RICHMOND LOCAL MUNICIPALITY

REHABILITATION OF SIYATHUTHUKA/MAGODA MAIN ROAD WARD 2 & 7 PHASE 3

TENDER NO.: RLM: 06/2026/2027

PREPARED BY:	**ISSUED BY:**
DLAMINDLOVU CONSULTING ENGINEERS 58 JUNIPER ROAD ESSENWOOD,BEREA DURBAN 4001 Tel: 033 342 2233	RICHMOND LOCAL MUNICIPALITY PRIVATE BAG 1028 **RICHMOND** 3780 Tel: 033 212 2155 Fax: 033 212 4668

NAME OF BIDDER . . . . . .

. . . . . .

TOTAL BID PRICE (Incl VAT & 10% CONT)

R . . . .

RICHMOND LOCAL MUNICIPALITY

REHABILITATION OF SIYATHUTHUKA/MAGODA MAIN ROAD PHASE 3 IN WARD 2&7

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EXPANDED PUBLIC WORKS PROGRAMME
Creating opportunities towards human fullfilment

2. Conditions of Tender / Bid

1) Seal the tender offer in a marked envelope. The envelope must 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 on the reverse side. (Please see advert as appeared in media for guidance).

2) Prospective tenderers are duly advised that the Richmond Municipality herein referred to as the "client/employer" elsewhere in this document is procuring the services of a Contractor that meets the requirements of the **CIDB, SABS 1200, COLTO, SANS1921, GCC 2010 2nd Edition, EPWP**, **GCC 2015** and subsequent amendments and their referring specifications relating to their relevant clauses.

3) It is therefore understood that prospective tenderers are of a professional entity that have the abovementioned documentation in their company records and are well versed and up to speed with the relevant amendments.

4) In addition to the above, the Richmond Municipality herein referred to as the "client/employer" elsewhere in this document is promoting the services of **Local Enterprises** located within the boundaries of Richmond in terms of its Local Economic Development Initiatives unless otherwise stated. Should a prospective tenderer not comply with the conditions as set out elsewhere in this document he/she will be considered **non-responsive**.

5) Labour schedules in accordance with the EPWP template together with supporting documents should be submitted before the 3rd of every month. **IMPORTANT: Non-submission of required information will result in payment certificates/ invoices not being processed for payment.**

6) **Performance** of the appointed Contractor will be based on the conditions of the relevant document as stated above or as stated elsewhere in this document. A demerit system is also being implemented and non-compliance may result in contractor being negatively recorded on Richmond Local Municipality's SCM Schedule. This may result in future prospects with the Richmond Local Municipality being adversely affected.

7) In terms of the above the Richmond Municipality reserves the right to **terminate** the contract/services should non-compliance of any of the above clauses in the abovementioned documentation be cited, after following due process to remedy any defaults.

8) Certified documents are not to be more than **six (6) months old**.

9) Please ensure that compliance is required when filling out this tender document failure to do so will result in your tender being regarded **as non-responsive**.

10) In addition to (7) above and specific to the preferred tenderer who will be closely monitored, and should **POOR PERFORMANCE** be noted, the Richmond Municipality reserves the right to **cancel the agreement.**

11) All supporting documents are to be STAPLED at the front page of this tender document.

12) Bibbers who will be printing the tender document are to print in line with the color format

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

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

Tenderer .....

3. SPECIAL CONDITIONS IN RELATION TO SUPPLY CHAIN MANAGEMENT REGULATIONS

i. The Richmond Municipality reserves the right to return late bid submissions unopened and reserves the right to reject bids that are not submitted in the format specified in the bid documentation or if the information is illegible, incomplete or ambiguous.

ii. Bidders shall not contact the Richmond Municipality on any matter pertaining to their bid from the time that the bids are submitted to the time the panel has been finalised. Any effort by a bidder to influence the bid evaluation, bid comparisons or bid award decisions in any manner, may result in the rejection of the bid concerned.

iii. The Richmond Municipality is not bound to accept any of the bids submitted with a lowest quote and reserves the right to withdraw or amend these special conditions of contract and terms of reference by notice in writing to all parties concerned.

iv. It is also herewith confirmed that a positive result of the short-listing process resulting in inclusion on the Richmond Municipality panel,
will not necessarily lead to any appointment or assignment for work to be done and therefore does not constitute a commitment, contract for assignments from the Richmond Municipality.

v. Bid documents submitted by bidders shall not be returned and shall remain the property of the Richmond Municipality. All bids duly lodged will be evaluated in accordance with the evaluation criteria provided in the terms of reference.

vi. RLM does not require any presentations as part of the bid process but reserves the right to call short-listed bidders for interviews before final selection for the panel.

vii. RLM reserves the right to negotiate with the successful bidder on price.

viii. Government Procurement General Conditions of Contract (GCC) as issued by National Treasury will be applicable on all instances. Any contradictions between the GCC and the Special Conditions then the Special Conditions will be applied. The GCC is available on the National Treasury website (www.treasury.gov.za).

ix. No advance payment will be made. Payment would be made in terms of the deliverables or other unless otherwise agreed upon by Richmond Municipality in terms of
the deliverables or other unless otherwise agreed upon by Richmond Municipality
and the successful bidder. RLM will pay within the prescribed period according to MFMA and its applicable policies and procedures.

x. Richmond Municipality
will not be held responsible for any costs incurred by the service provider in the preparation and su bmission of the Bid.

xi. Richmond Municipality reserves the right to not award the tender to any bidder.

xii. Bidders failing to meet all the mandatory requirements will be disqualified.

xiii. The project must appoint a contractor CIDB Grade 6CE or Higher.

xiv. Submission of financial capabilities in accordance with Regulation 21 of the Municipal Supply Chain Management Regulation:

a) Bidders who are legally required, in terms of the Companies Act, 2008 (Act No. 71 of 2008), or any other applicable legislation, to prepare audited annual financial statements shall submit their latest audited annual financial statements.

b) Bidders who are not legally required to prepare audited annual financial statements shall submit their latest annual financial statements, prepared by the entity, accounting officer, registered accountant, or other suitably qualified person, together with a declaration confirming that the bidder is not legally required to have its financial statements audited

RICHMOND LOCAL MUNICIPALITY
REHABILITATION OF SIYATHUTHUKA/MAGODA MAIN ROAD WARD 2 & 7 PHASE 3

THE ENTIRE TENDER DOCUMENT MUST BE SUBMITTED

THE FOLLOWING DOCUMENTS CONTAINED IN THE TENDER DOCUMENT MUST BE COMPLETED AND SUBMITTED BY TENDERERS:

- MBD 1
- MBD 4
- MBD 5
- MBD 6.1
- MBD 8
- MBD 9
- COMPULSORY SITE INSPECTION
- RECORD OF ADDENDA
- COMPULSORY ENTERPRISE QUESTIONNAIRE
- CERTIFICATE OF AUTHORITY FOR JOINT VENTURE
- SCHEDULE OF PLANT & EQUIPMENT A
- SCHEDULE OF PLANT & EQUIPMENT B
- SCHEDULE FOR MATERIAL & LABOUR
- AMENDMENTS AND QUALIFICATIONS
- FORM OF OFFER AND ACCEPTANCE
- BILL OF QUANTITIES

THE FOLLOWING ADDITIONAL DOCUMENTS MUST ALSO BE SUBMITTED BY TENDERERS:

- PROOF OF ENTERPRISE OWNERSHIP (*FOR EACH PARTY OF JOINT VENTURE*)
- OWNERS ID DOCUMENT (CERTIFIED COPIES NOT OLDER THAN 6 MONTHS) (*FOR EACH PARTY OF JOINT VENTURE*)
- CIDB GRADING (*FOR EACH PARTY OF JOINT VENTURE*)
- CVs OF PROJECT STAFF
- QUALIFICATIONS OF PROJECT STAFF (CERTIFIED COPIES NOT OLDER THAN 6 MONTHS)
- LETTER OF COMMITMENT TO LED OBJECTIVES (SIGNED AND ON BUSINESS LETTERHEAD)
- STATEMENT OF ACCOUNT/RATES (MUNICIPALITY ACCOUNT) OR LEASE AGREEMENT OR IN A CASE A COMPANY IS OPEARATING IN A RURAL AREA/ INFORMAL SETTLEMENT A VALID AFFIDAVIT STATING SUCH AND THAT NO RATES ARE OWED TO THE MUNICIPLITY
- CSD REPORT
- LETTER OF GOOD STANDING
- ORIGINAL BANK LETTER FROM A REGISTERED FINANCIAL INSTITUTION
- EVIDENCE OF FINANCIAL CAPABILITY IN ACCORDANCE WITH REGULATION 21 OF THE MUNICIPAL SUPPLY MANAGEMENT REGULATION 2005
- REFERENCE LETTERS AS PER FUNCTIONALITY

NB. FAILURE TO COMPLETE AND SUBMIT ANY OF THE ABOVE DOCUMENTS WILL RENDER A BID AS NON-RESPONSIVE AND DISQUALIFIED

3.1 Returnable Schedules that will be incorporated into the contract

- Preferencing Schedule (direct preferences) / Preferencing Schedule (contract participation goals)
- Schedule of Quantities

3.2 Other documents that will be incorporated into the contract

- Drawings

Please note that a CD with the PDF drawings will be supplied with the tender document at the briefing.

3.3 The offer portion of the C1.1 Offer and Acceptance

C1.2 Contract Data (Part 2)

C2.2 Bills of quantities

3.4 Check list of returnable documents

(Please tick box once all the documents have been submitted).

DESCRIPTION	TICK
MBD 1	
MBD 4	
MBD 5	
MBD 6.1	
MBD 8	
MBD 9	
COMPULSORY SITE INSPECTION	
RECORD OF ADDENDA	
COMPULSORY ENTERPRISE QUESTIONNAIRE	
CERTIFICATE OF AUTHORITY FOR JOINT VENTURE	
SCHEDULE OF PLANT & EQUIPMENT A	
SCHEDULE OF PLANT & EQUIPMENT B	
SCHEDULE FOR MATERIAL & LABOUR	
AMENDMENTS AND QUALIFICATIONS	
FORM OF OFFER AND ACCEPTANCE	
FORM OF GUARANTEE	
BILL OF QUANTITIES	
TAX CLEARANCE CERTIFICATE (*FOR EACH PARTY OF JOINT VENTURE*)	
PROOF OF ENTERPRISE OWNERSHIP (*FOR EACH PARTY OF JOINT VENTURE*)	
OWNERS ID DOCUMENT (CERTIFIED COPIES NOT OLDER THAN 6 MONTHS) (*FOR EACH PARTY OF JOINT VENTURE*) CIDB GRADING (*FOR EACH PARTY OF JOINT VENTURE*)	
EXPERIENCE ON PROJECTS OF SIMILAR NATURE IN THE PAST 5 YEARS AND CIDB GRADING	
CVs OF PROJECT STAFF	
QUALIFICATIONS OF PROJECT STAFF (CERTIFIED COPIES)	
LETTER OF COMMITMENT TO LED OBJECTIVES (ON BUSINESS LETTERHEAD)	
STATEMENT OF ACCOUNT/ LEASE AGREEMENT	
CSD REPORT	
COMPULSORY SCHEDULE OF SUBCONTRACTORS	
ORIGINAL BANK LETTER FROM A REGISTERED FINANCIAL INSTITUTION	

I _____ ID NUMBER _____ HAVE SUBMITTED THE ABOVEMENTIONED DOCUMENTATION TO THE TENDER DOCUMENT.

_____

Signature

4. ADVERTISEMENT
RICHMOND LOCAL MUNICIPALITY
REHABILITATION OF SIYATHUTHUKA/MAGODA MAIN ROAD 2.17KM PHASE 3 IN WARD 2&7
TENDER NUMBER: RLM: 06/2026/2027

Bids are hereby invited by Richmond Local Municipality seeks to appoint a qualified and experienced service provider for the Rehabilitation of Siyathuthuka/Magoda Main Road Ward 2&7 Phase 3

Bidders who are registered with CIDB, in a contractor grading equal than a contractor grading of **6CE or Higher** will be eligible to bid.

Only bidders who are registered with National Treasury Suppliers Database (CSD) will be eligible to bid.

Bid documents must be reserved in writing, through the office of the Supply Chain Management (SCM) **email:** sandile.sithole@richmond.gov.za**.** by **03 November 2026 before 16h00**.

A compulsory briefing session will be on the 06th of November 2026 at 10h00 am and will be held at the **Council Chamber**, Richmond. The briefing session will then be followed by a site visit which forms part of the compulsory briefing.

A non-refundable fee of **R634.20** is payable for each bid document of which only cash will be accepted, Tender documents will be available on the day of the briefing from the Budget &Treasury Office during normal workings hours (08h00 – 16h00) on Thursday at Municipal Offices, 57 Shepstone Street Richmond.

The tender will be adjudicated via two stages of which the first stage will be the **Functionality**, and the second stage will be **80 (price):20 (specific goals**) preference points system.

The completed tender documents complying with the conditions of tender must be sealed and endorsed **REHABILITATION OF SIYATHUTHUKA \MAGODA MAIN ROAD WARD 2&7 PHASE 3, TENDER NUMBER NO: RLM_06/2026/2027"** and must be hand delivered and deposited in the official tender box located at the reception area of the Richmond Municipality at 57 Shepstone Street during the office hours from 08h00 to 16h00 Monday to Friday.

The closing date for the tender is **13 November 2026 at 10h00 am** which will be followed by a public opening. Facsimile, electronic and late bids will not be accepted. Documents received post-closing date and time will be returned unopened.

Enquiries are to be directed as follows: **(a) Technical Enquiries:** Ms. Z Vilakazi on Tel: (033) 212 2155 or e-mail: zamaswazi.vilakazi@richmond.gov.za **(b) SCM/ Bid Document Enquiries:** Mr Sandile Sithole on Tel: (033) 212 2155**,** or e-mail sandile.sithole@richmond.gov.za.

The Richmond Municipality is not obliged to accept the lowest bid or any part thereof and in addition reserves the right not to accept any bid and therefore retains the right not to proceed herein.

_____
MUNICIPAL MANAGER
BE MSWANE

5. EVALUATION OF THE TENDER

The tender will be adjudicated into two stages, of which the first stage will be functionality, and the second stage will be the 80/20 preference point system.

6.1 First stage of evaluation: : Functionality

Tenderers that score less than 70% of the points will *not* be considered further.

Functionality Points Table: Please note that bidders must score a minimum of 70% to be considered for further evaluation.

NO.	CRITERIA	WEIGHT
1.	**Tenderer's Experience**	
	Successful completion of similar projects (in nature and value) in the last five (5) years • 0 x Projects (0) • 1 x Project (15) • 2 x Projects (30) • 3 x Projects (45) • 4 x Projects (60) **Previous experience on similar projects (Bidders to provide appointment letters, and completion letters from Government Institution (Client) submitted letters must be signed)**	**60**
2.	**Key Personnel: Site Agent / Contracts Manager**	
	Qualification required is 3yrs Degree / N. Diploma in Civil Engineering / Construction Management,points allocated in the following Experience & Qualification: • Qualified with more than 3 years relevant experience in the position with the N.Diploma (15) • Qualified with more than 5 years relevant experience in the position with the Degree (20) **CV's and qualification of full time, Site Agent (Bidders to provide certified qualifications, proof of certified Identity Documents and comprehensive Curriculum Vitae CV's and certified certificates)**	**20**

3.	**Key Personnel: Foreman**	
	Qualification required is N4/N5 or N6 in Civil Engineering or Construction Management, with points allocated in the following: Experience: • More than 1 – 3 years of relevant experience in the position (3) • More than 3 years - 4 years' relevant experience in the position (5) • More than 5 years' relevant experience in the position (10) Qualification: • N4/N5 in Civil Engineering or Construction Management (3) • N6 in Civil Engineering or Construction Management (5) **CV's and qualification of full time, Foreman (Bidders to provide certified qualifications, proof of certified Identity Documents and comprehensive Curriculum Vitae CV's).**	**15**
4.	**Quality Management System**	
	Attach Proof of Ownership/Lease Agreement for the following construction plant: • Exacavator (1) • Grader (1) • Compactor/Roller (1) • Tipper truck (1) • Water cart (1)	**5**
	TOTAL	**100**

APPOINTMENT & REFERENCE LETTER VERIFICATION FORM

Date: _____Government organization name _____

This letter serves as an official confirmation that_____,
Registration Number _____, was duly appointed to provide the services described below:

Project/Contract Name: _____

Contract/Tender Number: _____

Scope of Work: _____

Contract Value: _____

Contract Commencement Date: _____Contract Completion Date: _____

We hereby confirm that the above-mentioned bidder successfully performed the contracted services and fulfilled the obligations stipulated in the contract. The work was carried out to a satisfactory standard and in accordance with the agreed project requirements.

Based on our experience, we rate the bidder's performance as follows:

Performance Evaluation	Rating
Quality of Work	☐ Excellent ☐ Good ☐ Satisfactory ☐ Poor
Technical Competence	☐ Excellent ☐ Good ☐ Satisfactory ☐ Poor
Adherence to Schedule	☐ Excellent ☐ Good ☐ Satisfactory ☐ Poor
Contract Management	☐ Excellent ☐ Good ☐ Satisfactory ☐ Poor
Communication & Reporting	☐ Excellent ☐ Good ☐ Satisfactory ☐ Poor
Overall Performance	☐ Excellent ☐ Good ☐ Satisfactory ☐ Poor

STAMP

Authorized Official Name: _____

Designation: _____

Signature: _____

Date: _____

5.2 The second stage of evaluation

Point system of 80/20 and will be allocated as follows

No.	DESCRIPTION	POINTS
1	Price	80
2	Specific Goals	20
	Total	**100**

RICHMOND LOCAL MUNICIPALITY

REHABILITATION OF SIYATHUTHUKA\MAGODA MAIN ROAD 2.17KM PHASE 3 IN WARD 2&7

6. MBD: Procurement Documents:

The following MBD Procurement Documents form part of the mandatory returnable documents.

PART A
INVITATION TO BID

YOU ARE HEREBY INVITED TO BID FOR REQUIREMENTS OF THE (*NAME OF MUNICIPALITY/ MUNICIPAL ENTITY*)					
BID NUMBER:	RLM 06/2026/2027	CLOSING DATE:	13 NOVEMBER 2026	CLOSING TIME:	10H00
DESCRIPTION	**REHABILITATION OF SIYATHUTHUKA/MAGODA MAIN ROAD 2.17KM PHASE 3 IN WARD 2&7**				
THE SUCCESSFUL BIDDER WILL BE REQUIRED TO FILL IN AND SIGN A WRITTEN CONTRACT FORM (MBD7).					

BID RESPONSE DOCUMENTS MAY BE DEPOSITED
IN THE BID BOX SITUATED AT *(STREET ADDRESS*

RICHMOND LOCAL MUNICIPALITY
57 SHEPSTONE STREET
RICHMOND KZN
3780

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:	
ARE YOU THE ACCREDITED REPRESENTATIVE IN SOUTH AFRICA FOR THE GOODS /SERVICES OFFERED?	☐Yes ☐No [IF YES ENCLOSE PROOF]		ARE YOU A FOREIGN BASED SUPPLIER FOR THE GOODS /SERVICES OFFERED?	☐Yes ☐No [IF YES, ANSWER PART B:3]	
TOTAL NUMBER OF ITEMS OFFERED			**TOTAL BID PRICE**	**R**	
SIGNATURE OF BIDDER	……		**DATE**		
CAPACITY UNDER WHICH THIS BID IS SIGNED					

BIDDING PROCEDURE ENQUIRIES MAY BE DIRECTED TO:		**TECHNICAL INFORMATION MAY BE DIRECTED TO:**	
DEPARTMENT	BUDGET & TREASURY SCM	CONTACT PERSON	Ms Z. Vilakazi
CONTACT PERSON	Mr Sandile Sithole	TELEPHONE NUMBER	033 212 2155
TELEPHONE NUMBER	033 212 2155	FACSIMILE NUMBER	033 212 4668
FACSIMILE NUMBER	033 212 4668	E-MAIL ADDRESS	
E-MAIL ADDRESS	sandile.sithole@richmond.gov.za	zamaswazi.vilakazi@richmond.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 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)?
☐ YES ☐ NO

3.2. DOES THE ENTITY HAVE A BRANCH IN THE RSA? ☐ YES
☐ NO

3.3. DOES THE ENTITY HAVE A PERMANENT ESTABLISHMENT IN THE RSA?
☐ YES ☐ NO

3.4. DOES THE ENTITY HAVE ANY SOURCE OF INCOME IN THE RSA?
☐ YES ☐ NO

3.5. IS THE ENTITY LIABLE IN THE RSA FOR ANY FORM OF TAXATION?
☐ YES ☐ 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: ……...

MBD 4

DECLARATION OF INTEREST

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

2. Any person, having a kinship with persons in the service of the state, including a blood relationship, may make an offer or offers in terms of this invitation to bid. In view of possible allegations of favouritism, should the resulting bid, or part thereof, be awarded to persons connected with or related to persons in service of the state, it is required that the bidder or their authorised representative declare their position in relation to the evaluating/adjudicating authority.

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

3.1 Full Name of bidder or his or her representative: ……

3.2 Identity Number: ……

3.3 Position occupied in the Company (director, trustee, hareholder[2]): ……

3.4 Company Registration Number: ……..

3.5 Tax Reference Number: ……...

3.6 VAT Registration Number: …….

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

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

3.8.1 If yes, 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) a member of the accounting authority of any national or provincial public entity; or

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

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

3.9 Have you been in the service of the state for the past twelve months? ……..YES / NO

3.9.1 If yes, furnish particulars.……...……..

……

3.10 Do you have any relationship (family, friend, other) with persons in the service of the state and who may be involved with the evaluation and or adjudication of this bid? ……..… YES / NO

3.10.1 If yes, furnish particulars.……..

……..

3.11 Are you, aware of any relationship (family, friend, other) between any other bidder and any persons in the service of the state who may be involved with the evaluation and or adjudication of this bid? YES / NO

3.11.1 If yes, furnish particulars ……...

…….……

3.12 Are any of the company's directors, trustees, managers, principle shareholders or stakeholders in service of the state? YES / NO

3.12.1 If yes, furnish particulars ……..

…….

3.13 Are any spouse, child or parent of the company's directors trustees, managers, principle shareholders or stakeholders in service of the state? YES / NO

3.13.1 If yes, furnish particulars …….

……

3.14 Do you or any of the directors, trustees, managers, principle shareholders, or stakeholders of this company have any interest in any other related companies or business whether or not they are bidding for this contract. YES / NO

3.14.1 If yes, furnish particulars: ……..

……

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

Full Name	Identity Number	State Employee Number

……..
Signature

……..
Date

……
Capacity

……
Name of Bidder

DECLARATION FOR PROCUREMENT ABOVE R10 MILLION (VAT INCLUDED)

For all procurement expected to exceed R10 million (VAT included), bidders must complete the following questionnaire:

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

1.1 If yes, submit audited annual financial statements for the past three years or since the date of establishment if established during the past three years. **YES/NO**

……

……

2 Do you have any outstanding undisputed commitments for municipal services towards a municipality or any other service provider in respect of which payment is overdue for more than 30 days?

2.1 If no, this serves to certify that the bidder 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. **YES/NO**

2.2 If yes, provide particulars.

……..

……..

3.Has any contract been awarded to you by an organ of state during the past five years, including particulars of any material non-compliance or dispute concerning the execution of such contract?

3.1 If yes, furnish particulars

…….. **YES/NO**

……

4. Will any portion of goods or services be sourced from outside the Republic, and, if so, what portion and whether any portion of payment from the municipality municipal entity is expected to be transferred out of the Republic?

If yes, furnish particulars

……. **YES/NO**

……..

CERTIFICATION

I, THE UNDERSIGNED (NAME) ……

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

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

……. ……
Signature Date

……. …….
Position Name of Bidder

MBD 6.1

PREFERENCE POINTS CLAIM FORM IN TERMS OF THE PREFERENTIAL PROCUREMENT REGULATIONS 2022

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

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

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1. GENERAL CONDITIONS

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

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

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

(*delete whichever is not applicable for this tender*).

(a) The applicable preference point system for this tender is the 80/20 preference point system

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

(b) Price; and

(c) Specific Goals.

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

The maximum points for this tender are allocated as follows:

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

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

1.6 The organ of state reserves the right to require of a tenderer, either before a tender is

adjudicated or at any time subsequently, to substantiate any claim in regard to preferences, in any manner required by the organ of state.

2. DEFINITIONS

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

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

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

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

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

3. FORMULAE FOR PROCUREMENT OF GOODS AND SERVICES

3.1. POINTS AWARDED FOR PRICE

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

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

80/20 **or** **90/10**

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

Where

Ps = Points scored for price of tender under consideration

Pt = Price of tender under consideration

Pmin = Price of lowest acceptable tender

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

3.2.1. POINTS AWARDED FOR PRICE

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

80/20 **or** **90/10**

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

Where

Ps = Points scored for price of tender under consideration

Pt = Price of tender under consideration

Pmax = Price of highest acceptable tender

4. POINTS AWARDED FOR SPECIFIC GOALS

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

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

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

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

Table 1: Specific goals for the tender and points claimed are indicated per the table below.
(Note to organs of state: Where either the 90/10 or 80/20 preference point system is applicable, corresponding points must also be indicated as such.
***Note to tenderers: The tenderer must indicate how they claim points for each preference point system.*)**

The specific goals allocated points in terms of this tender	Number of points allocated (90/10 system) (To be completed by the organ of state)	Number of points allocated (80/20 system) (To be completed by the organ of state)	Number of points claimed (90/10 system) (To be completed by the tenderer)	Number of points claimed (80/20 system) (To be completed by the tenderer)
An EME or QSE which is at least 51% owned by black people (x5 points) (Full CSD Report)				

An EME or QSE which is at least 51% owned by black people who are women (x5 points) (Full CSD Report)				
An EME or QSE which is at least 51% owned by black people who are youth (x5 points) (Full CSD Report)				
An EME or QSE which is at least 51% owned by black people residing within the jurisdiction of Richmond Municipality: Within Richmond Municipality = 05 Within the District = 03 Within KZN = 02 Outside the Province = 01 (Full CSD Report) + (Proof of primary office)				

DECLARATION WITH REGARD TO COMPANY/FIRM

4.3. Name of company/firm…….

4.4. Company registration number: ……...

4.5. TYPE OF COMPANY/ FIRM

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

[TICK APPLICABLE BOX]

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

i) The information furnished is true and correct;

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

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

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

(a) disqualify the person from the tendering process;

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

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

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

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

……
SIGNATURE(S) OF TENDERER(S)

SURNAME AND NAME: ……..

