shall not be limited to, the inclusion of disabled, who are deemed capable to perform selected tasks, youths and women.

After making his selection, the Contractor shall advise the Employer's Agent thereof in writing, and the Employer's Agent has the right to call a meeting with the Public Liaison Committee for the purpose of ratifying the Contractor's selection. The Contractor shall attend such meeting and where reasonably required, shall motivate his selection. Should the Employer's Agent or the local community make reasonable objection to the selection of any particular applicant by the Contractor, the Contractor shall not employ such applicant and shall select another suitable applicant acceptable to the Employer's Agent and the local community as a replacement of the rejected applicant, in order to finalise the composition of the workforce.

(c) Terms and conditions of employment

The statutory Department of Labour Government Notice No. R204 of 2 March 2001: Basic Conditions of Employment Act (No. 75 of 1997): Sectoral Determination 2: Civil Engineering Sector, South Africa as amended shall apply in respect of any employer or employee associated with the Contract. In particular the Contractor shall pay his labour at least the minimum wage prescribed in the statutory legislation.

All temporary local labour shall be employed by the Contractor in accordance with the abovementioned statutory legislation conditions which are consistent with those set out below:

Engagement shall be of temporary nature for a period not exceeding the duration of the Contract. The duration of the employment shall nevertheless be as long as possible.

The Contractor shall in respect of every temporary worker employed by him in terms of the Contract, pay in full all amounts as may be due and payable in terms of the Workmen's Compensation Act.

At the earliest opportunity the Contractor shall give notice to the temporary workers of the termination of the project on which they are engaged, provided always that such notice shall not be less than one week.

Any temporary worker may be summarily dismissed by the Contractor for any of the following reasons:

Being under the influence of alcohol or drugs whilst on the site;

Theft of any materials, plant, tools and equipment;

Gross insubordination;

Any wilful or grossly negligent act or omission which constitutes a threat to person or property;

Any other reason with which the Employer's Agent may agree that it warrants summary dismissal.

The dismissal of a temporary worker shall be effected in accordance with the applicable statutory requirements.

The Contractor shall enter into a written agreement with each temporary worker engaged by him in terms of the Contract.

The conditions of employment of the temporary worker and his rate of remuneration shall be set out fully and clearly in the agreement, and the provisions of the agreement shall be strictly in accordance with the statutory legislation.

The Contractor shall provide satisfactory and suitable scheduled daily return transport free of charge for the labourers recruited in the local communities between agreed assembly points in the residential area of the local communities and the areas on the site where the labourers or groups of labourers have to report for the various tasks allotted to them. No separate payment will be made for providing this transport and the Contractor shall allow for the cost thereof in his tendered rates.

Authority (CETA) or other institution recognized by the Department of Labour, as being appropriate for this project.

Be delivered by suitably qualified and experienced trainers accredited to do so.

Be delivered in the modules as described below. The actual training needs, training agency and programme shall be agreed with the Employer's Agent prior to implementation.

The Contractor shall facilitate in the delivery of training, by instructing and motivating the local labour, supervisors and subcontractors regarding attendance and participation.

Certificates affirming the successful participation in the various courses shall be presented to each attendant.

3.4.5 PART E: ADDITIONAL SPECIFICATIONS FOR SPECIFIC WORKS

The following particular specifications supplement the standard **COLTO Specifications** and must be read in conjunction with the standard and project specifications.

Electrical works: None expected.



3.4.6 PART F: REHABILITATION OF STRUCTURES AND BRIDGES

SERIES 12000: DRAFT SPECIFICATIONS FOR THE REHABILITATION OF BRIDGES THAT SUPPLEMENT TO THE COLTO STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE WORKS FOR STATE ROAD AUTHORITIES

The following Particular Specifications supplement the Standard COLTO Specifications and must be read in conjunction with the Standard and Project Specifications.

SECTION F: REHABILITATION OF STRUCTURES AND BRIDGES

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| | |
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| SECTION F12 100: | ACCESS FOR BRIDGE REHABILITATION |
| SECTION F12 200: | DEMOLITION AND REMOVAL OF STRUCTURAL CONCRETE |
| SECTION F12 300: | SURFACE AND STRUCTURAL REPAIR OF CONCRETE MEMBERS |
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| SECTION F12 800: | REPLACEMENT AND REPAIR OF ANCILLARY BRIDGE ELEMENTS |
| SECTION F12 1100 | REPAIR OF CORRODED STEEL ITEMS |

SECTION G1000: HEALTH AND SAFETY REQUIREMENTS

G1000 DEFINITIONS

Definitions as per the Construction Regulations 2014 are applicable to this health and safety specification with the following clarifications:

- (a) Client means Employer
- (b) Principal contractor means contractor
- (c) Contractor means sub -contractor
- (d) Note-go through the definitions as clarify

G1001 SCOPE

This part of the specification has the objective to assist principal contractors entering into contracts with the Employer that they comply with the Occupational Health and Safety (OH&S) Act, No. 85 of 1993, as well as all applicable Regulations. Compliance with this document does not absolve the principal contractor from complying with minimum legal requirements and the principal contractor remains responsible for the health and safety of their employees. Principal and other contractors should insist that this part of the specification form part of any contract that he may have with other contractors and/or suppliers.

This section covers the development of a health and safety specification that addresses all aspects of occupational health and safety as affected by this contract. It provides the requirements that principal contractors and other contractors shall comply with in order to reduce the risks associated with this contract, which may lead to incidents causing injury and/or ill health. In this matter the spirit and intention of the Construction Regulations, regarding negotiations between the parties, related to the contents and approval of the Health and Safety Plan, must be complied with.

G1002 GENERAL OCCUPATIONAL HEALTH AND SAFETY PROVISIONS

(a) Legal Requirements

A principal contractor shall, as a minimum, comply with:

- (i) The Occupational Health and Safety Act and Regulations (Act 85 of 1993)
- (ii) The Compensation for Occupational Injuries and Diseases Act (Act 130 of 1993)

(b) Risk Assessment

Every principal 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 OH&S plan and be implemented and maintained. The principal contractor shall conduct a baseline risk assessment, before work commences.

The risk assessment shall further include, where applicable, the standard working procedures and the applicable method statements. This does not imply that all possible risk assessments must be attended to before work commences, but that all relevant risk assessments receive the necessary attention as the Project progresses.

Based on the risk assessments, the principal contractor shall develop a set of site-specific OH&S rules that shall be applied to regulate the OH&S aspects of the construction. The risk assessments, together with the site-specific OH&S rules shall be submitted to the Employer before construction on site commences.

The risk assessment shall include, as far as is reasonably practicable, at least:

- (i) the identification of the risks and hazards to which persons may be exposed
- (ii) the analysis and evaluation of the risks and hazards identified, inclusive of a residual risk rating methodology. The method used shall not be prescribed.
- (iii) a documented plan of safe work procedures, to mitigate, reduce or control those residual risks that have been identified as unacceptably high, by means of the rating system.
- (iv) a monitoring plan and
- (v) a review plan, inclusive of dates to be adhered to.

All variations to the scope of work shall similarly be subjected to a risk assessment process.

