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JOHANNESBURG DEVELOPMENT AGENCY (JDA)

THE JABULANI TRANSIT ORIENTED DEVELOPMENT PROJECTS PHASE 5 (COMPLETION FOR THE TRAFFIC CIRCLE)

CONTRACT No: JDA 17/19.2.2.B.700151

<p>ISSUED FOR:</p> <p>Johannesburg Development Agency</p> <p>No 3 Helen Joseph Street The Bus Factory Newtown 2000</p> <p>Contact Name: Mr Tanduxolo Ntoyi Telephone No: 011 688 7851 Email Address: tntoyi@jda.org.za</p> 	<p>PREPARED BY:</p> <p>Snethemba Consultants (Pty) Ltd</p> <p>Sunninghill Office Park 20 Peltier Dr, Block 15 Sunninghill 2157</p> <p>Contact Name: Mr Junior Kasenge Telephone No: 072 876 8544 Email Address: info@snethemba.co.za</p> 
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NAME OF TENDERER:

CIDB REGISTRATION NUMBER:

CSD NUMBER:

COMPANY REGISTRATION NUMBER:

TAX PIN NUMBER:

**NB: A TOTAL PRICE INCLUSIVE OF VALUE ADDED TAX, PLEASE REFER TO PART C1
(FORM OF OFFER AND ACCEPTANCE), PAGE 68**

This tender closes at 12h00 on 08 November 2023 at the offices of the Johannesburg Development Agency “The Bus Factory”, 3 Helen Joseph (formerly President) Street, Newtown, Johannesburg.

NO LATE SUBMISSIONS WILL BE CONSIDERED





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City of Johannesburg
Johannesburg Development Agency

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TENDER

GENERAL CONDITIONS OF CONTRACT (GCC) FOR CONSTRUCTION WORKS (2015) (Third Edition)

**THE JABULANI TRANSIT ORIENTED DEVELOPMENT PROJECTS
GROUND: PHASE – 5
(COMPLETION FOR THE TRAFFIC CIRCLE)**

CONTRACT No: JDA 17/19.2.2. B.700151

**PLEASE NOTE: TENDERS MUST BE SUBMITTED ON THE TENDER DOCUMENTATION ISSUED.
TENDER DOCUMENTATION MUST NOT BE REPRODUCED OR REARRANGED. ANY ADDITIONAL
INFORMATION MUST BE SUBMITTED AS A SEPARATE ATTACHMENT TO THE TENDER
DOCUMENT.**



To all our stakeholders

RE: The channels of reporting fraudulent and Corrupt Activities

The City of Johannesburg has a **zero-tolerance approach to Fraud, Theft, Corruption, Maladministration, and Collusion** by suppliers with employees. To reinforce this commitment, more channels have been added to report any Fraudulent and Corrupt activities.

Instances of corporate fraud and misconduct remain a constant threat to service delivery. The City of Johannesburg took a resolution to adopt strategic interventions aimed at combating fraud and corruption. The City took a decision to centralize the reporting of fraudulent and corrupt activities through the establishment of an independent fraud hotline which is managed by independent service providers.

All people doing business with the Johannesburg Development Agency are encouraged to report any corrupt or illegal practice.

Employees are encouraged to report fraud, waste or other concerns suggestive of dishonest or illegal activities.

Anyone can report fraudulent and corrupt activities through one of the following channels:

- Toll free number..... 0800 002 587
- Toll free Fax 0800 007 788
- SMS (charged @ R1.50) 32840
- Email Address..... anticorruption@tip-offs.com
- Web site..... www.tip-off.com
- Free post..... Free post, KNZ 138, Umhlanga, 4320



LET'S JOIN HANDS TO TAKE UP THE FIGHT AGAINST FRAUD AND CORRUPTION IN OUR SOCIETY.

JOHANNESBURG DEVELOPMENT AGENCY (JDA)

THE JABULANI TRANSIT ORIENTED DEVELOPMENT PROJECTS GROUND: PHASE – 5 (COMPLETION FOR THE TRAFFIC CIRCLE)

TENDER

CONTRACT No: JDA 17/19.2.2.B.700151

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THE CONTRACT

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C4	Site Information	(Green)
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Part C5: Tender Drawings

C5	Drawings	(White)
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Note: Documents must be printed and submitted in the colours as stated above



TENDER DOCUMENT CHECKLIST

Tenderers must complete this document checklist to ensure that all information is completed in the Tender Document.

ITEMS	CHECKED	
	Contractor	Project Manager
1. Correct Tender offer carried forward to the Cover Page and also the Form of Offer and Acceptance in Part C1.1	<input type="checkbox"/>	<input type="checkbox"/>
2. Tenderer's signature on the offer	<input type="checkbox"/>	<input type="checkbox"/>
3. Bill of Quantities	<input type="checkbox"/>	<input type="checkbox"/>
i Hard copy of BOQ completed in pen	<input type="checkbox"/>	<input type="checkbox"/>
ii Initialled on each page	<input type="checkbox"/>	<input type="checkbox"/>
iii Corrections crossed out and initialled.	<input type="checkbox"/>	<input type="checkbox"/>
iv Electronic BOQ on CD/USB	<input type="checkbox"/>	<input type="checkbox"/>
4. Returnable Documents and Schedules	<input type="checkbox"/>	<input type="checkbox"/>
i Authority to Sign Tender	<input type="checkbox"/>	<input type="checkbox"/>
ii Declaration of Interest	<input type="checkbox"/>	<input type="checkbox"/>
iii Record of Addenda to Tender Documents	<input type="checkbox"/>	<input type="checkbox"/>
iv Banking Details	<input type="checkbox"/>	<input type="checkbox"/>
v Proposed Amendments and Qualifications (if any)	<input type="checkbox"/>	<input type="checkbox"/>
vi Certificate of Authority for Joint Venture and Joint Venture Agreement (if applicable)	<input type="checkbox"/>	<input type="checkbox"/>
vii MBD 5: Declaration for Procurement above R10 million	<input type="checkbox"/>	<input type="checkbox"/>
viii MBD 8: Declaration of Bidder's Past Supply Chain Management Practices	<input type="checkbox"/>	<input type="checkbox"/>
ix MBD 9: Certificate of Independent Bid Determination	<input type="checkbox"/>	<input type="checkbox"/>
x Particulars of all Contracts awarded by an Organ of State during the last 5 years	<input type="checkbox"/>	<input type="checkbox"/>
xi Fulfilment of the Construction Regulations	<input type="checkbox"/>	<input type="checkbox"/>
Questionnaire on Tenderer's Procedures with respect to OHS&A and		
xii Construction Regulations	<input type="checkbox"/>	<input type="checkbox"/>
xiv A valid Tax Compliance Status. No tender will be awarded to a bidder whose tax matters are not in order with the South African Revenue Service (SARS) at the time of award.	<input type="checkbox"/>	<input type="checkbox"/>
xv Declaration on State of Municipal Accounts and copy of current Municipal Account in the name of the Tenderer or alternatively in the names of the Directors/Partners of the tendering entity.	<input type="checkbox"/>	<input type="checkbox"/>
xvi Letter of Intent from a Financial Institution to provide a Construction Guarantee in accordance with the GCC form (Refer C1.3)	<input type="checkbox"/>	<input type="checkbox"/>
xvii Proof of CIDB Grading	<input type="checkbox"/>	<input type="checkbox"/>

xviii	A valid originally or certified copy of the B-BBEE status level verification certificate, substantiating the B-BBEE rating or an EME must submit a sworn affidavit,	<input type="checkbox"/>	<input type="checkbox"/>
xviii	Schedule of Recently Completed Contracts	<input type="checkbox"/>	<input type="checkbox"/>
xxvii	Schedule of Current Contracts	<input type="checkbox"/>	<input type="checkbox"/>
xxiii	Schedule of Proposed Key Personnel and detailed Curricula Vitae of all Key Personnel	<input type="checkbox"/>	<input type="checkbox"/>
xxv	Methodology Statement	<input type="checkbox"/>	<input type="checkbox"/>
xxvi	Preliminary Construction Programme	<input type="checkbox"/>	<input type="checkbox"/>
xxviii	Audited Financial Statements for past 3 years	<input type="checkbox"/>	<input type="checkbox"/>
xxix	Bank Rating	<input type="checkbox"/>	<input type="checkbox"/>
xxx	SMME Plan	<input type="checkbox"/>	<input type="checkbox"/>
xxxi	COIDA Letter of Good Standing	<input type="checkbox"/>	<input type="checkbox"/>

PART T1: TENDERING PROCEDURES



PART T1: TENDERING PROCEDURES

T1.1:Tender Notice and Invitation to Tender

**THE JABULANI TRANSIT ORIENTED DEVELOPMENT PROJECTS
GROUND: PHASE – 5
(COMPLETION FOR THE TRAFFIC CIRCLE)**

CONTRACT NO: JDA 17.2.6.B.700251.1 PH5

The Johannesburg Development Agency invites tenderers for the construction or The Jabulani transit Orientated Development projects for Roads Infrastructure Upgrades. The works to be carried out consists of upgrades of existing Bolani road single roadway into dual carriageway, widening of sidewalks, construction of bus shelters and traders' shelters, Stormwater infrastructure and relocation of other existing service. The evaluation for the pricing stage and empowerment will focus on pricing & preference. The successful bidder will be expected to manage the component of emerging sub-contractors who will be responsible for executing portions of the work. 30% of the work will be allocated to emerging SMME's.

It is estimated that the bidders should have a CIDB contractor grading designation of 5CE or higher. Joint ventures are eligible to submit tenders provided that they satisfy criteria stated in the Tender Data.

Document may be downloaded from the JDA website as follows: www.jda.gov.za as well as on www.etenders.gov.za. From Wednesday, the 25th October 2023. Drawings can be downloaded on [Jabulani Drawings PDF](#) .

Queries relating to the issue of these documents may be addressed to Mr Yandisa Dinga on ydinga@jda.org.za. Technical queries may be addressed to Mr Tanduxolo Ntoyi on tntoyi@jda.org.za

A **compulsory** tender clarification meeting with the representatives of the employer will take place on **Wednesday 1 November 2023 at 10h00 - 11h30** on site, at Bolani Road Construction site, Bolani Street, Soweto, Johannesburg, (google earth coordinates are as follows: **26°14'56.28"S; 27°51'27.77"E**) Invited bidders will be allowed to send through their queries and questions to the above email addresses, however the last day to make enquires is the **03 November 2023 by end of business**.

The closing time for receipt of tenders is 12:00 on Wednesday, 08 November 2023. Telegraphic, telephonic, telex, facsimile, e-mail and late tenders will not be accepted.

Tenders must only be submitted on the tender documentation that is issued. The retyping of the tender document is not permitted.

Requirements for sealing, addressing, delivery, opening and assessment of tenders are stated in the Tender Data.

The JDA's selection of qualifying tenders will be at the JDA's sole discretion and will be final. The JDA does not bind itself to accept any particular tender. Correspondence will be entered into with the successful tenderer.

"WE ENCOURAGE ALL PEOPLE DOING BUSINESS WITH US TO REPORT ANY CORRUPT OR ILLEGAL PRACTICE, USING THE ANTI-FRAUD HOTLINE NUMBER: 0800 002 587"



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, (July 2015) as published in Government Gazette No. 38960, Board Notice 136 of 2015 of 10 July 2015. (See www.cidb.org.za).

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

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

Clause Number	Clause Heading	Data / Wording
F.1.1	The Employer	Johannesburg Development Agency PO Box 61877 Marshalltown, 2107
F.1.2	The Tender	<p>PART T1: TENDERING PROCEDURES</p> <p>T1.1 Tender Notice and Invitation to Tender</p> <p>T1.2 Tender Data</p> <p>PART T2: RETURNABLE DOCUMENTS</p> <p>T2.1 List of Returnable Schedules & Documents</p> <p>T2.2 Returnable Schedules and Documents</p>
	The Contract	<p>PART C1: AGREEMENT AND CONTRACT DATA</p> <p>C1.1 Form of Offer and Acceptance</p> <p>C1.2 Contract Data</p> <p>C1.3 Construction Guarantee</p> <p>C1.4 Occupational Health and Safety Agreement</p> <p>PART C2: PRICING DATA</p> <p>C2.1 Pricing Instructions</p> <p>C2.2 Bill of Quantities</p> <p>PART C3: SCOPE OF WORK</p> <p>PART C4: SITE INFORMATION</p> <p>PART C5: TENDER DRAWINGS</p>
		<p>(a) "General Conditions of Contract for Construction Works – 3rd Edition 2015" This document is issued by the South African Institution of Civil Engineering. (Short title "General Conditions of Contract 2015") and is obtainable separately. Tenderers shall obtain their own copies.</p> <p>(b) The latest SANS 1200 Specification for Civil Engineering shall be applicable for this contract as well as the latest SANS 1058 concrete and paving blocks</p> <p>(c) The Occupational Health and Safety Act No. 85 of 1993 and Amendment Act No. 181 of 1993, and the Construction Regulations 2014 (Government Gazette No. 37305 of 7 February 2014 Notice No. R84). This document is</p>

		<p>obtainable separately. Tenderers shall obtain their own copies.</p> <p>(d) The Occupational Health and Safety Specification in terms of the requirements of Construction Regulations 4(1)(a). This document is contained elsewhere in this Tender.</p> <p>(e) In addition, Tenderers are advised in their own interest, to obtain their own copies of the following acts, regulations and standards referred to in this document, together with any gazetted amendments thereto, as they are essential for the Tenderer to get acquainted with the basics of construction and management requirements:</p> <ul style="list-style-type: none"> (i) The Construction Industry Development Board Act No. 38 of 2000 and the Regulations in terms of the CIDB Act 38 of 2000, Government Notice No. 692 of 9 June 2004, as amended. (ii) SANS 1921-1 : 2004 Construction and Management requirements for Works Contracts Part 1 : General Engineering and Construction Works; Part 6 : HIV/AIDS Awareness <p>The Tender Document and the drawings shall be obtained from the Employer or his authorised representative at the physical address stated in the Tender Notice.</p> <p>The Tender Document will be issued as bound paper documents.</p>
F.1.4	Employer's Agent	<p>Name: Snethemba Consultants (Pty) Ltd</p> <p>Address: Sunninghill Office Park, 20 Peltier Dr, Block 15 Sunninghill 2157</p> <p>Telephone: 072 876 8544</p> <p>e-mail: info@snethemba.co.za</p>
F.2.1	Eligibility	<p>Only those tenderers who are registered with the CIDB or are capable of being so prior to the evaluation of submissions, in a contractor grading designation equal to or higher than a contractor grading designation determined in accordance with the sum tendered, are eligible to have their tenders evaluated.</p> <p>Joint ventures are eligible to submit tenders provided that:</p> <ul style="list-style-type: none"> (a) every member of the joint venture is registered with the CIDB. (b) the lead partner has a contractor grading designation in the 5 CE or higher. 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 5 CE class of construction work determined in accordance with Regulation 25 (1B) or 25 (7A) of the Construction Industry Development Regulations.
F.2.1	Eligibility	<p>Only those tenderers who have in their employ management and supervisory staff satisfying the requirements of the scope of work for labour intensive competencies for supervisory and management staff are eligible to submit tenders.</p>
F.2.7	Clarification Meeting	<p>A compulsory tender clarification meeting with the representatives of the employer will take place on 01 November 2023 @10h00 to 11h30 on site, at Bolani Road Construction site, Bolani Street, Soweto, Johannesburg, (google earth coordinates are as follows: 26°14'56.28''S; 27°51'27.77''E)</p>

F.2.12	Alternative tender offers	No alternative tender offers will be considered.
F.2.13.2		All returnable documents to the employer as defined in F.1.2 of the Tender Data shall be returned in legible writing in non-erasable ink.
F.2.13.3	Number of copies of tender offers to be submitted to the Employer	Parts of each tender offer communicated on paper shall be submitted as an original, plus one (1) copy.
F.2.13.5 F.2.15.1	Sealing and Delivery of tender offers	<p>The Employer's details and address for delivery of tender offers and identification details that are to be shown on each tender offer package are:</p> <p>Location of tender box: Reception Desk of the Johannesburg Development Agency</p> <p>Physical address: The Bus Factory 3 Helen Joseph (formerly President) Street Newtown Johannesburg</p> <p>Identification details: Contract No. JDA 17.2.6.B.700251.1 PH5 Title of Tender THE JABULANI TRANSIT ORIENTED DEVELOPMENT PROJECTS GROUND: PHASE 5</p> <p>Tender closing date: 08 November 2023 Tender closing time: 12H00</p>
F.2.13.9	Telephonic	Telephonic, telegraphic, telex, facsimile or e-mailed tender offers will not be accepted.
F.2.15	Closing time of tender offers	The closing time for receipt of tenders is 12:00hrs on Wednesday, 08 November 2023.
F.2.16.1	Tender offer validity	The tender offer validity period is Hundred and Twenty (120) days.
F.2.20	Letter of Intent	The tenderer is required to submit with his tender a letter of intent from an approved financial institution undertaking to provide the Construction Guarantee in the format included in Part C1.3 of this procurement document.
F.2.23	Certificates	<p>The tenderer is required to submit with his tender:</p> <p>a) A copy of a valid Tax Compliance Status letter. No tender will be awarded to a bidder whose tax matters are not in order with the South African Revenue Service (SARS) at the time of award.</p> <p>b) Tenderers must submit their valid B-BBEE status level verification certificate or a certified copy thereof, substantiating their B-BBEE rating. Certificates issued by either verification agencies accredited by the South African Accreditation System (SANAS)</p> <p>Documents and Schedules listed in Part T2.</p>
F.3.4	Opening of tender submissions	The closing time for receipt of tenders is 12:00hrs on Wednesday, 08 November 2023.
F.3.11.3	Evaluation of Tender Offers	<p>The procedure for the evaluation of responsive tenders is Method 2 (Price and Preferences) having completed a technical evaluation.</p> <p>The Preference Point System assigns a score to each tenderer based on the tender price and on the tenderer's preference points. These scores are combined to determine an overall score for the tender. The tenderer with the highest score will be considered for acceptance.</p>

The Preference Point System will be applied as follows.
 For tenders below R50 million
 80 points are assigned to price
 Up to 20 points are assigned to Preference Points

For tenders of R50 million and above:

- 90 points are assigned to price
- Up to 10 points are assigned to Preference Points

Points scored will be rounded off to the nearest 2 decimal places.

Key Returnable Documents	Criteria	Description of Criteria	Points	Scores
	Preliminary Programme (Concentrating/demonstrating point 1-5	<ol style="list-style-type: none"> 1. Critical Path. 2. Testing and acceptance control dates. 3. Providing As-built levels and drawings. 4. Date of Practical Completion and Date of Works Completion. 5. Environmental and Health & Safety Audits 	5	
	Method Statement (project specific)	<ol style="list-style-type: none"> 1. How the work will be executed. 2. Procedure on quality control, reporting and procedure to be followed until approval by Engineer. 3. Dust control, spoil site with approved spoil sites will be used. 4. How SMME's or General Local Labour will be utilised in the project 	5	
	OHS Plan	<ol style="list-style-type: none"> 1. How safety will be observed during construction. 2. Observing COVID-19 protocols. 	5	



		<ol style="list-style-type: none"> 3. Provision of Personal Protective Equipment. 4. First aid and emergency procedures. 5. Safety during movement of construction machines. 			
	Traffic Accommodation Plan	<ol style="list-style-type: none"> 1. Traffic accommodation for all the streets to be implemented. 2. Access and access control to immediate properties. 3. Accommodating pedestrian activity. 4. Traffic considerations of schools and other institutions in the area. 5. Peak and off-peak traffic flows and ways to manage construction around these 	5		
Company Experience	Criteria	Description of Criteria	Points	Scores	
Company experience and track record on urban roads and stormwater projects from R 6million and above. The above is to be proven by reference letters on Client letter head with telephone and email	Five (5) or More Projects completed	Points will only be allocated for urban roads projects with values from R 6million and above, completed in the past 5 years – Each letter equals 5 points – Maximum points is 25 points	25		
	Four (4) Projects completed		20		
	Three (3) – Projects completed		15		
	Two (2) - Project completed		10		
	One (1) – Project completed		5		



contact details				
Experience of proposed key personnel	Criteria	Description of Criteria	Points	Scores
Copies of qualifications including professional registration where applicable are required for Contracts Manager, SMME Supervisor, Site Agent, and OHS Officer	Contracts Manager with 10 years experience as a contract manager in urban roads and stormwater projects, with a minimum qualification B-tech Civil Engineering and professional Registration with SACPCMP or ECSA	Points will only be allocated for experience on roads and stormwater projects of the proposed key personnel	10	
	Site Agent with 10 years experience as a site agent on urban roads and stormwater projects, with a minimum qualification of a National Diploma in the built environment		5	
	SMME Supervisor with minimum 5 years of experience in construction supervisory role		5	
	OHS Officer with 5 years a construction health and safety officer and registered by the SACPCMP as a Construction Health and Safety Officer		5	
		TOTAL SCORE	70	
Minimum score required is 49/70 points, which is 70%				

The bidders needs to get a minimum of 49 points in order to move to the next evaluation criteria which is the Price and Preference point system