DATE: ……

ADDRESS: ……

……

……

MBD 8

DECLARATION OF BIDDER'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.

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

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

CERTIFICATION

I, THE UNDERSIGNED (FULL NAME**) ……..……..…….**
CERTIFY THAT THE INFORMATION FURNISHED ON THIS DECLARATION FORM TRUE AND CORRECT.

I ACCEPT THAT, IN ADDITION TO CANCELLATION OF A CONTRACT, ACTION MAY BE TAKEN AGAINST ME SHOULD THIS DECLARATION PROVE TO BE FALSE.

…….. ……...
Signature Date

…… ……....
Position Name of Bidder

MBD 9

CERTIFICATE OF INDEPENDENT BID DETERMINATION

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

2 Section 4 (1) (b) (iii) of the Competition Act No. 89 of 1998, as amended, prohibits an agreement between, or concerted practice by, firms, or a decision by an association of firms, if it is between parties in a horizontal relationship and if it involves collusive bidding (or bid rigging).[2] Collusive bidding is a *pe se* prohibition meaning that it cannot be justified under any grounds.

3 Municipal Supply Regulation 38 (1) prescribes that a supply chain management policy must provide measures for the combating of abuse of the supply chain management system, and must enable the accounting officer, among others, to:

a. take all reasonable steps to prevent such abuse;

b. reject the bid of any bidder if that bidder or any of its directors has abused the supply chain management system of the municipality or municipal entity or has committed any improper conduct in relation to such system; and

c. cancel a contract awarded to a person if the person committed any corrupt or fraudulent act during the bidding process or the execution of the contract.

4 This MBD serves as a certificate of declaration that would be used by institutions to ensure that, when bids are considered, reasonable steps are taken to prevent any form of bid-rigging.

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

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

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

MBD 9

CERTIFICATE OF INDEPENDENT BID DETERMINATION

I, the undersigned, in submitting the accompanying bid:

_____

(Bid Number and Description)

in response to the invitation for the bid made by:

_____

(Name of Municipality / Municipal Entity)

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

I certify, on behalf of: _____ that:

(Name of Bidder)

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

(a) has been requested to submit a bid in response to this bid invitation;
(b) could potentially submit a bid in response to this bid invitation, based on their qualifications, abilities or experience; and
(c) provides the same goods and services as the bidder and/or is in the same line of business as the bidder.

MBD 9

6. The bidder has arrived at the accompanying bid independently from, and without consultation, communication, agreement or arrangement with any competitor. However communication between partners in a joint venture or consortium[3] will not be construed as collusive bidding.
7. In particular, without limiting the generality of paragraphs 6 above, there has been no consultation, communication, agreement or arrangement with any competitor regarding:
    (a) prices;
    (b) geographical area where product or service will be rendered (market allocation)

(c) methods, factors or formulas used to calculate prices;

(d) the intention or decision to submit or not to submit, a bid;

(e) the submission of a bid which does not meet the specifications and conditions of the bid; or

(f) bidding with the intention not to win the bid.

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

[3] Joint venture or Consortium means an association of persons for the purpose of combining their expertise, property, capital, efforts, skill and knowledge in an activity for the execution of a contract

MBD 9

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	Date
……	……...
Position	Name of Bidder

RICHMOND LOCAL MUNICIPALITY

T 1.1NOTICE OF COMPULSORY SITE INSPECTION

A **compulsory briefing session will** be held on **06 November 2026 at 10h00 am** and will be held at the Council Chamber, 57 Shepstone Street, Richmond 3780. The briefing session will then be followed by a site visit which forms part of the compulsory briefing.

Compulsory Briefing Session

It is hereby certified that I have attended the Compulsory Briefing Session and have satisfied myself of the conditions and circumstances.

NAME OF REPRESENTATIVE:

_____

(Please Print)

ON BEHALF OF TENDERER:

_____

ADDRESS: _____

_____

_____

TELEPHONE NUMBER: _____

SIGNATURE (FOR TENDERER): _____

SIGNATURE (FOR CLIENT): _____

RICHMOND LOCAL MUNICIPALITY

REHABILITATION OF SIYATHUTHUKA/MAGODA MAIN ROAD 2.17KM PHASE 3 IN WARD 2 & 7

T1.2 Tender Data

The conditions of tender are the Standard Conditions of Tender as contained in Annex F of the 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 additional conditions of tender are:

Clause number	Tender Data
F.1.1	The employer is the RICHMOND Local Municipality.
F.1.2	The tender documents issued by the employer comprise: T1.1 Tender notice and invitation to tender T1.2 Tender data T2.1 List of returnable documents T2.2 Returnable schedules **Part 1: Agreements and contract data** C1.1 Form of offer and acceptance C1.2 Contract data C1.3 Form of Guarantee C1.4 Adjudicator's Contract **Part 2: Pricing data** C2.1 Pricing instructions C2.2 Activity schedules / Bills of Quantities **Part 3: Scope of work** C3 Scope of work **Part 5 : Richmond Municipality** C4 Annexure A
F.1.3	The employer (client) is: Name: RICHMOND LOCAL MUNICIPALITY Address: 57 Shepstone Street Private Bag 1028 RICHMOND 3780 Tel: 033-212 2155 Fax: 033-212 4668 E-mail: **zamaswazi.vilakazi@richmond.gov.za**

F.1.4 The following tenderers who are registered with the CIDB, or are capable of being so registered prior to the evaluation of submissions, are eligible to submit tenders:

a) contractors who have a contractor grading designation equal to or higher than a contractor grading designation determined in accordance with the sum tendered for a GB class of construction work; and

b) contractors registered as potentially emerging enterprises with the CIDB who are registered in one contractor grading designation lower than that required in terms of a) above and who satisfy the following criteria:

i) The Consultant, following an interview with the management of the enterprise, is satisfied that the enterprise has the potential to develop and qualify to be registered in a higher contractor grading designation; and

ii) The Consultant, following a risk assessment, is able to provide the necessary supportive measures required to enable the enterprise to successfully execute the contract.

Joint ventures are eligible to submit tenders provided that:

1. every member of the joint venture is registered with the CIDB;
2. the lead partner has a contractor grading designation in the GB class of construction work; and
3. 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 GB class of construction work.

F.1.5 The arrangements for a compulsory clarification meeting are as stated in the Tender Notice and Invitation to Tender.

Tenderers must sign the attendance list in the name of the tendering entity. Addenda will be issued to and tenders will be received only from those tendering entities appearing on the attendance list.

F.1.6 No alterative tender offers will be considered

If tenderer wishes to submit an alternative tender offer, the only criteria permitted for such alternative tender offer is that it demonstrably satisfies the Employer's standards and requirements, the details of which may be obtained from the Employer's Agent.

Calculations, drawings and all other pertinent technical information and characteristics as well as modified or proposed Pricing Data must be submitted with the alternative tender offer to enable the Employer to evaluate the efficacy of the alternative and its principal elements, to take a view on the degree to which the alternative complies with the Employer's standards and requirements and to evaluate the acceptability of the pricing proposals. Calculations must be set out in a clear and logical sequence and must clearly reflect all design assumptions. Pricing Data must reflect all assumptions in the development of the pricing proposal.

Acceptance of an alternative tender offer will mean acceptance in principle of the offer. It will be an obligation of the contract for the tenderer, in the event that the alternative is accepted, to accept full responsibility and liability that the alternative offer complies in all respects with the Employer's standards and requirements.

The modified Pricing Data must include an amount equal to 5% of the amount tendered for the alternative offer to cover the Employer's costs of confirming the acceptability of the detailed design before it is constructed.

F.1.7 Parts of each tender offer communicated on paper shall be submitted as an original, plus 0 copy.

F.1.8 The employer's address for delivery of tender offers and identification details to be shown on each tender offer package are:

Location of tender box: Richmond Local Municipality, reception area.
Physical address: 57 Shepstone Street
Identification details: "Tender No.RLM 06/2026/2027: REHABILITATION OF SIYATHUTHUKA\MAGODA MAIN ROAD 2.17KM PHASE 3 IN WARD 2 & 7

F.1.9 The closing time for submission of tender offers is as stated in the Tender Notice and Invitation to Tender.

F.2.0 Telephonic, telegraphic, telex, facsimile or e-mailed tender offers will not be accepted.

F.2.1 The tender offer validity period is 90 calendar days

F.2.2 The tenderer shall, when requested by the Employer to do so, submit the names of all management and supervisory staff that will be employed to supervise the labour-intensive portion of the works together with satisfactory evidence that such staff members satisfy the eligibility requirements.

F.2.3 The tenderer is required to submit with his tender a Certificate of Contractor Registration issued by the Construction Industry Development Board and an **TCS Pin** issued by the South African Revenue Services or **CSD number**.
Where a tenderer satisfies CIDB contractor grading designation requirements through joint venture formation, such tenderers must submit the Certificates of Contractor Registration in respect of each partner.

F.2.4 Tenders will be opened immediately after the closing time for tenders at Richmond Local Municipality at 10H00 am on 13 November 2026

The procedure for the evaluation of responsive tenders is as per page 8.

Up to 100 minus W_1 tender evaluation points will be awarded to tenderers who complete the preferencing schedule and who are found to be eligible for the preference claimed.

F.2.6 Tender offers will only be accepted if:

a) the tenderer has in his or her possession TCS Pin issued by the South African Revenue Services
b) the tenderer is registered with the Construction Industry Development Board in an appropriate contractor grading designation;
c) the tenderer or any of its directors is not listed on the Register of Tender Defaulters in terms of the Prevention and Combating of Corrupt Activities Act of 2004 as a person prohibited from doing business with the public sector;
d) the tenderer has not:
   i) abused the Employer's Supply Chain Management System; or
   ii) failed to perform on any previous contract and has been given a written notice to this effect; and
e) has completed the Compulsory Enterprise Questionnaire and there are no conflicts of interest which may impact on the tenderer's ability to perform the contract in the best interests of the employer or potentially compromise the tender process.

F.2.7 The number of paper copies of the signed contract to be provided by the employer is one.

Record of Addenda to tender documents

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

	Date	Title or Details
1.		
2.		
3.		
4.		
5.		
6.		
7.		
8.		

Attach additional pages if more space is required.

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

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

Tenderer

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: . . . . . .

Section 3: CIDB registration number: . . . . . .

Section 4: B-BBEEE Level……..

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 in the service of the state

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

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

If any of the above boxes are marked, disclose the following:

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

*insert separate page if necessary

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

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

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

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 authorized 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; and

iv) confirms that the contents of this questionnaire are within my personal knowledge and are to the best of my belief both true and correct.

Signed _____ Date .....

Name _____ Position .....

Enterprise name .....

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 . . . . , acting in the capacity of lead partner, to sign all documents in connection with the tender offer and any contract resulting from it on our behalf.

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

Compulsory Schedule of Plant and Equipment
Part A

The following are lists of major items of relevant plant and equipment that I / we presently own and will have available for this contract.

(a) Details of major equipment that is owned by and immediately available for this contract.

(b) Please provide proof of ownership. (Please be advised that the proof submitted must reflect name/s of the tenderer or partners to joint venture.

Quantity	Description, size, capacity, etc.

Attach additional pages if more space is required.

Signed _____ Date .....

Name _____ Position .....

Tenderer .....

Compulsory Schedule of Plant and Equipment

Part B

(In cases where the appointed Contractor does not have that particular Plant & Equipment and it is available locally)

Richmond Municipality Local Economic Development (LED) Initiatives.

In terms of Richmond Municipality LED Initiatives it is compulsory that all Plant & Equipment (in case where the appointed Contractor does not have that particular Plant or Equipment and it is available locally) to be sourced locally. Only if all sourcing of hiring Plant & Equipment has been exhausted in Richmond, will hire of Plant & Equipment outside Richmond's boundary be justified. (Please contact the Municipality for details). The successful bidder is required to submit proof for auditing purposes to the LED Unit.

Quantity	Description, size, capacity, etc.

Attach additional pages if more space is required.

Signed _____ Date .....

Name _____ Position .....

Tenderer .....

Compulsory Schedule for all Material and Labour (skilled & unskilled)

Richmond Municipality Local Economic Development (LED) Initiatives.

In terms of Richmond Municipality LED Initiatives it is compulsory that all materials, labour (skilled & unskilled) be sourced locally. Only if all sourcing of materials, labour (skilled) has been exhausted in Richmond, will sourcing outside Richmond's boundary be justified. **Documentary proof** is required to justify that no said material and said labour (skilled) is available in Richmond. The successful bidder is advised that proof of local procurement is required for auditing purposes by the LED Unit.

In addition to the above, the sourcing of labour (skilled & unskilled) will be in line with the Municipality's EPWP Beneficiary Engagement Policy. Details of which will be available on award.

Signed _____ Date .....

Name _____ Position .....

Tenderer .....

Compulsory Schedule of the Tenderer's Experience

Tenderer to include **letter of reference** from clients rendering work with similar nature for CIDB applicable to this project or **completion certificate** in the past 5 years.
The following is a statement of similar work successfully executed by myself / ourselves:

Employer contact person and telephone number.	**Description of contract**	**Value of work inclusive of VAT (Rand)**	**Date completed**

Signed _____ Date _____

Name _____ Position _____

Tenderer .....

Proposed amendments and qualifications

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

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

Page	Clause or item	Proposal

M

Signed _____ Date .....

Name _____ Position .....

Tenderer .....

KEY PERSONNEL

In terms of the Project Specification and the Conditions of Tender, unskilled workers may only be brought in from outside the local community if such personnel are not available locally.

The Tenderer shall list below the key personnel which he intends to utilize on the Works.

CATEGORY OF EMPLOYEE	KEY PERSONNEL, PART OF THE CONTRACTOR'S ORGANISATION	NUMBER
Site Agent, Project Managers		
Foremen, Quality Control and Safety Personnel		
Technicians, Surveyors, etc.		
Others:		
.....	.....	.....
.....	.....	.....
.....	.....	.....
.....	.....	.....
.....	.....	.....

SIGNATURE: .....…..... DATE: ….....
(of person authorized to sign on behalf of the Tenderer)

CURRICULUM VITAE OF KEY PERSONNEL

[Curriculum Vitae of key personnel to be inserted here]

RICHMOND LOCAL MUNICIPALITY

REHABILITATION OF SIYATHUTHUKA/MAGODA MAIN ROAD 2.17KM PHASE 3 IN WARD 2 & 7

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:

REHABILITATION OF SIYATHUTHUKA/MAGODA MAIN ROAD 2.17KM PHASE 3 IN WARD 2 & 7

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 PRICE INCLUSIVE OF 15% VALUE ADDED TAX AND 10% CONTINGENCIES 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 . . . . Date . . . .

Name . . . .

Capacity . . . .

for the tenderer
(Name and address of organization) . . . .

. . . .

. . . .

Name and signature of witness . . . .

Acceptance

By signing this part of this form of offer and acceptance, the employer identified below accepts the tenderer's offer. In consideration thereof, the employer shall pay the contractor the amount due in accordance with the conditions of contract identified in the contract data. Acceptance of the tenderer's offer shall form an agreement between the employer and the tenderer upon the terms and conditions contained in this agreement and in the contract that is the subject of this agreement.

The terms of the contract are contained in:

Part C1: Agreements and contract data, (which includes this agreement)
Part C2: Pricing data
Part C3: Scope of work.
Part C4: Site information

and drawings and documents or parts thereof, which may be incorporated by reference into Parts 1 to 4 above.

Deviations from and amendments to the documents listed in the tender data and any addenda thereto as listed in the tender schedules as well as any changes to the terms of the offer agreed by the tenderer and the employer during this process of offer and acceptance, are contained in the schedule of deviations attached to and forming part of this agreement. No amendments to or deviations from said documents are valid unless contained in this schedule.

The tenderer shall within two weeks after receiving a completed copy of this agreement, including the schedule of deviations (if any), contact the employer's agent (whose details are given in the contract data) to arrange the delivery of any bonds, guarantees, proof of insurance and any other documentation to be provided in terms of the conditions of contract identified in the contract data. Failure to fulfill any of these obligations in accordance with those terms shall constitute a repudiation of this agreement.

Notwithstanding anything contained herein, this agreement comes into effect on the date when the tenderer receives one fully completed original copy of this document, including the schedule of deviations (if any). Unless the tenderer (now contractor**)** within five working days of the date of such receipt notifies the employer in writing of any reason why he cannot accept the contents of this agreement, this agreement shall constitute a binding contract between the parties.

Signature . . . . . Date . . . . . .

Name . . . . . .

Capacity . . . . . .

for the Employer Richmond Local Municipality
57 Shepstone Street
Richmond
3780

Name and signature of witness . . . . . Date . . . . . .

Part 1: Contract Data completed by the Employer

GCC Clause	Information
1.1.1.15	The name of the Employer is the **Richmond Local Municipality**
1.1.1.15.1	The address of the Employer is: Telephone: 033 212 2155 Facsimile: 033 212 4668 Address (physical): 57 Shepstone Street, Richmond Address (postal): Private Bag 1028 Richmond KwaZulu-Natal 3780
1.1.1.16	The name of the Engineer / Client is **Dlamindlovu Consulting Engineers & Project Managers**
1.1.1.16.1	The address of the Engineer/Client is: Address (physical): 58 Juniper Road Address (postal): 58 Juniper Road Essenwood,Berea Durban 4001 Telephone: 033 342 2233 e-mail address: 086 665 6691
1.1.1.12 & 5.8	The special non-working days are public holidays, Saturdays, Sundays and the days on which the contractor grants the majority of his permanent workforce leave around the 16th December and the first Monday of the subsequent year.

RICHMOND LOCAL MUNICIPALITY
REHABILITATION OF SIYATHUTHUKA/MAGODA MAIN ROAD 2.17KM PHASE 3 IN WARD 2 & 7

C1.3 Form of Guarantee

TENDER NO.

WHEREAS **THE RICHMOND LOCAL MUNICIPALITY** (hereinafter referred to as the Employer") entered into, a Contract with:

. . . . . .

(Hereinafter called "the Contactor") on the . . . . . day of . . . . . .20. . . . . .

for the REHABILITATION OF SIYATHUTHUKA/MAGODA MAIN ROAD 2.17KM PHASE 3 IN WARD 2 & 7 in the RICHMOND Municipal area.

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

AND WHEREAS . . . . . has / have at the request of the Contractor, agreed to give such guarantee;

NOW THEREFORE WE . . . . . do hereby guarantee and bind ourselves jointly and severally as Guarantor and Co-principal Debtors to the Employer under renunciation of the benefits of division and excussion for the due and faithful performance by the Contractor of all the terms and conditions of the said Contract, subject to the following conditions:

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

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

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

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

.

5. Our total liability hereunder shall not exceed the Guaranteed Sum of . . . . . .

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

   (in figures) ……

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

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

. . . . . .

. . . . . .

. . . . . .

. . . . . .

IN WITNESS WHEREOF this guarantee has been executed by us at . . . . . .
on this . . . . . day of . . . . . 20 . . . . . .

Signature . . . . . .

Duly authorized to sign on behalf of . . . . . .

Address . . . . . .

. . . . . .

. . . . . .

As witnesses:

1 . . . . . .

2 . . . . . .

DECLARATION (to be signed in the presence of a Commissioner of Oaths)

We/I declare that in terms of section 5(2) of the Municipal Structures Act No. 117 of 1998, which states that

" A councilor who, or whose spouse, partner, business associate or close family member, acquired or stands to acquire any direct benefit from a contract concluded with the municipality, must disclose full particulars of the benefit of which the councilor is aware at the first meeting of the municipal council at which it is possible for the councilor to make the disclosure".

FURTHER
The undersigned, who warrants that he/she is duly authorized to do so on behalf of the firm, confirms that the firm complies with all requirements for registration as an affirmable Business Enterprise as defined, and the contents of this affidavit are within my personal knowledge, and save where stated otherwise are to the best of my belief both true and correct.

Signature:…… **Name:**……..

(1) **Duly authorised to sign on behalf of**

…….....

Address: ……

……

……

Telephone: ……..

Signed and sworn to before me……

On this the……day of……by the Deponent, who has acknowledged that he/she knows and understands the contents of this Affidavit, that it is true and correct to the best of his /her knowledge and that he/she has no objection to taking the prescribed oath, and that the prescribed oath will be binding on his/her conscience.

Commissioner of Oaths: ……

Designation: ……

Address: …….....

.....

…….....

ALL PAGES OF THIS AFFIDAVIT MUST BE INITIALED BY BOTH THE DEPONENT AND THE COMMISSIONER OF OATHS.

C2.0 Project Specification

C2.0 Project Specification

1. GENERAL

1.1 Preamble

This project specification must be read in conjunction with SABS 1200, which governs the quality of workmanship, method of construction etc required for this project. The payment clauses and methods of measurement of SABS 1200 do not apply to this contract, and are superseded by the schedule of quantities and details in this project specification and the addendum to it.

1.2 Scope of Contract

The contract to which this specification relates is for the supply of all materials, labour, plant equipment and everything necessary for the project: **REHABILITATION OF SIYATHUTHUKA /MAGODA MAIN ROAD 2.17KM PHASE 3 IN WARD 2 & 7.**

The project entails rehabilitation of approximately Siyathuthuka/Magoda main road in ward 2& 7 and the scope of works includes:

- ✓ Clearing and grubbing;
- ✓ Hand excavations for exposing existing services
- ✓ Relocation of fences and existing services.
- ✓ Remove existing sandy material.
- ✓ Installation of pipe Culverts.
- ✓ Apply 150mm selected layer (G7 or greater quality).
- ✓ Apply 150mm sub-based C4 layer.
- ✓ Apply 150mm base layer (G2 material)
- ✓ Apply 40mm Asphalt (Continuously graded)
- ✓ Construction headwalls and wing walls (Brickwork)
- ✓ Construction of gabion boxes and mattresses protection works against erosion.
- ✓ Kerbing and channelling.

The contractor's obligation and responsibilities are described in greater detail in the conditions of contract, project specification and elsewhere in this document.

The contractor must monitor his costs so as not to exceed the budget and ensure that the minimum community involvement defined in the appendices to the tender document is met. The Contractor will also be required to submit monthly reports as stated in the appendices. Non-compliance with these requirements will result in disqualification of the contractor on future RICHMOND Local Municipality projects.

The Contractor will be required to liaise with Richmond Local Municipality officials, Project Management Unit (PMU) and Project Steering Committee throughout the duration of the contract.

2 SITE FACILITIES AVAILABLE

2.1 Site Camp

The contractor shall make his own arrangements with the local community for his site establishment. He must allow in his tender for all necessary facilities such as toilets and security at his camp.

2.2 Water for Works

The contractor shall make his own arrangements for the water he requires for the execution of the work under this contract and must allow in his rates for all costs of obtaining water for the contract. The water shall be clean and free from injurious amount of acids, alkalis, organic matter, and other substances that may impair the strength or durability of concrete and mortar.

2.3 Sources of Power Supply

If the contractor requires power to execute the work he must make his own arrangements for a power connection or power generator.

2.4 Borrow Material

Unless specified otherwise the contractor must make his own arrangements with the community for the establishment of a borrow pit. The Engineer must approve the borrow pit prior to any materials being removed from it. No separate payment will be made for sourcing materials, opening up and rehabilitating borrow pits.

3 RECRUITMENT OF LOCAL LABOUR

It is compulsory that the contractor limit the use of non-local employees to key personnel only and to employ and train local labor whenever possible. All recruitment of local labor shall be in terms of the Municipality's applicable policy.

The use of a sub -contractor as stipulated as a condition of tender, local labor and or materials does not entitle the contractor to any additional payment nor exonerate him from contractual obligations in any way.

4. APPROVED TIP

Waste materials must be dumped at a tip site approved by the Engineer and Community Representatives. The contractor shall inform the Engineer of the location of the tip site he intends to use before the commencement of construction work.

5. FACILITIES FOR THE ENGINEER

No facilities for the Engineer will be required on site.

6. SUMS STATED PROVISIONALLY BY THE ENGINEER

6.1 As-Built Data

An independent Land Surveyor or GPS specialist will be nominated by the Engineer to survey the works upon practical completion.

A hard copy as well as a disk with a dxf file of as-built data will be prepared by the Engineer. The contractor will be required to assist by providing the necessary survey information (coordinates and levels) and sketches.

6.2 Testing and Quality Control

An independent laboratory approved by the Engineer will be responsible for site control testing.
The contractor is to ensure that all site work is in accordance with the specification.
The cost of this testing is covered in the schedule of quantities for all testing required by the Engineer.

6.3 Overheads and charges on PS 6.1 and 6.2

The contractor is responsible for all administrative work, overseeing and handling ensuring that the above is done in accordance with the Engineer's requirements for the above. The unit of measurement shall be % of cost of the above works.

7. PRELIMINARY AND GENERAL

Preliminary and General costs will be paid as lump sum and this is deemed to include for all costs and profit associated with site establishment, removal thereof, site rehabilitation all contractual requirements, all other fixed and time related costs as described in SABS 1200 for the duration of the contract. The limit of Preliminary & General costs shall not exceed 15% of the total Value of Work.

8. SITE CLEARANCE

The provisions set out in SABS 1200C apply.

Prior to the commencement of any work all vegetation, topsoil, rocks, rubbish and all other obstacles shall be removed from the site and disposed of at the approved tip site. The unit of measurement shall be (m) length of road constructed.

9. DAYWORKS

Where called upon by the Engineer, the contractor shall supply items of plant, labour and materials to provide possible undefined additional works.
All day-work rates submitted shall cover overhead charges and profit, supervision and staff and the use of small tool, non-mechanical plant and equipment, and consumables.

10. CONTRACT SIGNBOARD

The contractor shall be responsible for the supply, installation and maintenance of the contract signboard for the duration of the contract.

The signboard shall be manufactured by an approved manufacturer approved by the Engineer. All materials and method used in the manufacturing of the signboard shall be SABS approved and subject to the Engineer's approval. A sample of the specification (size, etc) and layout is available from the employers' representative.

Measurement shall be (No.) i.e. per signboard erected. The contract signboard should clearly illustrate the EPWP logo.

VARIATIONS TO STANDARD SANS 1200 SPECIFICATIONS

The Standard SABS 1200 series specification for civil engineering works.