The principal contractor shall review the risk assessments and standard working procedures regularly as the contract work develops and progresses and each time changes are made to the designs, plans and construction methods and processes. The principal contractor shall provide the Employer, other contractors and all other concerned parties with copies of any changes, alterations or amendments

(c) Structure and Responsibilities

(i) Overall Supervision and Responsibility for OH&S

It is a requirement that the principal contractor, when he appoints contractors in terms of Construction Regulations, includes in his agreement with such contractors the following:

- (1) OH&S Act (85 of 1993), Section 37(2) agreement: "Agreement with Mandatory"
- (2) OH&S Act (85 of 1993), Section 16(2) appointee/s as detailed in his/her/their respective appointment forms. (Where applicable)

(ii) Specific Supervision Responsibilities for OH&S

The contractor shall appoint designated competent employees and/or other competent persons as required by the Act and Regulations. It is a requirement that where the Construction Regulations stipulate "competence" in an appointment, the contractor shall provide a form of evidence, proving this competence. This proof of evidence will be negotiated between both parties as per the Construction Regulations.

Where the principal contractor employs more than 20 persons (including the employees of other contractors (subcontractors) he has to appoint one OH&S representatives for every 50 employees or part thereof. This is a minimum (legal) requirement in terms of section 17 of the OH&S Act. The principle contractor may at his own discretion cause more OH&S Representatives to be appointed according to site specific requirements.

In terms of section 18 of the OH&S Act, OH&S representatives shall be designated in writing and the designation shall include the area of responsibility of the person and term of the designation. OH&S representatives must be experienced, permanently employed, trained and able to move freely at their designated area of responsibility.

The principal contractor shall ensure that the designated OH&S representatives conduct continuous monitoring and regular inspections of their respective areas of responsibility, focussing on unsafe acts and unsafe conditions and report thereon to the principal contractor. OH&S representatives shall be included in accident or incident investigations. OH&S representatives shall attend all OH&S committee meetings.

(iii) Appointment of OH&S Committee

The principal contractor shall in terms of sections 19 and 20 of the OH&S Act, establish an OH&S committee, which shall meet once a month or sooner, should circumstances require an extraordinary meeting.

(d) Administrative Controls

(i) Site specific Health and Safety Plan

In compliance with the Construction Regulations the contractor shall, after performing a risk assessment, prepare a health and safety plan for approval by the employer.

The health and safety plan shall include, but not be limited to, the following:

- (1) The safety management structure including the names of all designated persons such as the construction supervisor and any other competent persons;
- (2) Safety method statements and procedures to be adopted to ensure compliance with the OHS Act. Aspects to be dealt with shall include:
 - (3) Public vehicular and pedestrian traffic accommodation measures;
 - (4) Control of the movement of construction vehicles;
 - (5) The storage and use of materials;
 - (6) The use of tools, vehicles and plant;
 - (7) Temporary support structures;
 - (8) Dealing with working at height;
 - (9) The use of batch plants;
 - (10) Excavation work;
 - (11) Demolition work;
 - (12) Security, access control and the exclusion of unauthorised persons.
 - (13) The provision and use of temporary services;
 - (14) Compliance with wayleaves, permissions and permits;
 - (15) Safety equipment, devices and clothing to be employed;
 - (16) Emergency procedures;
 - (17) Provision of welfare facilities;
 - (18) Induction and training;
 - (19) Provision and maintenance of the health and safety file and other documentation;
 - (20) Arrangements for monitoring and control to ensure compliance with the safety plan.

(ii) Health and Safety Records

As required by the Construction Regulations, the principal contractor and other contractors shall each keep an OH&S file on site. The OH&S file is a term for the SHE Management System utilised on site, which may include copies of relevant documentation.

The following index is neither exhaustive nor prescriptive and shall only be used as a guide:

- Notification of construction work (Construction Regulation 3) where applicable
- Latest copy of OH&S Act (General Administrative Regulation 4)
- Proof of registration and good standing with COID Insurer (Construction Regulation 4(g))
- OH&S plan agreed with the Client including the underpinning risk assessment/s and method statements (Construction regulation 5(1))
 - Copies of OH&S committee and other relevant minutes
 - Designs/drawings (Construction Regulation 5(8))
 - A list of contractors (subcontractors) including copies of the agreements between the parties and the type of work being done by each contractor (Construction Regulation 9)
 - Appointment/designation forms as per paragraphs 2.1.1 and 2.1.2.
 - Registers as follows:
 - Accident/Incident register (Annexure 1 of the General Administrative Regulations)
 - OH&S representatives' inspection register
 - Asbestos demolition and stripping register
 - Batch plant inspections
 - Construction vehicles and mobile plant inspections by controller
 - Daily inspection of vehicles, plant and other equipment by the operator/driver/user
 - Demolition inspection register
 - Designer's inspection of structures record
 - Electrical installations, -equipment and -appliances (including portable electrical tools)
 - Excavations inspection
 - Explosive powered tool inspection, maintenance, issue and returns register (incl. cartridges and nails)
 - Fall protection inspection register
 - First aid box contents
 - Fire equipment inspection and maintenance
 - Formwork and support work inspections
 - Hazardous chemical substances record
 - Ladder inspections
 - Lifting equipment register
 - Materials hoist inspection register
 - Machinery safety inspection register (incl. machine guards, lock-outs etc.)
 - Scaffolding inspections
 - Stacking and storage inspection
 - Inspection of structures
 - Inspection of suspended platforms
 - Inspection of tunnelling operations
 - Inspection of vessels under pressure
 - Welding equipment inspections
 - Inspection of work conducted on or near water
 - Welfare facilities as provided

(iii) OHS Audits and Inspections

The employer will conduct monthly audits to comply with Construction Regulations in order to ensure that the principal contractor has implemented and is maintaining the agreed and approved OH&S plan. The employer reserve the right to conduct other ad hoc audits and inspections as deemed necessary. This will include site safety walks.

The principal contractor may conduct his own regular internal audits to verify compliance with his own OH&S management system, as well as with this specification. The principal contractor shall furthermore ensure that each contractor's health & safety plan is being implemented by conducting periodic audits at intervals mutually agreed upon between upon by the principal contractor and the contractor, but at least once per month.

OH&S representatives shall conduct weekly inspections of their areas of responsibility and report thereon to their foreman or supervisor whilst other appointees shall conduct inspections and report thereon as specified in their appointments e.g. vehicle, plant and machinery drivers, operators and users must conduct daily inspections before start-up.

All the results of the abovementioned inspections and audits shall be in writing, reviewed at OH&S committee meetings, endorsed by the chairman of the meeting and placed on the OH&S File.

(iv) Accidents and Incident Investigations

The principal contractor, with the assistance of appointed Contractors if required, shall insure that the investigation of all accidents/incidents where employees and non-employees were injured to the extent that he/she/they had to be referred for medical treatment by a doctor, hospital or clinic, take place. The results of the investigation shall be entered into an accident/incident register.

The affected contractor shall be responsible for the investigation of all minor and non-injury incidents as described in Section 24(1)(b) & (c) of the Act and keeping a record of the results of such investigations including the steps taken to prevent similar accidents in future.

The principal contractor shall provide the Employer with copies of all statutory reports required in terms of the Act within 7 days of the incident occurring.

(v) Notification of Construction Work

The principal contractor shall, where the contract meets the requirements laid down in Construction Regulations, prior to commencement of the works, notify the Department of Labour of the intention to carry out construction work and use the form (Annexure A in the Construction Regulations) for the purpose. A copy shall be kept on the OH&S file and a copy shall be forwarded to the employer for record keeping purposes.