Compliance / Disqualification Criteria	<p>BIDDERS WILL BE DISQUALIFIED FOR:</p> <ul style="list-style-type: none"> • FAILURE TO COMPLETE AND SIGN THE OFFER PAGE; • FAILURE TO ATTEND COMPULSORY TENDER BRIEFING; • FAILURE TO COMPLETE AND SUBMIT A PRICED BILL OF QUANTITIES IN FULL; • FAILURE TO DULY COMPLETE FORM A3 (WHERE REQUIRED) THAT INCLUDES FOR ANY ADDENDA THAT MAY HAVE BEEN ISSUED WHERE SUCH ADDENDA HAS A MATERIAL EFFECT ON THE PRICE; • TERMINATION DURING THE LAST FIVE (5) YEARS ON PREVIOUS CONTRACTS WITH THE JDA OR ANY OTHER ORGAN OF STATE; • FAILED TO PERFORM ON ANY PREVIOUS CONTRACT AND HAS BEEN GIVEN A WRITTEN NOTICE TO THIS EFFECT; • SERVICE PROVIDERS WILL BE SCORED ZERO (0) FOR FAILURE TO CLAIM, COMPLETE AND ATTACH EVIDENCE FOR PREFERENTIAL PROCUREMENT PREFERENCE
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		<ul style="list-style-type: none"> • COMPLETING THE TENDER DOCUMENT IN PENCIL; • SUBMITTING A BID AFTER THE CLOSING DATE AND TIME. • FAILURE TO CORRECTLY CARRY FORWARD ANY AND ALL TOTALS/AMOUNTS FROM THEIR PRICED BILL OF QUANTITIES TO THE FINAL SUMMARY AND OFFER PAGES. • FAILURE TO BE REGISTERED AND ACTIVE WITH CIDB IN THE RELEVANT GRADING • FAILURE TO COMPLETE MBD 6.2 FORM AND ANNEXURE C 																		
	<p>Price and Preference</p>	<p>PREFERENCE POINTS CLAIM FORM IN TERMS OF THE PREFERENTIAL PROCUREMENT REGULATIONS 2022</p> <p>Having completed compliance checks, the procedure for the evaluation of compliant tenders is Method 2 (Price and Preferences).</p> <p>The Preference Point System assigns a score to each tenderer based on the tender price and on the specific goals as stated in the tender document. These scores are combined to determine an overall score for the tender. The tenderer with the highest score will be considered for acceptance.</p> <p>Points scored will be rounded off to the nearest 2 decimal places.</p> <p>FORMULA FOR SCORING TENDER PRICE The following formula will be used to calculate the points for price. $P_s = X \left[1 - \frac{(P_t - P_{min})}{P_{min}} \right]$ Where P_s = Points scored for comparative price of tender under consideration P_t = Comparative price of tender under consideration P_{min} = Comparative price of lowest acceptable tender X = Points assigned to price</p> <p>POINTS AWARDED FOR SPECIFIC GOALS</p> <p>Bids will be evaluated on an 80/20 (Price / Specific Goals) points basis in terms of the Preferential Procurement Policy Framework Act of 2000, Preferential Procurement Regulation 2022.</p> <p>The following table is applicable in terms of specific goals.</p> <table border="1" data-bbox="528 1464 1390 2058"> <thead> <tr> <th>SPECIFIC GOAL 1: HDI</th> <th>MEANS OF VERIFICATION</th> <th>80/20</th> </tr> </thead> <tbody> <tr> <td>Business owned by 51% or more - Black People</td> <td>CSD, Valid BBBEE Certificate / Affidavit Sworn under oath, ID copy of owner/s of the business and Shareholder's certificate.</td> <td>5</td> </tr> <tr> <td>Business owned by 51% or more — Women</td> <td>CSD, ID copy of owner/s of the business and Shareholder's certificate.</td> <td>5</td> </tr> <tr> <td>SMME – EME or QSE</td> <td>CSD, Valid BBBEE Certificate / Affidavit Sworn under oath, ID copy of owner/s of the business and</td> <td>5</td> </tr> <tr> <td>Enterprises located within the City of Johannesburg Metropolitan Municipality.</td> <td>CSD and proof of municipal account.</td> <td>5</td> </tr> <tr> <td colspan="2">Total points for Price and SPECIFIC GOALS</td> <td>20</td> </tr> </tbody> </table>	SPECIFIC GOAL 1: HDI	MEANS OF VERIFICATION	80/20	Business owned by 51% or more - Black People	CSD, Valid BBBEE Certificate / Affidavit Sworn under oath, ID copy of owner/s of the business and Shareholder's certificate.	5	Business owned by 51% or more — Women	CSD, ID copy of owner/s of the business and Shareholder's certificate.	5	SMME – EME or QSE	CSD, Valid BBBEE Certificate / Affidavit Sworn under oath, ID copy of owner/s of the business and	5	Enterprises located within the City of Johannesburg Metropolitan Municipality.	CSD and proof of municipal account.	5	Total points for Price and SPECIFIC GOALS		20
SPECIFIC GOAL 1: HDI	MEANS OF VERIFICATION	80/20																		
Business owned by 51% or more - Black People	CSD, Valid BBBEE Certificate / Affidavit Sworn under oath, ID copy of owner/s of the business and Shareholder's certificate.	5																		
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Enterprises located within the City of Johannesburg Metropolitan Municipality.	CSD and proof of municipal account.	5																		
Total points for Price and SPECIFIC GOALS		20																		

	<p>Risk Tolerance</p>	<p>RISK TOLERANCE FRAMEWORK</p> <p>The JDA has adopted a Risk Tolerance Framework (RTF) which enjoins the JDA to consider its risk exposure to contractors/Service Providers in terms of the number of contracts awarded to a single Contractor/service provider or the total value of contracts awarded to a single contractor/service provider in a particular year.</p> <p>In terms of the Risk Tolerance Framework, the JDA determine the risk exposure as excessive in instances where the value of the contracts is:</p> <ol style="list-style-type: none"> 1) The greater of R80 million or four contracts/ projects in the current financial year or 2) The greater of R120 million or six contracts/projects over two financial years (current year and previous financial year). <p>A risk analysis shall be undertaken on the bidder with the highest number of points obtained, to determine whether the tenderer does not exceed the JDA's risk framework criteria as stated above, in other words whether it falls within the ambit of the Risk Tolerance Framework as acceptable.</p> <p>Over and above the number of projects and values, bidders will be further evaluated on commercial risks which will include but not limited to the following: Financial capability to undertake the project such as capital required to implement the project in line with CIDB s, poor performance on previous projects, available resources for the project, unduly high or unduly low tendered rates, significant arithmetical errors and omissions in the tender offer.</p> <p>The above may impact the outcome of the evaluation</p> <p>JDA reserves the right to award a contract to a bidder who has exceeded the threshold as stated above.</p> <p>Shortlisted bidders may be requested to attend interviews should there be a need for clarity</p> <p>Unsuccessful bidders will have the opportunity to query the award within 07 calendar days after regret letters have been issued to the unsuccessful bidder(s).</p> <p>Bidders are to note that JDA does not bind itself to accept the lowest priced bid</p>



PART T2: RETURNABLE DOCUMENTS



PART T2: RETURNABLE SCHEDULE AND DOCUMENTS

T2.1 Returnable Schedules required for tender evaluation purposes.

Form A1:	Authority to sign Tender
Form A2:	Declaration of Interest
Form A3:	Record of Addenda to Tender Documents
Form A4:	Proposed Amendments and Qualifications (if any)
Form A5:	Certificate of Authority for Joint Venture and Joint Venture Agreement (if applicable)
Form A6:	MBD9 Certificate of Independent Bid Determination
Form A7:	Particulars of any contracts awarded by an organ of state during the last 5 years
Form A8:	Fulfilment of the Construction Regulations
Form A9:	Questionnaire on tenderer's procedures with respect to OHS and Construction Regulations
Form A10:	A copy of a valid Tax Compliance Status letter
Form A11:	Declaration on State of Municipal Accounts and copy of current Municipal Account in the name of the Tenderer or alternatively in the names of the Directors/Partners of the tendering entity
Form A12:	Letter of Intent from a Financial Institution to provide a Construction Guarantee in accordance with the GCC pro-forma for a project up to 10% of the tender amount (refer C1.3)
Form A13:	MBD5 Declaration for Procurement above R10 million (Vat Included)
Form A14:	MBD8 Declaration of Bidders Past Supply Chain Management Practices
Form A15:	MBD6.1 Preference points claim form in terms of the preferential procurement regulations 2022
Form A16:	MBD6.2 Local Content
Form B1:	Proof of CIDB Grading
Form B2:	A valid originally or certified copy of the B-BBEE status level verification certificate, substantiating the B-BBEE rating or an EME must submit a sworn Affidavit
Form B3:	Proof of Previous Experience
Form B4:	Schedule of Current Contracts
Form B5:	Schedule of Construction Plant, Equipment and Labour
Form B6:	Schedule of Proposed Key Personnel and detailed CV's of all key personnel
Form B7:	Methodology Statement
Form B8:	Preliminary Construction Programme
Form B9:	Audited Financial Statements for past 3years
Form B10:	Bank Rating
Form B11:	SMME Plan
Form B12:	COIDA Letter of Good Standing
Form B13:	Bills of Quantities

T2.2 Returnable Documents and Schedules required for tender evaluation purposes.

- Form of Offer and Acceptance
- Priced Bill of Quantities
- Form A3: Record of Addenda to Tender Documents (if applicable)
- Form A12: Letter of Intent from a Financial Institution to provide a Construction Guarantee in accordance with the GCC pro-forma for a project value equivalent to a CIDB 5CE grading (refer C1.3)
- Form B2: A valid originally or certified copy of the B-BBEE status level verification certificate, substantiating the B-BBEE rating or an EME must submit a sworn affidavit.
- Form B6: Schedule of Proposed Key Personnel and detailed CVs of all key personnel

T2.3 Documents that will be incorporated into the contract document.

- Form of Offer and Acceptance
- Contract Data
- Pricing Instructions
- Priced Bills of Quantities
- Occupational Health and Safety Agreement (C1.4)
- Agreement in terms of Section 37(2) of the Occupational Health and Safety Act No 85 of 1993 (C1.5)
- Approved construction programme
- Specifications
- Scope of works
- Site Information
- Approved schedule of subcontractors
- Approved schedule of key personnel with CV's
- Approved monthly expenditure.
- Approved Occupational Health and Safety (OHS) Plan
- Approved QSE / EME Plan
- COIDA Letter of Good Standing

T2.4 The preferred bidder will be required to submit the following documents, for approval by the JDA and its agents, prior to award of the Tender:

- Schedule of proposed sub-contractors
- Estimated monthly expenditure.
- Methodology statement
- Detailed construction programme
- Labour, plant and equipment histograms
- A project specific OHS plan.
- All relevant Construction guarantees and insurances
- QSE / EME Plan

FORM A2: DECLARATION OF INTEREST

1. No bid will be accepted from persons in the service of the state¹.
2. Any person, having a kinship with persons in the service of the state, including a blood relationship, may make an offer or offers in terms of this invitation to bid. In view of possible allegations of favouritism, should the resulting bid, or part thereof, be awarded to persons connected with or related to persons in service of the state, it is required that the bidder or their authorised representative declare their position in relation to the evaluating/adjudicating authority.
3. In order to give effect to the above, the following questionnaire must be completed and submitted with the bid.
 - 3.1 Full Name of bidder or his or her representative:
 - 3.2 Identity Number:
 - 3.3 Position occupied in the Company (director, trustee, shareholder):
 - 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**
If yes, furnish particulars.....
.....
 - 3.9 Have you been in the service of the state for the past twelve months? **YES / NO**
If yes, furnish particulars.....
.....
 - 3.10 Do you have any relationship (family, friend, other) with persons in the service of the state and who may be involved with the evaluation and or adjudication of this bid? **YES / NO**
If yes, furnish particulars.....
.....
 - 3.11 Are you, aware of any relationship (family, friend, other) between any other bidder and any persons in the service of the state who may be involved with the evaluation and or adjudication of this bid? **YES / NO**
If yes, furnish particulars.....
.....
 - 3.12 Are any of the company’s directors, trustees, managers, principle shareholders or stakeholders in service of the state? **YES / NO**
If yes, furnish particulars.....
.....



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

If yes, furnish particulars.....

.....

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

If yes, furnish particulars.....

.....

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

FULL NAME	IDENTITY NUMBER	STATE EMPLOYEE NUMBER

CERTIFICATION

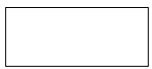
**I, THE UNDERSIGNED (FULL NAME)
 CERTIFY THAT THE INFORMATION FURNISHED ON THIS DECLARATION FORM IS TRUE AND CORRECT.
 I ACCEPT THAT, IN ADDITION TO CANCELLATION OF A CONTRACT, ACTION MAY BE TAKEN AGAINST ME
 SHOULD THIS DECLARATION PROVE TO BE FALSE.**

.....
 Signature Position

.....
 Name of Bidder Date

- * 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.

** “Stakeholder” 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.



FORM A3: RECORD OF ADDENDA TO TENDER DOCUMENTS

We confirm that the following communications received from the Employer’s Representative 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		
9		
10		

.....
Signature

.....
Date

(of person authorised to sign on behalf of the Tenderer)



FORM A5: CERTIFICATE OF AUTHORITY FOR JOINT VENTURE (IF APPLICABLE)

This Returnable Schedule is to be completed by joint ventures. We, the undersigned, are submitting this tender offer in Joint Venture and hereby authorise Mr/Ms
 , authorised signatory of the company
 , acting in the capacity of
 lead partner, to sign all documents in connection with the tender offer and any contract resulting from it on our behalf.

NAME OF FIRM	PERCENTAGE (%) PARTICIPATION	ADDRESS	DULY AUTHORISED SIGNATORY
Lead Partner CIDB registration no:			Signature: Name: Designation:
Partner CIDB registration no:			Signature: Name: Designation:
Partner CIDB registration no:			Signature: Name: Designation:

.....
SIGNATURE **DATE**
(of person authorised to sign on behalf of the Tenderer)



FORM A6: CERTIFICATE OF INDEPENDENT BID DETERMINATION

I, the undersigned, in submitting the accompanying bid:

CONTRACT NO: JDA 17.2.6.B.700251.1 PH5

**THE JABULANI TRANSIT ORIENTED DEVELOPMENT PROJECT GROUND: PHASE – 5
(COMPLETION FOR THE TRAFFIC CIRCLE)**

in response to the invitation for the bid made by:

JOHANNESBURG DEVELOPMENT AGENCY

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
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 consortium³ 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.

- 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



FORM A8: FULFILMENT OF THE CONSTRUCTION REGULATIONS, 2014

In terms of regulation 5 of the Construction Regulations, 2014 (hereinafter referred to as the Regulations), promulgated on 7 February 2014 in terms of Section 43 of the Occupational Health and Safety Act, 1993 (Act No 85 of 1993) prior to appointing a Contractor in accordance with CR5(1)(k), the Employer must:

- CR5(1)(g) Ensure that potential Principal Contractors submitting tenders have made adequate provision for the cost of health and safety measures and;
- CR5(1)(g) Ensure that the Principal Contractor to be appointed has the necessary competencies and resources to carry out construction safely

The Employer shall not appoint a contractor to perform construction work unless the Contractor can satisfy the Employer that his/her firm has the necessary competencies and resources to carry out the work safely and has allowed adequately in his/her tender for the due fulfilment of all the applicable requirements of the Act and the Regulations.

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

(Tick)

YES	
NO	

2. Proposed approach to achieve compliance with the Regulations

(Tick)

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

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

.....



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

.....
.....
.....
.....

5. Potential key risks identified and measures for addressing risks

.....
.....
.....
.....

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

(Tick)
YES
NO

.....
SIGNATURE

(of person authorised to sign on behalf of the Tenderer)

.....
DATE



FORM A9: QUESTIONNAIRE ON TENDERER'S PROCEDURES WITH RESPECT TO THE OCCUPATIONAL HEALTH AND SAFETY ACT (OHACT) AND CONSTRUCTION REGULATIONS.

- 1. Name of the employee to be appointed as Construction Manager [Construction Regulation 8(1)]
.....
- 2. Name of the employee to be appointed as Construction Supervisor [Construction Regulation 8(7)]
.....
- 3. Names of the competent employees to assist the Construction Supervisor [Construction Regulation 8 (8)]
- 4. Name of the person to be appointed to conduct base line and ongoing risk assessments [Construction Regulation 9 (1)].....
- 5. Name of competent person to be appointed as occupational health and safety officer [Construction Regulation 8 (6)]
.....

6 Will the employees to be appointed on the project be in possession of proof of health and safety induction training that will address the project specific risks and exposures [Construction Regulation 9 (1) (a)]? Yes / No.

If no, what are the tenderer's proposals for such
training?

7. Are the tenderer's tools, plant and equipment tested and inspected regularly i.e. daily for vehicles and equipment and at least weekly for other tools and hand tools in terms of safety compliance? Yes/No

If no, what are the tenderer's proposals for such
testing?

8 Will a dedicated supervisor be designated to manage the process to test and inspect all tools, plant and equipment? Yes/No

If no, what are the tenderer's proposals for such designation?

9. What other measures will the tenderer take to comply with the OHSACT and the Construction Regulations? Yes/N

If no, what are the tenderer's proposals to comply with this requirement?
.....



10. Is the tenderer registered and in good standing with the Compensation Commissioner or duly approved compensation insurer? Yes/No

.....
SIGNATURE **DATE**
(of person authorised to sign on behalf of the Tenderer)



FORM A10: SUBMIT A VALID TAX COMPLIANCE STATUS

The tenderer shall include as an attachment to their submission of valid Tax Compliance Status, which shall be obtained by the tenderer from the South African Revenue Service (SARS).

In the event of a joint venture each member shall comply with the above requirement.

.....
SIGNATURE **DATE**
(of person authorised to sign on behalf of the Tenderer)



FORM A11: DECLARATION ON STATE OF MUNICIPAL ACCOUNTS

A Any bid will be rejected if:
Any municipal rates and taxes or municipal service charges owed by the bidder or any of the directors to the municipality or a municipal entity, or to any other municipality or municipal entity, are in arrears for more than three months.

B Bid Information

i. Name of bidder:
.....

ii. Registration Number:
.....

iii. Municipality where business is situated
.....

iv. Municipal account number for rates:
.....

v. Municipal account number for water and electricity:
.....

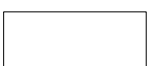
vi. Names of all directors, their ID numbers and municipal account number.

- 1.
.....
- 2.
.....
- 3.
.....
- 4.
.....
- 5.
.....
- 6.
.....
- 7.
.....

C Documents to be attached.

- i. A copy of municipal account mentioned in B (iv) & (v) (Not older than 3 months)
- ii. A copy of municipal accounts of all directors mentioned in B(vi) (Not older than 3 months)
- iii. Proof of directors

I/We declare that the abovementioned information is true and correct and that the following



documents are attached to this form:.....
.....

D Any bid will be rejected if:
Any municipal rates and taxes or municipal service charges owed by the bidder or any of the directors to the municipality or a municipal entity, or to any other municipality or municipal entity, are in arrears for more than three months.

E Bid Information

i. Name of bidder:
.....

ii. Registration Number:

iii. Municipality where business is situated

iv. Municipal account number for rates:

v. Municipal account number for water and electricity:

vi. Names of all directors, their ID numbers and municipal account number.

- 1.
- 2.
- 3.
- 4.
- 5.

F Documents to be attached.

- iv. A copy of municipal account mentioned in B (iv) & (v) (Not older than 3 months)
- v. A copy of municipal accounts of all directors mentioned in B(vi) (Not older than 3 months)
- vi. Proof of directors

I/We declare that the abovementioned information is true and correct and that the following documents are attached to this form:

The tenderer shall include as an attachment to their submission a copy of the current Municipal Account in the name of the Tenderer or alternatively in the names of the Directors/Partners of the tendering entity.

In the event of a joint venture each member shall comply with the above requirement.

.....
SIGNATURE
(of person authorised to sign on behalf of the Tenderer)

.....
DATE



FORM A12: LETTER OF INTENT

The tenderer shall include as an attachment to their submission a Letter of Intent from a Financial Institution to provide a Construction Guarantee in accordance with the GCC pro-forma.

.....

SIGNATURE

(of person authorised to sign on behalf of the Tenderer)

.....

DATE



**FORM A13: DECLARATION FOR PROCUREMENT ABOVE R10 MILLION
MBD 5**

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?

YES / NO

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.

2.2 If yes, provide particulars.

.....

.....

.....

.....

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

YES / NO



3.1 If yes, furnish particulars

.....
.....

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?

YES / NO

4.1 If yes, furnish particulars

.....
.....

CERTIFICATION

I, THE UNDERSIGNED (NAME)

.....

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

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

.....

.....

Signature

Date

.....

.....

Position

Name of Bidder



FORM A14: DECLARATION OF BIDDER'S PAST SUPPLY CHAIN MANAGEMENT PRACTICES

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 as a company or person 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 National Treasury after the <i>audi alteram partem</i> rule was applied).	Yes <input type="checkbox"/>	No <input type="checkbox"/>
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)? (To access this Register, enter the National Treasury's website, www.treasury.gov.za, click on the icon "Register for Tender Defaulters" or submit your written request for a hard copy of the Register to facsimile number (012) 3265445).	Yes <input type="checkbox"/>	No <input type="checkbox"/>
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 <input type="checkbox"/>	No <input type="checkbox"/>
4.3.1	If so, furnish particulars:		
4.4	Does the bidder or any of its directors owe any municipal rates and taxes or municipal charges to the municipality / municipal entity, or to any other municipality / municipal entity, that is in arrears for more than three months?	Yes <input type="checkbox"/>	No <input type="checkbox"/>



ITEM	QUESTION	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 <input type="checkbox"/>	No <input type="checkbox"/>
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



FORM A15: PREFERENCE POINTS CLAIM FORM IN TERMS OF THE PREFERENTIAL PROCUREMENT REGULATIONS 2022

MBD 6.1

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

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

1. GENERAL CONDITIONS

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

- the 90/10 system for requirements with a Rand value of above R50 000 000 (all applicable taxes included)
- the 80/20 system for requirements with a Rand value of up to 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 90/10 or 80/20 preference point system.
- b) Either the 90/10 or 80/20 preference point system will be applicable in this tender. The lowest/ highest acceptable tender will be used to determine the accurate system once tenders are received.

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

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

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

The maximum points for this tender are allocated as follows:

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

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

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



2. DEFINITIONS

- (a) **“tender”** means a written offer in the form determined by an organ of state in response to an invitation to provide goods or services through price quotations, competitive tendering process or any other method envisaged in legislation;
- (b) **“price”** means an amount of money tendered for goods or services, and includes all applicable taxes less all unconditional discounts;
- (c) **“rand value”** means the total estimated value of a contract in Rand, calculated at the time of bid invitation, and includes all applicable taxes;
- (d) **“tender for income-generating contracts”** means a written offer in the form determined by an organ of state in response to an invitation for the origination of income-generating contracts through any method envisaged in legislation that will result in a legal agreement between the organ of state and a third party that produces revenue for the organ of state, and includes, but is not limited to, leasing and disposal of assets and concession contracts, excluding direct sales and disposal of assets through public auctions; and
- (e) **“the Act”** means the Preferential Procurement Policy Framework Act, 2000 (Act No. 5 of 2000).

3. FORMULAE FOR PROCUREMENT OF GOODS AND SERVICES

3.1. 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
$P_s = 80 \left(1 - \frac{P_t - P_{min}}{P_{min}} \right)$	or	$P_s = 90 \left(1 - \frac{P_t - P_{min}}{P_{min}} \right)$

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
$P_s = 80 \left(1 + \frac{P_t - P_{max}}{P_{max}} \right)$	or	$P_s = 90 \left(1 + \frac{P_t - P_{max}}{P_{max}} \right)$

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 both the 90/10 and 80/20 preference point systems are 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.)