The following standard SABS 1200 specifications shall apply for this contract:

PSA	GENERAL SCOPE OF WORKS
PSD	EARTHWORKS
PSDB	EARTHWORKS (PIPE TRENCHES)
PSDM	EARTHWORKS (ROADS, SUBGRADE)
PSG	CONCRETE (STRUCTURAL)
PSH	STRUCTURAL STEEL
PSHC	CORROSION PROTECTION
PSL	MEDIUM-PRESSURE PIPELINES
PSLB	BEDDING (PIPES)
PSLE	STORMWATER DRAINAGE
PSME	SUBBASE

The Project Specifications cover site specific conditions and variances on the standard specifications.

The SABS 1200 Series have been written to cover all types of Civil Engineering Works and it may therefore cover work not applicable to this Enquiry.

The Project Specifications together with the Drawings and Schedule of Quantities clearly indicate the Sections of the SABS 1200 Series which are applicable to this Enquiry.

These Project Specifications are set out in two portions. Portion 1 covers the general information and the requirements to be met. Portion 2 covers variations and additions to the SABS 1200 Standardised Specifications that are applicable to this Enquiry.

STATUS

In cases of conflicting requirements between parts of the technical documentation of the Enquiry, the order of precedence shall be as follows:

1. Construction Drawings
2. Project Specification: Portion 1 - General Information
3. Project Specification: Portion 2 - Reference to SABS 1200 as well as variations and
4. additions to the SABS 1200 series.
5. Project Specification: Specific Specification
6. Standardized Specifications
7. Schedule of Quantities
8. Tender Drawings

PSD EARTHWORKS

PSD 2 INTERPRETATIONS

PSD 2.1 SUPPORTING SPECIFICATIONS

REPLACE SUB-CLAUSE 2.1.2 *WITH THE FOLLOWING :*

"PSD 2.1.2 : Any of the other SABS 1200 Specifications may form part of the Contract Documents."

PSD 2.3 DEFINITIONS

REPLACE THE WORD AND THE DEFINITION FOR "Borrow" *WITH THE FOLLOWING:*

"**Borrow material**: Material, other than material obtained from excavations required for the Works, obtained from sources such as borrow pits or the authorized widening of excavations. 'Borrow' shall have a corresponding meaning."

REPLACE THE DEFINITION FOR "Specified density" *WITH THE FOLLOWING:*

"**Specified density**: The specified dry density expressed as a percentage of modified AASHTO dry density."

REPLACE THE DEFINITION FOR "Stockpile" *WITH THE FOLLOWING:*

"**Stockpile** (verb): The process of selecting and, when necessary, loading, transporting and off-loading material in a designated area for later use for a specific purpose."

ADD THE FOLLOWING DEFINITIONS:

"**Commercial Source**: A source of material provided by the Contractor, excluding any source provided by the Employer, and including any borrow pit identified or provided by the Contractor.

Fill: An embankment or terrace constructed of material obtained from excavations or borrow pits. In roads it includes the earthworks up to the underside of the selected subgrade level.

Fill material: Material used for the construction of an embankment or terrace.

Roadbed: The natural in situ material on which the fill, or in the absence of fill, the pavement layers, are constructed."

PSD 3 MATERIALS

PSD 3.1 CLASSIFICATION FOR EXCAVATION PURPOSES

PSD 3.1.1 Method of Classifying

ADD THE FOLLOWING:

"The classification of material other than 'soft excavation' shall be agreed upon before excavation may commence.

All material will be classified as soft except when blasting or mechanical breaking is required to remove the material.

The Contractor shall immediately inform the Engineer if and when the nature of the material being excavated changes to such an extent that a new classification is warranted for further excavation. Failure on the part of the Contractor to advise the Engineer as soon as possible shall entitle the Engineer to reclassify, at his discretion, such excavated material."

PSD 3.2.3 Material Suitable for Backfill or Fill Against Structures

REPLACE THE CONTENTS OF THIS SUB-CLAUSE WITH THE FOLLOWING:

"Material used for backfill behind structures shall generally be the material excavated, subject to the following conditions:

(a) The material shall not contain an excessive number of stones retained on a 50 mm sieve; and

(b) The material shall not contain large clay lumps that do not break up under the action of the compaction equipment; and

(c) The liquid limit of the material shall not exceed 40, neither shall the PI exceed 18."

PSD 3.3 SELECTION

ADD THE FOLLOWING SUB-CLAUSE:

"PSD 3.3.3 Selection in Borrow Pits and Excavations

Approval of a borrow area for a certain purpose does not necessarily mean that all the material in that area is suitable for the specified purpose. What it does mean is that the borrow area contains some suitable material. The onus shall rest on the Contractor to ensure that only material that is indeed suitable is removed and used for the specified purpose. The geo-technical classification of the material to be forwarded to the Engineer for approval prior to use.

When the Contractor has to select excavated material for a specific purpose, the above provisions relating to borrow areas shall apply *mutatis mutandis* to excavations.

The Contractor shall not waste or contaminate material that has been selected for a specific purpose."

PSD 4 PLANT

PSD 4.4 DETECTORS

REPLACE THE CONTENTS OF SUBCLAUSE 4.4 WITH THE FOLLOWING :

"The Contractor shall, for the purposes of detecting and locating underground services in accordance with the provisions of Sub-clause 5.4 of SABS 1200 A and Sub-clause 5.1.2 of SABS 1200 D, at its own cost, provide and use detecting equipment which is suitable for the detection of underground cables and pipes."

ADD THE FOLLOWING SUB-CLAUSE :

PSD 4.5 IMPACT COMPACTION PLANT

(a) Type and energy rating:

A 25 kJ 3-sided impact compactor or a 15 kJ 5-sided impact compactor, as applicable, will be utilized in the compaction of the road formation or embankments if required. The rating of the impact compactors shall be determined by measuring the energy expended per fall of the compactor and shall be calculated by multiplying the mass of the rotating drums, by the lift and by the gravitational constant.

The compactor shall be towed by a 4-wheel drive tractor of sufficient engine power (not less than 200 Kilowatts) and of sufficient capacity to maintain an optimal compactor towing speed (of the order of 12 – 15 km/hr) on a maximum uphill gradient of 5%. All equipment shall be maintained in good working order.

(b) Supporting equipment:

The Contractor shall have available on site sufficient items of supporting plant to enable the impact compaction to be undertaken in optimum conditions. A road grader shall be provided of sufficient mass and power to blade off and maintain the surface being compacted. A water tanker shall be provided to pre-wet and maintain the moisture content of the surface being impact compacted.

PSD 5 CONSTRUCTION

PSD 5.1 PRECAUTIONS

PSD 5.1.1 Safety

PSD 5.1.1.1 Barricading and Lighting

REPLACE "Machinery and Occupational Safety Act, 1983 (Act 6 of 1983)" *WITH* "Occupational Health and Safety Act, 1993 (Act 85 of 1993)".

PSD 5.1.1.2 Safeguarding of Excavations

REPLACE "Machinery and Occupational Safety Act" *WITH* "Occupational Health and Safety Act, 1993 (Act 85 of 1993)".

PSD 5.1.1.3 Explosives

REPLACE THE CONTENTS OF THIS SUB-CLAUSE WITH THE FOLLOWING:

"The Contractor will generally be permitted to use explosives for breaking up hard material during excavations, for demolishing existing structures, and for other purposes where explosives are normally required, subject to the following conditions:

(a) The Engineer may prohibit the use of explosives in cases where, in his opinion, the risk of injury to persons or damage to property or to adjoining structures is too high. Such action by the Engineer does not entitle the Contractor to additional payment for having to resort to less economical methods of construction.

(b) The Engineer's prior written approval shall be obtained for each and every blasting operation. This approval may be withheld if the Contractor does not use explosives responsibly and carefully.

(c) The Contractor shall comply fully with the requirements of the Explosives Act, Act 83 of 1997 and all other legislation and regulations as may be applicable to blasting and the use of explosives.

(d) Before blasting is undertaken, the Contractor shall satisfy the Engineer that he has established whether or not the insurers concerned require pre- and post-blasting inspections of buildings and structures within a certain radius of the proposed blasting.

Should such inspections be required, the Contractor shall, together with the Engineer and the insurer, examine and measure the buildings, or structures in the vicinity of the proposed blasting site and establish and record, together with the owner, the extent of any existing cracking or damage before the commencement of blasting operations.

(e) When there is a possibility of damage to power and telephone lines or any other services or property, the Contractor shall adapt his method of blasting and the size of the charges and shall use adequate protective measures (eg. cover-blasting, to reduce the risk of damage.

(f) All accidents, injury to persons and animals and damage to property shall be reported to the Engineer in detail and in writing as soon as is practicable.

(g) The Engineer shall be given 24 hours' notice by the Contractor before each blasting operation is carried out.

(h) When blasting to specified profiles, the Contractor shall so arrange the holes and charges that the resulting exposed surfaces are as sound as the nature of the material permits. The Contractor shall make good, at its own expense, any additional excavation necessitated by the shattering of rock in excess of any over-break allowances specified in the Project Specifications or given on any drawing.

Notwithstanding the Contractor's compliance with the above provisions, the Contractor shall remain liable for any injury to persons and animals and loss of or damage to property occurring as a result of blasting operations."

PSD 5.1.2 <u>Existing Services</u>

PSD 5.1.2.2 Detection, Location and Exposure

REPLACE THE CONTENTS OF SUBCLAUSE 5.1.2.2 WITH THE FOLLOWING:

"The exposure by the Contractor of underground services, as required in terms of Sub-clause 5.4 of SABS 1200 A (as amended) shall be carried out by careful hand excavation at such positions and to such dimensions as are agreed to by the Engineer.

Unless otherwise instructed or agreed by the Engineer, no service shall be left exposed after its exact position has been determined and all excavations carried out for the purposes of exposing underground services shall be promptly backfilled and compacted to the following densities :

(a) In roadways : 90% Mod AASHTO density ; and

(b) In all other areas : 93% Mod AASHTO density.

Where hand excavations to expose underground services have to be carried out in roadways, the Contractor shall reinstate the road layer works in accordance with the provisions of Sub-clause 5.9 of SABS 1200DB.

Payment in respect of the exposing of the services by means of hand excavation as described above, will be made in accordance with Sub-clause PSD 8.3.8.1 (as amended).

Payment in respect of the reinstatement of layer works in road ways will be made in accordance with Sub-clause 8.3.6.1 of SABS 1200DB.

PSD 5.1.2.3 Protection of cables

REPLACE SUBCLAUSE 5.1.2.3 WITH THE FOLLOWING:

"5.1.2.3 Protection During Construction

Further to the requirements of Sub-clause 5.4.2 of SABS 1200A (as amended), major excavating equipment and other Plant shall not be operated dangerously close to known services. Where necessary, excavation in close proximity to Known Services shall be carefully carried out with suitable hand tools, excluding picks wherever their use could damage the services. No additional payment will apply to such more difficult work.

Should any service not being a Known Service be discovered or encountered during the course of the Contract, the Contractor shall, in addition to complying with the requirements of Sub-clause 5.4.2 of SABS 1200A (as amended), immediately notify the Engineer thereof and implement such measures as will prevent damage of such service or, if it was damaged in the course of discovery, will prevent and minimise the occurrence of any further damage occurring."

PSD 5.1.2.4 Negligence

DELETE SUBCLAUSE 5.1.2.4.

PSD 5.1.3 <u>Storm water and Groundwater</u>

ADD THE FOLLOWING:

"The Contractor shall, where applicable and at the earliest practicable opportunity, install the permanent drainage specified or shown on the Drawings and shall at his own cost provide the temporary drainage required to protect the Works."

PSD 5.1.5 <u>Reinstatement and Maintenance of Roads</u>

ADD THE FOLLOWING:

"Where crossings have been made, the roads shall be reinstated in accordance with the details specified in Sub-clause 5.9 of SABS 1200DB."

PSD 5.1.6 <u>Road Traffic Control</u>

DELETE THE SECOND SENTENCE OF SUBCLAUSE 5.1.6.

PSD 5.2 <u>METHODS AND PROCEDURES</u>

PSD 5.2.2 <u>Excavation</u>

PSD 5.2.2.1 Excavation for General Earthworks and for Structures

ADD THE FOLLOWING TO PARAGRAPH (b):

"When the nature of the material precludes the above procedure, additional excavations shall be carried out to provide working space for the erection of formwork. In general, payment will be made for excavating a working width of 600 mm, but the Contractor may excavate a greater working width at no additional cost to the client."

REPLACE THE FIRST SENTENCE OF PARAGRAPH (e) WITH THE FOLLOWING:

"Where excavations have been carried below the authorised levels, the Contractor shall backfill such excavations to the correct level with approved gravel material compacted to 90%

of modified AASHTO density or to the density of the surrounding material, whichever is the higher density.

Where excavations for structures have been carried out in hard material, the Engineer may direct that over-excavation be backfilled with 10Mpa concrete if there is a danger of settlement or differential settlement of the foundations.

Where the sides of excavations against which concrete is to be cast have been over-excavated or have collapsed partially, the Contractor shall re-trim the excavations if necessary and, unless other remedial measures are agreed to by the Engineer, shall cast the concrete for the structure, including the additional concrete that may be required as a result of the over-excavation or partial collapse. The cost of the additional concrete or remedial measures shall be for the Contractor's account."

PSD 5.2.2.3 Disposal

REPLACE THE WORDS "in the project specification." *AT END OF THE SECOND SENTENCE WITH:* "at sites to be designated by the Engineer.*"*

ADD THE FOLLOWING SUBCLAUSE IN SUBCLAUSE 5.2.2 :

"PSD 5.2.2.4 Selection and Stockpiling

Approval or designation of the material in a particular borrow pit or excavation for a particular purpose does not imply that all the material in the borrow pit or excavation is suitable for the particular purpose for which the said approval or designation relates, nor that all material in the borrow pit or source should be used for the particular purpose. The Contractor shall select suitable material from that borrow pit or source, discard unsuitable material and reserve material for other purposes as necessary.

The Contractor shall organise and carry out its operations in such a manner as will prevent the contamination of suitable embankment and backfill material with unsuitable materials. Any excavated material which becomes, in the Engineer's opinion, unsuitable for use in embankments or backfill as a result of contamination, shall be disposed of in a manner acceptable to the Engineer and shall replaced by the Contractor with materials acceptable to the Engineer, all at the Contractor's cost.

When required, or when ordered by the Engineer, material shall be stockpiled for later use. The additional costs of stockpiling material shall be paid to the Contractor in accordance with the provisions of Sub-clause PSD 8.3.14."

PSD 5.2.3 <u>Placing and compaction</u>

ADD THE FOLLOWING SUBCLAUSES:

"PSD 5.2.3.3 Works Compaction Procedure for Compaction by Impact Rolling:

On satisfactory completion of the compaction trials, as specified in Clause PSD 7.4, and before commencing construction of the Permanent Works, the Contractor shall submit his proposed Compaction Procedure for the Engineer's approval. The approved Compaction Procedure shall form the basis of the impact compaction works to be carried out on the project.

PSD 5.2.3.4 Compaction by means of Impact Rolling:

(1) Setting out:

The extent of the area to receive impact rolling will be defined by the Engineer. The contractor shall control the rolling operations by employing appropriate setting out markers to ensure that all areas designated for impact compaction receive the specified number of impact roller passes. The contractor shall detail the methods of control he proposes to use and shall obtain the approval of the Engineer before proceeding with the impact rolling.

(2) Compaction:

(i) General

All impact compaction must be carried out before services, drainage pipes or culverts are installed. Adequate supervision shall be provided and undertaken by the Contractor to ensure that the specified method of compaction is strictly adhered to.

(ii) In-situ sections

Impact compaction shall be undertaken in two stages.

Stage 1: Impact compaction by means of a 5-sided, 15 kJ impact compactor operating on the surface of the formation exposed after clearing and grubbing of the area.

The impact compactor shall be applied to the designated areas by traversing these areas with the number of passes determined by the Engineer following compaction trials. Compaction should be carried out as soon as possible after excavation so as to exploit any moisture available in the road bed material which will facilitate the compaction process. The target compaction state shall be based on that number of passes which results in the soil substantially attaining its near elastic state condition (no further improvement in deceleration experienced by the masses). The required number of passes shall be determined by measuring the deceleration experienced by the masses during impact using the Continuous Impact Response (CIR) system. The deceleration results shall be submitted after the completion of the first 20 passes and then after every 5 passes for evaluation by the engineer.

Stage 2: Impact compaction by means of a 15 kJ, 5-sided impact compactor operating on the surface of an imported fill layer, placed over the previously compacted formation, to an elevation of 300mm below final surface elevation.

(iii) Variation in Compactive Effort

The Engineer shall determine the number of passes to be applied. Should more or less passes be ordered then adjustment in compensation to the Contractor shall be made either as an additional payment to the Contractor in respect of the increased number of passes or as a reduction in payment in respect of a reduced number of passes.

For tender purposes 30 passes (for both 3 and 5 sided compactors) shall be used to achieve the required density.

PSD 5.2.3.5 Preparation and Maintenance of Compacting Surface Compacted by Impact Rolling:

The area being impact compacted shall, if necessary, be lightly graded as the work proceeds to maintain a good operating surface for the compactor unit, to level out surface undulations and to prevent the formation of deep “footprints” of the compactor.

The area being rolled shall if necessary, be sufficiently pre-wetted to enable the surface crust to be broken down. Water shall be applied in sufficient quantities to the surface as compaction proceeds to prevent the crumbling of the surface and to promote efficient compaction.

Weak zones shown by the impact compactor shall be noted and marked. Such areas may require additional passes of the impact compactor, or removal and replacement as directed by the Engineer. In the event that a zero air voids condition develops, due to excessive moisture, the positive pore water pressure shall be allowed to dissipate prior to further compaction.”

PSD 5.2.4 <u>Finishing</u>

ADD THE FOLLOWING AT THE END OF THIS PARAGRAPH:

“Impact compaction shall be done to 300 mm below the final terrace level. After impact compaction this layer shall be in-situ scarified and brought to optimum moisture content and conventionally compacted to 100% Mod ASSHTO density, shaped and trimmed to the final terrace level.”

"PSD 5.2.5 <u>Transport for Earthworks</u>

REPLACE THE CONTENTS OF SUB-CLAUSE 5.2.5 WITH THE FOLLOWING :

"The transport of all excavated and/or imported materials, irrespective of the distance and source, shall be deemed to be free haul, the cost of which is included in the Contractor's tendered rates and prices for the excavation and/or importation of the materials. No separate compensation shall apply for the transportation of excavated and/or imported materials."

PSD 7 TESTING

PSD 7.2 TAKING AND TESTING OF SAMPLES

REPLACE THE CONTENTS OF THIS SUB-CLAUSE WITH THE FOLLOWING :

"The Contractor shall arrange with the approved independent laboratory engaged by the Contractor in terms of Clause PS 8.2.1 of the Project Specifications, to carry out sufficient tests on a regular basis as agreed between it and the Engineer to determine whether the degree of compaction, and, where applicable, the quality of materials used, comply with the Specifications and shall submit the results of these tests to the Engineer in a form approved by him."

ADD THE FOLLOWING SUBCLAUSE:

"PSD 7.4 IMPACT COMPACTION TRIALS

(a) Preliminary Trial Sections

Before commencement of the full-scale impact compaction works, compaction trials shall be successfully carried out on a representative section or sections of the work of at least 100m in length. The width of the trial section shall be at least 4m wide. The objective of these trials is to confirm the adequacy of the Contractor's plant and methodology to achieve a relative improvement in the in-situ soil stiffness and elastic modulus of the existing formation and the roadbed to a depth of at least 1200mm below the existing surface elevation utilising the 3 or 5-sided impact compactors. Only selected material from necessary excavations or an approved borrow pit shall be used as material. The contractor shall not commence the compaction trials until his proposed procedure for so doing is approved by the Engineer.

(b) Testing

The following tests shall be carried out during the trials and used, in part, to establish the correlation between number of passes, settlement and subgrade stiffness as measured by plate load or other appropriate equivalent tests.

- Surface settlement on a 1m grid (20 measurements; 5 pass increments)
- Dynamic Cone Penetration (3 positions; 10 pass increments)
- 600mm diameter Plate Load (or other equivalent tests) 150mm below the existing surface elevation – (3 positions; 20 pass increments)
- In situ densities taken at 300mm and 600mm below the level of the compacted surface with a view to obtaining relative compaction levels at these depths on material taken from the same location for laboratory Mod. AASHTO determinations. (2 positions; 20 pass increments)
- Continuous Impact Response (CIR) deceleration measurements (10 pass increments)

PSD 8 MEASUREMENT AND PAYMENT

PSD 8.2 COMPUTATION OF QUANTITIES

ADD THE FOLLOWING SUBCLAUSE:

PSD 8.2.4 Site Preparation

(a) Compaction of Material by Impact Compactor

The unit of measurement for compaction with an impact compactor shall either be:

i) the square metre pass, which shall be computed by multiplying the surface area in square metres of the roadbed compacted by the number of 4 metre wide compactor passes, or

(ii) be the m^3 of material compacted measured in place in accordance with Sub-Clause 8.2 of SABS 1200D, as specified in the bill of Quantities.

For clarity, a lane 100m long and 4m wide given one pass, i.e. 2 runs of a 3 or 5-sided impact compactor, will be measured as 400m^2-pass.

The rate tendered shall cover the cost of providing the impact roller and tow-tractor on site, impact rolling, grading and watering the surface as required for efficient rolling and for any interruptions to the work necessitated by the taking of control tests.

No payments will be made for the establishment or removal of the rollers on site, for providing substitute rollers in the event of mechanical breakdown or for holding rollers available on site for use when moisture conditions are unfavourable.

Records of actual impact compactor passes shall be maintained by the contractor. The Engineer by way of separate checks shall certify these.

(b) Variation of Compactive Effort

The unit of measurement for the increased or decreased number of impact compactor passes shall be the square metre pass as specified in (4) and shall be computed by multiplying the area in square metres to which the variation applies by the increase or decrease in number of compactor passes.

(c) Recording Procedure

The impact compaction work carried out shall be recorded each day in the Compaction Record Book. The Compaction Record Book shall make provision for the recording of:

(i) The date on which any compaction was carried out.

(ii) The area and section on which the compaction was carried out.

(iii) The lane on which the compaction was carried out.

(iv) The number of passes at which the compaction on those lanes commenced and ended on that day – inclusive (e.g. 6-15).

(v) The number of passes carried out on that day on that lane (e.g. 10).

(vi) The width of the area being compacted. (Usually 8 metres i.e. the area compacted x the number of passes).

(vii) The length of the area being compacted.

(viii) The square metre passes compacted on that day (i.e. the area compacted x the number of passes).

(ix) The record book shall be presented to the Engineer on a daily basis for his verification of the information recorded.

PSD 8.3 SCHEDULED ITEMS

PSD 8.3.1 Site Preparation

REPLACE SUB-CLAUSES 8.3.1.1 AND 8.3.1.2 WITH THE FOLLOWING :

"Where Site preparation such as clearing, grubbing, the removal of large trees or the removal and stockpiling of topsoil is required, the provisions and scheduled items of SABS 1200 C shall apply."

PSD 8.3.2 Bulk Excavation

REPLACE THIS ITEM WITH THE FOLLOWING :

"**8.3.2.1 Excavate in all materials and use for embankment or backfill as ordered, from :**

(a) Necessary excavations ..... Unit : m^3

(b) Designated Borrow Pits ..... Unit : m^3

(c) Commercial Sources ..... Unit : m^3

The unit of measurement shall be the cubic metre measured in place in accordance with Sub-clause 8.2 of SABS 1200D.

Separate items will not be scheduled for embankments and backfills for different parts of the Works.

The tendered rates shall cover the cost of complying with all the precautions required in terms of Sub-clause 5.1 of SABS 1200D (as amended), in addition to the cost of excavating in all materials, basic selection, loading, transporting within the applicable freehaul distance, off-loading, spreading or backfilling, watering, processing to OMC, compacting, final grading, complying with the requirements of for tolerances, providing for testing, finishing and tidying, all in accordance with the specifications.

In addition to the foregoing, the tendered rate for sub-item (b) shall, further include for the costs of royalties (if applicable), whilst the tendered rate for sub-item (c) shall also include for the costs of finding a source of suitable material, for making arrangements with the owner of the source, for procuring the material, for the payment of all requisite royalties, charges or damages, and for transporting the material to the Site regardless of the distance involved. No payment will be made for the removal of overburden or stockpiling at the commercial source and no extra over payment shall apply for excavating in intermediate, hard or boulder material."

8.3.2.2 Excavate in all materials and dispose ..... Unit : m^3

The unit of measurement shall be the cubic metre of material excavated, measured in place in accordance with Sub-clause 8.2 of SABS 1200D.

Separate items may be scheduled for excavations for different parts of the Works.

The tendered rates shall cover the cost of complying with all the precautions required in terms of Sub-clause 5.1 of SABS 1200D (as amended), in addition to the cost of excavation, basic selection, loading, transporting within the applicable freehaul distance, off-loading at the spoil site, maintaining and finishing the spoil site, all in accordance with the specifications.

8.3.2.3 Extra-over items 8.3.2.1 (a), 8.3.2.1(b) and 8.3.2.2 for :

(a) Hard rock excavation ..... Unit : m^3

(c) Boulder excavation, Class A ..... Unit : m^3

(d) Boulder excavation, Class B ..... Unit : m^3

The rate shall cover the additional cost of the operations enumerated in Sub-clauses 8.3.2.1 and 8.3.2.2 above for any portion of the excavation that is classified as intermediate, hard rock, boulder excavation class A or boulder excavation class B as applicable."

8.3.2.5 Extra-over items 8.3.2.3 (a) to 8.3.2.3(d) for breaking down material used for fill Unit : m^3

The rate shall cover the additional cost for breaking down material used in fill according to the requirements of Clause 5.2.4.2 in SABS 1200 DM."

8.3.2.6 Extra-over items 8.3.2.3 (b) to 8.3.2.3(d) for crushing of material

……..Unit : m^3

The rate shall cover the additional cost for crushing the material with a mobile crusher, including the transport of material to the crusher, off-loading into the crusher, the cost of operating the crusher, loading the crushed material transporting it to stockpile or where required on site and off-loading the material. The

establishment cost for the crushing plant is paid under Clause 8.3.2.2 in SABS 1200 A.

8.3.2.7 Excavate in all materials and use for embankment and compact by impact roller:

(a) 5-sided (15 kJ) impact compactor (30 passes)..... Unit : m^3

(b) 3-sided (25 kJ) impact compactor (30 passes)..... Unit : m^3

The unit of measurement shall be the m^3, measured in-place in accordance with Sub-Clause 8.2 of SABS 1200D, of terrace compacted in accordance with the provisions of clause PSD 5.2.3.4. The quantity will be computed in accordance with the authorized dimensions of the area to be treated. The tendered rate is based on a minimum of 30 passes required.