(vi) Training and Competence

The training required by the Act and Regulations shall be included in the principal contractor's OH&S plan. The principal contractor shall be responsible for ensuring that all relevant training is undertaken. Only accredited Training providers shall be used for OH&S. The principal contractor shall ensure that their and other contractors' personnel appointed are competent and that all training required for doing the work safely and without risk to health, has been completed before work commences. The principal contractor shall ensure that follow-up and refresher training is conducted as the contract work progresses and the work situation changes. This does not absolve any contractors from their responsibilities as Employers. Records of all training must be kept on the OH&S file for auditing purposes.

(vii) Consultations, Communication and Liaison

OH&S liaison between the employer, principal contractor, other contractors, designer and other concerned parties will be through the OH&S committee as contemplated. In addition to this, 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 and the OH&S committee. The principal contractor shall 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. The principal contractors' most senior manager on site shall be required to attend all OH&S meetings.

G1003 OPERATIONAL CONTROL

(a) Operational Procedures

Each construction activity shall be assessed by the principal contractor so as to identify operational procedures that will mitigate against the occurrence of an incident during the execution of each activity. This specification requires the principal contractor:

- (i) to be conversant with all relevant Regulations
- (ii) to comply with their provisions
- (ii) to include them in his OH&S plan where relevant.

(b) Emergency Procedures

In conjunction with the identification of operational procedures, the principal contractor shall similarly identify and formulate emergency procedures in the event an incident does occur. The emergency procedures thus identified shall also be included in the principal contractor's OH&S plan, and communicated as part of induction training. It is the responsibility of the First Aid Worker, together with the Construction Supervisor, to make an assessment regarding the severity of injuries and which actions are appropriate. For example: transfer to a medical facility by ambulance or helicopter.

(c) Personal & Other Protective Equipment (Sections 8/15/23 of the OH&S Act)

The contractor shall identify the hazards in the workplace and deal with them. He must either remove them or, where impracticable, take steps to protect workers and make it possible for them to work safely and without risk to health under the hazardous conditions.

Personal protective equipment (PPE) should, however, be the last resort and there should always first be an attempt to apply engineering and other solutions to mitigating hazardous situations before the issuing of PPE is considered.

Where it is not possible to create an absolutely safe and healthy workplace the contractor shall inform employees regarding this and issue, free of charge, suitable equipment to protect them from any hazards being present and that allows them to work safely and without risk to health in the hazardous environment.

It is a further requirement that the contractor maintain the said equipment, that he instructs and trains the employees in the use of the equipment and ensures that the prescribed equipment is used by the employee/s.

Employees do not have the right to refuse to use/wear the equipment prescribed by the employer and, if it is impossible for an employee to use or wear prescribed protective equipment through health or any other reason, the employee cannot be allowed to continue working under the hazardous condition/s for which the equipment was prescribed but an alternative solution has to be found that may include relocating or discharging the employee.

The principal contractor shall include in his OH&S plan the PPE he intends issuing to his employees for use during construction and the sanctions he intends to apply in cases of non-conformance by his employees. Conformance to the wearing of PPE shall be discussed at the weekly inspection meetings.

(d) Other Regulations

Wherever in the Construction Regulations or this specification there is reference to other regulations (e.g. Construction Regulation 22: Electrical Installations and Machinery on Construction Sites) the principal contractor shall be conversant with and shall comply with these regulations.

(e) Public Health & Safety (Section 9 of the OH&S Act)

The principal contractor shall, as far as is reasonably practicable, be responsible for ensuring that non-employees affected by the construction work are made aware of the dangers likely to arise from said construction work as well as the precautionary measures to be observed to avoid or minimise those dangers.

This includes:

- (i) Non- employees entering the site for whatever reason
- (ii) The surrounding community
- (iii) Passers-by to the site

(f) Penalty for non-compliance

A penalty of R1000 will be levied for every incidence of non-compliance.

C3.5 MANAGEMENT

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- 3.5.1. FORMS FOR CONTRACT ADMINISTRATION
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- 3.5.6. MANAGEMENT OF THE WORKS

3.5.1 FORMS FOR CONTRACT ADMINISTRATION

The Contractor shall complete, sign and submit with each monthly statement for payment, the following updated returns (the format of which are attached in C3.6 Annexes as amended from time to time):

- Monthly Project Labour Report (Annex 1)
- B-BBEE Sub-contract Expenditure Report (Annex 2)
- Joint Venture Expenditure Report (Annex 3)
- Targeted Labour Contract Participation Expenditure Report (Annex 4)
- Targeted Enterprises Contract Participation Expenditure Report (Annex 5)

The Monthly Project Labour Report must include details of all labour (including that of sub-contractors) that are South African citizens earning less than R350.00 per day, as adjusted from time to time (excluding any benefits), who are employed on a temporary or contract basis on this contract in the month in question.

In addition to the Monthly Project Labour Report the Contractor shall simultaneously furnish the Employer's Agent with copies of the signed employment contracts entered into with such labour, together with certified copies of identification documents as well as evidence of payments to such labour in the form of copies of payslips or payroll runs. 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 and proof of such acknowledgement shall be furnished to the Employer's Agent.

The Monthly Project Labour Reports shall be completed and submitted in accordance with the instructions therein and copies of all submitted documents must be kept on site be made available to the employer's agent upon request.

The **B-BBEE Sub-contract Expenditure Report** is required for monitoring the prime contractor's compliance with the sub-contracting conditions of the **Preference Schedule**.

The Joint Venture Expenditure Report is required for monitoring the joint venture's compliance with the percentage contributions of the JV partners as tendered, where the joint venture has been awarded preference points in respect of its consolidated B-BBEE scorecard.

The Targeted Labour Contract Participation Expenditure Report (if applicable) is required for monitoring the Contractor's compliance for achieving the specified minimum targeted labour contract participation goal (CPG_L) and, if applicable, for calculating any penalty in terms thereof.

The Targeted Enterprises Contract Participation Expenditure Report (if applicable) is required for monitoring the Contractor's compliance for achieving the specified minimum targeted enterprises contract participation goal (CPG_E) and, if applicable, for calculating any penalty in terms thereof.

The Expenditure Reports shall be verified by the Employer's Agent/Employer's Agent's Representative.

In respect of Annexes 2 and 3, the Employer shall, in addition to any other sanctions available to it, apply the financial penalties applicable to breach of preferencing conditions in the **Preference Schedule** Preference Schedule in Part T2.2 Returnable Schedules. In the case of joint ventures (Annex 3), the Contractor shall prove his compliance with item 6) in Section 2 of the Preference Schedule by providing a consolidated scorecard at his own cost on instruction from the Employer's Agent

3.5.2 PARTICIPATION OF TARGETED LABOUR

3.5.2.1 Minimum targeted labour contract participation goal

In support of the National Department of Public Works' Expanded Public Works Programme which is aimed at alleviating poverty through the creation of temporary employment opportunities using labour

intensive methodologies and practices where possible, the Employer is seeking to increase the intensity of labour, as appropriate, in all of its infrastructure sector projects.

It is a requirement of this Contract, therefore, that the work be executed in such a manner so as to maximise the use of labour intensive construction methods in order to provide low and semi-skilled temporary employment opportunities.

The following provisions apply:

- 100% of unskilled and low unskilled workers/employees must come from the Target (Project) Area.
- Semi-skilled (may not be zero). Some workers MUST be recruited from within the Stellenbosch Municipal Area but preferably from the Target (Project) Area.
- Skilled workers must preferably be recruited from the Stellenbosch Municipal Area but this is not compulsory.