TABLE 1:AWARD ABOVE 50M (VAT INCLUSIVE)

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 claimed (90/10 system) (To be completed by the tenderer)
Race – people who are Black, Coloured or Indian (ownership)* More than 50% black ownership = 10 points; 0% black ownership = 0 points	N/A	
Gender are women (ownership)* More than 50% women ownership = 5 0% women ownership = 0 points	N/A	
SMME – QSE or EME	N/A	
Enterprises located within the City of Johannesburg Metropolitan Municipality	N/A	



TABLE 2:AWARD UP TO 50M (VAT INCLUSIVE)

The specific goals allocated points in terms of this tender	Number of points allocated (80/20 system) (To be completed by the organ of state)	Number of points claimed (80/20 system) (To be completed by the tenderer)
Race – people who are Black, Coloured or Indian (ownership)* More than 51% black ownership	5	
Gender are women (ownership)* More than 51% women ownership = 5	5	
SMME – QSE or EME	5	
Enterprises located within the City of Johannesburg Metropolitan Municipality	5	

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.



FORM A16: DECLARATION CERTIFICATE FOR LOCAL PRODUCTION AND CONTENT FOR DESIGNATED SECTORS

MBD6.2

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

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

1. General Conditions

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

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

Where

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

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

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



2. Definitions

- 2.1. **“bid”** includes written price quotations, advertised competitive bids or proposals;
- 2.2. **“bid price”** price offered by the bidder, excluding value added tax (VAT);
- 2.3. **“contract”** means the agreement that results from the acceptance of a bid by an organ of state;
- 2.4. **“designated sector”** means a sector, sub-sector or industry that has been designated by the Department of Trade and Industry in line with national development and industrial policies for local production, where only locally produced services, works or goods or locally manufactured goods meet the stipulated minimum threshold for local production and content;
- 2.5. **“duly sign”** means a Declaration Certificate for Local Content that has been signed by the Chief Financial Officer or other legally responsible person nominated in writing by the Chief Executive, or senior member / person with management responsibility (close corporation, partnership or individual).
- 2.6. **“imported content”** means that portion of the bid price represented by the cost of components, parts or materials which have been or are still to be imported (whether by the supplier or its subcontractors) and which costs are inclusive of the costs abroad (this includes labour and intellectual property costs), plus freight and other direct importation costs, such as landing costs, dock duties, import duty, sales duty or other similar tax or duty at the South African port of entry;
- 2.7. **“local content”** means that portion of the bid price, which is not included in the imported content, provided that local manufacture does take place;
- 2.8. **“stipulated minimum threshold”** means that portion of local production and content as determined by the Department of Trade and Industry; and
- 2.9. **“sub-contract”** means the primary contractor’s assigning, leasing, making out work to, or employing another person to support such primary contractor in the execution of part of a project in terms of the contract.

3. The stipulated minimum threshold(s) for local production and content (refer to Annex A of SATS 1286:2011) for this bid is/are as follows:

<u>Description of services, works or goods</u>	<u>Stipulated minimum threshold</u>
Steel Products and Component for Construction Steel Value-added Products	100%
Steel Power Pylons, Monopole Pylons, Steel Substation Structures, Power line Hardware, Street light steel poles, Plastic Pipes	100%
Electrical Cables	100%
Valves Products	100%
Kerbs	100%
Metalwork	100%



Paving	100%
Bricks	100%
Structural Steel	100%

4. Does any portion of the services, works or goods offered have any imported content?
(Tick applicable box)

4.1 If

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

yes, the rate(s) of exchange to be used in this bid to calculate the local content as prescribed in paragraph 1.5 of the general conditions must be the rate(s) published by the SARB for the specific currency at 12:00 on the date of advertisement of the bid.

The relevant rates of exchange information is accessible on

www.reservebank.co.za.

Indicate the rate(s) of exchange against the appropriate currency in the table below (refer to Annex A of SATS 1286:2011):

Currency	Rates of exchange
US Dollar	
Pound Sterling	
Euro	
Yen	
Other	

NB: Bidders must submit proof of the SARB rate (s) of exchange used.

5. Were the Local Content Declaration Templates (Annex C) audited and certified as correct?

(Tick applicable box)

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

5.1. If yes, provide the following particulars:

- (a) Full name of auditor:
- (b) Practice number:
- (c) Telephone and cell number:
- (d) Email address:

(Documentary proof regarding the declaration will, when required, be submitted to the satisfaction of the Accounting Officer / Accounting Authority)

6. Where, after the award of a bid, challenges are experienced in meeting the stipulated minimum threshold for local content the dti must be informed accordingly in order for the dti to verify and in consultation with the Accounting Officer / Accounting Authority provide directives in this regard.



LOCAL CONTENT DECLARATION
(REFER TO ANNEX B OF SATS 1286:2011)

LOCAL CONTENT DECLARATION BY CHIEF FINANCIAL OFFICER OR OTHER LEGALLY RESPONSIBLE PERSON NOMINATED IN WRITING BY THE CHIEF EXECUTIVE OR SENIOR MEMBER/PERSON WITH MANAGEMENT RESPONSIBILITY (CLOSE CORPORATION, PARTNERSHIP OR INDIVIDUAL)

IN RESPECT OF BID NO

ISSUED BY: (Procurement Authority / Name of Municipality / Municipal Entity):

.....

NB

1 The obligation to complete, duly sign and submit this declaration cannot be transferred to an external authorized representative, auditor or any other third party acting on behalf of the bidder.

2 Guidance on the Calculation of Local Content together with Local Content Declaration Templates (Annex C) is accessible on http://www.thedti.gov.za/industrial_development/ip.jsp. **Declaration C should be submitted with the bid documentation at the closing date and time of the bid in order to substantiate the declaration made in paragraph (c) below.**

I, the undersigned, (full names), do hereby declare, in my capacity as of(name of bidder entity), the following:

- (a) The facts contained herein are within my own personal knowledge.
- (b) I have satisfied myself that
 - (i) the goods/services/works to be delivered in terms of the above-specified bid comply with the minimum local content requirements as specified in the bid, and as measured in terms of SATS 1286:2011; and
 - (ii) the declaration templates have been audited and certified to be correct.

(c)The local content percentages (%) indicated below has been calculated using the formula given in clause 3 of SATS 1286:2011, the rates of exchange indicated in paragraph 4.1 above.



Bid price, excluding VAT (y)	R
Imported content (x), as calculated in terms of SATS 1286:2011	R
Stipulated minimum threshold for local content (paragraph 3 above)	
Local content %, as calculated in terms of SATS 1286:2011	

If the bid is for more than one product, the local content percentages for each product contained in Declaration C shall be used instead of the table above. The local content percentages for each product have been calculated using the formula given in clause 3 of SATS 1286:2011, the rates of exchange indicated in paragraph 4.1 above.

(d) I accept that the Procurement Authority / Municipality /Municipal Entity has the right to request that the local content be verified in terms of the requirements of SATS 1286:2011.

(e) I understand that the awarding of the bid is dependent on the accuracy of the information furnished in this application. I also understand that the submission of incorrect data, or data that are not verifiable as described in SATS 1286:2011, may result in the Procurement Authority / Municipal / Municipal Entity imposing any or all of the remedies as provided for in Regulation 13 of the Preferential Procurement Regulations, 2011 promulgated under the Preferential Policy Framework Act (PPPFA), 2000 (Act No. 5 of 2000).

SIGNATURE:

WITNESS No. 1

WITNESS No. 2

FORM B1: CIDB GRADING

The tenderer shall include as an attachment to their submission the proof of CIDB grading.

In the event of a joint venture each member shall comply with the above requirement.

.....
SIGNATURE
(of person authorised to sign on behalf of the Tenderer)

.....
DATE



FORM B2: B-BBEE CERTIFICATE

The tenderer shall include as an attachment to their submission a valid originally certified copy of the B-BBEE status level verification certificate, substantiating the B-BBEE rating. An EME must submit a sworn affidavit confirming the following:

- Annual Turnover Revenue of R10 million or less; and
- Level of Black ownership
- Any misrepresentation in terms of the above constitutes a criminal offence as set out in the B-BBEE Act as amended.

A trust, consortium or joint venture will qualify for points for their B-BBEE status level as a legal entity, provided that the entity submits their B-BBEE status level certificate.

A trust, consortium or joint venture will qualify for points for their B-BBEE status level as an unincorporated entity, provided that the entity submits their consolidated B-BBEE scorecard as if they were a group structure and that such a consolidated B-BBEE scorecard is prepared for every separate tender.

.....
SIGNATURE

(of person authorised to sign on behalf of the Tenderer)

.....
DATE



FORM B3: PROOF OF PREVIOUS EXPERIENCE

NOTE FOR BIDDERS - CONTACTABLE REFERENCE

Note for Bidders:

The information is material to the award of the contract.

Points for previous experience will only be allocated if the following is met:

1. Only civil projects, completed in the past 5 years, with a minimum value of R 10 million and above excluding VAT will be considered as previous experience.
2. The above information must be given on the client letterhead, with contactable references that include a valid email address, name of person and designation.

A **minimum** of 5 projects are to be submitted.

.....
SIGNATURE

(of person authorised to sign on behalf of the Tenderer)

.....
DATE



FORM B5: SCHEDULE OF CONSTRUCTION PLANT & EQUIPMENT

The following are lists of Construction Plant and Equipment that I/We presently own or lease and will have available for this contract if my / our tender is accepted.

- (a) **Details of Equipment that is owned by me / us and immediately available for this contract.**

DESCRIPTION	QUANTITY	YEAR ACQUIRED

Attach additional information in a supplementary document

- (b) **Details of Plant & Equipment that will be hired, or acquired for this contract if my / our tender is accepted**

DESCRIPTION <i>(type, size, capacity etc.)</i>	QUANTITY	HOW ACQUIRED	
		HIRE/ BUY	SOURCE

Attach additional information in a supplementary document

.....

Signature Date
 (of person authorised to sign on behalf of the Tenderer)



FORM B6: PROPOSED KEY PERSONNEL

The Tenderer shall list below the key personnel whom he proposes to employ on the contract should his offer be accepted, both at his headquarters and on the site, together with their qualifications, experience and positions held.

(In the event of insufficient space, attach supplementary documentation)

LOCATION	DESIGNATION	NAME AND NATIONALITY OF PROPOSED CANDIDATE	SUMMARY OF QUALIFICATIONS & EXPERIENCE
HEAD OFFICE	Contracts Manager Registered with SACPCMP or ECSA		
SITE OFFICE	Construction Manager Registered with SACPCMP or ECSA		
	Site Agent with National Diploma in the Built Environment		
	General Foreman		
	CHS (Construction Health and Safety) Officer Registered with SACPCMP		
	SMME Supervisor		

NOTE: Detailed Curriculum Vitae of proposed candidates are to be separately provided. Said Curriculum Vitae MUST indicate the name and description of the project, the value of project completed, role played in the project and the start and end dates of the project. In addition, the bidder's proposed team will be assessed against the team submitted during panel appointment. In instances where a different resource is used, the bidder is to provide candidates who are equivalent to the initial candidate submission.

.....
SIGNATURE

(of person authorised to sign on behalf of the Tenderer)

.....
DATE

FORM B7: METHODOLOGY STATEMENT

The tenderer shall include as an attachment to their submission the detailed Methodology Statement for the works.

The methodology must demonstrate how the contractor intends to sequence the works. The manner in which the contractor intends to allocate resources must be clearly spelt out. When assessing the methodology, congruency with the project schedule will also be examined.

Bidders are to note that the site is an occupied construction site; bidders are to take note of the traffic and access to shops/local properties/parking garages must be provided at all times. There must be adequate management and supervision of the site-based team at all times, a full time health and safety officer is a requirement of this contract. Construction methodology forms a critical part of the evaluation process.

In line with the scope of work and tender drawings, bidders must submit the following:

- Method statement
- Schedule
- Sequencing of work
- Resource plan that captures daily production targets, sizes of proposed plant, etc.
- Quality Plan
- Demolitions – demolitions, excavations and relocation of existing services
- Health and safety plan
- Traffic accommodation plan

.....

Signature Date
(of person authorised to sign on behalf of the Tenderer)



FORM B8: PRELIMINARY CONSTRUCTION PROGRAMME

The tenderer shall include as an attachment to their submission the preliminary Construction Programme for the works.

Refer to Part C3 Section 1.1.7 for scheduling / traffic accommodation requirements and constraints.

.....

Signature Date
(of person authorised to sign on behalf of the Tenderer)



FORM B11: SMME PLAN

The tenderer shall include as an attachment to their submission a detailed SMME plan indicating how the SMME requirements will be achieved, as detailed in Part C3: Scope of Works. The SMME Plan must clarify the manner in which the bidder intends to manage, support and empower local SMME's and contractors.

The SMME plan must detail (i) how quality will be controlled, (ii) how the scope of works will be scheduled (programme), (iii) how will skills be transferred, (iv) how will reporting to the client be done (content of reports, frequency etc.) and (v) a comprehensive list of all bill items which are to be allocated to SMME's equivalent to 30% of the works.

It is to be specifically noted that the rates for items of work to be executed by SMME's must be market related. Tenderers are to ensure that rates tendered for this portion of the works is to take into account all items that the main contractor would have allowed for in his normal course of pricing, i.e. materials, labour, wastage, profit, attendance, etc. all at applicable productivity rates.

.....
Signature Date
(of person authorised to sign on behalf of the Tenderer)



FORM B13: BILLS OF QUANTITIES

The bills of quantities included in the tender documentation must be completed by hand in pen (hard copy).

An Excel version of the BOQ has also been included with the tender document. The completed Excel workbook must be submitted with the hard copy tender submission.

THE HAND-WRITTEN BILL OF QUANTITIES (hard copy) WILL TAKE PREFERENCE IN CASES WHERE THERE ARE DISCREPANCIES BETWEEN THE HAND-WRITTEN BILLS OF QUANTITIES AND THE ELECTRONIC COPY.

Of the information provided by the tenderer as part of his submission, e.g. Rates, the signed hard copy shall be taken as the valid submission

.....
SIGNATURE

.....
DATE

(of person authorised to sign on behalf of the Tenderer)



PART C1: AGREEMENT AND CONTRACT DATA



PART C1: AGREEMENT AND CONTRACT DATA

C1.1 FORM OF OFFER AND ACCEPTANCE COMPLETED IN STAGE 2 (PRICING STAGE)

OFFER

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

**THE JABULANI TRANSIT ORIENTED DEVELOPMENT PROJECTS
GROUND: PHASE – 5
(COMPLETION FOR THE TRAFFIC CIRCLE)
CONTRACT NO. JDA 17.2.6.B.700251.1 PH5**

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

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

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

This Offer may be accepted by the Employer by signing the Acceptance part of this Form of Offer and Acceptance and returning one copy of this document including the Schedule of Deviations (if any) to the Tenderer before the end of the period of validity stated in the Tender Data, or other period as agreed, whereupon the Tenderer becomes the party named as the Contractor in the conditions of contract identified in the Contract Data.

TENDERER:

Signature

Name

Capacity

Date

WITNESS:

Signature

Name

Capacity

Date

NAME AND ADDRESS OF ORGANISATION:



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
- Part C5 Tender Drawings

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

Deviations from and amendments to the documents listed in the Tender Data and any addenda thereto listed in the Returnable Schedules as well as any changes to the terms of the Offer agreed by the Tenderer and the Employer during this process of offer and acceptance, are contained in the Schedule of Deviations attached to and forming part of this Agreement. No amendments to or deviations from said documents are valid unless contained in this Schedule, which must be duly signed by the authorised representative(s) of both parties.

The Tenderer shall within fourteen days of 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 securities, bonds, guarantees, proof of insurance and any other documentation to be provided in terms of the Conditions of Contract identified in the Contract Data at, or just after, the date this Agreement comes into effect. Failure to fulfil any of these obligations in accordance with those terms shall constitute a repudiation of this Agreement.

Notwithstanding anything contained herein, this agreement comes into effect on the date when the tenderer receives one fully completed 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.

EMPLOYER:

Signature

Name

Capacity

Date

WITNESS:

Signature

Name

Capacity

Date

NAME AND ADDRESS OF ORGANISATION:

Johannesburg Development Agency (Pty) Ltd.
3 Helen Joseph (formerly President) Street
Newtown
Johannesburg



SCHEDULE OF DEVIATIONS

Notes:

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

1 Subject:

Detail:

.....
.....

2 Subject:

Details:

.....
.....
.....

3 Subject:

Details:

.....
.....
.....

4 Subject:

Details:

.....
.....
.....

5 Subject:

Details:

.....
.....



By the duly authorised representatives signing this Schedule of Deviations, the Employer and the Tenderer agree to and accept the foregoing Schedule of Deviations as the only deviations from and amendments to the documents listed in the Tender Data and addenda thereto as listed in the Tender Schedules, as well as any confirmation, clarification or changes to the terms of the offer agreed by the Tenderer and the Employer during this process of offer and acceptance.

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

TENDERER:

EMPLOYER:

Signature

Signature

Name

Name

Capacity

Capacity

Name and address of organisation:

Name and address of organisation:

WITNESS:

WITNESS:

Signature

Signature

Name

Name

Date

Date



CONFIRMATION OF RECEIPT

The Tenderer, (now Contractor), identified in the Offer part of this Agreement hereby confirms receipt from the Employer, identified in the Acceptance part of this Agreement, of one fully completed original copy of this Agreement, including the Schedule of Deviations (if any) today:

the _____(day) of _____(month)_____ (year)

at _____(place)

CONTRACTOR:

WITNESS:

Signature

Signature

Name

Name

Capacity

Capacity

Date

Date



C1.2: CONTRACT DATA

C1.2.1: CONDITIONS OF CONTRACT

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C1.2.1 CONDITIONS OF CONTRACT

C1.2.1.1 GENERAL CONDITIONS OF CONTRACT

This Contract will be based on the “General Conditions of Contract for Construction Works, Third Edition, 2015”, issued by the South African Institution of Civil Engineering (abbreviated title: “GCC 2015”).

It is agreed that the only variations from the GCC 2015 are those set out hereafter under “C1.2.1.2 SPECIAL CONDITIONS OF CONTRACT”.

C1.2.1.2 SPECIAL CONDITIONS OF CONTRACT

C1.2.1.2.1 GENERAL

These Special Conditions of Contract (SCC) form an integral part of the Contract. The Special Conditions of Contract shall amplify, modify or supersede, as the case may be, the GCC 2015 to the extent specified below, and shall take precedence and shall govern.

The clauses of the Special Conditions of Contract hereafter are numbered “SCC” followed in each case by the number of the applicable clause or subclause in the GCC 2015, and the applicable heading, or (where a new special condition that has no relation to the existing clauses is introduced) by a number that follows after the last clause number in the GCC 2015, and an appropriate heading.

C1.2.1.2.2 AMENDMENTS TO THE GCC 2015

SCC 1.1 Definitions

Add the following to the end of Clause 1.1:

“SCC 1.1.1.35 “Targeted Enterprise” means an enterprise as defined in Part G: Small Contractor Development of section C3.3 Particular Specifications in Part C3: Scope of Works.”

SCC 4.1.1 Extent of Contractor’s obligations

Add the following new paragraph to the end of Clause 4.1.1:

“If the Contractor fails to achieve the monetary value of the target set by the Employer for contract participation by Targeted Enterprises and local SMME contractors in terms of Section C3.3 for Procurement and Particular Specifications in Part C3: Scope of Works, the Contractor shall be liable to the Employer for a sum calculated in accordance with the Contract Data and the aforementioned Scope of Works as a penalty for such underachievement.”

SCC 6.2 Security

SCC 6.2.1 Delivery of security

In the last two lines of Clause 6.2.1, delete the words “the type of security for the due performance of the Contract, as selected in the Contract Data” and replace them with the words “a fixed performance guarantees as security for the due performance of the Contract in accordance with the Contract Data Part A: Data Provided by the Employer”.



Delete the entirety of Clause 6.2.2 and replace it with the following:

“SCC 6.2.2 Contractor failing to provide security

If the Contractor fails to provide the required fixed performance guarantee within the time period stipulated in the Contract Data, or if the performance guarantee shall differ substantially from the pro forma, it shall legally be deemed that the Contractor has selected a security of ten per cent retention of the value of the Works without limiting the Employer’s right to terminate the Contract in terms of Clause 9.2.”

SCC 6.2.3 Validity of performance guarantee

Delete the entirety of the first sentence of Clause 6.2.3 and replace it with the following:

“The Contractor shall ensure that the performance guarantee remains valid and enforceable until the Certificate of Completion is issued.”

Additional Special Conditions of Contract

The following additional Special Conditions of Contract clauses SCC 1.1 and SCC 5.3 shall apply only in those circumstances where the Employer is required to apply for a construction work permit in terms of Construction Regulation 3(1):

SCC 1.1 Definitions

Delete the entirety of Clause 1.1.1.5 and replace it with the following:

“SCC 1.1.1.5 “Commencement Date” means the date 42 calendar days after the date that the Agreement, made in terms of the Form of Offer and Acceptance, comes into effect.”

SCC 5.3 Commencement of the Works

Delete the entirety of Clauses 5.3.1, 5.3.2 and 5.3.3 and replace them with the following:

“SCC 5.3.1 Commencement of the Works

Upon the Employer’s Agent’s instruction, the Contractor shall, save as may be otherwise provided in the Contract, or be legally or physically impossible, commence carrying out the Works. Such instruction shall be provided not later than 14 days after the Commencement Date. Such instruction shall be subject to:

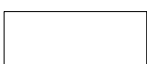
SCC 5.3.1.1 The timely submission by the Contractor, and approval by the Employer’s Agent, of documentation required before commencing to carry out the Works and before the Employer applying for a permit to do construction work, as set out in the Contract Data,

SCC 5.3.1.2 Application by the Employer for a permit to do construction work in terms of Regulations 3(1) and (2) of the Construction Regulations 2014, and

SCC 5.3.1.3 Receipt by the Employer of the permit to do construction work.

SCC 5.3.2 Unacceptable documentation

If the documentation referred to in Clause SCC 5.3.1 is not submitted within the number of days stipulated in the Contract Data from the date that the Agreement, made in terms of the Form of Offer and Acceptance, comes into effect, or if such documentation is found to be unacceptable, the Employer may terminate the Contract in terms of Clause 9.2.