The tendered rates shall include full compensation for providing the impact rollers and tow- tractors on site, grading and watering the surface as required, the shaping of the surface, keeping the impactors ready for use when soil-moisture conditions are favourable as specified, impact rolling the roadbed by the number of passes as determined by the Engineer and for any interruptions to the work necessitated by the taking of control tests.

8.3.2.8 Extra-over items 8.3.2.7 for variations in the compactive effort required:

(a) 5-sided (15 kJ) impact compactor ..... Unit : m^2.pass

(b) 3-sided (25 kJ) impact compactor ..... Unit : m^2.pass

The unit of measurement for a variation in the m^2-pass of area compacted is the difference between the scheduled quantities and the actual quantities. This quantity can be increased or a decrease from the scheduled quantity as stated in payment item 8.3.2.7.

8.3.2.9 Extra-over items 8.3.2.7 for impact compaction trial section

…… Unit : m2.pass

The unit measurement shall be square metre-pass of completed trial section approved by the Engineer.

The tendered rate shall include full compensation for constructing the trial section complete as specified in clause PSD 7.4, including the required correlation testing.

PSD 8.3.3 <u>Restricted excavation</u>

REPLACE THE WORDS “in 1 m increments” *AT THE END OF THE FIRST SENTENCE OF SUB-ITEM (a) WITH* “in the increments indicated in the Schedule of Quantities”.

REPLACE “in 5.2.2.1 – 5.2.2.3 (inclusive)” *AT THE END OF SUB-CLAUSE (a) WITH* “in Sub-clauses 5.2.2.1 to 5.2.2.5 (inclusive)”.

ADD THE FOLLOWING SUB-SUB-ITEM :

"(c) <u>Extra over subitem 8.3.3 (a) for hand excavation</u> Unit : m^3

This item shall apply to hand excavation ordered by the Engineer or when the Engineer considers that, owing to circumstances, excavation by mechanical excavators is not practicable. It shall not apply to hand excavation for trimming or finishing an excavation made by mechanical means.

The tendered rate shall include full compensation for the additional cost of excavating by means of hand tools."

PSD 8.3.4 <u>Importing of Materials</u>

DELETE SUB-ITEM (a) OF 8.3.4.

PSD 8.3.6 <u>Overhaul</u>

DELETE SUB-CLAUSE 8.3.6.

PSD 8.3.8 Existing services

PSD 8.3.8.1 Location

REPLACE ITEM 8.3.8.1 WITH THE FOLLOWING :

"8.3.8.1 Hand Excavation for Locating and Exposing Existing Services :

(a) In roadways ..... Unit : m^3

(b) In all other areas ..... Unit : m^3

The unit of measurement shall be the cubic metre of material excavated, measured in place according to the authorised or actual dimensions of the excavation, whichever is the lesser.

The tendered rates shall cover the cost of excavating in all materials by means of hand tools within authorised dimensions and at locations approved by the Engineer in accordance with the requirements of Sub-clause PSA 5.4.1, for all precautionary measures necessary to protect the services from damage during excavation and backfilling, and for subsequent backfilling and compacting. Compaction of material in all areas except in roadways shall be to 90% of the modified AASHTO density.

The tendered rate for hand excavation in roadways shall include compensation for compacting excavated or selected backfill material to 93% of modified AASHTO density. Reinstating layerworks and surfacing shall be measured and paid for in terms of SABS 1200DB.

The tendered rates shall also include for keeping excavations safe, for dealing with surface and subsurface water, for removing surplus excavated material from the Site, for transporting all material within the free-haul distance, and for supplying adequate supervision during both excavation and backfilling operations. Overhaul, if applicable, will be measured and paid for in terms of SABS 1200DB."

PSD 8.3.10 Topsoiling

REPLACE THE CONTENTS OF THIS ITEM WITH THE FOLLOWING:

"The unit of measurement shall be the square metre and the quantity shall be calculated from the authorised dimensions.

The tendered rate shall include loading of the topsoil from stockpiles, transporting it for the free-haul distance, and off-loading, spreading, shaping and lightly compacting the topsoil."

PSD 8.3.12 Road Traffic Signs and Markings

REPLACE THE FIRST WORD (viz. "Separate"*) OF THE FIRST SENTENCE OF 8.3.12 WITH THE FOLLOWING :*

"Where the Engineer requires the provision of road traffic signs and/or road markings and/or any other measures additional to those to be provided by the Contractor in accordance Subclause 5.1.6, separate".

ADD THE FOLLOWING ITEMS IN SUB-CLAUSE 8.3 :

"**PSD 8.3.14 Extra over items 8.3.2.1(a), PSD 8.3.2.2 and PSD 8.3.2.6 for temporary stockpiling……Unit : m3**

The unit of measurement shall be the cubic metre of material from necessary excavations, temporarily stockpiled by the Contractor on the instructions of the Engineer, before being used in embankments or backfill. Measurements shall be taken in place in compacted embankment or backfill as the case may be.

The tendered rate shall include for the costs, additional to those provided for in PSD 8.3.2.1(a) and PSD 8.3.3 of off-loading, forming and maintaining the stockpile for as long as is required, reloading and transporting within the applicable freehaul distance from the stockpile.

Payments to the Contractor under this item will only be made in respect of that material stockpiled on the instructions of the Engineer (which instruction shall state specifically that payments for such stockpiling will be paid for under this item) and no payments will be made to the Contractor under this item in respect of materials stockpiled by the Contractor on its own volition, nor for materials necessarily stockpiled by the Contractor in consequence of the sequence of operations adopted by it in the course of executing the Works, whether such stockpiling was avoidable or otherwise.

PSD 8.3.15 Protection of embankment slopes

8.3.15.1 Timber poles and pegs ..... Unit : m^2

The unit of measurement shall be the square metre and the quantity shall be calculated from the authorised dimensions.

The rate shall include all costs for the procurement, supply and delivery to site and for the installation of the timber poles and pegs as per Engineer's drawings, and shall also include all labour, material and equipment required for the installation.

8.3.15.2 Geotextile (Kaytech soil saver)..... Unit : m^2

The unit of measurement shall be the square metre and the quantity shall be calculated from the authorised dimensions.

The rate shall include all costs for the procurement, supply and delivery to site and for the installation of the geotextile as per manufacturers instructions, and shall also include all labour, material and equipment required for the installation.

PSDK GABIONS AND PITCHING

PSDK 3 MATERIALS

PSDK 3.2.1 STONE

REPLACE THE CONTENTS OF TABLE 2 WITH THE FOLLOWING:

"TABLE 2 SIZE AND MASS OF INDIVIDUAL STONES FOR PITCHING

1	2	3	4
Size/mass of pitching	Thickness of pitching mm, min	Least dimension mm, min	Mass kg, min
Extra heavy	600	300	180
Heavy	400	190	50
Medium	300	150	27
Light	200	110	11

PSDK 5 CONSTRUCTION

PSDK 5.3.3 GROUTED PITCHING

REPLACE THE WORDS "(table 4)" *IN THE SECOND LINE OF THE FIRST PARAGRAPH WITH* "(table 2)".

PSDM EARTHWORKS (ROADS, SUBGRADE)

PSDM 3 MATERIALS

PSDM 3.2 CLASSIFICATION FOR PLACING PURPOSES

PSDM 3.2.3 Selected layer

REPLACE THE CONTENTS OF THIS SUBCLAUSE WITH THE FOLLOWING:

"The following requirements shall apply in respect of the selected layer:

(a) Maximum particle size: 60% of compacted layer thickness

(b) Unstabilised selected layer:

(i) Upper selected layer:

Minimum CBR at 93% of modified AASHTO density : 15

Maximum PI : 12 (the Engineer has the right to alter this requirement to 3 x the grading modulus + 10)

(NOTE: These requirements for the upper selected layer also apply where only one selected layer is specified)

(ii) Lower selected layer:

Minimum CBR at 90% of modified AASHTO density : 7

Maximum PI : 12 (the Engineer has the right to alter this requirement to 3 x the grading modulus + 10)

(c) Stabilised selected layer

Minimum grading modulus of natural material : 0,75
UCS of stabilised material 300 kPa - 500 kPa at 93% of modified AASHTO density
Maximum PI for stabilised material : 10"

PSDM 5 CONSTRUCTION

METHODS AND PROCEDURES

PSDM 5.2.2 Cut and borrow

PSDM 5.2.2.3 Use of material

ADD THE FOLLOWING PARAGRAPH:

"(e) Commercial sources

The provisions of Subclause PSD 5.2.5 of SABS 1200 D as amended shall apply."

PSDM 5.2.2.6 Catchwater mounds and channels and mitre banks and channels

ADD THE FOLLOWING SENTENCE:

"Catchwater mounds and mitre banks shall be compacted to a minimum density of 90% of modified AASHTO density."

PSDM 5.2.3 Treatment of the road-bed

PSDM 5.2.3.2 Removal of unsuitable ground

REPLACE THE SECOND SENTENCE OF PARAGRAPH (a) WITH THE FOLLOWING:

"The excavated spaces shall then be backfilled with approved imported material compacted to the required density."

ADD THE FOLLOWING SENTENCE TO PARAGRAPH (b):

"Unsuitable excavated material will be paid for as cut to spoil."

PSDM 5.2.3.3 Treatment of road-bed

ADD THE FOLLOWING PARAGRAPHS:

"(c) Three-pass roller compaction

Any portion of the roadbed that is shown on the drawings or is specified or is directed by the Engineer to be given three-pass roller compaction because of its inadequate natural density, shall be prepared by shaping where necessary and compacting with a roller, complying with the requirements specified below.

Compaction shall comprise three complete coverages by the wheels of the specified roller over every portion of the area that is being compacted. While it is not the intention that the Contractor should apply water to the roadbed for this type of compaction, and while no rigid moisture control will be exercised during compaction, the Contractor shall nevertheless satisfy the Engineer that everything is being done to take full advantage of favourable soil moisture conditions during the rainy season, and that such compaction is as far as possible carried out when the roadbed is neither excessively dry nor excessively wet.

The Engineer has the authority to decide when conditions are favourable for compaction and where such compaction is to be carried out at any particular time and he has the right to instruct the Contractor to water the roadbed at the Contractor's expense when, in the opinion of the Engineer, the Contractor failed, neglected or refused to comply with these requirements.

The rollers to be used for roller-pass compaction shall conform to the following requirements:

Grid roller: The grid roller shall have a mass of not less than 13,5 t when ballasted, shall be loaded to this mass if required, and shall be moved at a speed of not less than 12 km/h.

Vibratory roller: The vibratory roller shall be capable of exerting a combined static and dynamic force of not less than 120 kN/m width for every metre of loose-layer thickness at an operating frequency not exceeding 25 Hz and shall move at a speed not exceeding 4 km/h.

(d) In situ treatment of the roadbed by means of Impact Compaction:

(1) Setting out:

The extent of the area to receive impact rolling will be defined by the Engineer. The contractor shall control the rolling operations by employing appropriate setting out markers to ensure that all areas designated for impact compaction receive the specified number of impact roller passes. The contractor shall detail the methods of control he proposes to use and shall obtain the approval of the Engineer before proceeding with the impact rolling.

(2) Compaction:

(i) General

All impact compaction must be carried out before services, drainage pipes or culverts are installed. Adequate supervision shall be provided and undertaken by the Contractor to ensure that the specified method of compaction is strictly adhered to. The plant shall be as specified in Clause PSD 4.5 and trial and testing procedures shall be as per Clause PSD 7.4.

(ii) In-situ sections

Impact compaction by means of a 3-sided (25 kJ) or 5-sided (15 kJ) impact compactor operating on the surface of the road formation exposed after clearing and grubbing of the widened road.

The impact compactor shall be applied to the designated areas by traversing these areas with the number of passes determined by the Engineer following compaction trials. Compaction should be carried out as soon as possible after excavation so as to exploit any moisture available in the road bed material which will facilitate the compaction process. The target compaction state shall be based on that number of passes which results in the soil substantially attaining its near elastic state condition (no further improvement in deceleration experienced by the masses). The required number of passes shall be determined by measuring the deceleration experienced by the masses during impact using the Continuous Impact Response (CIR) system. The deceleration results shall be submitted after the completion of the first 20 passes and then after every 5 passes for evaluation by the engineer.

(iii) Variation in Compactive Effort

The Engineer shall determine the number of passes to be applied. Should more or less passes be ordered then adjustment in compensation to the Contractor shall be made either as an additional payment to the Contractor in respect of the increased number of passes or as a reduction in payment in respect of a reduced number of passes.

For tender purposes 30 passes (for both 3 and 5 sided compactors) shall be used to achieve the required density."

PSDM 5.2.4 Fill

PSDM 5.2.4.2 Placing and compaction

(f) Compaction

ADD THE FOLLOWING PARAGRAPH:

"Where fill material is compacted by means of an impact compactor it shall be done by means of a 3-sided (25 kJ) or 5-sided (15 kJ) impact compactor operating on the surface of an imported fill layer, placed over the previously compacted formation, to an

elevation of 300mm below final surface elevation. The plant shall be as specified in Clause PSD 4.5 and trial and testing procedures shall be as per Clause PSD 7.4."

PSDM 5.2.4.3 Finishing

(e) Topsoiling

REPLACE THE SECOND SENTENCE WITH THE FOLLOWING:

"The thickness of the topsoil shall be as directed by the Engineer, but a minimum of 100mm."

PSDM 5.2.5 Selected layer

REPLACE THE CONTENTS OF THIS SUBCLAUSE WITH THE FOLLOWING:

"Except with regard to density, the requirements of Subclause 5.2.4 shall apply. The degree of compaction shall be:

Upper Selected: 95% of modified AASHTO density

Lower selected : 93% of modified AASHTO density."

PSDM 5.2.6 Gravel surfacing

REPLACE THE THIRD SENTENCE OF THIS SUBCLAUSE WITH THE FOLLOWING:

"The relevant requirements in Subsubclause 5.2.4.2 shall apply, except that the material shall be compacted to 95% of modified AASHTO density."

PSDM 5.2.8 Transport

REPLACE THE CONTENTS OF THIS SUBCLAUSE WITH THE FOLLOWING:

"The provisions of Subclause PSD 5.2.5 of SABS 1200 D, as amended, shall apply."

PSDM 7 TESTING

PSDM 7.3 ROUTINE INSPECTION AND TESTING

REPLACE TABLE 2 AND THE CONTENTS OF SUBCLAUSE 7.3.2 WITH THE FOLLOWING:

"PSDM 7.3.2 The dry density requirements for a particular lot of selected layer or wearing course shall be deemed to be satisfied if the average density and the results of individual tests meet the requirements specified in table 2 below. Refer to Subclause PSD 7.2 for the requirements for fill.

TABLE 2 - DENSITIES

1	2	3	4	5
Layer	Specified density (% of modified AASHTO density)	Number of tests per lot	Average density %	Minimum density for any single test, %
Upper selected layer and gravel wearing course	95	3 and 4 5 6	93,1 93,4 93,6	89,4 89,2 89,0
Lower selected layer	93	3 and 4 5 6	90,1 90,4 90,6	86,4 86,2 86,0

PSDM 8 MEASUREMENT AND PAYMENT

PSDM 8.2 COMPUTATION OF QUANTITIES

REPLACE SUBCLAUSES 8.2.1 TO 8.2.3 (INCLUSIVE) WITH THE FOLLOWING:

"PSDM 8.2.1 The provisions of Subclause 8.2.1 of SABS 1200 D shall apply.

PSDM 8.2.2 The provisions of Subclause 8.2.2 of SABS 1200 D shall apply.

PSDM 8.2.3 **The provisions of Subclause 8.2.2 of SABS 1200 D shall apply."**

PSDM 8.2.5 **Verifying quantities**

REPLACE THE FIRST SENTENCE WITH THE FOLLOWING:

"Before any earthworks are commenced but after completion of any site preparation, the Engineer will, upon a written request from the Contractor, provide cross-sections for the purpose of measurement of earthworks quantities."

PSDM 8.3 **SCHEDULED ITEMS**

PSDM 8.3.3 **Treatment of roadbed**

(a) Roadbed preparation and compaction of material to

ADD THE FOLLOWING:

"The unit of measurement shall be the cubic metre of material recompacted as specified and the volume shall be determined from levelled cross-sections on which are superimposed the levels to which the roadbed is to be constructed. When material is imported to make up the required volume, such material will be paid for as cut or borrow to fill as relevant."

ADD THE FOLLOWING:

"(c) Three-pass roller compaction:

(i) Grid roller .....Unit : m^2

(ii) Vibratory roller.....Unit : m^2

The units of measurement shall be the square metre of roadbed compacted as specified in Subclause PSDM 5.2.3.3(c) for the areas designated by the Engineer.

The tendered rates shall include full compensation for shaping the areas, providing the rollers and for compacting the roadbed by means of three roller passes over the entire area."

(d) Compaction of roadbed by impact rolling (30 passes) ..... Unit : m^3

The unit measurement shall be square metre-pass of compacted roadbed approved by the Engineer. The tendered rate is based on a minimum of 30 passes required.

The tendered rates shall include full compensation for providing the impact rollers and tow- tractors on site, grading and watering the surface as required, the shaping of the surface, keeping the impactors ready for use when soil-moisture conditions are favourable as specified, impact rolling the roadbed by the number of passes as determined by the Engineer and for any interruptions to the work necessitated by the taking of control tests.

PSDM 8.3.4 **Cut to fill, borrow to fill**

REPLACE THE LAST SENTENCE OF THIS ITEM WITH THE FOLLOWING:

"The unit of measurement shall be the cubic metre of fill and the volume will be calculated in accordance with the authorised dimensions of the embankment and levelled cross-sections.

The tendered rates shall include full compensation for excavating the material as if in soft material, for selecting, loading, transporting for off-loading, watering, mixing and compacting the material as specified. Borrow to fill in this item relates to material from excavations.

Where it is required that material be obtained from commercial sources, payment for procuring the material will be made under item PSDM 8.3.17."

PSDM 8.3.5 **Selected layer compacted to 93% of modified AASHTO maximum density**

REPLACE THE HEADING AND THE CONTENTS OF THIS ITEM WITH THE FOLLOWING:

"PSDM 8.3.5 **Selected layer using material from designated borrow pits or excavations:**

(a) Compacted to 93% of modified AASHTO density .....Unit : m^3

(b) Compacted to 95% of modified AASHTO density .....Unit : m^3

The unit of measurement shall be the cubic metre and the quantity will be calculated from the authorised dimensions of the compacted layer.

The tendered rates shall include full compensation for excavating the material as if in soft material for loading, transporting off-loading, spreading, watering, mixing, breaking down and compacting the layer."

PSDM 8.3.6 Extra over items 8.3.4 and 8.3.5 for excavating and breaking down material in

REPLACE THE HEADING OF THIS ITEM WITH THE FOLLOWING:

"PSDM 8.3.6 Extra over items 8.3.4, 8.3.5 and 8.3.16 for excavating and breaking down material in"

REPLACE THE WORDS "items 8.3.4 and 8.3.5*" WITH THE WORDS "*items 8.3.4, 8.3.5 and 8.3.16".

PSDM 8.3.7 Cut to spoil or stockpile from

REPLACE THE HEADING WITH THE FOLLOWING:

"PSDM 8.3.7 Cut to spoil from"

PSDM 8.3.12 Overhaul:

REPLACE THIS ITEM WITH THE FOLLOWING:

"PSDM 8.3.12 Overhaul:

Delete this item as no overhaul will be paid on material for the purposes of this contract and all the costs for transporting material shall be included in the applicable tendered rates and amounts."

PSDM 8.3.14 Borrow pits*:*

REPLACE THE CONTENTS OF THIS ITEM AS FOLLOWS:

"(a) Opening up and closing down of borrow pit .....Unit : Sum

(b) Dealing with overburden .....Unit : m^3

The provisions of Subclauses 8.3.4(b) and 8.3.4(c) of SABS 1200 D shall apply respectively to items (a) and (b) above."

PSDM 8.3.16 Gravel surface layer

REPLACE THE CONTENTS OF THIS ITEM WITH THE FOLLOWING:

"The unit of measurement shall be the cubic metre of gravel surface layer and the quantity will be determined from the authorised dimensions of the compacted layer.

The tendered rate shall include full compensation for excavating the material as if in soft material, for loading and transporting the material for the free-haul distance, for off-loading, spreading, breaking down, watering, mixing and compacting the material."

ADD THE FOLLOWING ITEMS:

"PSDM 8.3.17 Extra over items 8.3.4, 8.3.5 and 8.3.16 for obtaining material from commercial sources .....Unit : m^3

The tendered rate shall include full compensation for the additional cost of finding a suitable source of material, for procuring the material and paying all royalties or other charges to the owner of the source, for transporting the material to the point of use regardless of the distance hauled and for excavating in intermediate, hard or boulder material as required.

Items PSDM 8.3.6, PSDM 8.3.12 and PSDM 8.3.14 do not apply to material obtained from commercial sources.

PSDM 8.3.18 Final finishing and cleaning up of the Site of the Works ..... Unit : Sum

The tendered sum shall include full compensation for the clearing, disposal of material, finishing, tidying and all other work required to finish and clean up the Site of the Works and affected areas by removing excess earth, stones, boulders, debris and other waste material, by clearing stormwater inlets and outlets and pipe barrels, by clearing the surfacing of all dirt, mud and foreign material, and by neatly finishing off all junctions, intersections and kerbing.

All material resulting from the finishing operations shall be disposed of to a spoil site furnished by the Contractor.

The tendered rate shall make provision for the reinstatement of existing driveways to their original condition where these have been affected by the Works, as these items will not be measured and paid for separately.

PSDM 8.3.19 **Sidewalks:**

(a) Fill compacted to 90% of modified AASHTO density

and obtained from:

(i) Designated borrow pits.....Unit : m^3

(ii) Commercial sources.....Unit : m^3

(iii) Excavations.....Unit : m^3

(b) Scarify in situ material to a depth of 150 mm and compact to 90%

of modified AASHTO density.....Unit : m^3

(c) Excavated material removed to spoil.....Unit : m^3

The tendered rates shall include full compensation for constructing the sidewalks to the profiles indicated either on the Drawings or by the Engineer, for working in restricted areas, for using material classified as soft material with a maximum particle size of 60 mm, and for carrying out the work in accordance with the Specifications.

Additional payment will be made under item PSDM 8.3.12 if overhaul is applicable to subitems (a)(i), (a)(iii) and (c) above."

PSDM 8.3.20 **Cut to fill and compact by means of impact rolling**:

(a) 5-sided (15 kJ) impact compactor (30 passes)..... Unit : m^3

(b) 3-sided (25 kJ) impact compactor (30 passes)..... Unit : m^3

The unit of measurement shall be the m^3, measured in-place in accordance with Sub-Clause 8.2 of SABS 1200D, of terrace compacted in accordance with the provisions of clause PSD 5.2.3.4. The quantity will be computed in accordance with the authorized dimensions of the area to be treated. The tendered rate is based on a minimum of 30 passes required.

The tendered rates shall include full compensation for providing the impact rollers and tow-tractors on site, grading and watering the surface as required, the shaping of the surface, keeping the impactors ready for use when soil-moisture conditions are favourable as specified, impact rolling the roadbed by the number of passes as determined by the Engineer and for any interruptions to the work necessitated by the taking of control tests.

PSDM 8.3.21 **Extra over for Dust control initial application (Dust-a-Side)**..... Unit : m^2

The tendered sum shall include full compensation for the supply of Dust-A-Side, applying the Dust-A-Side at an application rate of 3 litre/m^2, processing and mixing it into the layerworks a minimum 150 mm deep, including all equipment and labour required.

PSDM 8.3.22 **Extra over for Dust control maintenance application (Dust-a-Side)** ..... Unit : m^2

The tendered sum shall include full compensation for the supply of Dust-A-Side, applying the Dust-A-Side at an application rate of 3 litre/m^2, processing and mixing it into the layerworks a minimum 150 mm deep, including all equipment and labour required.

PSG CONCRETE (STRUCTURAL)

PSG 1 SCOPE

REPLACE THE FIRST SENTENCE OF THE PARAGRAPH WITH:

PSG 1.1 "This specification covers the requirements for structural concrete work for civil engineering and building construction, and for water retaining structures."

PSG 3 MATERIALS

PSG 3.2 CEMENT

PSG 3.2.1 Applicable Specifications

THIS CLAUSE IS AMENDED TO INCLUDE:

"All cement shall comply with SANS 50197 Part 1."

PSG-3.2.2 Alternative Types of Cement

Any alternative type of cement proposed by the contractor must be approved by the Engineer prior to purchase and use.

PSG 3.2.3 Storage of cement

ADD THE FOLOWNG:

"Cement shall not be kept in storage for longer than 6 weeks within 10 km of the coast and not longer than 10 weeks inland."

PSG 3.4 AGGREGATES

ADD THE FOLOWING:

"PSG 3.4.4 Aggregates from Beaches and the like

Aggregates from beaches, dredged from the sea or river estuaries, or from cretaceous deposits, may be used provided that the content of chloride ion in the aggregate does not exceed the appropriate limits specified in SABS 1083 and that the total quantity of chloride ion in the concrete does not exceed the applicable maximum value specified in Subclause 5.5.1.4 of SABS 1200 G.

Where aggregates of different chloride content are stockpiled on site, strict control over their use for different classes of concrete shall be exercised."

PSG 3.4.2 Use of A Plums@

DELETE THIS ITEM, AS THE USE OF

Plums will not be permitted.

PSG 3.5 Admixtures:

ADD THE FOLLOWING:

i. No admixture containing calcium chloride shall be permitted for use in this project.

ii. Admixtures shall be obtained from a single manufacturer when more than one is intended for use in a mix design.

iii. Proposed admixtures shall be used in trial panels to prove their performance in wet and dry states to the satisfaction of the Engineer.

PSG 3.5 Air-entraining:

Air-entraining agents shall not be used.

Reinforcement:

Manufacturers test certificates shall be submitted to the Engineer for all classes of steel reinforcement required.

PSG 4 **PLANT**

PSG 4 **Site Batching Plant**

If concrete for this project is to be supplied from a batch plant established on site, the plant is to conform to the following criteria:

i. The plant capacity shall be designed such that it will meet all requirements of the contractors construction programme.

ii. The plant shall be audited and accredited by SARMA re conformance to the requirements of SANS 878.

iii. The 'weigh batch' plant shall be fully computerised and incorporate automated systems whenever possible. The batching system shall provide computer generated records traceable to a load, materials used, quality batched and placement location.

iv. Cement silo fill lines shall incorporate 'dedicated adaptors' to prevent direct connection to standard tanker couplings. Each extender type shall incorporate differential couplings to their respective silos. All silo fill lines shall be locked and labelled.

v. All silos shall be painted white to reduce temperature of the contained cementitious material.

vi. Water storage tanks shall be painted white and shall be shaded on all sides from direct radiation from the sun.

vii. Aggregate stockpiles shall be shaded on all sides from direct radiation from the sun.

viii. Adequate drainage shall be provided in and around the plant to accommodate and control all water from washing, run-off and rain.