3.5.2.2 Definitions

For the purposes of the requirements in respect of the participation of targeted labour, the following definitions shall apply:

“**Target Area**” is defined as:

Target Area : Stellenbosch

“**Targeted labour**” means low and semi-skilled individuals, whose wages (excluding any benefits) do not exceed the threshold value, who reside in the target areas, that are employed by the Contractor, or any of his/her sub-contractors, in the performance of the contract.

“**Threshold value**” is R350.00 per day as adjusted from time to time (excluding any benefits). The threshold value is not to be confused with any industry sector minimum wage determined in accordance with the Basic Conditions of Employment Act, 75 of 1977.

3.5.2.3 The selection and recruitment of targeted labour

Where targeted labour is to be drawn from specific local communities (defined in terms of the target area), such labour shall be identified using the relevant Sub-Council Job-Seekers Database. The Contractor shall request, via a Community Liaison Officer (if required in terms of the Contract), a list of suitable candidates from the database, from which the Contractor shall make his/her final selection. The Contractor shall enter into written contracts of temporary employment with all targeted labour.

Any difficulty experienced by the Contractor in identifying candidates through the Job-Seekers Database, or as regards any matter relating to the employment of targeted labour, shall be immediately referred to the Employer’s Agent.

3.5.2.4 Contract participation goal credits

Not applicable to this Contract.

3.5.2.5 Training of targeted labour

The Contractor is required to provide all informal (on-the-job) skills training so as to ensure that a minimum level of competence is achieved and maintained, such that the various activities are carried out safely and to the required standard. The cost of informal training shall be included in the rates for the various work activities.

3.5.2.6 Penalties

Not applicable to this Contract.

3.5.3 COMMUNITY LIAISON OFFICER

It is a requirement of this Contract that a Community Liaison Officer (CLO) shall be appointed by the Contractor. The primary functions of the CLO shall be to assist the Contractor with the selection and recruitment of targeted labour, to represent the local community in matters concerning the use of targeted labour (and/or enterprises) on the Works, and to assist with and facilitate communication between the

Contractor, the Employer's Agent and the local communities.

The identification of suitable candidates (maximum 5; minimum 3) for the CLO position shall be resolved by the relevant Ward Councillor/s. Should suitable candidates not be identified within two weeks of the date of request, the Contractor shall be allowed to seek candidates from the relevant Sub-Council Job-Seekers Database. The final selection and appointment of the CLO in terms of the Contract shall be the responsibility of the Contractor.

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

It is required, therefore, that the Contractor enter into a contract of temporary employment with the selected CLO, the contracting parties being the Contractor and the CLO. To this end, a specimen Form of Contract of Temporary Employment as Community Liaison Officer is included in this document (Part C1.5: Agreement and Contract Data). This Form of Contract sets out, inter alia, the agreement between the parties, the duties and conditions of employment of the CLO (including the rate of remuneration to be paid). As said contract will be between the Contractor and the CLO, all costs involved shall be borne by the Contractor and the tender shall be deemed to include for this.

3.5.4 HEALTH AND SAFETY

The Contractor shall comply with all relevant aspects of the Occupational Health and Safety Act together with the Regulations referred to therein, as applicable to the scope of his activities.

Particular attention must be paid to the issuing of the relevant Notices, appointment of responsible people, undertaking Hazard Identification and Risk Assessments, and preparation of a Health and Safety Plan. All necessary documentation shall be prepared and submitted for comment and approval immediately after the Contract award.

Specific Health and Safety considerations applicable to this project are detailed in the Occupational Health and Safety Specification, attached to this document.

Method Statements submitted for the Contractor's construction activities shall include details of compliance with Occupational Health and Safety, and shall be submitted immediately after the Contract award and prior to commencement with any work on site.

The Contractor shall provide the necessary personal protective equipment and clothing to all staff as relevant for the type of work being carried out.

Wherever the Contractor's staff may be subjected to hazardous substances, excessive dust or noise, then he is to arrange for pre and post-employment medical examinations on the affected employees.

No member of the Contractor's staff shall be allowed on site while under the influence of alcohol or drugs. Any member of his staff that exhibits any signs of alcohol or drug usage shall be immediately removed from the premises.

The Contractor shall be responsible for the protection of the public in the areas in which he is working and shall provide barricades and lighting as necessary to ensure their safety. He shall also be responsible for the safe control of traffic wherever his works impact on the existing roadways

3.5.5 PLANNING AND PROGRAMMING

3.5.3.1 General

This clause describes the requirements for the preparation, submission, updating and revision of the programme. The requirements are in addition to or in expansion of Clause [12.2.6] of the Conditions of Contract.

The programme shall be used by the Contractor to plan and execute the Works. The programme shall also be used by the Employer's Agent to monitor progress and be the sole basis for the assessment of revisions of the date for practical completion.

The programme shall be produced by the Contractor as follows:

- A programme for the totality of the Works shall be submitted to the Employer's Agent for acceptance. If the principal does not accept such programme, it shall be revised and amended until it is accepted by the Employer's Agent. This programme will be regarded as

the baseline programme.

- This baseline programme shall be updated with actual progress and saved on at least a monthly basis, or any more frequent basis as necessitated by construction events. The Contractor may submit to the principal for acceptance revisions to the baseline programme.

Acceptance by the Employer's Agent of any programme submitted by the Contractor, does not make such programme a contract document, nor does it mandate that the works shall be constructed strictly in accordance therewith. The Contractor at all times remains responsible for the construction of the Works in accordance with Clause [12].

If at any time there is a dispute or difference between the Contractor and the Employer's Agent over any matter concerning the programme, immediate steps should be taken to resolve such dispute in terms of Clause [30].

3.5.3.2 Submission of Programme

Within two weeks of the award of the Contract the contractor shall submit to the Employer's Agent for his review and acceptance a programme for the whole of the works showing the order of procedure in which the Contractor proposes to carry out the Works. This programme becomes the baseline programme upon acceptance by the Employer's Agent. The baseline programme shall have regard to the Contract completion dates, any other milestones and any restraints set out in the Contract. Thereafter, if the actual progress does not conform with the baseline programme, the Employer's Agent is entitled to require the Contractor to submit a revised programme showing the order of procedure and periods necessary to ensure completion of the works by the Contract completion dates.

The Contractor shall furnish any method statements and other details and information required in order for the Employer's Agent to accept the baseline programme.

The Contractor shall supply the Employer's Agent with an electronic copy of each programme, together with a printout bar chart or tabular report in a pre-agreed format. All programmes shall be prepared and submitted using Microsoft Project software. The Contractor is required to use this software in preference to any other software he may use. The Contractor may apply to the Employer's Agent for permission to use other software provided that a computer loaded with a legally licensed copy of such software is provided by the Contractor to the Employer's Agent for use.

Within ten working days of the Contractor submitting a programme complete with all the information required by this clause to the Employer's Agent for acceptance, the Employer's Agent will accept the programme or state reasons for not accepting the programme. If such reasons are given, the Contractor shall take account of the reasons and resubmit the programme within 10 working days. Reasons for non-acceptance of a contractor's programme may include, amongst others:

- Planned activities, durations, interdependencies, mobilisation periods, production rates, etc. are not practicable, logical or realistic
- Not all required contractual information is indicated
- Non-compliance with the works information
- Key dates, sectional completion dates and completions dates are not accurate
- Calendars do not reflect the intended working weeks and holidays
- Not all major items are included
- Employer and Employer's Agent obligations are not incorporated as events and not logically linked to the programme network
- Due consideration of sub-contractors and direct contractors works not taken
- Float not clearly identified
- Critical path not clearly identified
- Conflict between the programme and the Method Statements
- Insufficient allowance for testing and inspections made

If the Employer's Agent fails to act the programme is deemed to be rejected.