SCC 5.3.3 Time to instruct commencement of the Works

Where the Contractor delays the submission by the Employer of the application for a permit to do construction work and such permit is not received within 14 days following the Commencement Date such that the Employer's Agent's instruction to commence carrying out the Works cannot be given, without prejudice to the Employer's rights to terminate the contract under Clause 9.2, the Employer's Agent shall delay issuing the instruction to commence carrying out the Works until such time as the permit to do construction work has been received. The Contractor shall have no entitlement under Clause 5.12 to an extension of time for Practical Completion.

Where the permit to do construction work is not received within the 14 day period following Commencement of the Contract for reasons not attributable to the Contractor, the Employer's Agent shall delay the instruction to commence the Works and the Contractor shall be entitled to make a claim in accordance with Clause 10.1."



C1.2.2: CONTRACT DATA (Applicable to this contract)

PART A: DATA PROVIDED BY THE EMPLOYER

The following contract specific data are applicable to this contract.

Clause	Data
1.1.1.13	The Defects Liability period is twelve (12) months.
1.1.1.14	The time for achieving Practical Completion is four (4) months from the Commencement Date, including non-working days and special non-working days.
1.1.1.15	The name of the Employer is Johannesburg Development Agency (Pty) Ltd.
1.1.1.16	The name of the Employer's Agent is Snethemba Consultants (Pty) Ltd
1.1.1.26	The Pricing Strategy is re-measurement contract (but is not subject to escalation).
1.2.1.2	The address of the Employer is: Address (physical): 3 Helen Joseph (formerly President) Street, Newtown, 2001 Address (postal): Private Bag X9403, Johannesburg, 2000 Contact person: Mr Tanduxolo Ntoyi e-mail: tntoyi@jda.org.za
1.2.1.2	The address of the Employer's Agent is: Name: Snethemba Consultants (Pty) Ltd Address: 20 Peltier Drive, Sunning Hill Office Park 2191 Telephone: 010 446 0522 e-mail: admin@snethemba.co.za
3.2.3	The Employer's Agent is required to obtain the specific approval of the Employer for any expenditure in excess of the Contract Price.
Clauses 4.1.1 and SCC 4.1.1:	The penalty for failing to achieve the monetary value of the target set by the Employer for contract participation by Targeted Enterprises and local SMME contractors in terms of Part G: Small Contractor Development of section C3.3 Particular Specifications in Part C3: Scope of Works, is 5% of the monetary value by which the achieved monetary value falls short of the target monetary value.
Clauses 5.3.1 and 5.3.2:	Where the Employer <u>is not</u> required to apply for a permit to do construction work in terms of Construction Regulation 3(1), the following documentation is to be submitted within 14 days from the Commencement Date: The documents required before commencing to carry out the Works: <ul style="list-style-type: none"> • Health and Safety Plan (refer to Clause 4.3)

Clauses
 SCC
 5.3.1 and
 SCC
 5.3.2:

- Initial Programme and Cashflow (refer to Clause 5.6)
- Security (refer to Clause 6.2)
- Insurance (refer to Clause 8.6)
- Signed Contract Agreements with local SMME contractors and Community Liaison Officer. SMME contract agreements shall clearly state the assigned foreman details, scope of works, materials and equipment to be provided by the Contractor, payment conditions, time frame for completion and any penalties for late completion.
- Pro-forma SMME Contractor(s) financial statement proposed by the Contractor (for approval by the Employer and the Employer’s Agent).
- Signed Joint Venture Agreement(s) between the Contractor and Targeted Enterprise(s) partner(s)
- Form C1.4 ‘Agreement in terms of Section 37(2) of the Occupational Health and Safety Act No. 85 of 1993’ to be signed by the Contractor and the Employer (refer to Clause 4.3 of the GCC 2015 and to paragraph E9. CONTRACTOR’S RESPONSIBILITIES in Part E of C3.3 Particular Specifications)

Where the Employer **is required** to apply for a permit to do construction work in terms of Construction Regulation 3(1), the following documentation is to be submitted within 14 days from the date that the Agreement, made in terms of the Form of Offer and Acceptance, comes into effect:

The documents required before commencing to carry out the Works:

- Health and Safety Plan (refer to Clause 4.3)
- Initial Programme and Cashflow (refer to Clause 5.6)
- Security (refer to Clause 6.2)
- Insurance (refer to Clause 8.6)
- Signed Contract Agreements with selected SMME contractors and Community Liaison Officer. SMME contract agreements shall clearly state the assigned foreman details, scope of works, materials and equipment to be provided by the Contractor, payment conditions, time frame for completion and any penalties for late completion.
- Pro-forma SMME Contractor(s) financial statement proposed by the Contractor (for approval by the Employer and the Employer’s Agent).
- Signed Joint Venture Agreement(s) between the Contractor and Targeted Enterprise(s) partner(s)
- Form C1.4 ‘Agreement in terms of Section 37(2) of the Occupational Health and Safety Act No. 85 of 1993’ to be signed by the Contractor and the Employer (refer to Clause 4.3 of the GCC 2015 and to paragraph E9. CONTRACTOR’S RESPONSIBILITIES in Part E of C3.3 Particular Specifications)

And:

The documents required by the Employer to apply for a permit to do construction work in terms of Regulations 3(1) and (2) of the Construction Regulations 2014:

	<ul style="list-style-type: none"> • Temporary works designer's appointment duties in terms of Regulation 6(2) as have been agreed upon plus proof of registration with ECSA [CR 3(5)(b)(iii) read with CR 5(1)(e) and CR 6(2)]; • Evidence that the contractor has made adequate provision for the cost of Health and Safety, i.e., Bill of quantities [CR 3(5)(b)(iii) read with CR 5(1)(g)]; • Evidence that the Principal contractor has the necessary competencies to carry out construction work safely, viz., schedule of activities, relevant appointments and proofs of competency [CR 5(1)(h)]; • Valid Letter(s) of Good Standing for the appointed Principal Contractor(s) [CR 3(5)(b)(ii) read with CR 5(1)(j)].
5.4.2	The access and possession of Site shall not be exclusive to the Contractor but as set out in the Scope of Work and Site Information, as well as other City of Johannesburg Service Authority appointed contractors.
5.8.1	<p>The non-working days are Sundays.</p> <p>The special non-working days are the construction industry year end break, all foreseeable statutory election days as declared by National Government, and the following statutory public holidays as declared by National Government: New Year's Day, Human Rights Day, Good Friday, Family Day, Freedom Day, Workers' Day, Youth Day, National Women's Day, Heritage Day, Day of Reconciliation, Christmas Day and the Day of Goodwill.</p> <p>The construction industry year end break commences on the first working day after 15 December and ends on the first working day after 5 January of the following year.</p>
5.13.1	<p>The penalty for failing to complete the Works at the Due Completion Date is 0,05% of the Contract Sum per day.</p> <p>The Contractor is to note that delay penalties, in addition to monies still owed to the Contractor (including retention monies) and the Guarantee, shall effectively be used to address additional costs incurred by the Employer, such as the Engineer's construction monitoring fees and other service providers' fees and wayleave extension costs, as a result of the Works not being completed at the Due Completion Date.</p>
Clause 5.14.1:	The requirements for achieving Practical Completion are all those for the Works to reach a state of readiness, fit for the intended purpose and occupation without danger or undue inconvenience to the Employer.
5.16.3	The latent defect period is ten (10) years.
6.2.1	The security to be provided by the Contractor shall be a Performance Guarantee of 10% of the Contract Sum and 10% Retention up to a limit of 5% of the Contract Sum. The Performance Guarantee is to be worded as per the document included in C1.3.
6.5.1.2.3	The percentage allowance to cover overhead charges and profit shall not exceed 10%.
6.8.2	Contract Price Escalation is not applicable to this Contract.
6.8.3	Price adjustments for variations in the costs of special materials are not allowed.
6.10.1.5	The percentage advance on materials not yet built into the Permanent Works is 80%.
6.10.3	<p>The percentage retention on the amounts due to the Contractor is 10%.</p> <p>The limit on retention is 5% of the Contract Price.</p>

8.6.1	The Contractor shall provide the insurances required in terms of clauses 8.6.1.1, 8.6.1.2 and 8.6.1.3 of the General Conditions of Contract.
8.6.1.1.3	The amount to cover professional fees for repairing damage and loss to be included in the insurance sum is 20% of the Contract Sum.
8.6.1.2	Special Risks Insurance issued by SASRIA is required
8.6.1.3	The Contractor is to indemnify the Employer against any liability in respect of damage to, or physical loss of the property of any person, or injury to or death of any person due to non-compliance with the Occupational Health and Safety Act (Act 85 of 1993) 2003.”
8.6.1.5	The Contractor is to provide all additional insurances including for, but not limited to, his own employees, vehicles and equipment and plant not incorporated into the Works.
10.4.1	Dispute resolution is to first take place by means of an amicable settlement. The venue of all dispute resolution/determination shall be the Johannesburg Development Agency (JDA)’s offices in Newtown.
10.4.2	If amicable settlement is unsuccessful, the dispute shall be resolved by adjudication.
10.5.3	The number of Adjudication Board Members to be appointed is one (1).

ADDITIONAL CLAUSE TO THE GENERAL CONDITIONS OF CONTRACT

5.12.2.2	A delay caused by inclement weather conditions will be regarded as a delay only if, in the opinion of the Engineer, all progress on an item or items of work on the critical path of the working programme of the contractor has been brought to a halt. Delays on working days only (based on a five-day working week) will be taken into account for the extension of time, but the Contractor shall make provision in his programme of work for an expected delay of "n" working days caused by normal rainy weather, for which he will not receive any extension of time, where "n" equals 25 days. Extension of time during working days will be granted to the degree to which actual delays, as defined above, exceed the number of "n" workings days.
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C3.3	<p>CONTRACT PARTICIPATION</p> <p>(b) Contract Participation Targets</p> <p>The Contract Participation Target for local SMME contractors is 30%</p>
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C.1.2 CONTRACT DATA

PART 2: DATA PROVIDED BY THE CONTRACTOR

The Contractor is advised to read the General Conditions of Contract for Construction Works, Third Edition 2015, published by the South African Institute of Civil Engineering, in order to understand the implications of this Data which is required to be completed. Copies of these conditions of contract may be obtained from the South African Institution of Civil Engineering (Tel: 011 805 5947, e-mail: civilinfo@saice.org.za).

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

Clause	Data
1.1.1.9	The name of the Contractor is:
1.2.1.2	The address and contact details of the Contractor are: Address (physical): Address (postal): Contact person: Telephone: Facsimile: e-mail:

C1.3 PERFORMANCE GUARANTEE

GUARANTOR DETAILS AND DEFINITIONS

“Guarantor” means:

Physical address:

“Employer” means:

“Contractor” means:

“Engineer” means:

“Works” means:

“Site” means:

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

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

Amount in words:

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

Amount in words:

“Expiry Date” means: Date of issue of certificate of completion.....

CONTRACT DETAILS

Engineer issues: Interim Payment Certificates, Final Payment Certificate and the Certificate Completion of the Works as defined in the Contract.

PERFORMANCE GUARANTEE

1. The Guarantor’s liability shall be limited to the amount of the Guaranteed Sum.
2. The Guarantor’s period of liability shall be from and including the date of issue of this Performance Guarantee and up to and including the Expiry Date or the date of issue by the Engineer of the Certificate of Completion of the Works or the date of payment in full of the Guaranteed Sum, whichever occurs first. The Engineer and/or the Employer shall advise the Guarantor in writing of the date on which the Certificate of Completion of the Works has been issued.
3. The Guarantor hereby acknowledges that:
 - 3.1 any reference in this Performance Guarantee to the Contract is made for the purpose of convenience and shall not be construed as any intention whatsoever to create an accessory obligation or any intention whatsoever to create a suretyship;
 - 3.2 its obligation under this Performance Guarantee is restricted to the payment of money.
4. Subject to the Guarantor’s maximum liability referred to in 1, the Guarantor hereby undertakes to pay the Employer the sum certified upon receipt of documents identified in 4.1 to 4.3:



- 4.1 A copy of a first written demand issued by the Employer to the Contractor stating that payment of a sum certified by the Engineer in an Interim or Final Payment Certificate has not been made in terms of the Contract and failing such payment within seven (7) calendar days, the Employer intends to call upon the Guarantor to make payment in terms of 4.2;
- 4.2 A first written demand issued by the Employer to the Guarantor at the Guarantor's physical address with a copy to the Contractor stating that a period of seven (7) days has elapsed since the first written demand in terms of 4.1 and the sum certified has still not been paid;
- 4.3 A copy of the aforesaid payment certificate which entitles the Employer to receive payment in terms of the Contract of the sum certified in 4.
5. Subject to the Guarantor's maximum liability referred to in 1, the Guarantor undertakes to pay to the Employer the Guaranteed Sum or the full outstanding balance upon receipt of a first written demand from the Employer to the Guarantor at the Guarantor's physical address calling up this Performance Guarantee, such demand stating that:
 - 5.1 the Contract has been terminated due to the Contractor's default and that this Performance Guarantee is called up in terms of 5; or
 - 5.2 a provisional or final sequestration or liquidation court order has been granted against the Contractor and that the Performance Guarantee is called up in terms of 5; and
 - 5.3 the aforesaid written demand is accompanied by a copy of the notice of termination and/or the provisional/final sequestration and/or the provisional liquidation court order.
6. It is recorded that the aggregate amount of payments required to be made by the Guarantor in terms of 4 and 5 shall not exceed the Guarantor's maximum liability in terms of 1.
7. Where the Guarantor has made payment in terms of 5, the Employer shall upon the date of issue of the Final Payment Certificate submit an expense account to the Guarantor showing how all monies received in terms of this Performance Guarantee have been expended and shall refund to the Guarantor any resulting surplus. All monies refunded to the Guarantor in terms of this Performance Guarantee shall bear interest at the prime overdraft rate of the Employer's bank compounded monthly and calculated from the date payment was made by the Guarantor to the Employer until the date of refund.
8. Payment by the Guarantor in terms of 4 or 5 shall be made within seven (7) calendar days upon receipt of the first written demand to the Guarantor.
9. Payment by the Guarantor in terms of 5 will only be made against the return of the original Performance Guarantee by the Employer.
10. The Employer shall have the absolute right to arrange his affairs with the Contractor in any manner which the Employer may deem fit and the Guarantor shall not have the right to claim his release from this Performance Guarantee on account of any conduct alleged to be prejudicial to the Guarantor.

- 11. The Guarantor chooses the physical address as stated above for the service of all notices for all purposes in connection herewith.
- 12. This Performance Guarantee is neither negotiable nor transferable and shall expire in terms of 2, where after no claims will be considered by the Guarantor. The original of this Guarantee shall be returned to the Guarantor after it has expired.
- 13. This Performance Guarantee, with the required demand notices in terms of 4 or 5, shall be regarded as a liquid document for the purposes of obtaining a court order.
- 14. Where this Performance Guarantee is issued in the Republic of South Africa the Guarantor hereby consents in terms of Section 45 of the Magistrate's Courts Act No 32 of 1944, as amended, to the jurisdiction of the Magistrate's Court of any district having jurisdiction in terms of Section 28 of the said Act, notwithstanding that the amount of the claim may exceed the jurisdiction of the Magistrate's Court.

Signed at

Date.....

Guarantor's signatory (1).....

Capacity.....

Guarantor's signatory (2).....

Capacity.....

Witness signatory (1).....

Witness signatory (2).....



C1.4 OCCUPATIONAL HEALTH AND SAFETY AGREEMENT

THIS AGREEMENT between Johannesburg Development Agency (JDA) (hereinafter called “the Employer”) on the one part, herein represented by:

.....in his capacity as.....
and.....
(hereinafter called “the Contractor”) of the other part herein represented by
.....in his capacity
as

WHEREAS the Employer is desirous that certain works be constructed, being contract:

CONTRACT No. JDA 17.2.6.B.700251.1 PH5

**THE JABULANI TRANSIT ORIENTED DEVELOPMENT PROJECTS
GROUND: PHASE – 5
(COMPLETION FOR THE TRAFFIC CIRCLE)**

and has accepted a tender by the Contractor for the construction, completion and maintenance of such works and whereas the Employer and the Contractor have agreed to certain arrangements and procedures to be followed in order to ensure compliance by the Contractor with the provisions of the Occupational Health and Safety Act 1993 (Act 85 of 1993).

NOW THEREFORE THIS AGREEMENT WITNESSETH AS FOLLOWS:

1. The Contractor shall execute the work in accordance with the contract documents pertaining to this contract.
2. This Agreement shall hold good for the duration of construction, commencing from the handover of the site up to the end of the defects liability period.
3. Should the contract be terminated for any reason, this agreement shall lapse upon the date of termination.
4. The Contractor declares himself to be conversant with the following:
 - (a) All the requirements, regulations and standards of the Occupational Health and Safety Act (Act 85 of 1993), hereinafter referred to as “the Act”, together with its amendments thereto.
 - (b) All the requirements of the Construction Regulations hereinafter referred to as the “Regulations”, together with any amendments thereto.
 - (c) The Health and Safety Specification of the Employer as pertaining to the Contractor and to all his subcontractors.
5. In addition to the requirements of the contract, the Contractor agrees to execute all the works forming part of this contract and to operate and utilise all machinery, plant and equipment in accordance with the Act and the Regulations.
6. The Contractor is responsible for the compliance with the Act and the Regulations by all his subcontractors, whether or not selected or nominated and/or approved by the Employer.



- 7. The Contractor warrants that all his and his subcontractors' workmen are covered in terms of the Compensation for Occupational Injuries and Diseases Act 1993 which cover shall remain in force whilst any such workmen are present on site. A letter of good standing from the Compensation Commissioner to this effect must be produced to the Employer upon signature of the agreement.
- 8. The Contractor undertakes to ensure that he and/or his subcontractors and/or their respective employees will at all times comply with the following conditions:
 - (a) The Contractor undertakes to comply with all provisions of the Act and its Regulations.
 - (b) The Contractor will be obliged to report to the Employer on a regular basis regarding compliance by the Contractor with the Act and its Regulations.
 - (c) All incidents referred to in the Occupational Health and Safety Act shall be reported by the Contractor to the Department of Labour as well as to the Employer. The Employer will further be provided with copies of all written documentation relating to any incident.
 - (d) The Employer hereby records an interest in the issue of any formal enquiry conducted in terms of Section 32 of the Occupational Health and Safety Act into any incident involving the Contractor and/or his employees and/or his subcontractors.

In witness thereof the parties hereto have set their signatures hereon in the presence of the subscribing witnesses:

.....
for and on behalf of the Contractor who warrants to be duly authorised to do so

Name:

Designation:

As witnesses:

1.

.....
for and on behalf of the Employer who warrants to be duly authorised to do so

Name:

Designation:

As witnesses:

1.



C1.5 AGREEMENT IN TERMS OF SECTION 37(2) OF THE OCCUPATIONAL HEALTH AND SAFETY ACT NO. 85 OF 1993

THIS AGREEMENT is made between the Johannesburg Development Agency represented by the (hereinafter called the EMPLOYER of the one part, herein represented by:

.....
in his capacity as:

AND:
(hereinafter called the CONTRACTOR) of the other part, herein represented by.....

.....
in his capacity as:
duly authorised to sign on behalf of the Contractor.

WHEREAS the CONTRACTOR is the Mandatory of the EMPLOYER in consequence of an agreement between the CONTRACTOR and the EMPLOYER in respect of

CONTRACT No. JDA 17.2.6.B.700251.1 PH5

**THE JABULANI TRANSIT ORIENTED DEVELOPMENT PROJECTS
GROUND: PHASE – 5
(COMPLETION FOR THE TRAFFIC CIRCLE)**

AND WHEREAS the EMPLOYER and the CONTRACTOR have agreed to enter into an agreement in terms of the provisions of Section 37(2) of the Occupational Health and Safety Act No 85 of 1993, as amended by OHS Act Amendment Act No 181/1993 (hereinafter referred to as the ACT);

NOW THEREFORE the parties agree as follows:

1. The CONTRACTOR undertakes to acquaint the appropriate officials and employees of the CONTRACTOR with all relevant provisions of the ACT and the regulations promulgated in terms thereof.
2. The CONTRACTOR undertakes to fully comply with all relevant duties, obligations and prohibitions imposed in terms of the ACT and Regulations: Provided that should the EMPLOYER have prescribed certain arrangements and procedures that same shall be observed and adhered to by the CONTRACTOR, his officials and employees. The CONTRACTOR shall bear the onus of acquainting himself/herself/itself with such arrangements and procedures.
3. The CONTRACTOR hereby accepts sole liability for such due compliance with the relevant duties, obligations, prohibitions, arrangements and procedures, if any, imposed by the ACT and Regulations, and the CONTRACTOR expressly absolves the EMPLOYER and the Employer's CONSULTING ENGINEERS from being obliged to comply with any of the aforesaid duties, obligations, prohibitions, arrangements and procedures in respect of the work included in the contract.
4. The CONTRACTOR agrees that any duly authorised officials of the EMPLOYER shall be entitled, although not obliged, to take such steps as may be necessary to ensure that the CONTRACTOR has complied with his undertakings as more fully set out in paragraphs 1 and 2 above, which steps may include, but shall not be limited to, the right to inspect any appropriate site or premises occupied by the CONTRACTOR, or to take such steps it may deem necessary to remedy the default of the CONTRACTOR at the cost of the CONTRACTOR.



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

Thus signed at for and on behalf of the **CONTRACTOR**

on this the day of 20.....

SIGNATURE:

NAME AND SURNAME:

CAPACITY:

WITNESS:

Thus signed at for and on behalf of the **EMPLOYER** on this

the day of 20.....