PSG 4.5 **FORMWORK**

PSG4.5.1 **Design**

ADD THE FOLLOWING:

"Unless otherwise detailed on the drawings, beams and suspended slabs shall be constructed with the following upward cambers:

at midspan of beams and slabs : 3 mm per metre span

at free end of cantilevers: 4 mm per metre span."

PSG 4.5.2 **Finish**

REPLACE THIS CLAUSE WITH THE FOLLOWING:

"Unless otherwise noted, formwork for insitu concrete shall be in accordance with the following classifications:

(i) rough - where not exposed or is to be plastered

(ii) smooth - where exposed"

PSG 4.5.3 **Ties**

REPLACE THIS CLAUSE WITH THE FOLLOWING:

"Metal ties may be left in the concrete provided they are cut back to a depth at least equal to the specified cover of the reinforcement and filled as specified below.

Holes left by the removal of ties shall be made good with a well rammed sand cement mortar of the same strength and colour when dry as the parent concrete.

Asbestos cement spacers may be left in the concrete provided the ends are trimmed back at least 15 mm from the surface and the holes are completely filled as specified above.

On water retaining structures the face of all filled tie or spacer holes shall be finished with an epoxy resin mortar."

PSG 5.2.2 Preparation of Formwork

ADD THE FOLLOWING:

"Exposed edges or corners of smooth formwork shall generally be chamfered 30 x 30 mm."

PSG 5 CONSTRUCTION

PSG 5.1 REINFORCEMENT

PSG 5.1.2 Fixing

ADD THE FOLOWING:

"Butt welding of mild steel or high tensile steel will not be allowed.

Concrete used to make cover spacers shall be of the same grade as the parent concrete.

Wire ties around reinforcement shall not encroach on the specified cover."

PSG 5.1.3 Cover

DELETE SUBCLAUSE 5.1.3 AND ADD THE FOLLOWING:

"The cover to reinforcement shall be as follows unless specifically shown otherwise on the drawings.

SECTION	COVER (mm)		
	SEVERE EXPOSURE	MILD EXPOSURE	WATER RETAINING
Foundations	60	50	50
Columns	50	40	50
Walls and beams	40	30	50
Slabs	30	20	40"

PSG-5.1.5 Protection of Exposed Bars:

All reinforcement placed in the structure shall be thoroughly cleaned by (washing) with clean potable water within 24hrs prior to concrete encasement. Bars should also be stored on site in a manner that they are not contaminated.

PSG 5.5 CONCRETE

PSG 5.5.1 Quality

PSG 5.5.3 Workability

Prior to the addition of any approved plasticizer, the workability range for all PFA concrete (slump) shall be between 50 and 75 mm. Pumped concrete shall be 100mm + 30mm

PSG 5.5.1.5 Durability

The exposure condition for concrete shall be assumed as severe.

The maximum ratio of water to cementitious material shall be 0,5.

PSG 5.5.1.6 Prescribed Mix Concrete

DELETE SUBCLAUSE 5.5.1.6 AND ADD THE FOLLOWING:

"PSG 5.5.1.6.1 No Fines Concrete

No fines concrete shall be composed of cement and stone in the proportions by volume of 1 part cement to 3 parts 26 mm stone and 3 parts 13 mm stone with sufficient water added for workability.

No fines blinding shall be covered with a thin layer of coarse river sand which shall be lightly broomed into the blinding and kept damp until the concrete is cast on top. The blinding shall be kept clean at all times.

PSG 5.5.1.6.2 Granolithic Concrete

The coarse aggregate shall be hard durable cubical stone from an approved source and shall pass a 9,53 mm sieve and be retained on a 4,75 mm sieve.

The sand shall pass a 4,75 mm sieve, not more than 20% shall pass a 0,300 mm sieve, and not more than 5% shall pass a 0,150 mm sieve.

The mix proportions shall be 1 cement: 1 sand: 2 coarse aggregate by mass. The water: cement ratio shall not be more than 0,45.**"**

Application thickness to be between 25mm and 50mm. Bays not wider than 4.5m and longer than 10m reinforced and 6m unreinforced.

PSG 5.5.1.7 Strength Concrete

THIS CLAUSE IS AMENDED TO INCLUDE:

"The requirements for the various grades of concrete specified on the drawings are listed below:

STRENGTH CONCRETE*	**CEMENT TYPE**	**28 DAY CUBE STRENGTH**	**MINIMUM C:W RATIO**	**MINIMUM CEMENT kg/m ;**
40/X	50% OPC 50% Slag	40 MPa	2,	420
35/X	50% OPC 50% Slag	35 MPa	2,	380
30/X	OPC or 15%slag	30 MPa	2,	340
15/X	-	15 MPa	-	-

* Note: X will be the nominal coarse aggregates size in mm.

The normal size of coarse aggregate shall generally be 19 mm but in concrete sections less than 100 mm thick the nominal size shall be reduced to 13 mm. In mass concrete work the nominal size may be increased to 38 mm.

Approval of Strength Concrete:

Not less than two weeks before the start of any concrete work in the site, the Contractor shall submit a statement of mix designs providing the following information:

For each class of concrete:

(a) Mix proportions and types;

(b) Type and amount of additives;

(c) Slump;

(d) Target strength.

For all concrete:

(a) Method to be adopted for adjusting the amount of water added, to compensate for variation in moisture content of the aggregates.

(b) The statement shall be accompanied by evidence in the form of either a statement from an approved laboratory of the result of tests, or an authoritative report of previous use an experience, establishing that concrete made with the materials in the propositions proposed will have the properties specified.

(c) The type of aggregates and cement, and their sources of supply, shall not be altered during the contract without the prior written agreement of, or instruction from the Engineer.**"**

PSG 5.5.3 Mixing

PSG 5.5.3.2 Ready-Mixed Concrete

ADD THE FOLLOWING:

"The production of concrete off-site will only be allowed when this is done by an approved ready-mixed concrete company. If ready mixed concrete is used on this CONTRACT, tests are required."

PSG 5.5.2.2 Water

ADD THE FOLLOWING:

*"*The accuracy of the measurement of water shall be within 2% of that required."

PSG 5.5.2.3 Aggregate

THIS SUBCLAUSE IS AMENDED TO INCLUDE:

"Volume batching will not be permitted. Batching by mass shall be within an accuracy of 5% of the mass required."

PSG 5.5.5 <u>Placing</u>

PSG 5.5.5.9 Pumped Concrete

ADD THE FOLLOWING:

*"*The pumping of concrete will be permitted."

PSG 5.5.7 <u>Construction Joints</u>

ADD THE FOLLOWING:

"(a).Spacing

In general, the horizontal spacing of construction joints shall not exceed 8 metres for normal reinforced concrete work and 4,5 metres for surface beds.

(b). Preparation of Surfaces for Granolithic or Other Screeds

For concrete more than 24 hours old the surface shall be thoroughly scabbled, with a mechanical scabbler, to remove all traces of laitance and to expose the aggregate, before being treated in accordance with Subclause 5.5.7.3.

(c). Kickers

Kickers at least 100 mm high shall be formed at and incorporated with the concrete below at the start of all walls and columns. Where there is a fillet at the bottom of the wall the joint shall be made 100 mm above the fillet.**"**

ADD THE FOLLOWING TO SUBCLAUSE 5.5.7.1:

In all structures, before construction work commences the Contractor shall indicate their proposal for positioning construction joints on the drawings and submit these to the Engineer for his comment and approval.

REPLACE THE FIRST SENTENCE OF SUBCLAUSE 5.5.7.3 WITH:

The method adopted for forming joints not covered by 5.5.7.1 and unforeseen joints, as specified in clause 2.4.3 of SANS 1200G, shall be one of sub clauses (a) to (d). In all other structures it shall be as in sub-clause (e) hereafter.

ADD THE FOLLOWING SUBCLAUSE TO 5.5.7.3 AFTER SUBCLAUSE (D):

(e) Construction joints in all structural elements:

The surface of the concrete shall be hydro blasted to remove all laitance and fine particles to expose the coarse aggregate embedded in sound concrete using of a high pressure water jet within 6hrs to 12hrs OF casting. The Contractor shall ensure that the green concrete is not damaged or disturbed during the preparation of the joint and that “water stops” are not damaged.

After the reinforcement for the next pour has been fixed and the formwork erected, the construction joint shall be cleaned thoroughly with an air hose or pressurised water jet. The joint shall then be wetted continuously with water for 24 hours to completely saturate the concrete immediately before new concrete is cast. Before the new concrete is cast all excess water shall be removed from the construction joint and the new concrete shall be cast directly onto the prepared surface.

This procedure must be read in conjunction with the notes on the concrete drawings.

The final quality of the construction joint preparation will be agreed between the designer and the contractor, on site using physical examples.

ADD THE FOLLOWING SUBCLAUSES:

PSG-5.5.7.4 Positions of construction joints (new clause)

When construction joints in the roof slab are necessary, these joints shall form straight lines parallel to columns lines and shall be located at positions one quarter of the span of the slab over column lines. Panels of the roof slab shall be cast sequentially and not in a chequer-board manner.

Construction joints in ground floor slabs shall be cast as indicated on the drawings. Any variation form this which involves additional joints, the cost shall be borne by the Contractor. Time span of casting between adjacent panels should not be less than 5 days.

The position and type of construction joint shall be agreed with the Designer prior to compilation of the reinforcement details.

PSG-5.5.7.5 Positions of construction joints in walls (new clause)

The proposed position and type of vertical construction joints shall be submitted to the Engineer for approval. Once this has been approved, wall reinforcing detailing shall commence. The contractor shall provide this information timelessly in order to prevent delays to the programme.

PSG-5.5.7.5 Preparation of joints (new clause)

All vertical and horizontal construction joints shall be cleaned of all dirt and loose particles. All intersections of construction joints with concrete surfaces, which are exposed to view, shall be made straight and level or plumb. Sufficient Groutex (or similar approved material) is required for all vertical construction joints.

The surface of concrete requiring preparation, shall be prepared when the concrete is between 6 and 12 hours old and shall be blown off by using a high pressure water jet until all dirt and laitance is removed and particles of clean coarse aggregate are exposed sufficiently to produce a rough keyed surface.

PSG 5.5.8 **Curing and Protection**

ADD THE FOLLOWING:

" (f). Curing Compounds

Curing compounds shall comply with ASTM-C309-74. The surfaces on which they may be used and the types and brands applied shall be approved by the Engineer.

In general, curing compounds shall be Class B/Type 2 (i.e. Resin based and white pigmented). However, where surface staining is not acceptable Class B/Type 1_D curing compounds (i.e. resin based and clear with fugitive dye) may be used, but only after approval of a test panel of the applied compound.

Under no circumstances will curing compounds be approved for use on concrete surfaces which are to receive finishes.**"**

PSG 5.5.10 **Concrete Surfaces**

PSG 5.5.10.2 Wood-floated Finish

ADD THE FOLLOWING:

"Wood-floated surfaces shall first be given a finish as specified in Subclause 5.5.10.1 of SABS 1200 G and, after the concrete has hardened sufficiently, the screeded surface shall be wood-floated, either by hand or machine, only sufficiently to produce a uniform surface free from screed marks."

PSG 5.5.10.2 Steel-floated Finish

ADD THE FOLLOWING:

"Steel-floated surface shall be done when the moisture film has disappeared and the concrete has hardened sufficiently to prevent laitance from being worked to the surface, the screeded surface shall be steel-trowelled under firm pressure to produce a dense, smooth, uniform surface free from trowel marks."

Power-floated Finish

ADD THE FOLLOWING:

"Power-floated surfaces shall be treated as specified in PSG5.5.10.2 and the screeded surface shall be power-floated to produce a high quality dense, smooth, uniform surface free from trowel marks."

PSG 5.5.11 **WATERTIGHT CONCRETE**

THIS CLAUSE IS AMENDED TO INCLUDE:

"Watertight concrete is to be constructed in accordance with the recommendations of BS 8007."

PSG 5.5.13 **Grouting**

ADD THE FOLLOWING:

Only an approved proprietary brand of non-shrink grout used strictly in accordance with the manufacturer's instructions may be used.

All grouting must be well tamped to provide a solid and homogeneous bed or packing.

PSG 5.5.14 **Defects**

THIS CLAUSE IF AMENED TO INCLUDE:

After removal of the forms, if the concrete shows any defect or if subsequently any defect attributable to the quality of the concrete or its constituents should develop, the Contractor shall, at its own cost, on and in accordance with instruction from the engineer, remove all defective concrete and replace it or make good such defects. No patching or making good shall be carried out by the Contractor without prior approval of the engineer. See also General Contract Terms in relation to Defects.

The Engineer's approval of proposed patching techniques shall be obtained at the start of the Contract and all patching shall be done under strict supervision. Only work which is unsatisfactory in limited respects shall be allowed to be patched.

ADD THE FOLLOWING:

"PSG 5.5.16 Pipes and Specials Through Concrete for water retaining structures.

The Contractor shall be responsible for setting pipes and specials as specified and for maintaining in position these and other items, which may have been installed by other contractors, until they have been concreted in.

The sides of all holes shall be scabbled before the pipes and specials are positioned.

The outside surface of all pipes and specials shall be cleaned to bare metal before being concreted in.

The formwork shall be designed to ensure that it fits neatly around all embedded parts and forms a flush joint around the sides of the opening.

Special care shall be taken to ensure that a water tight joint is obtained at the crown of vertical openings.**"**

PSG 5.5.17 Joints for water retaining structures

Full details of the different types of joints are given on the drawings. Joints shall be formed in accordance with the drawings, and constructed with care and attention to detail.
The provision of dense concrete around all waterstops is essential and the Contractor shall pay particular attention to this aspect.
There shall be no discontinuities in waterstops and all joints shall be bonded in an approved manner. Where intersections in waterstops occur, factory made intersection pieces shall be used.
All sealants shall be prepared and applied strictly in accordance with the manufacturer=s instructions.
All sealant recesses shall be accurately formed to the widths and depths detailed on the drawings. The recesses shall be machine wire brushed or ground to remove all laitance and then blown clean with compressed air. All recesses shall be completely dry and clean before applying primers and sealants.

PSG 6 TOLERANCES

PSG 6.2 PERMISSIBLE DEVIATIONS

PSG 6.2.3 Specified PD's

Unless otherwise specified, all concrete shall be constructed to Degree of Accuracy II.

Reinforcement in water retaining structures shall be fixed to a Degree of Accuracy I.

Please refer to Section PSA 6.2 for respective PD's for concrete work.

PSG 7 TESTS

ADD THE FOLLOWING:

Testing to be done as per SABS 1200G: Section 7.1 and 7.2.

PSG 7.1 FACILITIES AND FREQUENCY OF TESTING

PSG 7.1.2 Frequency of sampling

REPLACE SUBCLAUSE 7.1.2.1 WITH:

"Cubes shall be tested in the laboratory at 7 and 28 days doe strength. Results shall be reported with statistical analysis to demonstrate their compliance with the acceptance criteria as stated in SANS 1200G (Para 7.3). As instructed by the engineer samples shall be randomly tested at an approved laboratory for correlation purposes. Cubes will be marked in an increasing numerical numbering system with dates, section of pour, section of pour structure etc.

PSG-7.2 TESTING

PSG-7.2.1 General

ADD THE FOLLOWING:

The Contractor shall allow in his tendered rates for all the costs for quality or process control testing.

PSG 7.3.6 <u>Water Testing of Structures</u>

PSG 7.3.6.1 Backfilling

No backfilling shall be carried out around the walls of the structure nor shall any special finishes be applied to the inside of the structure until the structure has been satisfactorily water tested.

PSG 7.3.6.2 Cleaning

After completion but before testing, the structure shall be thoroughly washed down and cleaned with water which shall then be allowed to run to waste.

PSG 7.3.6.3 Sterilisation

(Only applicable to structures containing potable water)

Whilst the structure is being filled for testing a sufficient quantity of sodium hypochlorate or similar disinfecting agent shall be added to give 2 mg/litre of available chlorine when the structure is full.

PSG 7.3.6.4 Testing

CONTRACTOR shall test all water-retaining structures for water-tightness in accordance wih BS 8007. CONTRACTOR shall submit proposed procedures for such tests to engineer for approval.

All patent leaks shall be repaired by the Contractor to the Engineer's satisfaction. Should there be any drop in level over a period of 24 hours other than that which can be accounted for in evaporation and absorption it will be the Contractor=s responsibility to take such measures as the Engineer may direct to obtain a drop-tight structure.

PSG 7.3.6.5 Water for Testing

Sufficient water shall be supplied free of charge for the initial filling of each structure to be tested. The Contractor shall be responsible for the cost of water used for any retesting where a structure has to be emptied to allow for the repair of defective work.

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PSG 8.0 <u>MEASUREMENT AND PAYMENT</u>

PSG 8.1 <u>MEASUREMENT AND RATES</u>

PSG 8.1.3 <u>Concrete</u>

PSG 8.1.3.1 <u>Concrete to Overbreak</u>

ADD THE FOLLOWING:

"No allowance will be made for concrete required to make up overbreak in rock material and to make up over excavation in material other than rock. The rate for concrete cast against the ground shall include for any such make up."

ADD THE FOLLOWING SUB ITEM (e):

"(e) The cost of sand broomed into no-fines blinding shall be included in the rate for no-fines blinding."

PSG 8.10 **Cast in of pipes with puddle flanges:**

(a) Up to 300 mm nominal bore:

(i) Through (description and thickness of structure elements)……..Unit : Number

(b) Over 300 mm up to 600 mm nominal bore:

(i) Through (description and thickness of structure elements)……..Unit : Number

(ii) Etc for other nominal bores in increments of 300 mm

The unit of measurement shall be the number of each size of pipe installed.

The tendered rates shall include full compensation for installing the pipe where new pipes are used (with a puddle flange) in the exact position as shown on the drawings, for splitting or cutting the formwork where required, for ensuring water tightness where required and for all additional costs required to install the pipes specified or shown on the drawings.

New pipes shall be measured under the items of the relevant section of the specifications.

C2.0 PARTICULAR SPECIFICATION

OHS ACT 1993 HEALTH AND SAFETY SPECIFICATION

CONTENTS

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OCCUPATIONAL HEALTH AND SAFETY ACT 1993: HEALTH AND SAFETY SPECIFICATION

C2.1: SCOPE

This specification covers the health and safety requirements to be met by the Contractor to ensure a continued safe and healthy environment for all workers, employees and subcontractors under his control and for all other persons entering the site of works.

This specification shall be read with the Occupational Health and Safety Act (Act No 85 and amendment Act No 181) 1993, and the corresponding Construction Regulations 2003, and all other safety codes and specifications referred to in the said Construction Regulations.

In terms of the OHSA Agreement in Section II of the tender document, the status of the Contractor as mandatory to the Employer (client) is that of an employer in his own right, responsible to comply with all provisions of OHSA 1993 and the Construction Regulations 2003.

This safety specification and the Contractor's own Safety Plan as well as the Construction Regulations 2003, shall be displayed on site or made available for inspection by all workers, employees, inspectors and any other persons entering the site of works.

C2.2: DEFINITIONS

For the purpose of this contract the following shall apply:

9. "**Employer**" where used in the contract documents and in this specification, means the Employer as defined in the General Conditions of Contract and it shall have the exact same meaning as "**client**" as defined in the Construction Regulations 2003. "**Employer**" and "**client**" is therefore interchangeable and shall be read in the context of the relevant document.

10. "**Contractor**", wherever used in the contract documents and in this specification, shall have the same meaning as **"Contractor"** as defined in the General Conditions of Contract.

    In this specification the terms **"principal contractor"** and **"contractor"** are replaced with **"Contractor"** and **"subcontractor"** respectively.

    For the purpose of this contract the **Contractor** will, in terms of OHSA 1993, be the mandatory, without derogating from his status as an employer in his own right.

11. **"Engineer"** where used in this specification, means the Engineer as defined in the General Conditions of Contract. In terms of the Construction Regulations the Engineer may act as agent on behalf of the Employer (the client as defined in the Construction Regulations).

C2.3: TENDERS

The Contractor shall submit the following with his tender:

(a) A documented Health and Safety Plan as stipulated in Regulation 5 of the Construction Regulations. The Safety Plan must be based on the Construction Regulations 2003 and will be subject to approval by the Employer;

(b) A declaration to the effect that he has the competence and necessary resources to carry out the work safely in compliance with the Construction Regulations 2003;

(c) A declaration to the effect that he made provision in his tender for the cost of the health and safety measures envisaged in the Construction Regulations.

(d) Failure to submit the foregoing with his tender, will lead to the conclusion that the Contractor will not be able to carry out the work under the contract safely in accordance with the Construction Regulations.

C2.4: NOTIFICATION OF COMMENCEMENT OF CONSTRUCTION WORK

After award of the contract, but before commencement of construction work, the Contractor shall, in terms of Regulation 3, notify the Provincial Director of the Department of Labour in writing if the following work is involved:

(a) the demolition of structures and dismantling of fixed plant of height of 3,0 m or more;
(b) the use of explosives;
(c) construction work that will exceed 30 days or 300 person-days;
(d) excavation work deeper than 1,0 m; or
(e) working at a height greater than 3,0 m above ground or landings.

The notification must be done in the form of the pro forma included under Section 11 (The Occupational Health and Safety Act) of the tender document.

A copy of the notification form must be kept on site, available for inspection by inspectors, Employer, Engineer, employees and persons on site.

C2.5: RISK ASSESSMENT

Before commencement of any construction work during the construction period, the Contractor shall have a risk assessment performed and recorded in writing by a competent person. (Refer Regulation 7 of the Construction Regulations 2015).

The risk assessment shall identify and evaluate the risks and hazards that may be expected during the execution of the work under the contract, and it shall include a documented plan of safe work procedures to mitigate, reduce or control the risks and hazards identified.

The risk assessment shall be available on site for inspection by inspectors, Employer, Engineer, subcontractors, employees, trade unions and health and safety committee members, and must be monitored and reviewed periodically by the Contractor.

C2.6: APPOINTMENT OF EMPLOYEES AND SUBCONTRACTORS

C2.6.1 Health and Safety plan

The Contractor shall appoint his employees and any subcontractors to be employed on the contract, in writing, and he shall provide them with a copy of his documented Health and Safety Plan, or relevant sections thereof. The Contractor shall ensure that all subcontractors and employees are

committed to the implementation of his Safety Plan. To this end the Employer or the Engineer or Agent on his behalf, will, in terms of Regulations 4(1)(d) and 5(3)(c), carry out audits on a regular basis to ensure that the Contractor as well as any subcontractors in his employ, do implement the Contractor's Safety Plan as well as the Employer's Safety Specifications in accordance with the Construction Regulations.

C2.6.2 Health and safety induction training

The Contractor shall ensure that all employees under his control, including subcontractors and their employees, undergo a health and safety induction training course by a competent person before commencement of construction work. No visitor or other person shall be allowed or permitted to enter the site of the works unless such person has undergone health and safety training pertaining to hazards prevalent on site. The Employer or the Engineer on his behalf will carry out audits from time to time to ensure compliance by the Contractor.

The Contractor shall ensure that every employee on site shall at all times be in possession of proof of the health and safety induction training issued by a competent person prior to commencement of construction work.

C2.7 APPOINTMENT OF SAFETY PERSONNEL

C2.7.1 Construction Supervisor

The Contractor shall appoint a full-time **Construction Supervisor** with the duty of supervising the performance of the construction work. (Refer Regulation 6(1)).

He may also have to appoint one or more competent employees to assist the construction supervisor where justified by the scope and complexity of the works.

C2.7.2 Construction safety officer

Taking into consideration the size of the project and the hazards or dangers that can be expected, the Contractor shall appoint in writing a full-time or part-time **Construction Safety Officer** if so decided by the Inspector of the Department of Labour. The Safety Officer shall have the necessary competence and resources to perform his duties diligently. (Refer Regulation 6(6)).

Provision will be made in the schedule of quantities to cover the cost of a dedicated construction safety officer appointed after award of the contract if so ordered by the Engineer.

C2.7.3 Health and safety representatives

In terms of **Sections 17 and 18 of the Act (OHSA 1993)** the Contractor, being the employer in terms of the Act for the execution of the contract, shall appoint a **health and safety representative** whenever he has more than 20 employees in his employment on the site of the works. The health and safety representative must be selected from employees who are employed in a full-time capacity at a specific workplace.

The number of health and safety representatives for a workplace shall be at least one for every 100 employees.

The function of the health and safety representative(s) will be to review the effectiveness of health and safety measures, to identify potential hazards and major incidents, to examine causes of

incidents (in collaboration with his employer, the Contractor), to investigate complaints by employees relating to health and safety at work, to make representations to the employer (Contractor) or inspector on general matters affecting the health and safety of employees, to inspect the workplace, plant, machinery etc. on a regular base, to participate in consultations with inspectors and to attend meetings of the health and safety committee.

C2.7.4 Health and safety committee

In terms of **Sections 17 and 18 of the Act (OHSA 1993)** the Contractor (as employer), shall establish one or more **health and safety committee(s)** where there are two or more health and safety representatives at a workplace. The persons selected by the Contractor to serve on the committee shall be designated in writing.

The function of the health and safety committee shall be to hold meetings at regular intervals, but at least once every three months, to review the health and safety measures on the contract, to discuss incidents related to health and safety with the Contractor and the inspector, and to make recommendations regarding health and safety to the Contractor and to keep record of recommendations and reports made by the committee.

C2.7.5 Competent persons

In accordance with the Construction Regulations the Contractor has to appoint in writing **competent persons** responsible for supervising construction work on each of the following work situations that may be expected on the site of the works.

(a) Risk assessment and induction training as described in Regulation 7 of the Construction Regulations;
(b) Fall protection as described in Regulation 8;
(c) Formwork and support work as described in Regulation 10;
(d) Excavation work as described in Regulation 11;
(e) Demolition work as described in Regulation 12;
(f) Scaffolding work as described in Regulation 14;
(g) Suspended platform operations as described in Regulation 15;
(h) Batch plant operations as described in Regulation 18;
(i) Construction vehicle and mobile plant inspections on a daily basis by a competent person as described in Regulation 21(1);
(j) Control of all temporary electrical installations on the construction site as described in Regulation 22.
(k) Stacking and storage on construction sites as described in Regulation 26; and
(l) Inspections of fire equipment as described in Regulation 27.