Under no circumstances may the Contractor and the Employer's Agent dispense with the submission of the various versions of the programme.

3.5.3.3 Default in submission of programmes

Should the Contractor fail to submit a programme for acceptance as the baseline programme or not update the programme as described above, the Employer's Agent shall be entitled to withhold 25% of the amount due to the Contractor in interim payment certificates until the Contractor has complied with its obligations in this regard.

3.5.3.4 Preparation of Programme

Baseline programme

The first programme submitted by the Contractor in terms of this clause becomes the baseline programme upon acceptance by the Employer's Agent. The baseline programme shall form the basic strategy for the completion of the Works by the Contract completion date. The programme to be accepted may either be, at the discretion of the Employer's Agent, in a linked bar chart format or precedence network format prepared using techniques acceptable to the Employer's Agent and shall show as reasonably practicable:

- The activities in all work packages including those by sub-contractors and suppliers, direct contractors and any others.
- The earliest and latest start and finish dates for every activity in each work package. Activities shall include all scope activities and any activities or time durations expected in addition to scope activities.
- Access dates for each phase or section
- The earliest and latest start and finish dates for each phase or section, including dates when the Contractor plans to complete work to allow the Employer and others to do their work
- Milestone and Key Dates
- Holiday periods
- Dates by which design work or drawings to be produced by the Contractor or Sub-contractor or suppliers will be submitted to the Employer's Agent for acceptance and dates by which such acceptance will be required from the Employer's Agent, allowing time for submittals, re- submittals and reviews.
- Dates by which samples to be provided by the Contractor will be submitted for approval by the Employer's Agent and dates by which such acceptance will be required from the Employer's Agent, allowing time for submittals, re-submittals and reviews.
- Procurement periods and delivery dates for the major items of goods, plant and materials.
- Dates by which work will be ready for testing by the Employer's Agent / employer.
- Details and dates of any information required from the employer regarding:
 - The work contained in defined provisional sums
- Commissioning periods
- Provisions for float, time risk allowances, quality control procedures, health and safety requirements and any other requirements set out in the Contract

The baseline programme shall also be presented as schedules showing an analysis of the network including:

- A schedule of all activities tabulated in order of earliest starting date and showing for each activity:
 - Activity number and brief description
 - Preceding and succeeding activity numbers
 - Duration
 - Earliest and latest starting and finishing dates
 - Total and free float
- A schedule of leads and lags with reasons for them. Excessive leads and lags, negative lags or open/hanging activities, use of fixed dates and any other programming activities that can have the effect of creating false criticality or inhibiting the programme from reacting dynamically to change should be avoided.
- A schedule of all activities lying on paths containing least float, namely the critical activities
- A schedule identifying the days of working per week, shifts per working day and holidays. Where multiple calendars are used, this information shall be provided for each calendar accompanied by a schedule indicating the calendar applicable to each activity
- A schedule giving details of the Contractor's resource requirements in terms of manpower, team sizes, tradesmen, work rates, items of plant or equipment and materials and quantities of work allowed for in sufficient detail to explain the activity durations. Activities that may be expedited by use of overtime, additional shifts or any other means shall be identified and explained.

The baseline programme shall also be presented with or be accompanied by the following schedules:

- A schedule of all submittals and material procurement activities, including time for submittals, re-submittals and reviews and time for fabrication and delivery of manufactured

products. The interdependence of procurement and construction activities shall be included in the schedule.

- A schedule giving the monetary value of each activity for cash flow purposes. The sum of the monetary values shall total the Contract sum.

The baseline programme shall be prepared in sufficient detail to ensure the adequate planning, execution and monitoring of the work.

The baseline programme shall take into account all time risk allowances that may be reasonably expected by the Contractor.

The Employer's Agent is entitled to withhold acceptance of a programme showing completion at a date earlier than the Contract completion date.

3.5.3.5 Methods of construction and temporary works

At the same time as the Contractor submits the baseline programme for acceptance to the Employer's Agent, the Contractor shall submit for acceptance a general description of the arrangements and methods of construction and temporary Works designs the Contractor proposes to adopt for carrying out the Works (the Method Statement). The Method Statement should be fully cross-referenced to the activities in the programme.

The Contractor shall submit to the Employer's Agent sufficient information as may be considered reasonably necessary by the Employer's Agent to interpret, evaluate and give acceptance to the Method Statement.

The Contractor shall, whenever required by the Employer's Agent, furnish for his information further and more detailed particulars of the Method Statement.

Should the Contractor wish to change a Method Statement or should the Employer's Agent subsequently consider it necessary to amend a Method Statement to which acceptance has previously been given, then the Contractor shall submit a revised Method Statement.

Acceptance by the Employer's Agent of the Method Statement does not make the Method Statement a contract document, or mandate that the Works shall be constructed strictly in accordance therewith. The Contractor at all times remains responsible for the construction of the Works in accordance with clause [15.0]

3.5.3.6 Cash Flow Estimates

Within four weeks of the award of the Contract the Contractor shall submit to the Employer's Agent for his information a detailed monthly cash flow estimate in accordance with the financial year reporting periods of the Employer, of all payment the Contractor considers it will be entitled to under the Contract. The Contractor shall subsequently submit such revised cash flow estimates based on the updated programmes.

3.5.3.7 Revising and Updating the Programmes

The current programme at any given time during the Contract period (whether the baseline programme or any update thereof) and the corresponding Method Statement shall be revised by the Contractor within 10 working days of the Contractor changing its methods and / or sequence of working or, if the changes are frequent, revised at least every month. The programme shall also be revised within 10 working days of the approval of any revision of the Contract completion date, or whenever circumstances arise that in the opinion of the Employer's Agent affects the progress of the Works. Each revision to the programme shall be submitted to the Employer's Agent for review and acceptance. Once a revised programme has been accepted by the Employer's Agent, it replaces the previous baseline or updated programme.

Updates of the programme should be made on the occasion of significant events which could cause change to the forward planning and/or quantities of the remaining work. Such significant events could be, amongst others:

- Variations and other instructions
- Late information
- Lack of access
- Significant changes in estimates of final quantities affection required durations of remaining work
- Major slippage of critical or near critical activities

Each revised programme submitted for acceptance shall be presented as or be accompanied by the schedules referred to in these Specifications, together with any amendments to the Method Statement.

The baseline programme shall be updated for actual progress at least once every month and the updates shall be archived as separate electronic files for record purposes. The updates shall be to all scope activities and any additional activities carried out or time durations experienced in addition to the scope activities. Actual progress shall be recorded by means of actual start and actual finish dates for activities, together with percentage completion and/or remaining duration of currently incomplete activities. Any periods of suspension of an activity should be noted in the updated programme. Each updated programme shall be submitted to the Employer's Agent for acceptance as a record. It is possible due to delays that these updated programmes may show completion later than the Contract completion dates. Acceptance by the Employer's Agent of updated indicating completion dates later than contract completion dates, will not constitute acceptance of the delay(s).

The updated programmes will be used by the Employer's Agent to monitor the Contractor's performance against the baseline programme, forecast work to be performed in the subsequent period and to assess revisions of the Contract completion dates at the time the cause of the delay occurs. In order to provide effective monitoring of performance, the Contractor shall also provide the Employer's Agent the progress reports as requested by the Employer's Agent.