SIGNATURE:

NAME AND SURNAME:

CAPACITY:

WITNESS:



PART C2: PRICING DATA



PART C2: PRICING DATA

C2.1 PRICING INSTRUCTIONS COMPLETED IN STAGE 2 (PRICING STAGE)

1. The Conditions of Contract, the Contract Data, the Specifications (including the Project Specifications) and the Drawings shall be read in conjunction with the Bill of Quantities. The agreement is based on the General Conditions of Contract for Construction Works, prepared by the South African Institution of Civil Engineering, 2015. The additions, deletions and alterations to the General Conditions of Contract for Construction Works as well as the contract specific variables are as stated in the Contract Data. Only the headings and clause numbers for which allowance must be made in the Bills of Quantities are recited.
2. The Bill comprises items covering the Contractor's profit and costs of general liabilities and of the construction of Temporary and Permanent Works.
3. Although the Tenderer is at liberty to insert a rate of his own choosing for each item in the Bill, he should note the fact that the Contractor is entitled, under various circumstances, to payment for additional work carried out and that the Engineer is obliged to base his assessment of the rates to be paid for such additional work on the rates the Contractor inserted in the Bill. Measurement and Payment clause of each Standardized Specification, and the measurement and payment clause of each Particular Specification, read together with the relevant clauses of the Project Specifications, all set out which ancillary or associated activities are included in the rates for the specified operations.
4. Descriptions in the Bill of Quantities are abbreviated and may differ from those in the Standardized and Project Specifications. No consideration will be given to any claim by the Contractor submitted on such a basis. The Bill has been drawn up generally in accordance with the latest issue of Civil Engineering Quantities 1. Should any requirement of the measurement and payment clause of the appropriate Standardized or Project Specification(s) be contrary to the terms of the Bill or, when relevant, to the Civil Engineering Quantities, the requirement of the appropriate Standardized, Project, or Particular Specification as the case may be, shall prevail.
5. Unless stated to the contrary, items are measured net in accordance with the Drawings without any allowance having been made for waste.
6. The amounts and rates to be inserted in the Bill of Quantities shall be the full inclusive amounts to the Employer for the work described under the several items. Such amounts shall cover all the costs and expenses that may be required in and for the construction of the work described, and shall cover the costs of all general risks, profits, taxes (but excluding value-added tax), liabilities and obligations set forth or implied in the documents on which the Tender is based.
7. An amount or rate shall be entered against each item in the Bill of Quantities, whether or not quantities are stated. An item against which no amount or rate is entered will be considered to be covered by the other amounts or rates in the Bill.
8. The Tenderer shall also fill in a rate against the items where the words "rate only" appear in the amount column. Although no work is foreseen under these items and no quantities are consequently given in the quantity column, the tendered rates shall apply should work under these items actually be required.
9. The standard system of measurement of civil engineering quantities published by the South African Institution of Civil Engineers.
- 10. Should the Tenderer group a number of items together and tender one sum for such group of items, the single tendered sum shall apply to that group of items and not to each individual item, or should he indicate against any item that full compensation for such item**

has been included in another item, the rate for the item included in another item shall be deemed to be nil. The tendered rates, prices and sums shall, subject only to the provisions of the Conditions of Contract, remain valid irrespective of any change in the quantities during the execution of the Contract.

11. The quantities of work as measured and accepted and certified for payment in accordance with the Conditions of Contract, and not the quantities stated in the Bill of Quantities, will be used to determine payments to the Contractor. The validity of the Contract shall in no way be affected by differences between the quantities in the Bill of Quantities and the quantities certified for payment. The **Ordering of materials** is not to be based on the Bill of Quantities, but only on information issued for construction purposes. **Furthermore it is likely that the quantities as set out in the bill of quantities will differ by more than 15% and by accepting this Contract, the Contractor accepts that the rates and prices stated in the Pricing Data shall be final and binding throughout the period of the Contract.**

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

- Unit: The unit of measurement for each item of work as defined in the Standardized, Project or Particular Specifications
- Quantity: The number of units of work for each item
- Rate: The payment per unit of work at which the Tenderer tenders to do the work
- Amount: The quantity of an item multiplied by the tendered rate of the (same) item
- Sum: An amount tendered for an item, the extent of which is described in the Bill of Quantities, the Specifications or elsewhere, but of which the quantity of work is not measured in units

13. The units of measurement indicated in the Bill of Quantities are metric units. The following abbreviations may appear in the Bill of Quantities:

- mm = millimetre
- m = metre
- km = kilometre
- km-pass = kilometre-pass
- m² = square metre
- m²-pass = square metre-pass
- ha = hectare
- m³ = cubic metre
- m³-km = cubic metre-kilometre
- kW = kilowatt
- kN = kilonewton
- kg = kilogram
- t = ton (1 000 kg)
- % = per cent
- MN = meganewton
- MN-m = meganewton-metre
- PC Sum = Prime Cost Sum
- Prov Sum = Provisional Sum

14. Occupational Health and Safety Act and Construction Regulations

A payment item in the schedule of Quantities / Bill of Quantities must allow the tenderers to price for compliance with OHS Act and the Construction Regulations. This payment item must include for the erection of Visitors Indemnity Signs and for ensuring that visitors receive instructions and sign an indemnity declaration.



PART C2: PRICING DATA

C 2.2 BILL OF QUANTITIES



PART C3: SCOPE OF WORKS



PART C3: SCOPE OF WORKS

THE JABULANI TRANSIT ORIENTED DEVELOPMENT PROJECTS GROUND: PHASE – 5 (COMPLETION FOR THE TRAFFIC CIRCLE)

CONTRACT NO.: JDA 17.2.6.B.700251 PH5

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Status

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

- Project Specifications
- Drawings
- Scope of Works
- SANS 1200 as amended.
- Standard system of measurement for building work only

C3.1 DESCRIPTION OF THE WORKS

**THE JABULANI TRANSIT ORIENTED DEVELOPMENT PROJECTS
GROUND: PHASE – 5
(COMPLETION FOR THE TRAFFIC CIRCLE)**

CONTRACT NO.: JDA 17.2.6.B.700251.1 PH5

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C3.1.1 EMPLOYER’S OBJECTIVES

The Johannesburg Development Agency’s objective is to create a strengthened partnership between City, Community and Business, through enhancing creating quality and safe public environments as well as address specific and contextual social issues in order showcase the area’s potential and develop a unique identity for the areas. This in order to stimulate investors and public confidence in these areas.

The project is to be completed within **four (4) months** of the Commencement Date.

C3.1.2 OVERVIEW OF THE WORKS

C3.1.2.1 Description of the site

In 2014, the City of Johannesburg sanctioned an Urban Design Framework to steer the city's infrastructure investments in the short to medium term. Among the Transit Oriented Development (TOD) initiatives sought for implementation within this timeframe, the Jabulani Node project stands out. This project was outlined in the Cluster Business Plan as a crucial part of the TOD sub-program, with the objective of reshaping the urban economy to grant impoverished households improved access to well-situated housing, job opportunities, and markets. The aim was to optimize land usage, energy consumption, and enhance living standards and mobility for a substantial population within well-served transit neighbourhoods.

In alignment with the city's Urban Design Framework, the Johannesburg Development Agency (JDA) enlisted a professional team for the mid-term to facilitate the planning, design, and execution of the Jabulani TOD program. This program encompassed various projects, including the expansion of Bolani Road, denoted as Jabulani TOD Phase 5, situated in Jabulani, Soweto. The commencement of the Jabulani TOD Phase 5 project occurred in 2017; however, it faced setbacks due to factors like subpar contractor performance and budgetary constraints that arose before its completion. As of now, the project has reached approximately 90% completion, with the remaining work expected to conclude within the current calendar year.



As certain contracts with the professional team have expired, the JDA now seeks the expertise of a Civil Engineer to facilitate the final stages of the Jabulani TOD Phase 5 project, spanning from documentation and procurement to project closure.

C3.1.2.2 General Description of scope of works

The Contractor shall be responsible for provision and construction of the assigned Works including the construction of the various elements of works, the supply of materials, transport to site, unloading from road, storage on site, site quality control and management, testing, painting and finishing to the satisfaction of the Employer’s Agent.

The project is for the construction of the Jabulani transit-oriented development projects ground: phase – 5 (completion for the traffic circle) :

C3.1.3 EXTENT OF THE WORKS

The work consists of but is not limited to the following:

- Construction of earthworks and Completion of layer works
- Civil Services (Stormwater, Water, etc)
- Surfacing of roadway
- Provision of street furniture i.e. signage, street lighting, bins, benches, trader stalls etc. and;
- The Construction of walkways.

Location of the Works

The project is located in Jabulani, Soweto, Johannesburg. Details further included in the table below:

Project	Location
Jabulani TOD Phase 5	Coordinates (26°14'56.28"S; 27°51'27.77"E)

Temporary Works

The contractor is to design, supply, construct, demolish and spoil at his own cost any temporary works required in order to carry out the construction works as required.

Access

Furthermore, it is a requirement of this Contract that the contractor ensures that all residents have access to their properties after hours and on weekends; all businesses are to have access during business hours. The Contractor is to implement temporary measures / deviations as required in order to achieve this outcome. Prior to the implementation of any deviation, written permission for such deviations shall be obtained from the Principal Agent.

The Contractor shall advise all residents, community leaders and other stakeholders at least 2 weeks prior to the commencement of construction activities in an area. The Contractor is to employ a Community Liaison Officer in conjunction with the community structures in the area in order to achieve this outcome.



C3.1.4 CONSTRUCTION PROGRAMME

The time for completion, as stated in the Contract Data in terms of Clause 1.1.1.14 of the Conditions of Contract, is Ten (10) months, inclusive of year end break (builder's holidays). The Contractor shall plan and programme his construction sequence for completion within the time period specified taking into account the identification and relocating of services and the working restrictions as specified Clause 5.8.1 of the Contract Specific Data.

C3.1.5 CONTRACTOR'S SITE CAMP AND SITE FACILITIES AVAILABLE

C3.1.5.1 Location of Contractor's site camp

No specific land has been made available for the Contractor's site camp and office facilities for the Employer's Agent. The Contractor shall make his own arrangements concerning a suitable approved site and location, as well as the provision of water, electricity and other services for the camp site and office facilities.

The Contractor's site camp shall be maintained in a neat and tidy condition and on completion of the Works, the camp area shall be cleared and reinstated; all to the satisfaction of the Employer's Agent. Any damage to property shall be made good to the satisfaction of the Employer's Agent and at the Contractor's expense.

C3.1.5.2 Provision for services

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

C3.1.6 SITE FACILITIES REQUIRED

Office facilities as scheduled are required on the site for the Employer's Agent or his representative.

C3.1.7 FEATURES REQUIRING SPECIAL ATTENTION

C3.1.7.1 Existing services

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

Procedures for the protection and/or relocation of such services are outlined in the Project Specifications. All costs related to the contents of this paragraph shall be deemed to be included in the rates and amounts tendered for the various items of work for which these services are required.



C3.1.7.2 Testing and Quality Control

CONTRACTOR TO ENGAGE SERVICES OF AN INDEPENDENT LABORATORY

Notwithstanding the requirements of the Specifications pertaining to testing and quality control, the Contractor shall engage the services of an approved independent laboratory to undertake all testing of materials, the results of which are specified in, or may reasonably be inferred from, the Contract. These results will be taken into consideration by the Engineer in deciding whether the quality of materials utilised and workmanship achieved by the Contractor comply with the requirements of the Specifications. The foregoing shall apply irrespective of whether the specifications indicate that the said testing is to be carried out by the EMPLOYER'S AGENT or by the Contractor.

The Contractor shall be responsible for arranging with the independent testing laboratory for the timeous carrying out of all such testing specified in the Contract, at not less than the frequencies and in the manner specified. The Contractor shall promptly provide the EMPLOYER'S AGENT with copies of the results of all such testing carried out by the independent laboratory.

For the purposes of this clause, an "independent laboratory" shall mean an "approved laboratory" which is not under the management or control of the Contractor and in which the Contractor has no financial interest, nor which has any control or financial interest in the Contractor.

COSTS OF TESTING

(a) Tests in terms of subclause 1.4.12(b)(I)

The costs of all testing carried out by the independent laboratory in accordance with the requirements of subclause 1.4.12(b) (I), above shall be borne by the Contractor and shall be deemed to be included in the bided rates and prices for the respective items of work as listed in the Schedule of Quantities and which require testing in terms of the Specifications. No separate payments will be made by the Employer to the Contractor in respect of any testing carried out in terms of subclause 1.4.12(b) (I).

Where, as a result of the consistency of the materials varying or as a result of failure to meet the required specifications for the work, it becomes necessary to carry out additional tests (e.g. re-tests on rectified work and/or replacement materials), the costs of such additional testing shall be for the Contractor's account.

(b) Additional tests required by the EMPLOYER'S AGENT

The costs of any additional tests required by the EMPLOYER'S AGENT in terms of subclause 1.4.12(b) (I): Additional testing required by the EMPLOYER'S AGENT, shall be reimbursed to the Contractor against substitution of the Provisional Sum allowed therefore in the Schedule of Quantities; provided always that the costs of any such additional tests ordered by the EMPLOYER'S AGENT, the results of which indicate that the quality of the materials utilised and/or the standard of workmanship achieved are/is not in accordance with the specifications, shall not be reimbursable to the Contractor.

C3.1.7.3 Damage to existing services

Where damage is incurred to services not shown in the services drawings and unknown to the contractor at the time of construction, then the costs to repair and reinstate such services shall be borne by both the Contractor and the Client in a 50% proportion to each party in accordance with Clause B1202 of the project specifications.

C3.1.7.4 Construction in restricted areas

It will be necessary for the Contractor to work within restricted areas. No additional payment will be made for work done in such areas, despite indications to the contrary in the Standard Specifications.

C3.1.7.5. Water for construction purposes

The Contractor must make adequate provision in his tender for all negotiations and procurement of water for construction activities and all related costs will be deemed to be included in his tendered rates.

C3.1.7.6. Weatherproof protection for workers

All staff required to continue working during rain shall be provided with approved protective clothing and footwear.

C3.1.7.7. Nightwork and work on public holidays

When the Contractor requires staff to work overtime or at night, in accordance to the Basic Condition of Employment Act, he shall make the necessary arrangements with the Employer's Agent and obtain written approval from the Employer's Agent. The Contractor shall bear all the cost of his overtime and or night work.

C3.1.7.8. Environmental requirements

The Contractor shall take particular note of the environmental requirements contained in Part C3.5.2 of the Scope of Works.

Personnel and plant shall not enter property beyond the road reserve boundary irrespective of whether or not the boundary is fenced.

The Contractor shall take every precaution to avoid damage to vegetation within that area of the road reserve which falls outside the designated work area as indicated on the drawings. Any damage caused is to be repaired at the Contractor's expense.

Storage and stockpiling of materials within the road reserve will not be permitted without the written consent of the Employer's Agent. Excess material from excavations and waste material shall be spoiled off site at suitable locations.

C3.1.8 ACCOMMODATION OF TRAFFIC

C3.1.8.1. General

- a) The safety and convenience of the travelling public is to be considered of utmost importance and every effort must be made to ensure that all temporary road signs, cones, flagmen and speed controls are maintained and effective, and that courtesy is extended to the public at all times.
- b) It is important that the traffic accommodation requirements described in these specifications are adhered to and that all installations meet with the approval of the relevant traffic authority.
- c) Construction work, including the erection and removal of traffic control facilities, shall be executed within the specified, out of peak hours, on Monday to Saturday, inclusive. Accommodation of traffic on the existing traffic lanes will be required throughout the construction contract period.
- d) It should be noted that Sundays are specified as "Special non-working days" in the Contract Data. In terms of the General Conditions of Contract the Employer's Agent's permission has to be obtained for work to be carried out on special non-working days, for which permission shall be applied for at least 2 days prior to the day. The contractor's attention is drawn to the

Basic Condition of Employment Act (BCEA), with reference to staff working on Sunday and more than 6 days a week.

- e) The travelling public has the right of way on public roads, and the Contractor shall make use of approved methods to control the movement of his equipment and vehicles so as not to constitute a hazard on public roads.
- f) The Contractor may not commence construction activities before adequate provision has been made to accommodate traffic in accordance with the requirements of these specifications and Chapter 13 of Volume 2 of the South African Road Traffic Signs Manual (SARTSM).
- g) The Contractor shall submit proposals in connection with all signs and accommodation of traffic to the Employer's Agent for approval.
- h) Access to properties shall be provided at all times. Should any access need to be temporarily closed, such a closure shall be communicated with the affected parties. The Contractor shall only commence with access restriction or closures upon approval of the affected parties and such approval shall be provided to the Employer's Agent.

C3.1.8.12 Access to Properties

The Contractor shall organise the work to cause the least possible inconvenience to the public and to the property owners adjacent to or affected by the work, and except as hereunder provided, shall at all times provide and allow pedestrian and vehicular access to properties within or adjoining or affected by the area in which he is working. In this respect the Contractor's attention is drawn to Clause 17.1 of the Conditions of Contract.

If, as a result of restricted road reserve widths and the nature of the work, the construction of bypasses is not feasible, construction shall be carried out under traffic conditions to provide access to erven and properties.

Notwithstanding the foregoing, the Contractor may, with the prior approval of the EMPLOYER'S AGENT (which approval shall not be unreasonably withheld), make arrangements with and obtain the acceptance of the occupiers of erven and properties to close off part of a street, road, footpath or entrance temporarily, provided that the Contractor duly notifies the occupiers of the intended closure and its probable duration, and reopens the route as punctually as possible. Where possible, such streets, roads, footpaths and entrances shall be made safe and reopened to traffic overnight. Such closure shall not absolve the Contractor from his obligations under the Contract to provide access at all times. Barricades, traffic signs, drums and other safety measures appropriate to the circumstances shall be provided by the Contractor to suit the specific conditions.



C3.2 ENGINEERING

**THE JABULANI TRANSIT ORIENTED DEVELOPMENT PROJECTS
GROUND: PHASE – 5
(COMPLETION FOR THE TRAFFIC CIRCLE)**

CONTRACT NO.: JDA 17.2.6.B.700251.1 PH5

Design services and activity matrix

The following parties are responsible for the various design stages of the project.

Description	Responsible
Concept, feasibility and overall process	Employers Agents/ Professional Team
Basic Principal Agent and Preliminary Design	Employers Agents/ Professional Team
Final design to approval for construction stage	Employers Agents/ Professional Team
Temporary Works	Contractor
Preparation of as built drawings	Employers Agents/ Professional Team/ Contractor

Employer’s design

All permanent works required for construction shall be designed by employer and his appointed agents / professional team.

Design brief

The employer has briefed the consultants as to design requirements

Drawings

The Works shall be constructed in accordance with the design drawings included in the Contract Documents marked as Issued for Construction.

The reduced drawings listed and included in C5 of the tender documents shall be used for tender purposes only.

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

Only figured dimensions shall be used and drawings shall not be scaled unless otherwise instructed.

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

The Contractor shall ensure that accurate as-built records are kept of all infrastructure installed or relocated during the contract. The position of pipe bends, junction boxes, duct ends and all other underground infrastructure shall be given by either co-ordinates, or stake value and offset. Where



necessary, levels shall also be given. A marked-up set of drawings shall also be kept and updated by the Contractor. This information shall be supplied to the Engineer's Representative on a regular basis.

Any information in the possession of the Contractor, which the Engineer requires to complete his record drawings shall be supplied to the Engineer's Representative before a certificate of completion will be issued.

Design procedures

Where the contractor is required to design any sub-contractor or specialist works, the relevant professional indemnity must be taken out at contractor's costs. All shop drawings must be issued timeously for approval by Principal agent. A late issue of shop drawings by contractors will not constitute a valid claim for extension of time.



C3.3 PROCUREMENT

THE JABULANI TRANSIT ORIENTED DEVELOPMENT PROJECT

CONTRACT NO.: JDA 17.2.6.B.700251.1 PH5

SECTION	DESCRIPTION	PAGE
C3.3.1	TARGETED CONSTRUCTION PROCUREMENT	105
C3.3.2.	SMALL CONTRACTOR DEVELOPMENT	105
C3.3.2.1	DEFINITIONS AND APPLICABLE LEGISLATION	105
C 3.2.2.2	PARTICIPATION AND ADVANCEMENT OF START-UP, SMALL AND MICRO ENTERPRISES	106

C3.3.1 TARGETED CONSTRUCTION PROCUREMENT
C3.3.1.1 Requirements

The contractor shall be required to adopt labour-based techniques through the full spectrum of the works with the proviso that the Client's specific objectives regarding time and quality are not compromised. **Maximisation of employment shall be of the essence on this contract.**

Together with their tenders, all Tenderers are required to submit a comprehensive **implementation plan** clearly stating the labour content and number of jobs that shall be created. The employment of labour shall be reflected in a programme in sufficient details to enable the Project Manager to monitor and compare it with the implementation plan. The Contractor shall be required to submit employment data on a monthly basis to the Project Manager.

The Contractor and all sub-contractors will be required to pay labour rates which are in accordance with the latest SAFCEC rates for the civil construction industry for unskilled workers.

Should the contractor, at Works Completion, be in default by non-attainment of the abovementioned labour intensive targets, the Employer shall have the right to, without prejudice of any other rights, apply a penalty of not exceeding 5% of the contract sum.

Tenderers are to also note that it is an explicit condition of this tender that all unskilled labourers on the project are to be employed from the local community. The Contractor shall, in general, maximise the involvement of the local community.

C3.3.2 SMALL CONTRACTOR DEVELOPMENT

C3.3.2.1 DEFINITIONS AND APPLICABLE LEGISLATION

(A) DEFINITIONS

The City of Johannesburg has identified job creation and access to procurement opportunities by Start-ups, Small and Micro enterprises (QSE / EMEs) as an essential requirement towards building an economically viable City. In this regard the following definitions are applicable:

Start-up Enterprises

An enterprise that has been in existence and operating for less than two years.

Small Enterprises

An enterprise that has a CIDB grading designation of 1 or 2.

Micro Enterprises

An enterprise that has a CIDB grading designation of 3.

Locally based SMMEs

Enterprises that have their operational base in the ward in which the project is to be executed or, alternatively, the members of the enterprise are resident in the particular ward. Should suitable locally based SMME contractors as defined above not be available in the particular ward, then they shall be sourced from adjacent wards.

Targeted Enterprise

A Targeted Enterprise is minimum Level 2 BBBEE entity engaged by the Contractor as a Joint Venture Partner and which is registered with the Construction Industry Development Board (CIDB) in a Contractor grading designation between **1CE to 4CE** and which is also registered by the CIDB as **Potentially Emerging (PE)**.

Contract Participation

Contract Participation in terms of this contract is a process by which the Employer implements Government's objectives by setting a target relating to small contractor development which the Contractor shall achieve as a minimum.

Contract Participation Goal (CPG)

Contract Participation Goal is the monetary value of the target set by the Employer in the Contract Participation process.

Contract Participation Performance (CPP)

Contract Participation Performance is the measure of the Contractor's progress in achieving the CPG.