A competent person may be appointed for more than one part of the construction work with the understanding that the person must be suitably qualified and able to supervise at the same time the construction work on all the work situations for which he has been appointed.

The appointment of competent persons to supervise parts of the construction work does not relieve the Contractor from any of his responsibilities to comply with **all** requirements of the Construction Regulations.

C2.8 RECORDS AND REGISTERS

In accordance with the Construction Regulations the Contractor is bound to keep records and registers related to health and safety on site for periodic inspection by inspectors, the Engineer,

the Employer, trade union officials and subcontractors and employees. The following records and registers must be kept on site and shall be available for inspection at all times.

(a) A copy of the OHSA 1993 Construction Regulations 2003;
(b) A copy of this Health and Safety Specification;
(c) A copy of the Contractor's Health and Safety Plan (Regulation 4);
(d) A copy of the Notification of Construction Work (Regulation 3);
(e) A health and safety file in terms of Regulation 5(7) with inputs by the Construction Safety Officer [Regulation 6(7)];
(f) A copy of the risk assessment described in Regulation 7;
(g) A full protection plan and the corresponding records of evaluation and training of employees working from elevated positions as described in Regulation 8;
(h) Drawings pertaining to the design of structures [Regulation 9(3)] and formwork and support work structures [Regulation 10(d)] must be kept on site;
(i) Pronouncement of the safety of excavations must be recorded in a register to be kept on site [Regulation 11(3)(h)];
(j) A copy of the certificate of the system design for suspended platforms [Regulation 15(3)];
(k) A notice must be affixed around the base towers of material hoists to indicate the maximum mass load, which may be carried at any one time by material hoists [Regulation 7(5)].
(l) Maintenance records of material hoists and inspection results must be kept in a record book to be kept on site [Regulation 17(8)];
(m) A record of any repairs to or maintenance of a batch plant must be kept on site [Regulation 18(9)];
(n) A warning notice must be displayed in a conspicuous manner when and wherever an explosive powered tool is used [Regulation 19(2)];
(o) A register for recording of findings by the competent person appointed to inspect construction vehicles and mobile plant [Regulation 21(1)(j)].

C2.9 CONTRACTOR'S RESPONSIBILITIES

For this contract the Contractor will be the mandatory of the Employer (Client), as defined in the Act (OHSA 1993), which means that the Contractor has the status of employer in his own right in respect of the contract. The Contractor is therefore responsible for all the duties and obligations of an employer as set out in the Act (OHSA 1993) and the Construction Regulations 2003.

Before commencement of work under the contract, the Contractor shall enter into an agreement with the Employer (Client) to confirm his status as mandatory (employer) for the contract under consideration.

The Contractor's duties and responsibilities are clearly set out in the Construction Regulations 2003, and are not repeated in detail but some important aspects are highlighted hereafter, without relieving the Contractor of any of his duties and responsibilities in terms of the Construction Regulations.

(a) Contractor's position in relation to the Employer (Client) *(Regulation 4)*

In accordance with Section 4 of the Regulations, the Contractor shall liaise closely with the Employer or the Engineer on behalf of the Employer, to ensure that all requirements of the Act and the Regulations are met and complied with.

The Principal Contractor and Contractor *(Regulation 5)*

The Contractor is in terms of the definition in Regulation 2(b) the equivalent of Principal Contractor as defined in the Construction Regulations, and he shall comply with all the provisions of Regulation
Any subcontractors employed by the Contractor must be appointed in writing, setting out the terms of the appointment in respect of health and safety. An independent subcontractor shall however provide and

demonstrate to the Contractor a suitable, acceptable and sufficiently documented health and safety plan before commencement of the subcontract. In the absence of such a health and safety plan the subcontractor shall undertake in writing that he will comply with the Contractor's safety plan, the health and safety specifications of the Employer and the Construction Regulations 2003.

Supervision of construction work *(Regulation 6)*

The Contractor shall appoint the safety and other personnel and employees as required in terms of Regulation 6 and as set out in paragraph 7 above. Appointment of those personnel and employees does not relieve the Contractor from any of the obligations under Regulation 6.

Risk assessment *(Regulation 7)*

The Contractor shall have the risk assessment made as set out in paragraph 7 above before commencement of the work and it must be available on site for inspection at all times. The Contractor shall consult with the health and safety committee or health and safety representative(s) etc. on a regular basis to ensure that all employees, including subcontractors under his control, are informed and trained by a competent person regarding health hazards and related work procedures.

No subcontractor, employee or visitor shall be allowed to enter the site of works without prior health and safety induction training, all as specified in Regulation 7.

Fall protection *(Regulation 8)*

Fall protection, if applicable to this contract shall comply in all respects with Regulation 8 of the Construction Regulations.

Structures *(Regulation 9)*

The Contractor will be liable for all claims arising from collapse or failure of structures if he failed to comply with all the specifications, project specifications and drawings related to the structures, unless it can be proved that such collapse or failure can be attributed to faulty design or insufficient design standards on which the specifications and the drawings are based.

In addition the Contractor shall comply with all aspects of Regulation 9 of the Construction Regulations.

Formwork and support work *(Regulation 10)*

The Contractor will be responsible for the adequate design of all formwork and support structures by a competent person.

All drawings pertaining to formwork shall be kept on site and all equipment and materials used in formwork, shall be carefully examined and checked for suitability by a competent person.

The provisions of Regulation 10 of the Construction Regulations shall be followed in every detail.

(a) Excavation work *(Regulation 11)*

It is essential that the Contractor shall follow the instructions and precautions in the Standard Specifications and Project Specifications as well as the provisions of the Construction Regulations to the letter as unsafe excavations can be a major hazard on any construction site. The Contractor shall therefore ensure that all excavation work is carried out under the supervision of a competent person, that inspections are carried out by a Professional Engineer or Technologist, and that all work is done in such a manner that no hazards are created by unsafe excavations and working conditions.

Supervision by a competent person will not relieve the Contractor from any of his duties and responsibilities under Regulation 11 of the Construction Regulations.

(b) Demolition work *(Regulation 12)*

Whenever demolition work is included in a contract, the Contractor shall comply with all the requirements of Regulation 12 of the Construction Regulations. The fact that a competent person has to be appointed by the Contractor does not relieve the Contractor from any of his responsibilities in respect of safety of demolition work.

(c) Tunnelling *(Regulation 13)*

The Contractor shall comply with Regulation 13 wherever tunneling of any kind is involved.

(d) Scaffolding *(Regulation 14)*

The Contractor shall ensure that all the provisions of Regulation 14 of the Construction Regulations are complied with. [*Note : Reference in the Regulations to "Section 44 of the Act" should read "Section 43 of the Act"]*

(e) Suspended platforms *(Regulation 15)*

Wherever suspended platforms will be necessary on any contract, the Contractor shall ensure that copies of the system design issued by a Professional Engineer are submitted to the Engineer for inspection and approval. The Contractor shall appoint competent persons as supervisors and competent scaffold erectors, operators and inspectors and ensure that all work related to suspended platforms are done in accordance with Regulation 15 of the Construction Regulations.

(f) Boatswain's chairs *(Regulation 16)*

Where boatswain's chains are required on the construction site, the Contractor shall comply with Regulation 16.

(g) Material Hoists *(Regulation 17)*

Wherever applicable, the Contractor shall comply with the provisions of Regulation 17 to the letter.

(h) Batch plants *(Regulation 18)*
Wherever applicable, the Contractor shall ensure that all lifting machines, lifting tackle, conveyors, etc. used in the operation of a batch plant shall comply with, and that all operators, supervisors and employees are strictly held to the provisions of Regulation 18. The Contractor shall ensure that the General Safety Regulations (Government Notice R1031 of 30 May 1986), the Driven Machinery Regulations (Government Notice R295 of 26/2/1988) and the Electrical Installation Regulations (Government Notice R2271 of 11/10/1995) are adhered to by all involved.

In terms of the Regulations, records of repairs and maintenance shall be kept on site.

(i) Explosive powered tools *(Regulation 19)*

The Contractor shall ensure that, wherever explosive-powered tools are required to be used, all safety provisions of Regulation 19 are complied with.

It is especially important that warning notices are displayed and that the issue and return of cartridges and spent cartridges be recorded in a register to be kept on site.

(j) Cranes *(Regulation 20)*

Wherever the use of tower cranes becomes necessary, the provisions of Regulation 20 shall be complied with.

(k) Construction vehicles and mobile plant *(Regulation 21)*

The Contractor shall ensure that all construction vehicles and plant are in good working condition and safe for use, and that they are used in accordance with their design and intended use. The vehicles and plant shall only be operated by workers or operators who have received appropriate training, all in accordance with all the requirements of Regulation 21.

All vehicles and plant must be inspected on a daily basis, prior to use, by a competent person and the findings must be recorded in a register to be kept on site.

(l) Electrical installation and machinery on construction sites *(Regulation 22)*

The Contractor shall comply with the Electrical Installation Regulations (Government Notice R2920 of 23 October 1992) and the Electrical Machinery Regulations (Government Notice R1953 of 12 August 1993). Before commencement of construction, the Contractor shall take adequate steps to ascertain the presence of, and guard against dangers and hazards due to electrical cables and apparatus under, over or on the site.

All temporary electrical installations on the site shall be under the control of a competent person, without relieving the Contractor of his responsibility for the health and safety of all workers and persons on site in terms of Regulation 22.

(m) Use of temporary storage of flammable liquids on construction sites *(Regulation 23)*

The Contractor shall comply with the provisions of the General Safety Regulations (Government Notice R1031 of 30 May 2986) and all the provisions of Regulation 23 of the Construction Regulations to ensure a safe and hazard-free environment to all workers and other persons on site.

Water environments *(Regulation 24)*

Where construction work is done over or in close proximity to water, the provisions of Regulation 24 shall apply.

Housekeeping on Construction sites *(Regulation 25)*

Housekeeping on all construction sites shall be in accordance with the provisions of the environmental Regulations for workplaces (Government Notice R2281 of 16 October 1987) and all the provisions of Regulation 25 of the Construction Regulations.

Stacking and storage on construction sites *(Regulation 26)*

The provisions for the stacking of articles contained in the General Safety Regulations (Government Notice R1031 of 30 May 1986) as well as all the provisions of Regulation 26 of the Construction Regulations shall apply.

Fire precautions on construction sites *(Regulation 27)*

The provisions of the Environmental Regulations for Workplaces (Government Notice R2281 of 16 October 1987) shall apply.

In addition the necessary precautions shall be taken to prevent the incidence of fires, to provide adequate and sufficient fire protection equipment, sirens, escape routes etc. all in accordance with Regulation 27 of the Construction Regulations.

Construction welfare facilities *(Regulation 28)*

The Contractor shall comply with the construction site provisions as in the Facilities Regulations (Government Notice R1593 of 12 August 1988) and the provisions of Regulation 28 of the Construction Regulations.

Non-compliance with the Construction Regulations 2003

The foregoing is a summary of parts of the Construction Regulations applicable to all construction projects.

The Contractor, as employer for the execution of the contract, shall ensure that all provisions of the Construction Regulations applicable to the contract under consideration are complied with to the letter.

Should the Contractor fail to comply with the provisions of the Regulations 3 to 28 as listed in Regulation 30, he will be guilty of an offence and will be liable, upon conviction, to the fines or imprisonment as set out in Regulation 30.

The Contractor is advised in his own interest to make a careful study of the Act and the Construction Regulations as ignorance of the Act and the Regulations will not be accepted in any proceedings related to non-conformance to the Act and the Regulations.

C2.10 MEASUREMENT AND PAYMENT

C2.10.1 Principles

It is a condition of this contract that Contractors, who submit tenders for this contract, shall make provision in their tenders for the cost of all health and safety measures during the construction process. Special reference is made to the following:

(a) Safety personnel

All safety personnel and competent persons referred to in clauses C1.7.1 to C1.7.5 will normally be members of the Contractor's personnel, and no additional payment will be made for the appointment of such safety personnel.

(b) Records and Registers,

Provision will be made in the schedule of quantities for payment to the Contractor for the keeping of health and safety-related records and registers as described in Clause C1.8.

C2.1 Pricing Instructions

C2.1 Pricing Instructions

1. GENERAL

The Bill of Quantities forms part of the Contract Documents and must be read and priced in conjunction with all the other documents comprising the Contract Documents, which include the Conditions of Tender, Conditions of Contract, the Specifications (including the Project Specification) and the Drawings.

2. DESCRIPTION OF ITEMS IN THE SCHEDULE

The Bill of Quantities has been drawn up generally in accordance with the relevant provisions of the SABS 1200 Standard Specification for Road and Bridge Works for State Authorities published by the SA Institution of Civil Engineers (SAICE).

The short descriptions of the items in the Bill of Quantities are for identification purposes only and the measurement and payment clause of the SABS 1200 Standard Specifications and the Particular Specifications, read together with the relevant clauses of the amendments and additions contained in the Project Specification and directives on the drawings, that set out what ancillary or associated work and activities are included in the rates for the operations specified.

The item numbers appearing in the Bill of Quantities refer to the corresponding item numbers in the SABS 1200 Standard Specifications (1998 edition). Item numbers prefixed by the letter B refer to items of payment described in Part B amendments to the standard specification.

For the purposes of this Bill of Quantities, the following words shall have the meanings hereby assigned to them:

Unit: The unit of measu_rement for each item of work as defined in the specifica_tions.

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

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

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

Lump Sum: An amount tendered for an item, the extent of which is described in the Bill of Quantities, the specifica_tions or elsewhere but the quantity of work of which is not measured in any units.

3. QUANTITIES REFLECTED IN THE SCHEDULE

The quantities given in the Bill of Quantities are estimates only, and subject to re-measure during the execution of the work. The quantities finally accepted and certified for payment, and not the quantities given in the bill of quantities, shall be used to determine payments to the Contractor. The Contractor shall obtain the Engineer's detailed instructions for all work before ordering any materials or executing work or making arrangements for it. The quantities of material or work stated in the Bill of Quantities shall not be regarded as authorisation for the Contractor to order material or to execute work.

The Works as finally completed in accordance with the Contract shall be measured and paid for as specified in the Bill of Quantities and in accordance with the General and Special Conditions of Contract, the SABS 1200 Standard Specifications sub-clause 1209(a) and Project Specifications and the Drawings. Unless otherwise stated, items are measured net in accordance with the Drawings, and no allowance has been made for waste. The validity of the contract will in no way be affected by differences between the quantities in the Bill of Quantities and the quantities finally certified for payment.

4. PROVISIONAL SUMS

Where Provisional sums or Prime Cost sums are provided for items in the Bill of Quantities, payment for the work

done under such items will be made in accordance with Clause 45 of the General Conditions of Contract 2015, 3rd Edition. The Employer reserves the right, during the execution of the works, to adjust the stated amounts upwards or downwards according to the work actually done under the item, or the item may be omitted altogether, without affecting the validity of the Contract.

The Tenderer shall not under any circumstances whatsoever delete or amend any of the sums inserted in the "Amount" column of the Bill of Quantities and in the Summary of the Bill of Quantities unless ordered or authorised in writing by the Employer before closure of tenders. Any unauthorised changes made by the Tenderer to provisional items in the schedule, or to the provisional percentages and sums in the Summary of the Bill of Quantities, will be treated as arithmetical errors.

5. PRICING OF THE BILL OF QUANTITIES

The prices and rates to be inserted by the Tenderer in the Bill of Quantities shall be the full inclusive prices to be paid by the Employer for the work described under the several items, and shall include full compensation for all costs and expenses that may be required in and for the completion and maintenance during the defects liability period of all the work described and as shown on the drawings as well as all overheads, profits, incidentals and the cost of all general risks, liabilities and obligations set forth or implied in the documents on which the Tender is based. The rates and lump sums shall be comprehensive in accordance with sub clause 1209(b) of the SABS 1200 Standard.

Each item shall be priced and extended to the "Total" column by the Tenderer, with the exception of the items for which only rates are required, or items which already have Prime Cost or Provisional Sums affixed thereto. If the Contractor omits to price any items in the Bill of Quantities, then these items will be considered to have a nil rate or price.

All items for which terminology such as "inclusive" or "not applicable" have been added by the Tenderer will be regarded as having a nil rate which shall be valid irrespective of any change in quantities during the execution of the Contract.

Should the Tenderer group a number of items together and tender one lump sum for such group of items, this single lump sum shall apply to that group of items and not to each individual item.

The tendered lump sums and rates shall be valid irrespective of any change in the quantities during the execution of the contract.

The Tenderer shall fill in rates for all items where the words "rate only" appear in the "Total" column. The provisions of sub clause 1209(f) of the SABS 1200 Standard Specifications shall apply in rate only items. "Rate Only" items have been included where:

(a) an alternative item or material is contemplated;
(b) variations of specified components in the make-up of a pay item may be expected; and

(c) no work under the item is foreseen at tender stage but the possibility that such work may be required is not excluded.

For “Rate Only” items no quantities are given in the "Quantity" column but the quoted rate shall apply in the event of work under this item being required. The Tenderer shall however note that in terms of the Tender Data the Tenderer may be asked to reconsider any such rates which the Employer may regard as unbalanced.

Reasonable compensation will be received where no payment item appears in respect or work required in terms of the Contract which is not covered in any other pay item.

All rates and amounts quoted in the Bill of Quantities shall be in Rands and cents and shall include all levies and taxes (other than VAT). VAT will be added in the summary of the Bill of Quantities. Note fractions of a cent in all rates shall be discounted.

6. CORRECTION OF ENTRIES

Incorrect entries shall not be erased or obliterated with correction fluid but must be crossed out neatly. The correct figures must be entered above or adjacent to the deleted entry, and the alteration must be initialed by the Tenderer.

7. INTERIM PAYMENTS

Unless otherwise specified in the Specifications and Project Specifications, progress payments in Interim Certificates, referred to in Clause 49 of the General Conditions of Contract 2015 3rd Edition, in respect of "sum" items in the Bill of Quantities shall be by means of interim progress instalments assessed by the Engineer and based on the measure in which the work actually carried out relates to the extent of the work to be done by the Contractor.

Notwithstanding any custom to the contrary, the work as executed will be measured for payment in accordance with the methods described in the contract documents under the various items of payment.

Attention is directed to the provisions of clause 1220 of the standard specifica_tions regarding the measure_ment of quantities for payment. Except where specified otherwise than in clause 1220, the nett measurements or mass of the finished work in place shall be taken for payment, but any quantity of work in excess of that prescribed shall be excluded.

8. UNITS OF MEASUREMENT

The units of measurement described in the Bill of Quantities are metric units. The following abbreviations are used in the Bill of Quantities.

mm	= millimetre	m^3_km	= cubic metre_kilometre	Prov sum	= provisional sum
m	= metre	l	= litre	kPa	= kilopascal
km	= kilometre	kl	= kilolitre	MPa	= megapascal
km_pass	= kilometre_pass	kg	= kilogram	MN	= meganewton
m^2	= square metre	t	= ton (1 000 kg)	t-km	= ton-kilometre
m^2_pass	= square metre_pass	No.	= number	hr	= hour
ha	= hectare	%	= percent	dia	= diameter
m^3	= cubic metre	PC sum	= prime cost sum	Sum	= lump sum
kW	= kilowatt	MN-m	= meganewton-metre		

9. CONSISTENCY OF RATES

In order to ensure that payments certified by the Engineer are reasonably consistent with the market value of the work done, and that variations in quantities do not distort the contract valuation, the rates, prices and amounts tendered in the Bill of quantities are required to be in balance.

A tender will be considered out of balance if:

(i) the combined, extended total tendered for the item:

13.01 The Contractor's general obligations

(a) Fixed obligations
(b) Value_r_elated obligations
(c) Time_relat_ed obligations

exceeds a maximum of 15% of the Tender Sum (excluding contingencies, escalation and VAT).

(ii) the rates, prices or amounts tendered for any other items differ by more than 20 (twenty) percent from either the next highest or next lowest rates, prices or amounts tendered, or else from the latest departmental estimates.

Any such unbalanced tender may be rejected if, after fourteen (14) days of having been given written notice by the Employer to adjust those rates or lump sums which are unreasonable or out of balance, the Tenderer fails to make the necessary satisfactory adjustments. These adjustments in rectification will be such that increases are balanced by decreases, leaving the tender sum unchanged.

C2.2 Bill of Quantities

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT (R)
	SABS 1200	**SECTION No.1: PRELIMINARY AND GENERAL**				
	1200A	**GENERAL**				
		NOTE: The Preliminary and General shall not 15% of the tendered sum, exluding Contingencies and VAT.				
1.1	8.3	FIXED-CHARGE & VALUE-RELATED ITEMS				
1.1.1	8.3.1	Contractual Requirements	Sum	1.00		
1.2	8.3.2	Establish Facilities on the Site				
	8.3.2.1	Facilities for Engineer				
1.2.1		(a) Furnished offices (No. 1 offices)	Sum	1.00		
1.2.2		(b) Telephone	Sum	1.00		
1.2.3		(c) Name Board (No. 2 construction sign boards)	No	2.00		
1.3	8.3.2.2	Facilities for Contractor				
1.3.1		(a) Offices and storage sheds	Sum	1.00		
1.3.2		(b) Workshops	Sum	1.00		
1.3.3		(c) Laboratories	sum	1.00		
1.3.4		(d) Living Accommedation	Sum	1.00		
1.3.5		(e) Ablution and Latrine Facilities (No. 4)	Sum	1.00		
1.3.6		(f) Tools and equipment	Sum	1.00		
1.3.7		(g) Water supplies, electric power and communications	sum	1.00		
1.3.8		(h) Dealing with water on works	Sum	1.00		
1.3.9		(i) Access to site	Sum	1.00		
1.3.10		(j) Plant	Sum	1.00		
1.4	8.3.3	Other fixed-charge obligations Contractor to specify another Fix items …… …… …… ……				
1.4.1		…… …… …… ……	Sum	1.00		
1.4.3	8.3.4	Remove Engineer and Contractor's Site establishmenton completion of works	sum	1.00		
1.5	8.4	SECHULED TIME-RELATED ITEMS				
1.5.1	8.4.1	Contractual Requirements	sum	1.00		
	8.4.2	Operation and maintenance of facilities on site, for duration of construction, except where otherwise stated:				
1.6	8.4.2.1	Facilitities for Engineer				
1.6.1		(a) Furnished offices (No. 1 offices)	sum	1.00		
1.6.2		(b) Telephone	sum	1.00		
1.6.3		(c) Name Board (No. 2 construction sign boards)	sum	1.00		
1.7	8.4.2.2	Facilities for Contractor				
1.7.1		(a) Offices and storage sheds	Sum	1.00		
1.7.2		(b) Workshops	Sum	1.00		
1.7.3		(c) Laboratories	sum	1.00		
1.7.4		(d) Living Accommedation	Sum	1.00		
1.7.5		(e) Ablution and Latrine Facilities (No. 4)	Sum	1.00		
1.7.6		(f) Tools and equipment	Sum	1.00		
1.7.7		(g) Water supplies, electric power and communications	sum	1.00		
1.7.8		(h) Dealing with water on works	Sum	1.00		
1.7.9		(i) Access to site	Sum	1.00		
1.7.10		(j) Plant	Sum	1.00		
1.8	8.4.3	Supervision for Duration of construction				
1.8.1		a) Allowance for provisional sum for Secrutity for the duration of the project (x 2)	sum	1.00	R 96,000.00	R 96,000.00
1.8.2		b) Allowance for provisional sum for Site Agent for the duration of construction.	Sum	1.00	R 84,000.00	R 84,000.00
1.8.3		c) Allowance for provisional sum for Foreman for the duration of construction.	Sum	1.00	R 51,000.00	R 51,000.00
1.8.4		d) Allowance for provisional sum for CLO for the duration of construction.	Sum	1.00	R 36,000.00	R 36,000.00
1.8.4		d) Allowance for provisional sum for Site Surveyor and assistants for the duration of construction.	Sum	1.00	R 78,000.00	R 78,000.00
1.8.6		2) Overheads, charges and profit on above (item 1,8,1- 1.8.5)	%	345,000.00		
1.9	8.4.4	Company and head ofice overheads costs for the duration of the project	Sum	1.00		
1.10	8.4.5	Other Time-related obligations				

		Contractor to specify another Fix items …… …… …… …… …… …… …… ……....						
1.10.1			Sum	1.00				
1.11	8.5	PROVISIONAL SUMS						
1.11.1		a) For work to be excuted by the Contractor and value in terms of the "valuation of variations" clause in the condition of contract	Sum	1.00	R	30,000.00	R	30,000.00
1.11.2		1) For work to be executed by the Employer or a nominated Subcontractor	Sum	1.00	R	20,000.00	R	20,000.00
1.11.3		2) Overheads, charges and profit on (1) above	%	20,000.00				
1.11.4		3) Specified activities (if any) associated with (1) and (2) above	Sum	1.00	R	20,000.00	R	20,000.00
1.11.5	PSA 01	(b) Contractor to allow sum for the relocation and reinstatement of existing services (Eskom, Telkom, water, sewer, fence lines. etc.) where directed in writing by the Engineer	Sum	1.00	R	100,000.00	R	100,000.00
1.11.6		(c) Contractors attendance, handling cost for attending 1.11.5 Above	%	100,000.00				
1.11.7		(d) Allowance for provisional sum for Acceptance of control test ordered in writing by the Engineer.	Sum	1.00	R	30,000.00	R	30,000.00
1.11.8		(e) Contractors attendance, handling cost and charges on item 1.11.7 above	%	30,000.00				
1.11.9		(f) Allowance for provisional sum for Supervision and travel costs for Resident Engineer, full time on site	Sum	1.00	R	240,000.00	R	240,000.00
1.11.10		(g) Contractors attendance, handling cost and charges on item 1.11.9 above	%	240,000.00				
1.11.11		(h) Allowance for provisional sum for Environmental Management	Sum	1.00	R	120,000.00	R	120,000.00
1.11.12		(i) Contractors attendance, handling cost and charges on item 1.11.11 above	%	120,000.00				
1.11.13		(g) Allowance for provisional sum for Geotechnical investigations as instructed by an Engineer	Sum	1.00	R	60,000.00	R	60,000.00
1.11.14		(k) Contractors attendance, handling cost and charges on item 1.11.13 above	%	60,000.00				
Total Carried Forward								