C3.5.6 MANAGEMENT OF THE WORKS

C3.5.6.1.1 Applicable SANS 1921 Standards

- SANS 1921-1:2004 Part 1 General Engineering and Construction Works
- SANS 1921-2:2004 Part 2 Accommodation of Traffic on Public Roads Occupied by the Contractor
- SANS 1921-4:2004 Part 4 Third-party Management Support in Works Contracts
- SANS 1921-5:2004 Part 5 Earthworks Activities which are to be Performed by Hand

C3.5.6.2 Particular Specifications

Refer to C3.6 ANNEXES

C3.5.6.3 Planning and Programming

Construction Programme

The Contractor shall submit a detailed programme within 14 days of the Commencement Date. The programme shall clearly show the order in which the Contractor proposes to carry out the Work, the critical path, the proposed rate of progress and a linked cash flow forecast. The programme shall be updated monthly.

This programme shall be in the form of a bar chart with the critical path clearly defined and will include the allowance for abnormal climatic conditions as specified in the Tender Data.

Material Delivery Programme

The Contractor must prepare a programme showing their planned material delivery dates, and to this end, they must ensure that orders are placed timeously with suppliers to meet their programme. Extension of time may be granted for non-availability of materials, subject to the Contractor satisfying the Employer's Agent that the orders were timeously placed.

C3.5.6.4 Sequence of the Works

In order to complete the Contract timeously, it is proposed that some of the activities listed in Clause C 3.5.1.3 above, be undertaken concurrently. All areas of the proposed construction Site will be available to the Contractor from the start of the Contract. Construction activities must however be undertaken according to the approved programme and disruption of traffic and usual activities on the Site must be kept to a minimum.

C3.5.6.5 Methods and Procedures

The Contractor is required to produce Method Statements for all civil and electrical engineering activities in particular excavation.

The Contractors attention is drawn to the requirement for Method Statements for various activities included in this document as per C3.6.3.

The Employer's Agent must approve all Method Statements regarding construction activities

The Contractor shall ensure that their staff and workers are properly trained in the safe and effective use of any equipment, plant or materials necessary to undertake the work

C3.5.6.6 Quality Plans and Control

C3.5.6.6.1 Contractor to engage services of an independent laboratory

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

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

For the purposes of this clause, an "independent laboratory" shall mean an "approved laboratory" (as defined in Sub clause PSA7.2) which is not under the management or control of the Contractor and in which the Contractor has no financial interest, nor which has any control or financial interest in the Contractor.

C3.5.6.6.2 Additional testing required by the Employer's Agent

In addition to the provisions of Sub clause C3.5.1.6.1: Contractor to engage services of an independent laboratory, the Employer's Agent shall be entitled at times during the Contract to require that the Contractor arrange with the independent laboratory to carry out any such tests, additional to those described in Sub clause C3.5.1.6.1, at such times and at such locations in the Works as the Employer's Agent shall prescribe.

The Contractor shall promptly and without delay arrange with the independent laboratory for carrying out all such additional testing as required by the Employer's Agent, and copies of the test results shall be promptly submitted to the Employer's Agent.

C3.5.6.6.3 Costs of testing

a) Tests in terms of Sub clause C3.5.1.6.1

The costs of all testing carried out by the independent laboratory in accordance with the requirements of Sub clause C3.5.1.6.1, above shall be borne by the Contractor and shall be deemed to be included in the tendered rates and prices for the respective items of work as listed in the Bill of Quantities and which require testing in terms of the Specifications. No separate payments will be made by the Employer to the Contractor in respect of any testing carried out in terms of Sub clause C3.5.1.6.1.

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

b) Additional tests required by the Employer's Agent

The costs of any additional tests required by the Employer's Agent in terms of Sub clause C3.5.1.6.2: Additional testing required by the Employer's Agent, shall be reimbursed to the Contractor against substitution of the Provisional Sum allowed therefor in the Bill of Quantities; provided always that the costs of any such additional tests ordered by the Employer's Agent, the results of which indicate that the quality of the materials utilised and/or the standard of workmanship achieved are/is not in accordance with the Specifications, shall not be reimbursable to the Contractor.

C3.5.6.7 Accommodation of Traffic on Public Roads Occupied by the Contractor

The Contractor shall be responsible for the safety of all vehicular and pedestrian traffic affected by their work and shall provide all the necessary warning signs, barricading and lighting as necessary, fully in compliance with the requirements of the SADC Road Traffic Signs Manual and with the approval of the local Municipality Traffic Department.

The Contractor shall be responsible for the safe and unrestricted accommodation of all traffic along all roads, sidewalks and parking areas affected by construction from the date that the site is handed over to the date of completion and at any time during the period of maintenance when work is undertaken and shall comply with all provisions of the General Conditions of Contract. Should roads, sidewalks and

parking areas be affected as a result of repairs to the works during the period of maintenance, then all costs of accommodating traffic shall be borne by the Contractor.

Work is to be programmed such that vehicular traffic and pedestrian movement around the working areas is not unduly hindered.

The onus of complying with the Road Traffic Ordinance No 21 of 1966, as amended, rests solely with the Contractor, and failure to comply with the Ordinance or with the orders of the Employer's Agent in respect of accommodation of traffic/pedestrians shall result in financial penalties as indicated in Bill of Quantities and be cause for the cessation of the Works until such time as the said compliance has been achieved.

All temporary road signage shall be erected in accordance with the SARTSM Volume 3 Chapter 13.

The Contractor shall be responsible for liaising with the Stellenbosch Municipality Traffic Department and Engineering Department to obtain approval for any traffic deviation. Two weeks prior to the commencement of relevant work, the Contractor shall submit a traffic and pedestrian management plan to the Employer's Agent and Stellenbosch Municipality: Traffic Department for approval. The plan shall be in accordance with the SARTSM Volume 3 Chapter 13.

The Contractor shall be responsible for the managing and controlling the movement of pedestrians adjacent to be work area.

Payment for accommodation of traffic shall be made within the Bill of Quantities which shall include for everything necessary, temporary fencing, barricades, delineators, flagmen, etc., to accommodate the vehicular and pedestrian traffic.

Where the Contractor has failed to comply with statutory regulations with regards to accommodation of traffic (vehicular or pedestrian) or damage of trees, they will be penalised to the extent as indicated in the Bill of Quantities. The decision to apply penalties will be the Employer's Agent's prerogative and will not be subject to negotiation/discussion or appeal by the Contractor. Penalties will be deducted from amounts due to the Contractor in the monthly certificate that follows the date when the transgression occurred.

C3.5.6.8 Other Contractors On Site

The Contractor will have sole possession of the site and will not have to deal with other Contractors, except his own Subcontractors.

C3.5.6.9 Testing, Completion, Commissioning and Correction of Defects

Every completed layer or section of the Works shall be subject to check testing by the Contractor. Once the Contractor has satisfied himself with the standard of his Works, the Employer's Agent will be requested to perform acceptance testing for the particular section. When giving notice, the Contractor shall provide the Employer's Agent with the results of his check testing indicating that the work is to specification.

Failure by the Contractor to notify the Employer's Agent or to provide the required information or, where specified, to perform the required test, will be grounds to exempt the Employer from payment for the associated work and for all subsequent work which would be affected by the failure of the work to be tested.

The Employer's Agent will be under no obligation to the Contractor to perform the tests. If the Employer's Agent elects not to perform a particular test after notification by the Contractor, he will issue the Contractor with a written instruction to proceed with the relevant Works without the acceptance test being performed.

Nothing contained in this clause will relieve the Contractor of his responsibilities under the Specification or in any way limit the tests, which the Employer's Agent may call for or perform in terms of the Specification.