(B) APPLICABLE LEGISLATION

The following Acts, as amended from time to time, are predominant amongst those which apply to the construction industry and are listed here for reference purposes only:

- The Constitution of South Africa;
- Preferential Procurement Policy Framework Act No. 5 of 2000;
- Construction Industry Development Board Act No. 38 of 2000;
- Broad-Based Black Economic Empowerment Act No. 53 of 2003.

SUBCONTRACTING – SPECIAL CONDITION OF CONTRACT

C3.3.2.2 PARTICIPATION AND ADVANCEMENT OF START-UP, SMALL AND MICRO ENTERPRISES

The City of Johannesburg has identified job creation and access to procurement opportunities by Start-ups, Small and Micro enterprises (SMMEs) as an essential requirement towards building an economically viable City.

It is a condition of this tender that the successful contractor is required to sub contract a minimum value of work to **SMME's** equal to **30%** of the contract sum.

If it is established that the SMMEs are sufficiently resourced to execute the proposed works as a complete package the Contractor may conclude full sub-contract agreements with locally based SMMEs to a minimum value of the Contract sum, excluding P&G's and provisional sums.

The following activities are intended to be carried out by QSE / EME's but not limited to:

- Construction of earthworks and Completion of layer works
- Civil Services (Stormwater, Water, etc)
- Landscaping
- Surfacing of roadway
- Provision of street furniture i.e. signage, street lighting, bins, benches, trader stalls etc. and;
- The Construction of walkways.

It is a condition of this tender that **the successful Contractor is required to take full responsibility of managing all appointed sub-contractors and the quality of their works.** The Contractor will be expected to pay QSE / EMEs full rates as submitted by the Contractor to the JDA.

Above this, it is a condition of this contract that should the contractor fail to pay the QSE / EME's with no valid reason/s, the JDA reserves the right to pay the QSE / EME's directly and deduct same from any amount paid to the contractor.

The form of contract to be used with SMMEs is the SAFCEC General Conditions of Sub-Contract for Civil Works or a JDA approved form of contract. The Contract Data must record the specific requirements in respect of penalties, retention and payment. With regard to the latter, the Contractor is to allow for fortnightly certificates from the SMMEs and for payment to the SMMEs to be effected within 7 days of certification, this is not subject to the Contractor receiving payment from the JDA. Failure of the main contractor to pay the invoices of the SMME, the JDA reserves the right to make payment directly to the SMME through a cession agreement and then recover on the next payment certificate the cost from the main contractor.

In order to achieve the goals of this policy and to ensure that the SMMEs are treated fairly and given every opportunity to advance their business whilst delivering a successful project, the Contractor is to note the following and provide for any cost that may be associated therewith.

1. **The SMME bill of quantities is to provide for market related rates and P&G items.** Thirty percent (30%) of the contract value to be allocated to SMMEs.
2. The Contractor will be expected to have clearly specified the programme dates to the SMME contractors and these dates are to be included in the contract of agreement between the two parties. The Contractor is to monitor the SMME contractor's progress against the programme and hold progress meetings with the SMME contractors where minutes are to be kept and signed off by both parties.
3. The Contractor is to assess the skills of the SMME contractor and provide the relevant support and training where it is necessary in order for the SMME contractor to complete the works to programme, budget and specification. The Managing Contractor will be expected to provide on-site training to the SMME contractors that will ensure that the SMME contractor's staff is suitably trained to execute the works and that they receive sufficient relevant experience on the project.
4. The Contractor is responsible for safety compliance on the project and will assist the SMME contractors in all aspects to achieve safety compliance, that will include:
 - a) Assisting the SMME contractors with developing their safety files, legal appointments, etc.
 - b) Assisting the SMME contractors with achieving safety on site.
 - c) Having tool box talks with the SMME contractor's employees on a daily basis.
 - d) Providing all safety equipment and signage.
 - e) Providing safety training where necessary.
5. Contractor is to provide all the necessary equipment for the timeous monitoring and the checking of the quality of works as carried out by the SMME contractors. The Contractor will be expected to monitor the SMME contractor's works for quality compliance and provide all the necessary support to the SMME contractors in order to achieve quality requirements. The Contractor is to ensure that if the SMME contractor's quality of works does not achieve specification the Contractor will assist the SMME contractors to achieve specification and not allow the works to continue until the quality requirements are achieved.
6. The Contractor is to generate monthly reports for the JDA that includes the following:
 - a) SMME contractor resources on the site, i.e. supervisors, labour, plant tools and equipment
 - b) SMME contractor progress of works on site.
 - c) SMME contractor quality control on site.
 - d) SMME contractor expenditure on the project versus target expenditure.
 - e) Copies of minutes of the SMME contractor and Contractor progress meetings.

f) Concerns and improvements to be made.

The Tenderers are to price the works to achieve full compliance with the above requirements. Failure of the Contractor to achieve these requirements may result in the JDA enforcing compliance by appointing 3rd parties if necessary to assist and deducting all reasonable costs for achieving compliance from money due to the Contractor.

Following from the above, the QSE / EME's to be contracted on the project must be selected from the provided database which will be given to the successful bidder. The database includes QSE / EME that are youth, women owned, disabled and ex-combatants. The Contractor will be expected to give preference to QSE / EME's that comply with all/most of these groups. The following information must be provided by said Contractor within 14 days of the commencement date of the contract.

Detailed approach and methodology on the employment of local QSE / EME's, including:

- QSE / EME/s company name/s to be employed on the project;
- QSE / EME contact persons;
- Works to be executed by QSE / EME/s;
- Programme (anticipated start, duration and end dates) applicable to the works defined in item above;
- Estimated value of the works identified in item 4 above.

Detailed breakdown of tendered rates for QSE / EME activities, including:

- Labour portion of the activity;
- Equipment portion of the activity;
- Materials portion of the activity;
- Planned percentage of profit.

The Tenderers are to price the works to achieve full compliance with the above requirements. Tenderers are to ensure that they allocate a dedicated individual to manage the QSE / EME's and fulfil the requirements stated above.

The QSE / EME supervisor will be required to conclude a scorecard with the JDA. Said scorecard will encompass four key performance areas and several key performance indicators as outlined overleaf. The QSE / EME supervisor will be required to score a minimum of 95%. The scorecard review will take place on a monthly basis.

Key Performance Areas	(a) Key Performance Indicators
1) Safety	(a) Be familiar with and ensures QSE / EME Contractor enforces the safety specs and relevant OHSA (b) Reporting of incidents and accidents <ul style="list-style-type: none"> • Ensures QSE / EME Contractor Reports incidents and accidents to the Contractor on the day they occur

2) Quality Control	<p>(b) Setting out of the Works</p> <ul style="list-style-type: none"> • Ensures that the Works have been set-out correctly prior to construction commencing <p>(c) Monitoring of Construction</p> <ul style="list-style-type: none"> • Examine the Works daily and pre-empt unnecessary work by the QSE / EME Contractor by warning him of incorrect workmanship as soon as it is identified <p>(d) Approval of the Works</p> <ul style="list-style-type: none"> • Assist QSE / EME Contractor in the works approval process <p>(e) Read Drawings</p> <ul style="list-style-type: none"> • Assist QSE / EME Contractor in reading and interpreting construction drawings
3) Financial	<p>(a) Daily Costing</p> <ul style="list-style-type: none"> • Ensures that QSE / EME Contractors do daily costing <p>(b) Variances to Scope</p> <ul style="list-style-type: none"> • Assist QSE / EME Contractors identify and claim for additional works <p>(c) Standing Time Costs</p> <ul style="list-style-type: none"> • Assist QSE / EME Contractors compute and Claim standing time costs
4) Site Administration and Progress Monitoring	<p>(a) Communication</p> <ul style="list-style-type: none"> • Ensures that QSE / EME Contractors communicate with the Contractor in writing on site related issues <p>(b) Reporting</p>
Key Performance Areas	(a) Key Performance Indicators
	<ul style="list-style-type: none"> • Ensures that the Main Contractor's progress report is communicated with the QSE / EME Contractors and that contingency plans are followed through <p>(c) Site diary</p> <ul style="list-style-type: none"> • Ensures QSE / EME Contractors maintain a site diary <p>(d) Claims</p> <ul style="list-style-type: none"> • Assist QSE / EME Contractors draft claims for Extension of Time where applicable <p>(e) Quantities</p> <ul style="list-style-type: none"> • Assist QSE / EME Contractors in the measurement of the works

Following from the above, the QSE / EME's to be contracted on the project must be selected from a database which will be issued to the appointed contractor on the commencement date of the contract. The data base will include for QSE / EME that are youth, women owned, disabled and ex-combats. The contractor will be expected to give preference to QSE / EME's that comply with all/most of these groups. The following information must be provided by said contractor within 14 days of the commencement date of the contract.

1. Detailed approach and methodology on the employment of local QSE / EME's
2. QSE / EME/s company name/s to be employed on the project.
3. QSE / EME contact persons
4. Works to be executed by QSE / EME/s
5. Programme (anticipated start, duration and end dates) applicable to the works defined in item 4 above.

The onus is on the Contractor to prove to the Employer that no fully fledged QSE / EMEs are active in the area of the project. In this case, the contractor can source QSE / EME's from adjacent wards and must submit a proposal with his tender on how he intends to advance the growth of the QSE / EME's in the project ward.

JDA reserves the right to withdraw its acceptance of offer, should the appointed contractor fail to satisfactorily address the above requirements (1 to 5) within 14 days of the commencement date of the contract. Approved documentation will form part of the contract.

Failure of the Contractor to achieve the requirements set-out in this tender document during construction may result in the JDA enforcing compliance by appointing 3rd parties if necessary to assist and deducting all reasonable costs for achieving compliance from money due to the Contractor.

Should the contractor, at Practical Completion, be in default by non-attainment of the above-mentioned labour-intensive targets and QSE / EME requirements, the Employer shall have the right to, without prejudice of any other rights, apply a penalty not exceeding 5% of the contract sum

The Resource Specification is for SANS 1914-4: Participation of targeted enterprises and targeted labour (local resources).

Targeted enterprises and targeted labour groups will be identified by the Community Liaison Officer, in consultation with the local Ward Councillor.



C3.4 CONSTRUCTION (CIVIL AND STRUCTURES)

THE JABULANI TRANSIT ORIENTED DEVELOPMENT PROJECTS GROUND: PHASE – 5 (COMPLETION FOR THE TRAFFIC CIRCLE)

CONTRACT NO.: JDA 17.2.6.B.700251.1 PH5

1.1.1. Works specifications

Applicable national and international standards

SANS 1200

Particular / generic specifications

Works are to be carried out in accordance with the construction drawings and according to the Johannesburg Development Agency, Johannesburg Roads Agency and City of Johannesburg's norms and standards.

Certification by recognized bodies

None Applicable

1.1.2. Plant and Materials

The contactor shall ensure that adequate plant and materials are procured and available as required in order to complete the works as specified in line with the contract programme. The Contractor shall supply a report to the Principal Agent on a fortnightly basis as to the plant and materials on site (or on order), and their utilization in relation to the construction programme.

1.1.3. Construction Equipment

The contactor shall ensure that adequate construction equipment is available as required in order to complete the works as specified in line with the contract programme. The Contractor shall supply a report to the Principal Agent on a fortnightly basis as to the construction equipment on site and their utilization in relation to the construction programme.

1.1.4. Existing Services

The requirements of Section 1200AA of the standard specifications as amended shall apply in this regard.

1.1.5. Site Establishment

Refer to "Section 1200A: Contractor's Establishment on Site and General Obligations: as amended and the information below.

Services and Facilities Provided by The Employer:

- Nil

Facilities Provided by the Contractor:

- The Contractor is to provide facilities, necessary to complete the project as specified.



Storage and Laboratory Facilities:

- The Contractor is to provide facilities, necessary to complete the project as specified.

Other Facilities and Services:

- The Contractor is to provide facilities, necessary to complete the project as specified.

Vehicles and Equipment:

- The Contractor is to provide vehicles and equipment necessary to complete the project as specified.

Advertising Rights:

- The Contractor may not place any advertising boards or the like on the site or in any public area without the express written permission of the employer.

Notice Boards:

- The Contractor must place a contract notice board outside his site camp as specified by the employer.

Office Accommodation and Meeting Room:

- The Contractor must provide a meeting room to accommodate a Maximum of 20 people. The meeting room is to be air-conditioned.
- The Contractor must provide an office for the Resident Engineer, which needs to be air-conditioned.
- The main Contractor must provide a work station and storage area per QSE / EME (Office base may be subdivided per QSE / EME).

1.1.6. Site Usage

The contractor will not have unlimited access to the site, however all construction activities are to comply with the City of Johannesburg's by laws and all other applicable legislation such as the Construction Regulations. The accommodation of vehicular and pedestrian traffic on the site is to be maintained at all times.

The Contractor is to allow for the accommodation and diversion of pedestrian traffic in his preliminaries & general items all in accordance with the South African Road Traffic Signs Manual, The Occupational Health & Safety Act & The Construction Regulations as amended, including on-going liaison with the traffic authorities and management of traffic, alterations to kerbing and landscaping, barricading road entrances, temporary signage, dust screens, painting of lines, etc. The traffic accommodation proposal shall be approved by the Project Manager prior to the execution of the works.

The Contractor is to maintain temporary accesses to all businesses during business hours and to all residential properties outside of business hours. In the event that the Contractor cannot maintain access to residents' properties for vehicular parking and the like, the Contractor is to provide alternative secure parking for residents at his own cost. Similarly, should residents be forced to park on the street due to construction activities, the Contractor shall provide security personnel to guard the residents vehicles.



The cost hereof shall be included in the Contractor's preliminaries & general items.

1.1.7. Permits and wayleaves

The Contractor shall be responsible to obtain all the wayleave required under this Contract. Contractors are to comply with the terms and conditions of the wayleaves as supplied by the various service provider departments. The EMPLOYER'S AGENT has applied for all the services from service provider departments and will forward the information to the Contractor on receipt of all the information, the Contractor shall then transfer said Wayleaves into the name of his/her company. The Contractor shall be responsible for all costs associated with establishing a site office including special permissions and or permits for the use of land.

1.1.8. Alterations, additions, extensions and modifications to existing works

The works at tender stage are not finalised and are subject to change in their entirety.

1.1.9. Inspection of Adjoining Properties

Contactors are to ensure that adequate inspections of adjoining properties are carried out before construction commences (and records are kept thereof) to ensure that any claims received from adjoining properties due to damage can be dealt with decisively. The settlement of any claims in this regard shall be for the contactors account and the contactor is to ensure that he has the necessary 3rd party insurances in place as specified in this document. Photographs must be taken to document the inspection.

1.1.10. Water for Construction Purposes

The contactor is to make his own arrangements for the supply of water for construction purposes and his own domestic usage.

1.1.11. Features requiring special attention

(a) Site maintenance

During progress of the work and upon completion thereof, the Site of the Works shall be kept and left in a clean and orderly condition. The Contractor shall store materials and equipment for which he is responsible in an orderly manner and shall keep the Site free from debris and obstructions.

(b) Testing and quality control

(I) CONTRACTOR TO ENGAGE SERVICES OF AN INDEPENDENT LABORATORY

Notwithstanding the requirements of the Specifications pertaining to testing and quality control, the Contractor shall engage the services of an approved independent laboratory to undertake all testing of materials, the results of which are specified in, or may reasonably be inferred from, the Contract. These results will be taken into consideration by the Engineer in deciding whether the quality of materials utilised and workmanship achieved by the Contractor comply with the requirements of the Specifications. The foregoing shall apply irrespective of whether the specifications indicate that the said testing is to be carried out by the EMPLOYER'S AGENT or by the Contractor.

The Contractor shall be responsible for arranging with the independent testing laboratory for the timeous carrying out of all such testing specified in the Contract, at not less than the frequencies and in the manner specified. The Contractor shall promptly provide the



EMPLOYER'S AGENT with copies of the results of all such testing carried out by the independent laboratory.

For the purposes of this clause, an "independent laboratory" shall mean a " SANAS approved laboratory" which is not under the management or control of the Contractor and in which the Contractor has no financial interest, nor which has any control or financial interest in the Contractor.

(II) COSTS OF TESTING

(c) Tests in terms of subclause 1.4.12(b)(I)

The costs of all testing carried out by the independent laboratory in accordance with the requirements of subclause 1.4.12(b) (I), above shall be borne by the Contractor and shall be deemed to be included in the bided rates and prices for the respective items of work as listed in the Schedule of Quantities and which require testing in terms of the Specifications. No separate payments will be made by the Employer to the Contractor in respect of any testing carried out in terms of subclause 1.4.12(b) (I).

Where, as a result of the consistency of the materials varying or as a result of failure to meet the required specifications for the work, it becomes necessary to carry out additional tests (e.g. re-tests on rectified work and/or replacement materials), the costs of such additional testing shall be for the Contractor's account.

(d) Additional tests required by the EMPLOYER'S AGENT

The costs of any additional tests required by the EMPLOYER'S AGENT in terms of subclause 1.4.12(b) (I): Additional testing required by the EMPLOYER'S AGENT, shall be reimbursed to the Contractor against substitution of the Provisional Sum allowed therefore in the Schedule of Quantities; provided always that the costs of any such additional tests ordered by the EMPLOYER'S AGENT, the results of which indicate that the quality of the materials utilised and/or the standard of workmanship achieved are/is not in accordance with the specifications, shall not be reimbursable to the Contractor.

(c) Subcontractors

All matters pertaining to subcontractors (including Nominated subcontractors) and the work executed by them shall be dealt with directly between the EMPLOYER'S AGENT and the Contractor in the context of all subcontract work being an integral part of the Works for which the Contractor is responsible.

The EMPLOYER'S AGENT will not liaise directly with any subcontractors nor will he issue instructions concerning the subcontract works directly to any subcontractor.

All matters arising from the subcontract agreements shall be dealt with directly between the Contractor and the subcontractors and the EMPLOYER'S AGENT will not become involved.

(d) Access to properties

The Contractor shall organise the work to cause the least possible inconvenience to the public and to the property owners adjacent to or affected by the work, and except as hereunder provided, shall at all times provide and allow pedestrian and vehicular access to properties within or adjoining or affected by the area in which he is working. In this respect the Contractor's attention is drawn to Clause 8.1 of the Conditions of Contract.

If, as a result of restricted road reserve widths and the nature of the work, the construction of bypasses is not feasible, construction shall be carried out under traffic conditions to provide access to erven and properties.

Notwithstanding the foregoing, the Contractor may, with the prior approval of the EMPLOYER'S AGENT (which approval shall not be unreasonably withheld), make arrangements with and obtain the acceptance of the occupiers of erven and properties to close off part of a street, road, footpath or entrance temporarily, provided that the Contractor duly notifies the occupiers of the intended closure and its probable duration, and reopens the route as punctually as possible. Where possible, such streets, roads, footpaths and entrances shall be made safe and reopened to traffic overnight. Such closure shall not absolve the Contractor from his obligations under the Contract to provide access at all times. Barricades, traffic signs, drums and other safety measures appropriate to the circumstances shall be provided by the Contractor to suit the specific conditions.

(e) Existing residential areas

Electricity and water supply interruptions in existing residential areas shall be kept to a minimum. The EMPLOYER'S AGENT's approval shall be obtained prior to such interruptions and residents shall be notified in writing at least 24 hours but not more than 48 hours in advance. Supplies shall be normalised by 16:00 on the same day.

(f) Labour-intensive competencies of supervisory and management staff

Contractor 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 3: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 one of these 3-unit standards be used
		Use Labour-intensive Construction Methods to Construct and Maintain roads and Stormwater Drainage	
		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 any one of these 3-unit standards be used
		Use Labour-intensive Construction Methods to Construct and Maintain Roads and Stormwater Drainage	
		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 (ie the contractor's most senior representative who is resident on the site)	5	Manage Labour-intensive Construction Processes	Skills Programme against this single unit standard

(g) Employment of unskilled and semi-skilled workers in labour-intensive works

- (l) Requirements for the sourcing and engagement of labour
- (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 1914-4, Participation of Targeted Enterprises and Targeted Labour (local resources)
- (2) The Contractor and all sub-contractors will be required to pay labour rates which are in accordance with SAFCEC rates for the civil construction industry for unskilled workers.

"In accordance with the Code of Good Practice for Employment and Conditions of Work for Expanded Public Works Programmes (clause 10.4), the public body must set a rate of pay (task-rate) for workers to be employed on the labour-intensive projects.



Clause 10.4 requires that the following should be considered when setting rates of pay for workers:

The rate set should take into account wages paid for comparable unskilled work in the local area per sector, if necessary.

The rate should be an appropriate wage to offer an incentive for work, to reward effort provided and to ensure a reasonable quality of work. It should not be more than the average local rate to ensure people are not recruited away from other employment and jobs with longer-term prospects.

10.4.3 Men, women, youth, disabled persons and the aged must receive the same pay for work of equal value."

- (3) Tasks established by the Contractor must be such that:
 - (aa) the average worker completes 5 tasks per week in 40 hours or less; and
 - (bb) the weakest worker completes 5 tasks per week in 55 hours or less.
- (4) The Contractor must revise the time taken to complete a task whenever it is established that the time taken to complete a weekly task is not within the requirements of 1.1.3.
- (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:
 - (aa) where the head of the household has less than a primary school education;
 - (bb) that have less than one full-time person earning an income;
 - (cc) where subsistence agriculture is the source of income;
 - (dd) those who are not in receipt of any social security pension income.
- (6) The Contractor must provide monthly statistics to the Client indicating the number of new jobs created through this contract. This statistic must be provided with each monthly payment certificate using Councils electronic prescribed format, which will be provided by the Project Manager of this project to the successful bidder. **Failure to provide the required statistics Council may withhold payment.**

(II) Specific provisions pertaining to SANS 1914-4

(1) Definition

Targeted labour:

Individuals, employed by the Contractor in the performance of the contract, who are defined as the target group in the contract and who permanently reside in the target area or who are recognized as being residents of the target area on the basis of identification and association with and recognition by the residents of the target area.

(2) Contract participation goals



- a. The Contractor shall engage targeted labour and targeted enterprises directly in the performance of the contract to the extent that the total monetary value of such engagements, exclusive of any value added tax or sales tax required by law, expressed as a percentage of the net amount, is not less than the contract participation goal provided for in the contract.
- b. The Contractor shall submit details of his plan to achieve the contract participation goal on the contract participation goal implementation form contained in annex B, within five working day of being instructed to do so. If no such instructions are given, these plans shall be submitted before the submission of the first claim for payment.
- c. The wages and allowances used to calculate the contract participation goal shall, with respect to both time-rated and task-rated workers, comprise all wages paid and any training allowance paid in respect of agreed training programmes.