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT (R)
Total Brought Forward						
1.12	8.7	DAYWORKS				
		NOTE: All quantities are provisional and shall only be payable when work at dayworks rates is specially ordered by the Engineer.				
		PERSONEEL (DURING NORMAL WORKING HOURS)				
1.12.1		a) Skilled	hr	9.00		RATE ONLY
1.12.2		b) Semi-skilled labour	hr	9.00		RATE ONLY
1.12.3		c) Unskilled labour/ General	hr	9.00		RATE ONLY
1.12.4		d) Flagmen	hr	9.00		RATE ONLY
		PERSONEEL (AFTER NORMAL WORKING HOURS)				
1.12.5		a) Skilled	hr	5.00		RATE ONLY
1.12.6		b) Semi-skilled labour	hr	5.00		RATE ONLY
1.12.7		c) Uskilled labour/ General	hr	5.00		RATE ONLY
1.12.8		d) Flagmen	hr	5.00		RATE ONLY
		PLANT Rates shall include for the operator, all fuel and oil, supporting tools and equipment and other miscellanous items				
1.12.9		a) 4x4 Backhoe loader (Min 50kW, case 580F or similar)	hr	15.00		RATE ONLY
1.12.10		b) 6m³ Tipper trucks	hr	20.00		RATE ONLY
1.12.11		c) 10m³ Tipper trucks	hr	40.00		RATE ONLY
1.12.12		d) 10m³ Water Tanker	hr	20.00		RATE ONLY
1.12.13		e) Roller SP Vibrating- 75kW 9000ka	hr	20.00		RATE ONLY
1.12.14		f) Motor Grader 140G	hr	20.00		RATE ONLY
1.12.15		g) Pedestrian Vibratory Roller 600mm wide (Bomag BW 90 or similar)	hr	20.00		RATE ONLY
1.12.16		h) Dewatering Pump including generator and accessories (50mm pump, 600 l/m)	hr	10.00		RATE ONLY
1.12.17		i) Compressor complete with hoses, jackhammers and other tools	hr	10.00		RATE ONLY
1.12.18		h) Flatbed truck	km	400.00		RATE ONLY
1.13	8.8	Temparary Works				
1.13.1	8.8.1	Main Access Road to works (construction & maintance)	Sum	1.00		
	8.8.2	Dealing with Traffic accomdation				
1.13.2		Allow for temporally accommodation of traffic during construction period including temporally roads signage, lighting, flagmens, Portable stop & Go signs, etc.	Sum	1.00		
1.14	8.8.4	Existing services				
1.14.1		a) Supply and hire of specialist equipment for the detection of particular services	Sum	1.00		RATE ONLY
1.14.2		b) The use of equipment to in item (a) above	Sum	1.00		RATE ONLY
1.14.3		c) Excavation by hand in soft material to expose existing services	Daywork	8.00		
1.14.4		d) Temporary protection, as required in terms of the project specification, of service	Daywork	8.00		
1.15	8.8.5	Cost of surveyor in Terms of the land survey Act				
1.15.1		a) Trigonometrical Surveyand plot boundary pegs- locate and record	Sum	1.00		
1.16		ENVIRONMENTAL MANAGEMENT PLAN				
1.16.1		Full compliance with EMPr specification during construction period	Sum	1.00		
1.6	PSA 01	HEALTH AND SAFETY				
		Medicals				
1.6.1		Pre-employment medical	No.	20.00		
		Personal Protective equipments				
1.6.2		Overalls (Blue)	No.	20.00		
1.6.3		Safety boots/ shoes	No.	20.00		
1.6.4		Gloves (Boxes)	No.	5.00		
1.6.5		Orange Star Netting- 1,2 m high	roll	1.00		
1.6.6		Orange Plastic road cones	No.	10.00		
1.6.7		Dust masks (Box)	No.	6.00		

		Health and safety personnel				
1.6.8		Full time Safety Representatives with all necessary training, for the duration of the construction under the contract	Sum	1.00		
		First Aid				
1.6.9		First Aid boxes	No.	1.00		
1.6.10		Hazchem spill kits	No.	2.00		
		Signage				
1.6.11		Fire fighting	No.	1.00		
1.6.12		Assembly point	No.	1.00		
1.6.13		First Aid	item	1.00		
		Safety Administration				
1.6.15		Health and Safety File	No.	1.00		
1.6.16		Site Vist for Health and Safety Oficer, Audit, Site Inspection and Safety committee meeting, conducted by Engineer	Sum	1.00		
Total Carried Forward						

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT (R)
	SABS 1200	**SECTION No.2: ROADWORKS**				
	1200C	**SITE CLEARANCE**				
2.1	8.2.1	Clear and grub:				
2.1.1		Strip side verges of all grass, bush and boulders, 1.5m wide on each side of the road	ha	0.3		
	8.2.2	Remove and grub large trees and tree stumps girth				
2.1.2		a) Over 1m and up to including 2m	No	5		
2.1.3		b) Over 2m and up to and including 3m	No	3		
2.1.4	8.2.5	Take down existing fences	km	1.5		
2.1.5	8.2.9	Transport materials and debris to unspecified site and dump (provisional)	m³	26915		
	1200D	**EARTHWORKS**				
2.2	8.3.1	Site preparation				
2.2.1	8.3.1.1	Clear and strip site (Rip out Asphalt layer and spoiling material at registered landfill site)	m²	10850		
	8.3.4	Importing of Materials				
2.2.2		b) Opening up and closing down of designated borrow pit	sum	1		
	8.3.6	Overhaul				
2.2.3		a) Limited overhaul (within 10km range from the site to registered landfill site as per the Engineers written instruction)	m³	542.50		
2.2.4	8.3.11	Grassing or other vegatation cover	m²	465		
	1200DM	**EARTHWORKS (Roads, Subgrade)**				
2.3	8.3.3	Treatment of road-bed				
		a) Road-bed preparation and compaction of material to:				
2.3.1		(i) Rip & recompact 300mm insitu material and compact to 93% mod. AASHTO maximum density	m³	4961		
		b) In-place treatment of roadbed in intermediate or hardrock material by				
2.3.2		i) ripping	m³	347.2		
	8.3.4	Cut to fill, borrow to fill				
2.3.2	8.3.4	(a)Cut to fill from side of embankments and roadway to fill in roadway compacted to 90% Mod Aashto density. Rate to cover the cost per SABS 1200	m³	1040		
		(b) Rocksfill, process and compact, Rate to cover the cost as per SABS 1200	m³	110		RATE ONLY
	8.3.6	Extra-over items 8.3.4 for excavating and breaking down material in:				
		a) Intermediate excavation	m³	156		
		b) Hard excavation	m³	156		
		c) Boulder excavation Class A	m³	52		
	8.3.7	Cut to spoil (rate to include for hauling of material to a registered dump site)				
2.3.3		(a) Soft excavation	m³	5383		
2.3.4		(b) Intermediate excavation	m³	3499		
2.3.5		(c) Hard Excuvation	m³	525		
		(d) Boulder Excavation Class A by blasting	m³	79		RATE ONLY
	8.3.12	Overhaul				
2.3.6		Overhaul from quarry 1 km freehaul distance)	m³.km	31248		
2.4	8.3.16	Gravel surface layer				
2.4.1		Subgrade layer (G7 or better quality gravel) compacted to 95% Mod Aashto density. Rate to include for sourcing of material, excavating, loading, hauling, placing, compaction and royalties if any	m³	2555		
2.4.2		(a) Mod Aashto Test	No	6		
Total Carried Forward						

ITEM NO.	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT (R)
Total Brought Forward						
	1200 ME	**SUBBSASE**				
2.5.1	8.3.3	Construct of 150mm subbase course/ shoulders with material from the Quarry. C4 quality gravel compacted to 100% Mod Aashto density. Rate shall cover all as per SABS 1200 ME	m³	2441		
2.5.2		(a) Mod Aashto Test	No	9		
	8.3.5	Process subbase material by the following, as relevant, and use in the subbase				
2.5.5		d) Stabilization	m³	2441		
	8.3.8	Stabilizing agent				
2.5.9		b) Portland cement	t	207		
	1200 MFL	**BASE (LIGHT PAVEMENT STRUCTURES)**				
2.6	8.3.1	Construct base with material from commercial sources				
2.6.1		a) 150mm Crush stone (G2 quality or more) compacted to 98% Mod AASHTO, 4≥PI ≤ 6, max. stone size of 37,5mm. Rate shall cover all as per SABS 1200.	m³	2441		
2.6.2		(a) Mod Aashto Test	No	9		
	1200 MH	**ASPHALT BASE AND SURFACING**				
2.7.1	8.5.1	Prime coat, using MC 30 SP at 0,7 l/m²	m²	15190		
2.7.2	8.5.3	Tack coat	m²	15190		
	8.5.4	Asphalt				
2.7.3		40mm thick Continuously graded medium Asphalt surfacing, using 60/70 penetration grade bitumen	t	1500		
	8.5.5	Variations in quantities of prime, curing and tack coats, and bituminous binders				
2.7.4		i) Prime	ℓ	15		
2.7.5		ii) Tack coats	ℓ	15		
2.7.6		iii) Bituminous binders	ℓ	15		
2,7,7		Cutting and preparation of speed humps	m²	182		
Total Carried Forward To Summary						

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT (R)
	SABS 1200	**SECTION No.3: STORMWATER DRAINAGE**				
3.1	**1200 DB**	**EARTHWORKS (PIPE TRENCHES)**				
	8.3.2	Excavation				
		a) Excavation in all material for trenches, backfill and dispose of material using labour intensive. Rate to include for trimming, timbering, dewatering, compaction and disposal of surplus or unsuitable material for pipes of dia 375 and up to 900mm dia.				
3.1.1		i) 0.00m-1.5m	m³	39		
3.1.2		ii)Exceeding 1,5m and up to 3,0m	m³	40		
		b) Extra-over item (a) above for:				
3.1.3		i) Intermediate excavation	m³	12		
3.1.4		ii) Hard rock excavation	m³	8		
3.2	**1200 LB**	**PIPE BEDDING**				
	8.2.1	Provision of bedding from trench excavation				
3.2.1		a) selected granular material	m³	52		
3.2.2		b) selected fill material from excavated material	m³	62		
	8.2.2	Supply only of bedding by importation				
3.2.3	8.2.2.1	From other necessary excavation	m³	26		
3.2.4	8.2.2.2	From borrow pits	m³	26		RATE ONLY
3.2.5	8.2.2.3	From commercial sources	m³	26		
3.3	**1200 LE**	**STORMWATER DRAINAGE**				
	8.2.1	Supply, handle and lay concrete pipe culvert				
		Joint and bed on class C bedding, OGEE jointed with rubber collars.				
3.3.1		a) 600mm diameter class 50D Ogee type with rubber collars	m	20		
3.3.2		b) 900mm diameter class 50D Ogee type with rubber collars	m	20		
	8.2.4	Extra-over items 8.2.1 for cutting End Units for Culvert on site				
3.3.3		a) Straight cut	No.	20		
3.3.4		b) Skew cut	No.	0		
	8.2.8	Supply and Install Manhole, Catchpits, the like				
3.3.5		b) Catchpit with lids for 600mm and 900mm diameter pipe	No.	4		
Total Carried Forward To Summary						

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT (R)
	SABS 1200	**SECTION No.4: CONCRETE SIDE DRAINS**				
	1200 DB	**Earthworks**				
4.1	8.3.2	Excavation				
4.1.1		a) Excavate in all material for trenches	m	2170		
		b) Extra-over item (a) above for:				
4.1.2		i) Intermediate excavation	m³	217		
4.1.3		ii) Hard rock excavation	m³	217		
	1200 GA	**Concrete works**				
4.2	8.2	Formwork				
4.2.1	8.2.1	Rough	m²	3255		
	8.3	Reinforcement				
4.2.2	8.3.1	Steel bars	t	0.6		
4.2.3	8.3.2	High-Tensile Welded Mesh ref.193	m²	3255		
	8.4	Concrete				
4.2.4	8.4.1	Prescribed Mix concrete (20Mpa), 150mm thick v-drains	m³	488		
	8.4.4	Unformed surface finishes				
4.2.6		a) Wooden-floated finish	m²	3255		
4.2.7	8.5	Joints	m	820		
Total Carried Forward To Summary						

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT (R)
	SABS 1200	**SECTION No.5: KERBING**				
	1200 MK	**Kerbing and Channelling**				
5.1.1	8.2.2	Concrete Kerbing	m	2170		
5.1.2	8.2.5	Chutes	m	50		
	8.2.6	Ancillaries				
5.1.3	8.2.6.1	Inlet, outlet, transition, and similar structures	No.	10		
5.1.4	8.2.6.2	Heavy duty concrete property access surfaces , complete with excavation , trimming, edge thickenings, formwork, mesh , concrete, surface finish and curing To Drawing	No	40		
Total Carried Forward To Summary						

ITEM NO.	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT (R)
	SABS 1200	**SECTION No.6: ANCILLARY ROADWORKS**				
	1200MM	ANCILLARY ROADWORKS				
6.2	8.3	Permanent Road Sign				
	8.3.1	Sign faces painted or galvanized (as stated) background. Symbols, characters, legend, and borders in engineering grade retro reflective material with signboards constructed from				
6.2.1		a) Aluminium Sheet steel (2,0 mm thick) of area over 2m²	m²	6		
	8.3.3	Sign Supports				
6.2.2		c) Timber (100mm dia.) treated gum poles	m	17		
6.2.3	8.3.4	Excavation and backfilling and concreting for sign supports.	m³	1.8		
6.2.4	8.3.5	Distance Markers	No.	1.7		
	8.4	Road Markings				
	8.4.1	Non-reflectorized Paint Applied at Nominal Rate of 0,4 ℓ/m² Road - marking materials as scheduled				
	8.4.2	Non-reflectorized Paint Applied at Nominal Rate of 0,4 ℓ/m² Road - marking materials as scheduled				
		a) White lines (broken or unbroken), 100mm width	km	2.2		
		b) Yellow lines (broken or unbroken), 100mm width	km	2.2		
		c) White characters and symbols	m²	17		
		e) Traffic Island marking	m²	17		
	8.4.2	Varation in rate of application from that stated in item 8.4.1				
		a) White paint	ℓ	30		
		b) Yellow paint	ℓ	30		
		c) Proprietary brand road-marking material	ℓ	30		
	8.4.4	Setting out and Premarking				
		a) Lines (exculuding traffic islands markings, characters, and symbols)	km	2.17		

Total Carried Forward To Summary						

Summary of Bill of Quantities

SECTION	DESCRIPTION	AMOUNT
SECTION 1	PRELIMINARY AND GENERAL	
SECTION 2	ROADWORKS	
SECTION 3	STORMWATER DRAINAGE	
SECTION 4	CONCRETE SIDE DRAINS	
SECTION 5	KERBING	
SECTION 6	ANCILLARY WORK	
SUB-TOTAL		
CONTIGENCY Allow a contingecy amount at 10% to be used as directed by the Engineer		
SUB-TOTAL		
VALUE ADDED TAX @15%		
Carried to form of Offer		

C3 Scope of Work

1 DESCRIPTION OF THE WORKS

1.1 Employer's objectives

The employer's objectives are to deliver public infrastructure using labor intensive methods as far as possible and practical

1.2 Overview of the works

Labor-intensive works comprise the activities described in SANS 1921-5, *Earthworks activities which are to be performed by hand* and its associated specification data. Such works shall be constructed using local workers who are temporarily employed in terms of this Scope of Work.

1.2 Extent of the works

This project entails the . within the Richmond Local Municipality. The scope of works includes construction Site establishment, Relocation of existing services, Clearing and grubbing, Minor earthworks, Site establishment, construction of a temporary bypass and drain, bulk excavation for new culvert and the construction of the precast culvert with reinforced concrete headwalls. At completion the road will be re-instated and re-surfaced and the temporary bypass removed.

The contractor's obligations and responsibilities are described in greater detail in the conditions of contract, project specification and elsewhere in this document.

1.3 Location of the works

The location of the site and its approximate extent will be shown to the tenderers during the site inspection

Temporary works

The contractor is responsible for providing temporary access roads during construction, if necessary.

1 Drawings

The following drawings are applicable to the contract:

2. The drawings used for setting up the Bills of Quantities are as per Drawing applicable to the contract in above.

3 Procurement

3.1 Preferential procurement procedures

The works shall be executed in accordance with the conditions attached to preferences granted in accordance with the preferencing schedule.

4 Construction

4.1Applicable national standards

All applicable standards and all values pertaining to specific attributes relating thereto, e.g. **SABS 1200** and related project specifications in conjunction with **GCCC 2015**.

4.2Particular specifications

4.2.1 The relevant provisions of the SABS 1200 Standard Specification for Road and Bridge Works for State Authorities shall apply to the contract with the following amendments:

1115 Replace clause with the following:

The general conditions of contract are the General Conditions of Contract for Construction Works (2015) 3rd Edition as published by the South African Institution of Civil Engineering read in conjunction with the Contract Data.

1202 Replace “Clause 15” with “Clause 12”.

1206 Replace the first sentence with the following:

The contractor shall comply with all legal provisions in regard to surveying and setting out work.

1209(e) Replace “Clause 52” with “Clauses 29 and 49.2”.

1210 Replace “Clause 54” with “Clause 51”.

1212(1) Replace “Clause 49” with “Clause 46”.

1215 Replace “Clause 45” with “Clause 42”.

1217 Replace “Clause 35” with “Clause 31”.

1303 Replace “Clauses 49 and 53” with “Clause 50”.

13.01(3) Replace “Clauses 12 and 45” with “Clauses 1.1.4 and 42”.

14.03(c) Replace “Clause 40(1)” with “Clause 37”.

1505 Replace “Clauses 40 and 53” with “Clause 37”.

3204(b)(iii) Replace “Clauses 40 and 53” with “Clause 37”.

4.3EPWP labour intensive specification

4.4 Labour intensive competencies of supervisory and management staff

Contractors having a CIDB contractor grading designation of 5CE and higher shall only engage supervisory and management staff in labour intensive works who have either completed, or for the period 1 April 2004 to 30 June 2006, are registered for training towards, the skills programme outlined in Table 1.

The managing principal of the contractor, namely, a sole proprietor, the senior partner, the managing director or managing member of a close corporation, as relevant, having a contractor grading designation of 1CE, 2CE, 3CE and 4CE shall have personally completed, or for the period 1 April 2004 to 30 June 2006 be registered on a skills programme for the NQF level 2. All other site supervisory staff in the employ of such contractors must have completed, or for the period 1 April 2004 to 30 June 2006 be registered on a skills programme for, the NQF level 2 unit standards or NQF level 4 unit standards.

Table 1: Skills programme for supervisory and management staff

Personnel	NQF level	Unit standard titles	Skills programme description
Team leader / supervisor	2	Apply Labour Intensive Construction Systems and Techniques to Work Activities	This unit standard must be completed, **and**
		Use Labour Intensive Construction Methods to Construct and Maintain Roads and Stormwater Drainage	any one of these 3 unit standards
		Use Labour Intensive Construction Methods to Construct and Maintain Water and Sanitation Services	
		Use Labour Intensive Construction Methods to Construct, Repair and Maintain Structures	
Foreman/ supervisor	4	Implement labour Intensive Construction Systems and Techniques	This unit standard must be completed, **and**
		Use Labour Intensive Construction Methods to Construct and Maintain Roads and Stormwater Drainage	any one of these 3 unit standards
		Use Labour Intensive Construction Methods to Construct and Maintain Water and Sanitation Services	
		Use Labour Intensive Construction Methods to Construct, Repair and Maintain Structures	
Site Agent / Manager (i.e the contractor's most senior representative that is resident on the site)	5	Manage Labour Intensive Construction Processes	Skills Programme against this single unit standard

4.5 Employment of unskilled and semi-skilled workers in labour-intensive works

4.5.1 Requirements for the sourcing and engagement of labour.

4.5.1.1 Unskilled and semi-skilled labour required for the execution of all labour intensive works shall be engaged strictly in accordance with prevailing legislation and SANS 1914-5, Participation of Targeted Labour.

4.5.1.1.2 The minimum rate of pay set for the EPWP will be based on the current and projected Ministerial Determination.

4.5.1.1.3 Tasks established by the contractor must be such that:

a) the average worker completes 5 tasks per week in 40 hours or less; and
b) the weakest worker completes 5 tasks per week in 55 hours or less.

4.5.1.1.4 The contractor must revise the time taken to complete a task whenever it is established that the time taken to complete a weekly task is not within the requirements of 4…2.1.3.

4.5.1.1.5 The Contractor shall, through all available community structures, inform the local community of the labour intensive works and the employment opportunities presented thereby. Preference must be given to people with previous practical experience in construction and / or who come from households:

a) where the head of the household has less than a primary school education;
b) that have less than one full time person earning an income;
c) where subsistence agriculture is the source of income.
d) those who are not in receipt of any social security pension income

4.5.1.1.6 The Contractor shall endeavour to ensure that the expenditure on the employment of temporary workers is in the following proportions:

a) 55 % women;
b) 55% youth who are between the ages of 18 and 35; and
c) 2% on persons with disabilities.

4.5.2 Training of targeted labour

4.5.2.1The contractor shall provide all the necessary on-the-job training to targeted labour to enable such labour to master the basic work techniques required to undertake the work in accordance with the requirements of the contract in a manner that does not compromise worker health and safety.

4.5.2.2 The cost of the formal training of targeted labour will be funded by the provincial office of the Department of Labour. This training should take place as close to the project site as practically possible. The contractor, must access this training by informing the relevant provincial office of the Department of Labour in writing, within 14 days of being awarded the contract, of the likely number of persons that will undergo training and when such training is required. The employer must be furnished with a copy of this request.

4.5.2.3 A copy of this training request made by the contractor to the DOL provincial office must also be faxed to the EPWP Training Director in the Department of Public Works– Cinderella Makunike, Fax Number 012 328 6820 or email cinderella.makunike@dpw.gov.za Tel: 083 677 4026.

4.5.2.4The contractor shall be responsible for scheduling the training of workers and shall take all reasonable steps to ensure that each beneficiary is provided with a minimum of six (6) days of formal training if he/she is employed for 3 months or less and a minimum of ten (10) days if he she is employed for 4 months or more.

4.5.2.5 The contractor shall do nothing to dissuade targeted labour from participating in training programmes.

4.5.2.6 An allowance equal to 100% of the task rate or daily rate shall be paid by the contractor to workers who attend formal training, in terms of 4.5.2.4 above.

4.5.2.7 Proof of compliance with the requirements of 4.5.2.1 to 4.5.2.6 must be provided by the Contractor to the Employer prior to submission of the final payment certificate

5 Plant and materials provided by the employer

None.

6 Services and facilities provided by the employer

- clear up and make good when the service or facility is no longer required, leave the employer's facilities in the condition they were before the contractor first made use of them, fair wear and tear excepted, and
- continuously clear and dispose of waste and surplus materials to maintain the site in a tidy state.)

7 Plant and equipment

The plant and equipment used on the site shall not be inferior to that described in the Schedule of Plant and Equipment.

8 Management

Additional clauses
1 **Site meetings and procedures** The Employer's Representative and the Contractor shall hold meetings relating to the progress of the works at regular intervals and at other such times as may be necessary. The Contractor shall attend all site meetings and shall ensure that all persons under his jurisdiction are notified timeously of all site meetings should the Employer's Representative require their attendance at such meetings. The Contractor shall keep on site a set of minutes of all site meetings, daily records of resources (people and equipment employed), a site instruction book, a complete set of contract working drawings and a copy of the procurement document and make these available at all reasonable times to all persons concerned with the contract.

SANS 1921-5, Construction and management requirements for works contracts – Part 5: Earthworks activities which are to be performed by hand.	
Clause	**Specification Data**
Essential Data:	
5.1	The depth of trenches which are to be excavated by hand is 1.5 metres.
Additional clauses:	
1	**Stone pitching and rubble concrete masonry** All stone required for stone pitching and rubble concrete masonry, whether grouted or dry, shall be collected, loaded, off loaded and placed by hand. Sand and stone shall be hauled to its point of placement by means of wheelbarrows where the haul distance is not greater than 150m. Grout shall be mixed and placed by hand.
2	**Manufactured Elements** Elements manufactured or designed by the Contractor, such as manhole rings and cover slabs, precast concrete planks and pipes, masonry units and edge beams shall not individually, have a mass of more than 320kg. In addition the items shall be large enough so that four workers can conveniently and simultaneously acquire a proper hand hold on them.
SANS 1921-6, Construction and management requirements for works contracts – Part 6: HIV/AIDS awareness.	
4.2.1(a)	A qualified service provider is a service provider that is one that is accredited or provisionally accredited training service provider in the HIV/AIDS field. A list of accredited service providers can be obtained from the Construction SETA (CETA) (tel. 011-265 5900), Health and Welfare SETA (HWSETA) (011-622 6852) or on the Health and Welfare SETA website: www.hwseta.org.za.
4.2.1(a)	The HIV/AIDS awareness programme is to be repeated at four month intervals throughout the duration of the contract. (Four times in total, including the initial one at the start of the contract.)
Additional clauses	
	The duration of each workshop is not to be less than 2 ½ hours.

9 Particular specifications

The management of the site shall be in accordance with the provisions of the SABS 1200 Standard Specification for Road and Stormwater Works for State Authorities (1998 edition), obtainable from the South African Institution of Civil Engineering.

10 Recording of weather

The Contractor shall erect an effective **rainfall gauge** on the site and record the daily rainfall figures in a book. Such book shall be handed to the employer's representative for his signature no later than 12 days after rain that is considered to justify an extension of time occurs.

11 Unauthorized persons

The Contractor shall keep unauthorized persons from the works at all times under no circumstances may any person except guards be allowed to sleep on the building site.

12 Management meetings

Upon awarding of contract program will be provided.

13 Daily records

Contractor to state requirements for daily records of resources (people and equipment employed), or site diaries in respect of work performed on the site, and where such documents are to be kept.

14 Payment certificates

Contractor to provide relevant banking details of the company.

PSA GENERAL

PSA 1 COMPLIANCE WITH THE OHS ACT

The Contractor shall at all times during the construction duration comply with all the requirements of the Occupational and Health Act regulations.

PSA 2 ADDITIONAL TESTS REQUIRED BY ENGINEER

Over and above the regular testing that is required during the construction phase, the Engineer, on written instruction to the Contractor, may require additional testing to be done in order to settle disputes, carry out investigations, etc.

A provisional Sum has been included in the schedule of quantities to cover the costs of the above and a handling fee, as a percentage of this provisional sum has also been included. Monies from this amount will be spent on written instructions of the Engineer.