Acceptance testing shall be done by a laboratory selected by the Employer's Agent. The Employer's Agent requires twenty four hours' notice from the Contractor in order to perform the relevant acceptance test.

All acceptance testing by the Employer's Agent shall be paid by the Contractor.

The costs of such tests which meet the specification requirements will be reimbursed to the Contractor in the monthly payment certified. This payment shall consist of the billed amount plus the tendered mark-up. A Provisional Sum has been provided in Schedule A, Section 1 of the Bills of Quantities to allow for the cost of such testing. The Contractor shall make due allowance for testing procedures in his

construction programme.

The Certificate of Completion shall only be issued upon the submission of all the as-built information and operating instructions as necessary.

Correction of Defects will be treated as stipulated in SANS.

C3.5.6.10 Recording of Weather

The Contractor shall provide a rain gauge and maximum/minimum thermometer. He shall erect them according to the requirements of the weather bureau. The Contractor shall record and keep a record of the daily rainfall and maximum/minimum temperatures and supply the data to the Employer's Agent on a daily basis.

The cost of complying with these requirements is deemed to be covered by the tendered rates for the Contractor's General Obligations.

No extension of time will be granted in respect of any delays attributed to normal climatic conditions. Normal climatic conditions shall be deemed to include normal rainfall and associated wet conditions and materials, strong winds, extremes of temperature and any consequential delays as a result thereof. However, in the event that delays to critical activities due to the above causes exceed the number of allowed working days as given in the Tender data, then abnormal climatic conditions shall be deemed to exist, and an extension of time shall be granted for each day or half-day delay in excess of the defined normal conditions.

C3.5.6.11 Format of Communications

All instructions or requests need to be confirmed in writing through:

- Site instructions
- Requests for inspections

C3.5.6.12 Key Personnel

The Contractor and Employer's Agent must compile a schedule of their Key Personnel with their contact numbers and keep it updated. The list must be made available to the Employer's Agent, Employer and Contractor.

C3.5.6.13 Management Meetings

The following formal project meetings will be held at the office of the Employer's Agent's Representative between the representatives of the Employer, Employer's Agent and the Contractor:

Technical meetings (every two weeks – alternating fortnightly with progress meeting)
Progress meetings (every two weeks – alternating fortnightly with technical meetings)

Technical meetings are held to discuss technical issues relating to the construction of work and can be held at ad hoc intervals as required by events occurring on site.

Progress meeting are held to discuss issues relating to the Contract.

The representatives must have the necessary delegated authority in respect of aspects such as planning, change management and health and safety. The Contractor shall allow for regular on-site project co-ordination meetings in their programme. It will be required that the Contracts Manager and Site Agent attend all project meetings.

The cost of the requirements above shall be included in rates for Time Related Items.

C3.5.6.14 Daily Records

The Contractor shall be required to maintain a daily record of all construction activities taking place on site which shall include details of plant, personnel, and visitors as well as other events such as weather conditions or any circumstances that may have a bearing on the nature and progress of his operations.

The Contractor shall be required to provide a detailed report at each progress meeting. The report shall be in a format to be agreed with the Employer's Agent and shall contain the following:

- Details of actual progress versus programme for each construction activity.
- A daily record of rainfall and other weather events that could affect the work.
- Details of any delays that have occurred due to weather or any other cause.
- A record of resources (personnel, plant and equipment) present on site.
- Details of any accidents or lost time incidents that have occurred.
- A list of information required.

C3.5.6.15 Payment Certificates

The Employer's Agent's certificate will be issued only after receipt by them of a draft certificate prepared by the Contractor at their own expense in the form prescribed by the Employer's Agent. The cost of duplicating and delivering copies of the certificate to the Contractor, the Employer's Agent and the Employer shall be borne by the Contractor. The Employer's Agent and the Employer shall require three (3) sets of A4-sized paper copies in total.

Before any payment for materials on site is certified by the Employer's Agent, the Contractor shall submit to the Employer's Agent for approval cessions from each of the Contractor's suppliers vesting ownership of materials delivered for use on the site or any authorised extended site to the Contractor.

C3.5.6.16 Proof of Compliance with the Law

The Contractor shall be required to comply with all regulations and laws of whatever nature that are applicable to his operations throughout the duration of the Contract, and shall produce documentary evidence when requested for all aspects.



Part C4: Site information

| | Pages |
|----------------------------------|--------------|
| C4 Site information | |



C4.1 SITE INFORMATION

C4.1 Site Information

C4.1.1 DESCRIPTION OF THE EXISTING WORKS

This part of the specifications describes the existing layout, features and conditions of the site which is the subject of this contract. It is based on surveys, visual observations, trial pit testing, and data provided by local authorities and other affected parties at time of the design. All data and descriptions are given for information purposes only and in good faith. The Contractor shall verify all details provided and the Employer will not accept responsibility for any omissions, inaccuracies or misrepresentations that may come to light.

C4.1.2 THE SITE

C4.1.2.1 Location of the Works

The Eerste River within Stellenbosch municipal area.

C4.1.3 CLIMATE AND WEATHER RECORDS

Temperature and rainfall data are available from the South African Weather Service for the previous 10-year period.