(3) Terms and conditions for the engagement of targeted labour

Further to the provisions of clause 3.3.2 of SANS 1914-4, written contracts shall be entered into with targeted labour.

(4) Variations to SANS 1914-4

(aa) The definition for net amount shall be amended as follows:
Financial value of the contract upon completion, exclusive of any value-added tax or sales tax which the law requires the employer to pay the Contractor.

(bb) The schedule referred to in 5.2 shall in addition reflect the status of targeted labour as women, youth and persons with disabilities and the number of days of formal training provided to targeted labour.

(III) Training of targeted labour

- (1) The Contractor shall provide all the necessary on-the-job training to targeted labour to enable such labour to master the basic work techniques required to undertake the work in accordance with the requirements of the contract in a manner that does not compromise worker health and safety.
- (2) The cost of the formal training of targeted labour, will be funded by the provisional sum allowed for in Preliminary & General section of the Schedule of Quantities.
- (3) The Contractor shall be responsible for scheduling the training of workers and shall take all reasonable steps to ensure that each beneficiary is provided with a minimum of six (6) days of formal training if he/she is employed for 3 months or less and a minimum of ten (10) days if he/she is employed for 4 months or more.
- (4) The Contractor shall do nothing to dissuade targeted labour from participating in training programmes.
- (5) 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 h (III) (4) above.
- (6) Proof of compliance with the requirements of h (III) (1) to h (III) (5) must be provided by the Contractor to the Employer prior to submission of the final payment certificate.



(h) Employment of local labour

It is the intention that this Contract should make maximum use of the QSE / EMEs and local labour force that is presently under-employed. To this end the Contractor shall limit the utilisation on the Contract of non-local employees to that of key personnel only and to employ and train local labour to the extent necessary for the execution and completion of this Contract.

The Contractor shall fill in the form entitled Key Personnel in the Forms to be completed by the Bidder. The data stated on the above-mentioned form will be strictly monitored during the Contract period and any deviations therefrom shall be subject to the prior approval of the EMPLOYER'S AGENT, which approval shall not be unreasonably withheld.

The employment of casual labour will be done in co-operation with community leaders and local structures. The bidder shall ensure that all remuneration paid to employees is in line with the relevant sectorial determination in terms of the Basic Conditions of Employment Act, No 75 of 1997, as determined by the Department of Labour.

(i) Monthly statements and payment certificates

The statement to be submitted by the Contractor in terms of Clause 6.10 of the Conditions of Contract shall be prepared by the Contractor at his own cost, strictly in accordance with the standard payment certificate prescribed by the EMPLOYER'S AGENT, in digital electronic computer format. The Contractor shall, together with a copy of the digital electronic computer file of the statement, submit two (2) A4 size paper copies of the statement.

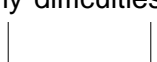
For the purposes of the EMPLOYER'S AGENT's payment certificate, the Contractor shall subsequently be responsible, at his own cost, for making such adjustments to his statement as may be required by the EMPLOYER'S AGENT for the purposes of accurately reflecting the actual quantities and amounts which the EMPLOYER'S AGENT deems to be due and payable to the Contractor in the payment certificate.

The Contractor shall, at his own cost, make the said adjustments to the statement and return it to the EMPLOYER'S AGENT within three (3) normal working days from the date on which the EMPLOYER'S AGENT communicated to the Contractor the adjustments required. The Contractor shall submit to the EMPLOYER'S AGENT five (5) sets of A4 size paper copies of such adjusted statement, together with a copy of the electronic digital computer file thereof.

Any delay by the Contractor in making the said adjustments and submitting to the EMPLOYER'S AGENT the requisite copies of the adjusted statement for the purposes of the EMPLOYER'S AGENT's payment certificate will be added to the times allowed to the EMPLOYER'S AGENT in terms of Subclause 6.10.4 of the Conditions of Contract to submit the signed payment certificate to the Employer and the Contractor. Any such delay will also be added to the period in which the Employer is required to make payment to the Contractor.

(j) Construction in restricted areas

Working space is sometimes restricted. The construction method used in these restricted areas largely depends on the Contractor's Plant. Notwithstanding, measurement and payment will be strictly according to the specified cross-sections and dimensions irrespective of the method used, and the rates and prices bided will be deemed to include full compensation for any difficulties



encountered by the Contractor while working in restricted areas. No extra payment nor any claim for payment due to these difficulties will be considered.

(k) Notices, signs, barricades and advertisements

All notices, signs and barricades, as well as advertisements, may be used only if approved by the EMPLOYER'S AGENT. The Contractor shall be responsible for their supply, erection, maintenance and ultimate removal and shall make provision for this in his bided rates.

The EMPLOYER'S AGENT shall have the right to instruct the Contractor to move any sign, notice or advertisement to another position, or to remove it from the Site of the Works if in his opinion it is unsatisfactory, inconvenient or dangerous.

(l) Workmanship and quality control

The onus to produce work that conforms in quality and accuracy of detail to the requirements of the Specifications and Drawings rests with the Contractor, and the Contractor shall, at his own expense, institute a quality control system and provide suitably qualified and experienced engineers, foremen, surveyors, materials technicians, other technicians and technical staff, together with all transport, instruments and equipment to ensure adequate supervision and positive control of the Works at all times.

The cost of supervision and process control, including testing carried out by the Contractor, will be deemed to be included in the rates bided for the related items of work. The Contractor's attention is drawn to the provisions of the various Standardized Specifications regarding the minimum frequency of testing required. The Contractor shall, at his own discretion increase this frequency where necessary to ensure adequate control. On completion and submission of every part of the work to the Engineer for examination and measurement, the Contractor shall furnish the EMPLOYER'S AGENT with the results of the relevant tests, measurements and levels to demonstrate the achievement of compliance with the Specifications

1.2. MANAGEMENT

1.2.1. Management of the Works

The Contractor is to provide suitably qualified and experienced personnel to manage the works. The Contractor will be expected to provide CV's of his proposed site management personnel for the EMPLOYER'S AGENTs review and approval.

Should the EMPLOYER'S AGENT believe that the proposed site personnel not be sufficiently qualified and/or experienced to do the works, be this at CV review, or later into the contract, then the Contractor will be expected to replace this person/s, or provide additional persons to manage the works, and that this will be done at the Contractors own expense.

Should the Contractor fail to follow this instruction, then the EMPLOYER'S AGENT will be entitled to place the Contractor on notice to rectify the situation in terms of the contract.



PORTION 02: VARIATIONS AND ADDITIONS TO THE SABS 1200 STANDARDISED SPECIFICATIONS

SECTION	DESCRIPTION	PAGE
SABS 1200 A	: General	
SABS 1200 AB	: Engineer's office	
SABS 1200 C	: Site Clearance	
SABS 1200 DA	: Earthworks (Small works)	
SABS 1200 DB	: Earthworks (Pipe trenches)	
SABS 1200 DM	: Earthworks (roads, subgrade)	
SABS 1200 LE	: Stormwater drainage	
SABS 1200 ME	: Subbase	
SABS 1200 MF	: Base	
SABS 1200 MJ	: Segmented paving	
SABS 1200 MK	: Kerbing and channelling	
SABS 1200 MM	: Ancillary roadworks	

This portion covers variations to the standardised specifications and particular specifications, which are applicable to the contract.

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

The following variations and additions to the SABS 1200 Standardized Specifications referred to above apply to this Contract. The prefix PS indicates an amendment to SABS 1200. The letters and numbers following these prefixes respectively indicate the relevant Standardized Specification and clause numbers in SABS 1200 to which the variation or addition thereto applies.



SANS 1200A: CIVIL ENGINEERING CONSTRUCTION: PRELIMINARY AND GENERAL

PSA GENERAL

PSA 1 Scope

PSA 1.1 Ordering of materials

Add the following Sub-clause

"c) Ordering of materials: The quantities set out in the Schedule of Quantities have been determined from calculations based on the 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 Specification 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 what so ever in respect of materials ordered by the Contractor on the basis of Tender Documents."

PSA 2 Interpretations

PSA 2.2 Applicable edition of standards

Add at the beginning of Sub-clause 2.2:

"Unless a specific edition is specified (see the List of Applicable Specifications)"

PSA 2.8 Items in Schedule of Quantities

In the fourth line of Sub-clause 2.8.1, after the word "specification", add:

"or in the measurement and payment clause of the standard specification or project specification".

PSA 3 Materials

PSA 3.1 Quality

Add to Sub-clause 3.1:

"All materials shall be the best of their respective kinds, undamaged, sound and free from defects and shall comply with the relevant clauses of the Specifications.

All references to Standard Specifications are to the latest amendment to such specification."

PSA 4 Plant

PSA 4.3 Medical facilities and safety equipment

Add Sub-clause 4.3:

"The suitable first aid services required in terms of Sub-Clause 23(2) of the General Conditions of Contract and Sub-clause 4.2 of SABS 1200 A shall include, inter alia, a First Aid cabinet fully equipped and maintained

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with at least the minimum contents as listed in the Annexure (Regulation 3) to the General Safety Regulations of the Occupational Health and Safety Act, 1993 (Act 85 of 1993), to deal with accidents and ailments which are likely to occur during the construction period.

The Contractor shall provide personal safety equipment and facilities as required by Regulation 2 of the General Safety Regulations of the Occupational Health and Safety Act, 1993 (Act 85 of 1993).”

PSA 4.4 Latrine facilities

Add Sub-clause 4.4:

“The Contractor shall provide, maintain, move to positions as required and finally remove proper sanitary accommodation at each working site. After removal of the sanitary accommodation the Contractor shall properly close and seal all pits and reinstate vegetation.

The sanitary accommodation provided shall be adequately ventilated, properly disinfected and kept in a thoroughly clean condition at all times.

The Contractor shall make arrangements for the removal of pails in the case of pail closets or a chemical closet. The costs associated with the provision of sanitary accommodation will be deemed to have been included in the tendered rates for the various construction items or operations. “

PSA 5 Construction

PSA 5.2 Watching, Barricading, Lighting and Traffic Crossings

Delete standard clause 5.2 and replace with PSA 5.2

“The Contractor shall programme his Works in such a way that the area is secure at all times.

The EMPLOYER’S AGENT or his representative shall suspend Works if, in his opinion, this requirement is not being complied with.

The Contractor shall make provision for any temporary Works as may be required for the purpose of ensuring the safety of adjoining Works and property and for the protection of all persons or animals. He shall be responsible for all damage, injuries and accidents that may occur through his omission of any necessary provision in this respect.

The Contractor shall make full provision for all watching and lighting necessary for the protection of all persons, animals, vehicles, etc., from injury by reason of the Works. He shall provide ample warning signs; guard rails, etc., around open trenches, stacks of material, excavated materials, debris or the like, and shall provide walkways over trenches wherever required for the convenience of the public.

The Contractor shall provide and maintain all necessary temporary protection of finished and/or existing Works liable to be damaged during the progress of the Works by properly covering up, isolating, etc., as required. The Contractor shall be responsible for any damage which may occur and shall make good at his own expense.

Every part of the Works, as described under the ‘Description of the Works’ which is accessible to the public, including other Contractor’s or the Employer’s personnel, or which is adjacent to public roads or thoroughfares, or whereby the safety of persons may be endangered shall be:

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- a) in accordance with the SHE requirements.
- b) provided with red warning lights, or other boundary restrictions and/or indicators, which are clearly visible, including at night or when visibility is poor.

The EMPLOYER'S AGENT shall stop any Works in progress which he deems to be unsafe and to expedite all necessary and appropriate action. All costs in this regard shall be to the Contractor's account.

The Contractor shall so arrange his Works that flow of the Employer's vehicular and pedestrian traffic can be maintained at all times. In this respect, it may be necessary that culverts and pipes be constructed in sections."

PSA 5.4 Protection of overhead and underground services

Delete standard clause 5.4 and replace with PSA 5.4

"The contractor shall locate and protect the existing services. All services shall be treated as live until proven otherwise.

Before the commencement of any excavation the Contractor shall confirm the name and telephone number of the relevant officials directly concerned with the known or suspected services, shall acquaint himself with the position of the control points of the services and shall have readily available the equipment necessary to shut-off and isolate any such service. The Contractor shall liaise with the relevant authorities or controlling bodies for the necessary temporary closure of any services during construction.

Before commencing any excavation for trenches in a specific area, the Contractor shall locate all existing services with the co-operation of the relevant authority in the presence of the Engineer's Representative, and as directed by the Engineer's Representative, carefully excavate by hand, expose and survey such services.

The Contractor will be held responsible for any damage to known services (i.e. services that are within the Site of the Works and are shown on the drawings) and he shall take all necessary measures to protect them. All work or protective measures shall be subject to approval. In the event of a service being damaged, the Contractor shall immediately notify the authority concerned as well as the EMPLOYER'S AGENT. The Contractor shall not repair any such service unless instructed to do so.

Where no underground services are shown on the drawings or scheduled but the possibility of their presence can reasonably be inferred, the Contractor shall, in collaboration with the Engineer, ascertain whether any such services exist within the relevant section of the Site. The Contractor shall complete such investigation well in advance of the start of construction work in the said section and he shall make whatever arrangements are necessary for the protection, removal or diversion of the services before any construction work commences.

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

Where the authority concerned elects to carry out on its own account any alterations or protective measures, the Contractor shall co-operate with and allow such authority reasonable access and sufficient space and



time to carry out the required work. Permanent alterations to or permanent diversion of services necessitated by the execution of the Works and authorized will be paid for in terms of the conditions of contract, but no such work will be paid for if it has not been previously inspected and if proper written instructions have not been given.”

- PSA 8 Measurement and Payment**
- PSA 8.1 Measurement**
- PSA 8.1.1 Method of measurement, all sections of the schedule**

In the second line of Sub-clause 8.1.1, after the words "standardized specification or in" add: "the measurement and payment clause of the standard specification or".

- PSA 8.2 Payment**
- PSA 8.2.1 Fixed-charge and Value-related Items**

Add at the end of existing clause 8.2.1

“Where lump sums are provided for a preliminary and general item or section of the schedule of quantities is provided to cover the Contractor's charges for compliance with the requirements of the conditions and specifications of Contract, if so required the Contractor shall provide a lowest-level composition of the various sub-items that result in the total provided sum.”

- PSA 8.2.2 Time-related Items**

Add at the end of existing clause 8.2.2

“Where lump sums are provided for a preliminary and general item or section of the schedule of quantities is provided to cover the Contractor's charges for compliance with the requirements of the conditions and specifications of Contract, if so required the Contractor shall provide a lowest-level composition of the various sub-items that result in the total provided sum.”

- PSA 8.3 Schedule fixed-charge and value-related items**

- PSA 8.3.1 Contractual Requirements**

Add at the end of existing clause 8.3.1

“The Contractor shall provide a lowest-level composition of the sum in his submission.”

- PSA 8.3.3 Other Fixed-charge Obligations**

Add at the end of existing clause 8.3.3

“The Contractor shall provide a lowest-level composition of the sum in his submission.”

- PSA 8.4 Scheduled time-related items**

Delete standard clause 8.4 and replace with PSA 8.4

“Payment for time-related items will be effected as follows only after payment for the relevant fixed-charge item has been made: Subject to the provisions of 8.2.1 and 8.2.2, payment of incremental amounts (calculated by the division of the remainder of the tendered sum by the number of months required to complete the site

activities for which the relevant sum was tendered) will be authorized in each of the subsequent progress certificates until the sum tendered has been paid.

NOTA BENE: Should the Engineer grant an extension of time, the Contractor is entitled to an increase in the amount tendered for time related items however this shall be limited to time-related item(s) as deemed necessary to successfully complete the extended work, at a unit rate determined from the sum tendered for such item or the unit rate for the sub-item as per clauses 8.2.1 and 8.2.2 or a variation thereof.

Payment for such increased amounts will be considered as full compensation for all time related and general costs which arise as a result of the extension of time.”

PSA 8.4.3 Supervision for Duration of Construction

Add at the end of existing clause 8.4.3

“The Contractor shall provide a lowest-level composition of the sum in his submission.”

Add the following sub-clauses:

PSA 8.4.3 c) Foreman for QSE / EME Contractor Unit: Sum

Foreman, for QSE / EME Contractor (...State Number or Name)
The sum shall cover the costs of an on-site supervision foreman for the proper completion of the QSE / EME Contractor(s) allocated/assigned works, and shall cover the cost of the salaries, wages and allowances paid to the foreman, and any dedicated assistant and of transport incurred in connection with such staff.
This sum shall ONLY be payable pro-rata to the number of days per month during the Contract Period that the Foreman is on site, available to his assigned QSE / EME Contractors and able to meet the completion date as per the accepted Contract Programme of his assigned QSE / EME Contractors.

Monthly Payable Sum:

$$\text{Tendered Sum} \quad \times \quad \frac{\text{Monthly Foreman Assessment Score (out of 10)}}{10}$$

Nota Bene: Monthly Payable sum cannot be less than R0.00

PSA 8.4.5 Other Time-related Obligations

Add at the end of existing clause 8.4.5

The Contractor shall provide a lowest-level composition of the sum in his submission.

PSA 8.4.6 Provision of surveyor and survey equipment required for the survey of the works and construction setting out in accordance with the specification Unit: Sum

The sum shall cover all costs required to fulfil the requirements of the contract as specified by the employer in Clause (1.4.11) Survey.



The sum includes survey works requested by the Employers Agent for coordinating (X,Y,Z) existing services found on site, including confirmation of invert levels for stormwater systems as well as sewer systems. And confirmation of completed levels in relation to existing levels where new works tie in with existing works.

PSA 8.4.7 Obtaining and maintaining in good standing, of wayleaves for the duration of the contract
Unit: Sum

The sum shall cover all applications to all affected parties for wayleaves. The Sum will also cover the cost of renewing the wayleaves where necessary, and any means of keeping the wayleaves in good standing through up to completion of construction.

PSA 8.4.8 Community Liaison officer
Unit: Provisional Sum

The provisional sums shall cover the salary of the CLO for the duration of the contract as specified by the employer, as well as cell phone allowance for airtime and data.

The overhead charges will be for the facilitation of payment to the CLO as specified in Clause 1.4.12 (n) Community participation.

PSA 8.4.9 Training Obligations
Unit: Provisional Sum

The provisional sum shall cover all costs relating to provision of training to meet the requirements of the contract and those of clauses 1.3.2 and 1.4.12

The overhead charges will be for the facilitation of training as per the requirements of the contract.
Unit: %

PSA 8.4.10 QSE / EME Construction Mentor
Unit: Sum

QSE / EME Construction Mentor (...State Number or Name)

The sum shall cover the costs of part-time construction mentor assisting the QSE / EME's in ensuring the proper completion of the QSE / EME Contractor(s) allocated/assigned works, and shall cover the cost of the salaries, wages and allowances paid to the mentor, and any dedicated assistant and of transport incurred in connection with such staff.

The overarching objective of mentorship support provided to QSE / EME's is to bring an acceptable level of party parity in the contractual relationship between the main contractor and the QSE / EME, while also capacitating the QSE / EME to ensure they fulfil their contractual obligations and are aware of their contractual rights. Development of a contractual relationship and environment that is fair to both the main contractor and the QSE / EME's is imperative in enabling successful participation of the QSE / EME category contractors.

The QSE / EME mentor must be registered as Construction Manager with the SACPCMP and have at least 10 year's experience in the construction management and middle and senior level.

The duties of the QSE / EME Construction Mentor are as follows, but not limited to:

- Assist the main contractor with the evaluation process of available QSE / EME's, as well as the appointment process.



- Review the main contractor's proposed contract documentation to be used to engage the QSE / EME's, i.e. Conditions of Contract, specifications, etc.
- Provide input and recommendations on the QSE / EME training requirements.
- Assist the QSE / EME's in ensuring contractual and statutory compliance.
- Provide input in the development of QSE / EME's site administration and quality assurance processes and documentation.
- Review and provide input into the QSE / EME's scope programming/planning.
- Assist and advise the QSE / EME's in resource procurement, allocation and utilisation.
- Assist and advise the QSE / EME's in cost control and cashflow management.
- Provide support and advise on contract administration and contractual matters.
- Ensure the required contractual completion certifications is issued to the QSE / EME's.
- Ensure standard contractual documentation relating to the project is issued to ensure registration with statutory bodies, such as CIDB, NHBRC.
- Provide advise on upgrading CIDB grading.
- Progress and final reporting on the above processes.

This sum shall ONLY be payable pro-rata to the number of days per month during the Contract Period that the Foreman is on site, available to his assigned QSE / EME Contractors and able to meet the completion date as per the accepted Contract Programme of his assigned QSE / EME Contractors. The minimum contact time between the mentor and the appointed QSE / EME contractors is 10 hours per week and 40 hours per month.

PSA 8.4.11 Provision for main-contractors profit on work items sub-contracted to QSE / EME's

Unit: Sum

The sum shall cover the planned profit the main-contractor is pricing on items which will be constructed by QSE / EME sub-contractors as per the requirements of the contract and those of clauses 1.3.2 and 1.4.12. The rates for specific work items sub-contracted to QSE / EME's must be the same as the main contractors tendered rate. The QSE / EME is also deemed to be able to make a reasonable profit on the item rate for the works.

The payment of this sum will be dependent on the progress of QSE / EME activities (value-related) and evaluated at the submission of monthly interim certificates.

PSA 8.4.12 Provision of Preliminary and General compensation for QSE / EME's

Unit: Provisional Sum

The provisional sum shall cover all costs relating preliminary and general charges from QSE / EME sub-contractors to meet the requirements of the contract and those of clauses 1.3.2 and 1.4.12. This will also include to facilitate and procurement of baseline medicals as per OH&S requirements for labour appointed by QSE / EME's to meet the requirements of the contract and those of clauses 1.3.2 and 1.4.12.

This item is not be used to compensate QSE / EME's for physical work related items but strictly for preliminary and general requirements and is not to exceed 10% of their respective contract values.



The overhead charges will be for the facilitation of payment as per the requirements of the contract.

Unit: %

PSA 8.4.13 Complying with all Basic Environmental requirements Unit: Sum

The sum shall cover all time related cost incurred by the contractor to comply with all the Basic Environmental requirements as set by the government of South Africa, Gauteng Province and any other legal body.

PSA 8.4.14 Complying with Health and Safety Specifications Unit: Sum

The sum shall cover the fixed charge cost incurred by the contractor to compile the Health and Safety File as per OH&S regulations, as well as the approval of the file by an external OH&S Officer. Health and safety personnel and the implementation of the file is payable on monthly basis, but only if Contractors scores above 90% score per month and no serious offences occurred.