PSA 3 COMMUNITY LIASON OFFICER

A part time official from the local community will be employed for the duration of the contract to assist both the contractor and the employer in community negotiations regarding the moving of fences and crops, labour issues, etc.

A provisional Sum has been included in the schedule of quantities to cover the costs of the above and a handling fee, as a percentage of this provisional sum has also been included. Monies from this amount will be spent on the written instructions of the Engineer. The Community Liaison Officer is to be remunerated as per provisional sum stated in the Bill of Quantities, per month.

PSA 4 MATERIALS

PSA 4.1 Specified Materials to bear SANS (SABS) mark (Sub-clause 3.1)

All materials that are specified to comply with any SANS (SABS) standard shall bear the SANS (SABS) mark. Samples for testing of materials to be used on the works are to be delivered to a suitable laboratory specified by the Engineer.

PSA 4.2 Ordering of materials (Sub-clause 3.3)

The quantities set out in the Schedule of Quantities have been carefully determined from calculations based on data available at the time and should therefore be considered to be only approximate quantities. The liability shall rest entirely and solely with the Contractor to determine before ordering, the required types and quantities of the various materials required for the completion of the Works in accordance with the Specifications and the Drawings issued to the Contractor for construction purposes.

Any reliance placed by the Contractor on the estimated quantities stated in the Schedule of Quantities issued for tendering purposes, or measurements made by the Contractor from the drawings issued for tendering purposes, shall be entirely at the Contractor’s risk and the Employer accepts no liability whatever in respect of materials ordered by the Contractor on the basis of Tender Documents.

PSA 5 RESTRICTIONS ON EMPLOYEE ACCOMODATION (Sub-clause 4.2)

No housing is available for the Contractor’s employees and the Contractor shall make his own arrangements to house his employees and transport them to the site.

PSA 6 ENGINEERS OFFICES AND FACILITIES (Sub-clause 8.1.2.1)

No offices required for engineer, however, contractor to provide a venue for Monthly Site Progress Meetings.

PSA 7 WATCHING BARRICADING LIGHTING AND TRAFFIC CROSSINGS (Sub-clause 5.6)

PSA 7.1 Barricading

Work in public roads and private properties shall be barricaded off with white washed oil drums and two strands red/white plastic tape strung between drums. Warning signs with reflectorized paint shall be erected ahead of construction to warn traffic of obstructions, In addition, suitable warning safety lighting, operational during hours of darkness, is required to demarcate obstruction in the roadway.

PSA 7.2 Traffic Signs

Wherever the Works affect the operation or safety of public traffic, a full complement of metal traffic signs and road markings shall be erected and maintained to the satisfaction of the Engineer. The signs shall be in accordance with the latest issue of the South African Road Traffic Signs Manual. Adequate warning signs shall be placed at the entrance to all roads which have been closed at their furthest ends to the effect that the roads are not “through roads.”

PSA 7.3 Courtesy

In all dealings with the public, the Contractor shall bear in mind their right to enjoy the use of the road, and the Employers desire to interfere as little as possible with this right.

PSA 8 PRESERVATION OF ERF BOUNDARY PEGS (Sub-clause 5.1.2)

Before commencement of roadway earthworks, the Contractor shall install offset reference pegs to all erf boundary pegs that may be affected by construction work. All such affected boundary pegs shall be accurately replaced by the Contractor on completion of construction from his offset reference peg data.

The Contractor shall then arrange in consultation with the Engineer for the position of all boundary pegs replaced by the Contractor in road reserves to be checked by a Registered Land Surveyor. Should it be found that any such pegs require to be relocated the cost of relocation shall be a charge against the Contractor.

A provisional Sum has been included in the schedule of quantities to cover the costs of the above. Monies from this amount will be spent on the written instructions of the Engineer.

PSA 9 ADDITIONAL SURVEY REQUIRED BY ENGINEER

Over and above the survey carried out to complete the design, the Engineer, on written instruction to the Contractor, may require additional survey to be done.

A provisional Sum has been included in the schedule of quantities to cover the costs of the above and a handling fee, as a percentage of this provisional sum has also been included. Monies from this amount will be spent on the written instructions of the Engineer.

SECTION 1500: ACCOMMODATION OF TRAFFIC

B1501 SCOPE

Add to Clause 1501 the following:

The scope of this section shall also include the preparation and submission to the Engineer for approval of traffic management plans. The traffic management plans shall demonstrate how the Contractor intends accommodating and controlling traffic through the site. The plans must incorporate all the requirements of the specifications in respect of the accommodation of traffic, including the traffic control devices and the personnel involved. A traffic safety officer shall be specifically named in the Plan together with 24 hr contact details. Copies of the plans shall be made available to the Engineer, the Employer, Local Authorities, the Police and Emergency Services.

The accommodation of traffic shall generally be undertaken in the following manner:

(a) Via gravel diversions, where practical in terms of space and the terrain.
(b) By dealing with traffic under construction where no diversions are possible.
(c) By diverting traffic along the existing road where the route is being realigned.

B1502 GENERAL REQUIREMENTS

(a) Safety

Add to Sub-clause 1502(a) the following:

Information in respect of intersections, accesses, bus stops, traffic volumes, pedestrians etc is given in Part B of these Project Specifications.

(b) Providing Temporary Deviations

Add to Sub-clause 1502(b) the following:

The contractor shall keep the provincial traffic police; the municipal traffic departments and the engineer fully informed with regard to any changes in the normal traffic flow and obtain their approval for these changes.

During the non-working hours, all unnecessary obstructions to the traffic shall be removed and all signs no longer applicable to the situation shall be removed or effectively covered.'

It is a condition of this contract that not more than 10 km of deviation should be open to public traffic at any one time, and that not more than three separate deviations should be open at any one time. No additional payments will be made where situations arise that the contractor has deviations cross over the roadway under construction.

(i) Traffic Safety Officer

Add to Sub-clause 1502(i) the following:

The Contractor shall submit a CV of the candidate to the Engineer for approval before the Traffic Safety Officer is appointed. The Traffic Safety Officer shall be made available to discuss road safety and traffic accommodation matters whenever required by the Engineer.

Delete Sub-clause 1502(i), sub-sub-clauses (ii) and (iii) and replace with the following:

(ii) Record on neat and dimensioned sketches and submit to the Engineer the position and sign reference number where applicable of each sign, barricade, delineator, cone, amber flicker light, guardrail and permanent or temporary painted road marking feature. The

position of each unit shall be adequately referenced to identifiable permanent features located along the site of the works.

These records shall also show the date and time at which the recorded traffic accommodation features are certified correct by the Traffic Safety Officer, and shall be signed by the Traffic Safety Officer before being submitted to the Engineer.

The records shall be amended whenever changes are made in the field and the revised detailed sketches shall be submitted to the Engineer. This shall include the recording of the position of flagmen and stop/go control men and their associated traffic accommodation equipment wherever they are used."

(iii) Personally inspect the position and condition of each traffic accommodation feature on the whole site of works twice each day by 9:30 and by 16:30, to record all irregularities discovered and the remedial action taken, and to sign off as correct and submit to the Engineer such record sheets by 10:00 and by 17:00 each day. The traffic Safety Officer shall keep a duplicate book for this specific purpose.

The Traffic Safety Officer shall also submit to the Engineer by 10:00 each morning, a record of all matters pertinent to site safety and traffic accommodation throughout the site of works the previous day. He shall also record the daily labour returns of flagmen, stop/go and traffic signal control men employed.

The traffic safety officer shall be equipped with a cellular telephone and shall have a vehicle and 3 labourers at his disposal 24 hrs a day and he shall be directly answerable to the Contractor's Site Agent. The Traffic Safety vehicle shall be a truck with a capacity of 5 tons and shall be equipped with a high visibility rear panel as shown on Figure 24 of Road Signs Note No.13. The traffic Safety Officer shall have a direct line of communication at all times with the police and traffic officers responsible for the area within limits of the Contract. The provision of the Road Safety Vehicle, driver, three labourers and the cost of the cellular telephone shall be deemed to be included in the rates tendered for the Contractor's establishment on site.

Add to Sub-clause 1502(i) the following new sub-sub-clauses:

(ix) Ensure that all obstructions, soil and gravel heaps, related to the Contractors activities be removed before nightfall where applicable and as instructed by the Engineer and that the roads are safe for night traffic.

(x) The Traffic Safety Officer shall, in addition to the duties listed in Clause 1502 (i), also be responsible for removal of broken down vehicles off the roadway and implementing actions requested by the traffic authorities with regard to the work to be carried out, and shall be responsible for the erection and maintenance of all traffic signs necessary for the accommodation of traffic."

Add the following new Sub-clauses to Clause 1502:

(j) Public traffic

The contractor must plan and conduct his activities so as to bring about the least possible disruption to the traffic on the road. All halting of traffic will require the prior approval of the engineer and must be pre-arranged with the appropriate traffic authorities.

In all dealings with the public the Contractor shall bear in mind the public's right to enjoy the use of the road, and the Employer's desire to interfere as little as possible with this right. At all points of contact with the public, the Contractor shall deal with deliberate courtesy and understanding in any discussions or disputes.

(k) Failure to comply with provisions

The failure or refusal of the Contractor to provide barricades or traffic signs at the proper time, or to take the necessary precautions for the safety and convenience of public traffic as specified or instructed by the Engineer, shall be sufficient cause for the suspension of all work under this Contract without any additional compensation to the Contractor until the required accommodation of traffic has been completed to the satisfaction of the Engineer. The above shall be sufficient cause for the Engineer to deduct penalties as follows:

- A fixed penalty of R5 000.00 per occurrence shall be deducted for each and every occurrence of non-compliance with any of the requirements of Section 1500 of the standard specifications and section B1500 of the Project Specifications.

- In addition a time-related penalty of R500.00 per hour over and above the fixed penalty shall be deducted for non-compliance to rectify any defects in the accommodation of traffic within the allowable time after an instruction to this effect has been given by the Engineer. The Engineer's instruction shall state the allowable time, which shall be the time in hours for reinstatement of the defects. Should the Contractor fail to adhere to this instruction, the time-related penalty shall be applied from the time the instruction was given.

The penalties shall be deducted from the payment certificate for the month in which the non-compliance occurs.

Payment will also be deducted in accordance with Payment Item B15.01 of these Project Specifications.

(l) Access to work area

Construction traffic will only be permitted to enter or leave the work area at points approved by the Engineer and as clearly indicated on the traffic management plans. When any access point is in use, flagmen shall be provided for each such point. At least two flagmen shall be stationed at the access point to control the movement of construction traffic, and to warn public traffic on both lanes of the existing road. It is not the purpose of these flagmen to stop public traffic flow.

(m) Extension of time for completion

Accommodation of public traffic on the works or any delays caused thereby, as well as any suspensions due to failure by the Contractor to comply with the provisions for the accommodation of traffic, will not be regarded as special circumstances for an extension of time.

B1503 TEMPORARY TRAFFIC-CONTROL FACILITIES

Replace the first sentence of the first paragraph of Clause 1503 with the following:
The Contractor shall provide, erect and maintain the necessary traffic-control devices, road signs, channelization devices, barricades, warning devices and road markings (hereinafter referred to as traffic-control devices) in accordance with these special provisions and as shown on the drawings and in the South African Road Traffic Signs Manual in conjunction with the latest edition of Road Signs Note No.13 Road-works, and remove them when no longer required. It shall be incumbent upon the Contractor to see to it that the abovementioned traffic-control devices are present where required at all times and are functioning properly, and he shall replace any that have been damaged, lost, stolen or obliterated at his own cost.

Replace the third paragraph of Clause 1503 with the following:
Manual. The recommended arrangements of the traffic control devices illustrated in Appendices 1 to 6 of Road Signs Note No.13 and/or drawings shall not be departed from without prior approval of the Engineer. Typical arrangements expected to be used in the Contract are given on the tender drawings. However, this shall not absolve the Contractor of his obligations in preparing traffic management plans as per this Project Specification.

The details shown for spacing and placement of traffic-control facilities may however, be revised at the discretion of the Engineer where deemed necessary to accommodate local site geometry and traffic conditions

(b) Road signs and barricades

Add to Sub-clause 1503(b) the following:

The Contractor shall be responsible for the protection and maintenance of all signs, and shall at his own cost replace any that have been damaged, or lost, or stolen.

All temporary road signs shall be mounted on portable supports for the easy moving of signs to temporary positions. The only permitted method of ballasting the sign supports shall consist of durable sandbags filled with sand of adequate mass to prevent signs from being blown over by wind. The cost of the sandbags shall be included for in the tendered rates for the various types of temporary road signs.

The traffic-control devices, temporary signs and devices required in the Contract are those designated in Road Signs Note No.13.

The covering of permanent road signs, if applicable, shall be by utilising a hessian bag, which shall be pulled over the sign in the form of a hood and fastened to the sign posts. Plastic bags or other materials and fastening by means of adhesive tape shall not be permitted. The cost of covering of permanent road signs shall be deemed to be covered by the tendered rates of items B15.01 and 15.10.

No work may proceed on any section where accommodation of traffic is required until such time as the relevant requirements with regards to signposting are met and written approval of the Engineer is obtained. The Contractor shall keep sufficient surplus signs, delineators and barricades on the site to allow for the immediate replacement of damaged or missing items, in any case, within three hours of instructions having been given by the Engineer. Delineators shall be of the flexible plastic reversible variety and not of the rigid metal variety.

Should the Contractor fail to respond to an instruction to re-erect a road sign within the designated time or fail to comply with the requirements, the work on that section will be suspended without any compensation to the Contractor.

(c) Channelization devices and barricades

Add to Sub-clause 1503(c) the following:

Delineators shall be of plastic and shall be capable of withstanding winds caused by passing traffic in typical working conditions without falling over. To achieve this, the base shall be ballasted using sand bags.

Traffic cones manufactured in a fluorescent red-orange or red plastic material shall be used only at short term lane deviations during daylight. Cones used on all deviations shall be 750 mm high. Lane closures which continue into the night time shall be demarcated by delineators only.

The use of steel drums as channelization devices will not be allowed on this Contract unless instructed by the Engineer. Channelization shall be effected by the use of delineators or cones as detailed in Road Signs Note No. 13 – Road-works.

(e) Warning devices

Add to Sub-clause 1503(e) the following:

All construction vehicles and plant used on the works shall be equipped with rotating amber flashing lights and warning boards as specified. All vehicles and plant shall obtain a clearance permit from the Engineer before being allowed onto the site.

Rotating lights shall have an amber lens of minimum height of 200 mm and shall be mounted to ensure clear visibility from all directions. The lights on construction vehicles shall not be switched on while vehicles are being operated on unrestricted sections of a public road, but shall be switched on while construction vehicles are operating within the accommodation of traffic area, as the vehicles decelerate to enter a construction area, and as the vehicles accelerate to the general speed when entering the road from a construction area. Lights on plant shall operate continuously while the plant is working alongside sections of road open to public traffic.

All LDV's and cars operating on site shall also be equipped with rotating amber flashing lights which shall be placed so as to be clearly visible and operated continuously while the vehicles are manoeuvring in or out of traffic or are travelling or parked alongside roads open to public traffic.

Rotating lights and the "Construction Vehicle" signs on the Contractor's vehicles and plant shall not be paid for separately but shall be included in the rates covering the use of the vehicles.

The Contractor shall apply and maintain lights together with temporary mounting brackets, to the approval of the Engineer. Vehicles and plant that do not comply with these requirements shall be removed from the site.

The Contractor shall ensure that all his personnel, excluding those who are permanently office bound, are equipped with reflective safety jackets and that these are worn at all times when working on or near to the travelled way. Any person found not wearing a reflective jacket under these circumstances shall be removed from the site until such time as he is in possession of and wearing a reflective jacket. Reflective safety jackets shall be kept in good condition and any jackets that are, in the opinion of the Engineer, ineffective shall be immediately replaced by the Contractor.

Add the following New Sub-clauses to Clause 1503:

(g) Other signs and facilities

The Engineer may instruct the Contractor to provide any other road sign, reflective tape, etc, not measured in standard pay items. The road signs shall conform to the requirements of the South African Traffic Signs Manual, Road Note 13 or specification provided by the Engineer.

The Contractor shall inform the general public of the intended road works, construction period and accommodation of traffic proposal through press releases in local and provincial newspapers."

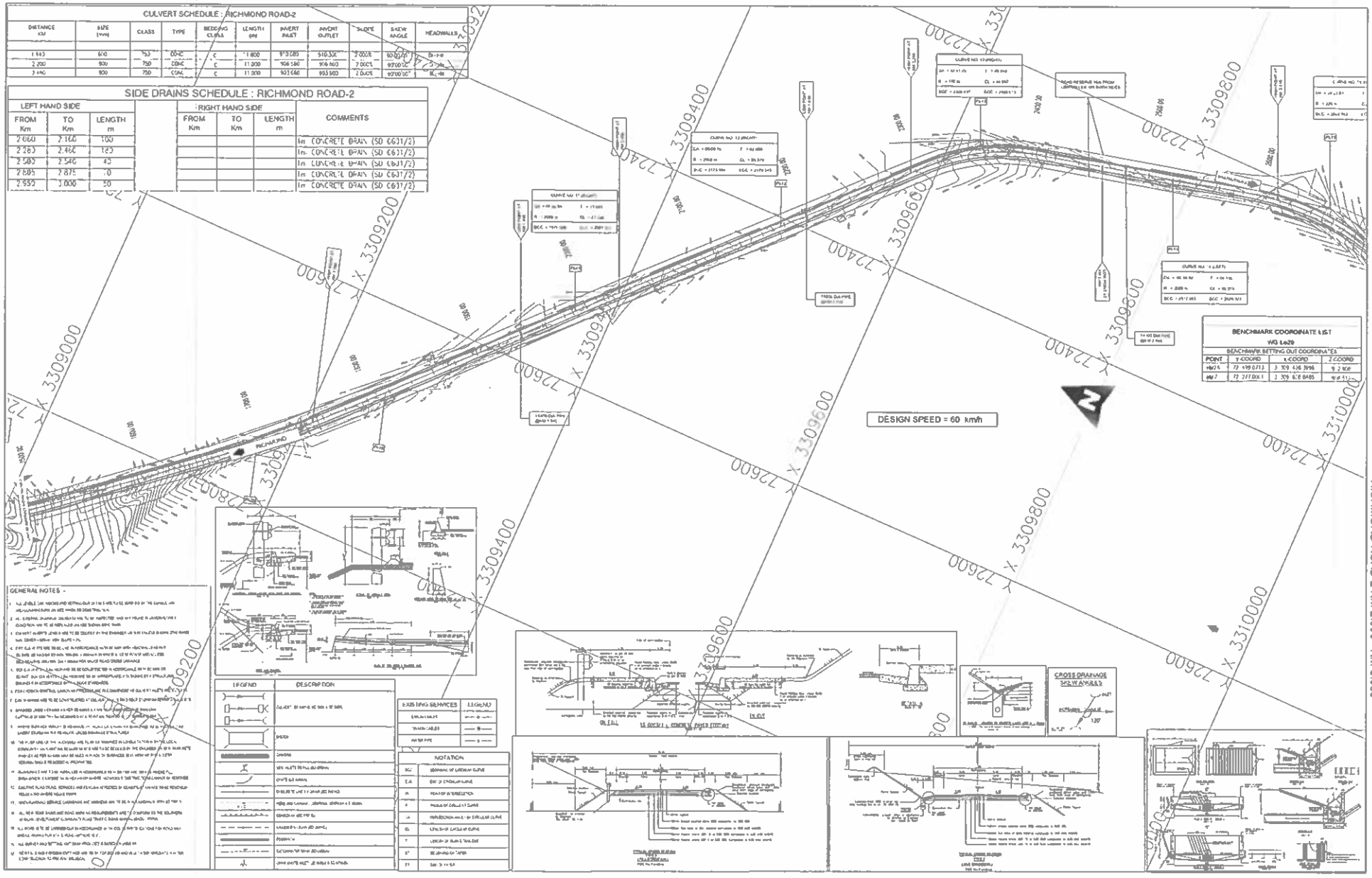
Cones shall be manufactured and positioned in accordance with the details specified on the drawings.

All traffic cones and road signs shall be kept clean and visible at all times. All bituminous or other foreign material shall be removed by the Contractor, or the dirty traffic cones and road signs shall be replaced with new ones at the cost of the Contractor, as directed by and to the satisfaction of the Engineer.

(h) Safety jackets & Safety Helmets

The Contractor will be responsible to ensure that all construction workers, staff of the Engineer and visitors (Including Municipal Officials) shall wear safety jackets and safety helmets when moving around on site. The jackets shall be of an approved type, orange in colour and shall be to the approval of the Engineer.

C4 Drawings



DETAIL DESIGN

RICHMOND MUNICIPALITY

RICHMOND LOCAL MUNICIPALITY: RICHMOND - SIYATHUTHUKA

Km 0,000 - Km 3.670

UPGRADE OF MUNICIPAL ROAD: RICHMOND ROAD-2

DESIGN AND SERVICE PLAN

1 : 1000

RICH-GA-03

RICHMOND ROAD-2 KM 2.000 - KM 3.000

RICH-GA-03

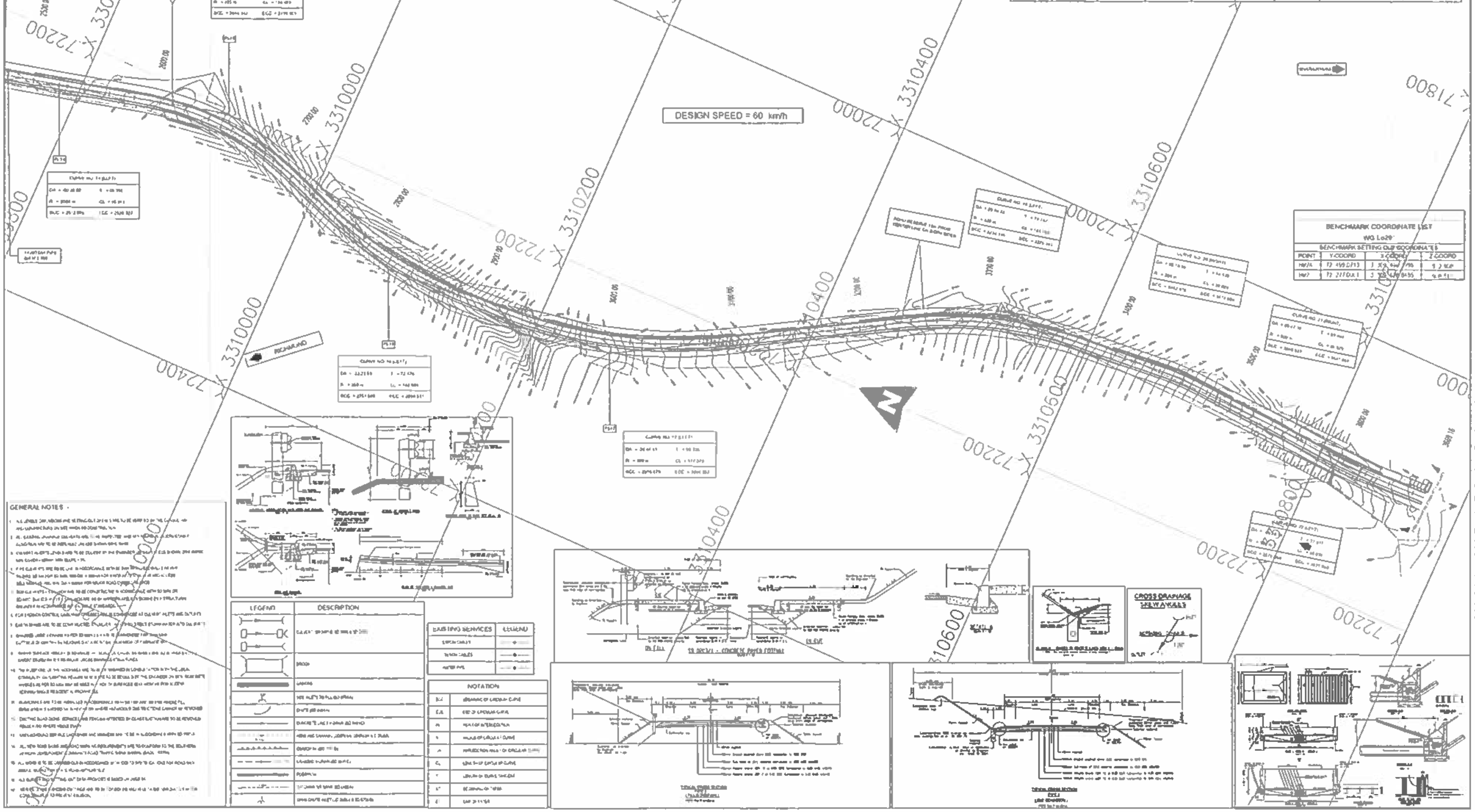
CULVERT SCHEDULE : RICHMOND ROAD-2

DISTANCE KM	SIZE (mm)	CLASS	TYPE	BEDDING CLASS	LENGTH (m)	INVERT INLET	INVERT OUTLET	SLOPE	SKEW ANGLE	HEADWALLS
1 940	6/C	750	CONC	C	11.000	910.385	910.305	2.000%	90°00'00"	[illegible]
2 200	900	750	CONC	C	11.000	906.580	906.503	2.000%	90°00'00"	[illegible]
2 480	900	750	CONC	C	11.000	903.680	903.903	2.000%	90°00'00"	[illegible]

DESIGN SPEED = 60 km/h

SIDE DRAINS SCHEDULE : RICHMOND ROAD-2

LEFT HAND SIDE FROM Km	LEFT HAND SIDE TO Km	LEFT HAND SIDE LENGTH m		RIGHT HAND SIDE FROM Km	RIGHT HAND SIDE TO Km	RIGHT HAND SIDE LENGTH m	COMMENTS
2.060	2.160	100					1m CONCRETE DRAIN (SD C601/2)
2.280	2.450	180					1m CONCRETE DRAIN (SD C601/2)
2.500	2.540	40					1m CONCRETE DRAIN (SD C601/2)
2.505	2.875	70					1m CONCRETE DRAIN (SD C601/2)
2.950	3.020	50					1m CONCRETE DRAIN (SD C601/2)



RICHMOND ROAD-2 KM 2.000 - KM 3.000

DETAIL DESIGN

RICHMOND MUNICIPALITY

RICHMOND LOCAL MUNICIPALITY RICHMOND - SIYATHUTHUKA

Km 0.000 - Km 3.670

UPGRADE OF MUNICIPAL ROAD: RICHMOND ROAD-2

DESIGN AND SERVICE PLAN

1 : 1000

RICH-GA-03

RICH-GA-03