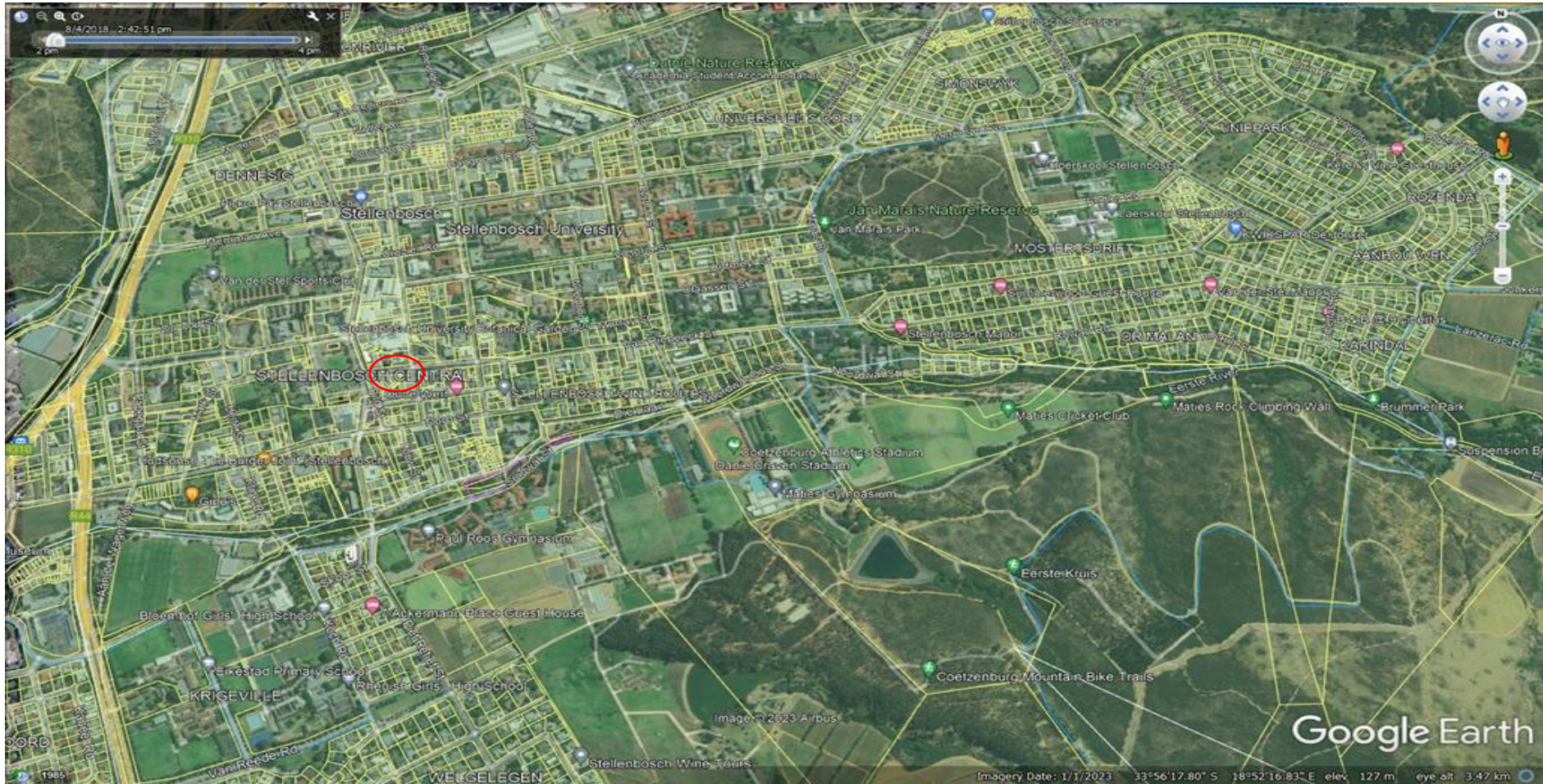
Part C5: Annexures

C3.6 Annexures

CONTENTS

- Annex 1: Locality Plan
- Annex 2: Monthly Labour Report Forms
- Annex 3: Tender Drawings

ANNEX 1 Locality Plan



Drawing nr: 6005-C-CO-001

LOCALITY PLAN

ANNEX 2 MONTHLY PROJECT LABOUR REPORT

Instructions for completing and submitting this form

MONTHLY PROJECT LABOUR REPORT

General

- The Monthly Project Labour Reports must be completed in full, using typed, capital letter characters; alternatively, should a computer not be available, handwritten in black ink.
- Incomplete / incorrect / illegible forms will not be accepted.
- Any conditions relating to targeted labour stipulated in the Contract (in the case of contracted services / works) shall apply to the completion and submission of these forms.
- This document is available in Microsoft Excel format upon request from the City's EPWP office, tel 021 400 9406 or email EPWPLR@capetown.gov.za.

Project Details

- If a field is not applicable insert the letters: NA
- Either a Contract (in the case of contracted out services or works) or a Works Project (in the case of direct employment by the City) name and number must be inserted. The name of the contract or works project may be abridged if necessary. In the case of term tenders the contract name and number must reflect the term tender as advertised.
- On completion of the contract or works project the anticipated end date must be updated to reflect the actual end date.

Workers Details and Work Information

- Care must be taken to ensure that worker details correspond accurately with the worker's ID document of which a Certified copy must be kept for reporting.

Jobseeker Database Reference Number

- Unique number generated by Jobseekers system to confirm workers were sourced from the Jobseekers database operated by Subcouncils
New workers: Training; Reporting Threshold
- A new worker is one in respect of which a new employment contract is signed in the current month.
- Refers to work days only. Formal accredited Training / Non-accredited training that does not form part of on-the-job training must be excluded from this entry
- All formal accredited / non-accredited training that does not form part of on-the-job training
- Workers earning more than the maximum daily rate (Reporting Threshold) (currently R350 excluding any benefits) shall not be reflected on this form at all.
- Submission of Forms
- Signed hardcopy forms must be scanned and submitted to the City's project manager in electronic (-.pdf) format, together with the completed form in Microsoft Excel format.
- Scanned copies of all applicable supporting documentation must be submitted along with each monthly project labour report. Copies of employment contracts and Certified ID documents are only required in respect of new workers.
- If a computer is not available hardcopy forms and supporting documentation will be accepted.
- Failure to adhere to reporting requirements may result in the withholding of payment; penalties being applied or both

PROJECT DETAILS

Numbers in cells below e.g (6) refer to the relevant instruction above for completing and submitting forms

| | | | | | | | | | | | | | | |
|---|-----|--|--------------|-----|-----|--|-----|-----|-----|-----|-----|-----------------------------|---|---|
| CONTRACT OR WORKS PROJECT NAME: (6) | | CONTRACT OR WORKS PROJECT NUMBER: (6) | | | | | | | | | | | | |
| DIRECTORATE: | | DEPARTMENT: | | | | | | | | | | | | |
| CONTRACTOR OR VENDOR NAME: | | CONTRACTOR OR VENDOR E-MAIL ADDRESS: | | | | | | | | | | | | |
| CONTRACTOR OR VENDOR PERSON: | | CONTRACTOR OR VENDOR TEL. NUMBER: | CELL WORK | | | | | | | | | | | |
| PROJECT LABOUR REPORT CURRENT MONTH (mark with "X") | | | | | | | | | | | | | | |
| JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP | OCT | NOV | DEC | YEAR (insert last 2 digits) | 2 | 0 |
| ACTUAL START DATE (yyyy/mm/dd) | | | | | | ANTICIPATED / ACTUAL END DATE (yyyy/mm/dd) (7) | | | | | | | | |
| 2 | 0 | | | | | | | | | | | 2 | 0 | |
| TOTAL PROJECT EXPENDITURE / VALUE OF WORK DONE TO-DATE (INCLUDING ALL COSTS, BUT EXCLUDING VAT) | | | | | | | | | | | | | | |
| R | | | | | | | | | | | | ? | | |

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| Reference No: | B/SM 27/24 |
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ANNEX 2 (continued)

MONTHLY PROJECT LABOUR REPORT

WORKER DETAILS AND WORK INFORMATION

| | | | | | | | | | | |
|--|------------|-------------|-----------|-------------------------------------|------------------|------------------|----------------|---|---|-----------------------------|
| CONTRACT OR WORKS PROJECT NUMBER: | | | | | | | | | | |
| | | | | Year | Month | | | | | |
| | | | | of | | | | | | |
| (8) | (8) | (8) | (9) | (10) | | (11) | (12) | (13) | | |
| No. | First name | Surname | ID number | Jobseeker Database Reference Number | New Worker (Y/N) | Gender (M/F) | Disabled (Y/N) | No of days worked this month (excl. training) | No of training days this month (with stipend) | Rate of pay per day (R - c) |
| 1 | | | | | | | | | | |
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| 19 | | | | | | | | | | |
| 20 | | | | | | | | | | |
| | | | | | | | | 0 | 0 | R - |
| Declared by Contractor or Vendor to be true and correct: | | Name | | | | Signature | | | | |
| | | Date | | | | | | | | |
| Received by Employer's Agent Project Manager/ Representative: | | Name | | | | Signature | | | | |
| | | Date | | | | | | | | |

| | | |
|----------------------|------------|--|
| Reference No: | B/SM 27/24 | |
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ANNEX 3 Tender Drawings

| Discipline | Plan Title | Drawing Number |
|------------|---|----------------|
| Civil | Keyplan, Drawing Index and Locality Map | 6005-C-CO-001 |

| Discipline | Plan Title | Drawing Number |
|------------|---|----------------|
| Structural | Agricultural Building Underpinning and Retaining Wall Concrete Layout, Sections and Details | 6005-ST-CO-002 |