PSA 8.8.2 Dealing with Traffic (or accommodation of traffic)

a) All temporary road traffic signs, markings and access control. As well as all flag-persons required to safely guide the public (vehicles as well as pedestrians around the works.

Unit: Sum

The sum shall allow for every part of the Works, as described under the 'Description of the Works' which is accessible to the public, including other Contractor's or the Employer's personnel, or which is adjacent to public roads or thoroughfares, or whereby the safety of persons may be endangered shall be:

- a) in accordance with the SHE requirements.
- b) provided with red warning lights, or other boundary restrictions and/or indicators, which are clearly visible, including at night or when visibility is poor.

The Engineer shall stop any Works in progress which he deems to be unsafe and to expedite all necessary and appropriate action. All costs in this regard shall be to the Contractor's account.

The Contractor shall so arrange his Works that flow of vehicular and pedestrian traffic can be maintained at all times. In this respect, it may be necessary that culverts and pipes be constructed in sections.

Scheduling and traffic accommodation restrictions are described under Part C "Description of the Works" Section 1.1.7.

b) Temporary hoarding for fencing of the works, including gates. Minimum 1.8m in height, covered in shading cloth or similar. Including placing the hoarding around the active portions of the works and moving the hoarding to follow the works for the duration of the works.

Unit: Sum

The sum shall allow for procuring the materials for the duration of the works, placing the temporary hoarding including gates and moving the hoarding from work area to work area. The length of hoarding required needs to be determined by the tenderer in relation to their work plan and accommodation of traffic plan.

c) Provision of qualified traffic controllers operational during morning and evening peak times. At times where intersections and or crossing roads (not Fox Street) are (partially) closed during the morning and evening peak times.

Unit: Sum

The sum shall allow for procuring qualified personnel (to be approved by the JMPD) for regulating traffic between 6.00 and 9.00 as well as between 15.30 and 18.30. This service is only required if during these hours on weekdays the crossing road, or portion of the road affecting traffic lanes, is closed for through traffic.

PSA 8.8.4 a) Conduct ground penetrating radar and CAT detection of existing underground services within the road reserve as well as 20m up and down streets crossing with the project street. A full report need to be provided to the Engineer of the services found, including a survey in CAD format indicating position and depth of services (x,y,z-coords).

Unit: Sum

The sum shall cover the costs of establishing the equipment and personnel on site, conducting the survey, de-establishing as well as all required reporting.

SANS 1200C: CIVIL ENGINEERING CONSTRUCTION: SITE CLEARANCE

PSC 8 Measurement and Payment

PSC 8.1 Basic Principles

Add the following: "All haulage required to dispose of materials removed from site is deemed to be included in the rates. As well as any dumping fees at disposal sites and City Parks fees for removing existing trees."

PSC 8.2 Scheduled Items

Add the following sub-clauses:

"PSC 8.2.11 (a) Remove and dispose existing block paving (various types for walkways and driveways) along Works area. Unit: m²

The rate shall cover the cost of lifting existing blocks and edges with care, transporting and disposing of waste blocks and edge restraints off-site. For areas outside the current roadway.

PSC 8.2.11 (b) Remove and dispose existing block paving (various types for within roadway) along Works area Unit: m²

The rate shall cover the cost of lifting existing blocks and edges with care, transporting and disposing of waste blocks and edge restraints off-site. For areas inside the current roadway.

PSC 8.2.11 (c) Remove and dispose of unreinforced concrete along works area (channels, around manholes, etc.) Unit: m²



The rate shall cover the cost of saw cutting concrete edges for proper and aesthetical reinstatement, breaking concrete by hand and/or mechanical methods, protecting adjacent areas, and proper spoiling of concrete rubble. Re-instatement of concrete shall be measure and paid elsewhere.

PSC 8.2.11 (d) Remove and dispose of existing asphalt paved surfaces up to 80mm thick (average) along Works area. Unit: m²

The rate shall cover the cost of saw cutting asphalt edges for proper and aesthetical reinstatement, breaking asphalt by hand and/or mechanical methods, protecting adjacent areas, and proper spoiling of asphalt rubble. Reinstatement of asphalt shall be measure and paid elsewhere, as new works.

PSC 8.2.11 (e) Remove and dispose of concrete kerbing and channelling (all types, precast and cast in-situ) deemed to be in poor condition and for universal access ramps at intersection (ONLY on written instruction of the Engineer). Unit: m

The rate shall cover the cost of lifting existing kerbing and channelling with care, transporting and disposing of waste kerbing and channelling off-site. Restatement of kerbing and channelling shall be measure and paid elsewhere, as new works.

SANS 1200DA: CIVIL ENGINEERING CONSTRUCTION: EARTHWORKS (Small Works)

PSDA 5 Construction

PSDA 5.1 Precautions

PSDA 5.1.1 Safety

PSDA 5.1.1.1 Barricading and Lighting

Delete standard clause 5.1.1.1 and replace with PSDA 5.1.1.1

“In terms of the applicable regulation of the Machinery and Occupational Safety Act, 1983 (Act 6 of 1983) every excavation by which the safety of persons may be endangered, shall

- a) be adequately protected by a rubber mesh barrier / fence of height at least 1.2m and be placed as close to the excavation as practicable;
- b) provide red warning lights at night.

It shall be the responsibility of the Contractor to ensure that the barricades and lights remain functional at all times.”

PSDA 5.2 Methods and Procedures

PSDA 5.2.6 Transport for Earthworks

PSDA 5.2.6.1 Free haul

Delete standard clause 5.2.6.1 and replace with PSDA 5.2.6.1

“All distances applicable are considered as free haul distances and no additional payment will be applicable”

PSDA 5.2.6.2 Overhaul

Delete standard clause 5.2.6.2 and replace with PSDA 5.2.6.2



“Overhaul is not applicable hence all distances applicable are considered as free haul distances and no additional payment shall be applicable.”

Add the following sub-clauses:

“PSDA 5.2.7 Disposal of unsuitable and surplus excavation material.

Excavated material that is unsuitable or has become surplus because of bulking, displacement by the manhole and/or pipework and importation shall be disposed of at approved tipping sites to be located by the Contractor. All unsuitable material shall be spoiled within 48 hours of excavation failing which the Engineer shall be entitled to suspend work under the Contract. The prior approval of the Engineer must be obtained before surplus material may be deposited, spread and levelled at agreed sites within the area of the works. Any fees applicable to dumping these materials are deemed to be included in the rates.

PSDA 5.2.8 Kerbing.

Where the Contractor has, in the process of excavating, removed kerbing, of all types of shape and all material, he shall re-instate such kerbing to its original condition with regard to alignment (vertically and horizontally). This may include cleaning, but not patching. All kerbing damaged during the removal process shall be replaced at the cost of the Contractor.”

PSDA 8 Measurement and Payment

PSDA 8.3 Scheduled Items

PSDA 8.3.2 Restricted Excavation

Delete standard clause 8.3.2 and replace with PSDA 8.3.2

“Restricted excavations shall not be applicable to the Works and the Contractor shall have been deemed to have familiarised himself with type of work and site conditions at tendering stage and accordingly allowed for such additional costs under sub-clause 8.3.1 (thus no additional or separate allowance is provided for in this Specification) by the Contractor.”

PSDA 8.3.3 Overhaul

Delete standard clause 8.3.3 and replace with PSDA 8.3.3

“Overhaul is not applicable hence all distances applicable are considered as free haul distances and no additional payment shall be applicable.”

SANS 1200DB: CIVIL ENGINEERING CONSTRUCTION: EARTHWORKS (PIPE TRENCHES)

PSDB 3 MATERIALS

PSDB 3.8 Classes of excavation where Labour Intensive Construction Methods are specified

Add sub-clauses 3.8:

“The excavation of materials will, in the case of work which is required in terms of the contract to be executed utilising Labour Intensive Construction Methods, be classified as follows for the purpose of payment:

a) Soft – (hand excavation)

i) Class 1

Soft excavation class 1 shall be excavation, including excavation of boulders not exceeding 0.04m³, in material that can be efficiently excavated and removed from the excavation by an average able bodied labourer, at a rate of not less than 3.0 m³ per 9,25 hour working day per labourer, using only picks, shovels and similar hand tools.

ii) Class 2

Soft excavation Class 2 shall be excavation, including the excavation of boulders not exceeding 0,04 m³, (excluding soft excavation Class 1) in material that can be efficiently excavated and removed from the exaction by an average able bodied labourer or group of such labourers, at a rate of not less than 1,0 m³ and not more than 3,0 m³ per 9,25 hour working day per labourer, using only picks, shovels and similar hand tools.

b) Intermediate

Intermediate excavations shall be excavations in material which requires ripping or loosening by mechanical means prior to removal of the loosened material utilising the method as described in (a).

c) Hard rock excavation

Hard rock excavation shall be excavation of undecomposed boulders exceeding 0.04 m³ and excavations in solid rock occurring in bulk or in banks or ledges, which requires loosening or breaking up by drilling, wedging, splitting or blasting or by other approved quarrying methods, prior to being excavated and removed from the excavation utilising only picks, shovels and similar hand tools. Such excavation generally includes materials such as formations of unweathered rock that can be removed only after blasting.

The Engineer will instruct which portions of the Works, based on the evidence provided form trial holes excavated as directed by the Engineer at approximately 100 m spacing by the Contractor for this purpose, will be executed utilising Labour intensive Construction Methods. The trial holes shall be excavated to trench depth utilising a Backactor or similar.”

PSDB 3.9 Trial holes

Add sub-clauses 8.9:

“2m deep trial holes shall be excavated by means of labour intensive methods, at 100 m intervals or as indicated on the pipe centreline in the presence of the Engineer and the Contractor’s representative on site in order to agree the classes of excavation.”

PSDB 4 PLANT
PSDB 4.3 Compaction Equipment

Replace the contents of this sub-clause with the following:

“PSDB 4-3-1 Machine Compaction

- a) Where the compaction is not required to be executed utilising Labour intensive Construction Methods, or where the utilisation of mechanical compaction plant and equipment is allowable in terms of the Contract, the Contractor may use mechanical compaction equipment, but he shall select such equipment and operate it in such a manner that the pipeline, duct or cable is not stressed or damaged.
- b) Machine compaction shall not be used directly above the pipe until sufficient backfill has been placed to ensure that machine compaction loads transmitted to the top of the pipe are no greater than would be imposed by normal traffic loads over a pipeline with cover of 600 mm.

PSDB 4.3.2 Labour intensive Construction Methods

- a) Unless and to the extent as may be otherwise provided in Part 1 of the Project Specification, the Contractor shall, in the compaction of materials by Labour Intensive Construction Methods, utilise only hand-held manually powered tampers, rollers and similar compacting hand tools and equipment.
- b) Compaction shall be carried out in such a manner as to ensure that the pipeline, cable or duct is not stressed or damaged. The material above the pipe shall not be compacted until sufficient backfill has been placed to ensure that the compaction loads transmitted to the top of the pipe are no greater than would be imposed by normal traffic loads over a culvert with cover of 600 mm.”

PSDB 5 CONSTRUCTION
PSDB 5.1.3 Accommodation of Traffic and Access to Properties

Add the following to the end of the sub-clause:

“The Contractor shall not be allowed to cut off access to any residential and commercial stand due to excavation, pipe laying, backfilling or any other reason for more than 24 hours.

Non-compliance with the above requirements shall entitle the Engineer to order that the trench be backfilled to provide access in which case the Contractor shall re-excavate the trench at a later stage to complete the work at the Contractor’s expense. Written notice in terms of SABS 1200 DB shall be served to property owners to notify them of the discontinuation of access for the period allowed.

No construction activity which may affect the integrity of telephone or electrical poles or stays may be carried out without the prior written approval of the Engineer which approval shall only be given subject to the acceptance of a modus operandi that will ensure the integrity of such structures during construction.



No additional payment will be made for inconvenience, extra costs, or delays resulting from the provision of these facilities by the Contractor, the cost thereof being deemed included under the item for accommodation of traffic in Section A of the Schedule of Quantities.”

PSDB 5.4 Excavation

Add the following to the end of the sub-clause:

“Unless otherwise permitted, not more than 150 m of trench in one area shall be opened in advance of the completed pipeline. On completion of each section of pipeline the completed surface shall be restored to its original condition.”

PSDB 5.5 Trench Bottom

Add the following to the end of the sub-clause:

“Where a firm foundation cannot be obtained at the grade indicated due to soft or unsuitable material, the Engineer may instruct the Contractor to remove such unsuitable material and to backfill the excess depth with approved selected material or concrete, as directed by the Engineer in each particular case, at the cost of the Employer. Backfill other than concrete, shall be placed in layers of 200 mm uncompacted thickness, each layer thoroughly compacted to the entire satisfaction of the Engineer, to provide adequate support for the pipe bedding to be placed on top of it.

Should the Contractor remove more ground than is required to secure the proper grade of the pipeline, the Contractor must, at his own cost, backfill the excess excavation with approved selected material or concrete, as directed by the Engineer in each particular case. Where the trench excavations in rock, the bottom of the trench shall be excavated to a depth of not less than 200 mm below the pipe barrel.”

PSDB 5.6 Backfilling

PSDB 5.6.1 General

Add the following to the end of the sub-clause:

“Notwithstanding the requirements of Subclauses 5-6-1 and 5-6-6 of SABS 1200 DB, no joint or fitting shall be covered by either the blanket or the backfill prior to the successful completion of the visual inspection and the pressure testing of the relevant section of the culvert.”

PSDB 5.6.2 Material for Backfilling

Amend second paragraph to read as follows:

“Unless authorised by the Engineer in writing hard rock material excavated from the trenches shall not be incorporated in the backfill above the bedding.”

PSDB 5.6.3 Disposal of Soft Excavation Material

Amend sub-clause to read as follows:

□

□

“All surplus of unsuitable materials arising from excavation shall be spoiled and spread within or adjacent to the Site of the Works or when ordered by the Engineer be transported, spread and levelled at a site designated for this purpose. All material to be disposed within 50m of the excavation site shall be done using labour intensive methods.”

PSDB 5.7.1 Areas Not Subject to Traffic Loads

Add the following to the end of the sub-clause:

“Where groundwater is present to such an extent that, in the opinion of the Engineer, it would hamper the placing and consolidation of the granular or concrete bedding, as the case may be, or would cause buoyancy of the pipe, the Engineer may order the provision of a drain in the bottom of the trench comprising a 100 mm or as detailed on the drawings thick, 6 mm to 20 mm graded stone layer and “Kaymat” geotextile surround to assist in dewatering during construction and until the trench has been backfilled to such an extent that the buoyancy of the pipeline will be prevented.

At points designated by the Engineer, sumps shall be formed from which groundwater can be pumped to maintain the water table below the pipe bedding level. The Contractor shall, if instructed, establish on site, operate and remove on completion, a dewatering pump of 10 l/s capacity. Lengths of trench opened at any one stage shall be limited by the dewatering capacity of the pump.”

PSDB 8 MEASUREMENT AND PAYMENT

PSDB 8.1 Basic Principles

Add the following to the end of the sub-clause:

“Separate items will be provided for works covered by this Specification which are required to be executed by Labour Intensive Construction Methods and for works for which the utilisation of such methods is not required.

Measurement and payment for works covered by this Specification and required to be executed utilising Labour Intensive Construction (LIC) Methods shall, unless otherwise stated, be mutatis matandis in accordance with the provisions of SABS 1200 DB as amended in this Project Specification.”

PSDB 8.3.2 Excavation

The rate for excavation and backfill, compaction and disposal of surplus material shall include the cost of selection of excavated material in accordance with the requirements of clause 3.4 of SABS 1200 B.

PSDB 8.3.2 Excavation (New Clause)

(a) Excavate, in all materials for pipe trenches (depth range and minimum width specified), backfill, compact and dispose of surplus material within 100 m of the excavation utilising Labour Intensive Construction Methods
Unit: m³



Soft Excavation Class 2 only. Loading of surplus material by LIC for disposal by conventional methods

Interim Payment for Excavations

Only lengths completed to depth and adequately supported to prevent collapse, shall be measured for payment. Where trenches are excavated deeper than required, the Contractor shall at his own cost, fill and compact the excess excavation with compacted selected material as directed.

In addition to the items listed in 8-3-2 the rate shall also cover the cost of complying with Subclause 5-1-1 Safety, of SABS 1200 D.

In order to allow for outstanding work to be completed, measurements for interim payment on trench excavations covered by Subclause 8-3-2 of SABS 1200 DB shall be reduced to not more than the following percentages of actual work done at that stage: -

- | | | |
|-----|---|------|
| (a) | Open fully trimmed trenches | 50% |
| (b) | Pipe laid, trench partially backfilled (ie at pipe pressure test stage) | 75% |
| (a) | Backfill and disposal complete, inspected and approved | 100% |

PSDB 8.3.3.4 Overhaul

Delete standard clause 8.3.3.4 and replace with PSDA 8.3.3.4

“Overhaul is not applicable hence all distances applicable are considered as free haul distances and no additional payment shall be applicable.”

SANS 1200DM: CIVIL ENGINEERING CONSTRUCTION: EARTHWORKS (ROADS, SUBGRADE)

- PSDM 5 Construction**
- PSDM 5.2 Methods and Procedures**
- PSDM 5.2.8 Transport**
- PSDM 5.2.8.1 Freehaul**

Delete standard clause 5.2.8.1 and replace with PSDM 5.2.8.1

“All distances applicable are considered as free haul distances and no additional payment will be applicable.”

PSDM 5.2.8.2 Overhaul

Delete standard clause 5.2.8.2 and replace with PSDM 5.2.8.2

“Overhaul is not applicable hence all distances applicable are considered as free haul distances and no additional payment shall be applicable.”

SANS 1200H : CIVIL ENGINEERING CONSTRUCTION: STRUCTURAL STEELWORK

- PSH 8 : MEASUREMENT AND PAYMENT**
- PSH 8.3.1 : Supply and Fabrication**



PSH 8.3.1.2 : Supply and fabrication of steelwork complete with all the necessary cleats, brackets, gussets, packs, etc as follows (including coating):

SANS 1200LB: CIVIL ENGINEERING CONSTRUCTION: BEDDING (PIPES)

PSLB 3 MATERIAL

PSLB 3.3 Bedding

All buried pipes shall be bedded on class B bedding unless otherwise instructed by the Engineer.

PSLB 3.4 Selection

PSLB 3.4.1 Suitable material variable from trench excavation

Suitable selected bedding material will generally be expected to be available from trench excavations along the route.

Notwithstanding the requirements of this clause and Clause 4 3.7 of SABS 1200 DB regarding the use of selective methods of excavating, the Contractor shall use selective methods of excavating that will ensure that material is suitable and may be required for bedding, is not buried or contaminated by unsuitable material.

PSLB 6 Tolerances

PSLB 6.1 Moisture content and density

Degree II accuracy shall be applicable.

PSLB 8 Measurement and Payment

PSLB 8.1.3 Volume of Bedding Materials

Add the following

“The volume of bedding material shall exclude the volume taken up by the culvert”.

PSLB 8.2 Scheduled Items

PSLB 8.2.5 Overhaul of material for bedding cradle and selected fill blanket

For this contract free haul is not limited and no payment will be made for overhaul.

SANS 1200LE: CIVIL ENGINEERING CONSTRUCTION: STORMWATER DRAINAGE

PSLE 8 Measurement

PSLE 8.2 Scheduled Items



PSLE 8.2.11 Breaking into existing manhole and install

Add the following sub-clauses:

PSDM 8.2.11 Breaking into existing manhole and install Unit : No.

The tendered rate shall also cover the cost of breaking into and connecting to existing manholes for concrete pipes of all classes and sizes.

SANS 1200ME: CIVIL ENGINEERING CONSTRUCTION: SUBBASE

PSME 5 Construction

PSME 5.7 Transport

PSME 5.7.1 Free haul

Delete standard clause 5.7.1 and replace with PSME 5.7.1

“All distances applicable are considered as free haul distances and no additional payment will be applicable”

PSME 5.7.2 Overhaul

Delete standard clause 5.7.2 and replace with PSME 5.7.2

“Overhaul is not applicable hence all distances applicable are considered as free haul distances and no additional payment shall be applicable.”

SANS 1200MF: CIVIL ENGINEERING CONSTRUCTION: BASE

PSMF 5 Construction

PSMF 5.9 Transport

PSMF 5.9.1 Free haul

Delete standard clause 5.9.1 and replace with PSMF 5.9.1

“All distances applicable are considered as free haul distances and no additional payment will be applicable”

PSMF 5.9.2 Overhaul

Delete standard clause 5.9.2 and replace with PSMF 5.9.2

“Overhaul is not applicable hence all distances applicable are considered as free haul distances and no additional payment shall be applicable.”

SANS 1200MJ: CIVIL ENGINEERING CONSTRUCTION: SEGMENTED PAVING

PSMJ 6 Tolerances

PSMJ 6.2 Permissible Deviations

Add the following sub-clauses:

“**PSMJ 6.2 (d)** Colour of unit, degree of accuracy I, zero deviation from approved sample as per 3.1.1, with reference to shape, colouring, texture, pattern, and workmanship.



PSMJ 8: MEASUREMENT AND PAYMENT

PSMJ 8.2.3 : Extra-over item 8.2.2 for lowering of pavement and skew sides for the construction of pedestrian scoops. Unit: m²

"The tendered rate shall comprise the additional cost occurred for locally lowering the pavement structure in order to allow for the pedestrian scoop, and removing of excess material from site. As well as for working in skewed areas."

PSMJ 8.2.4 a) to f) : Additional supply of precast concrete segmented paving for attic stock to JRA depot. Unit: m²

"The tendered rate shall comprise the procurement of additional paving materials not to be incorporated into the works, but delivered to a JRA maintenance depot near the works. The rate includes loading and off-loading the materials neatly stacked at the JRA depot."

PSMK : KERBING AND CHANNELLING

PSMK 3 : MATERIALS

PSMK 3.1 : Concrete

Add the following:

"The contractor shall timeously submit the concrete mix design for cast-in-situ kerbing to the engineer for approval and no kerbing shall be placed before the mix design has been approved."

PSMK 5 : CONSTRUCTION

PSMK 5.11 : Transition sections and inlet and outlet structures

Delete the words "and with the requirements of the project specification" in the second paragraph.

PSMK 7 : TESTING

PSMK 7.2.1 : General tests

Delete this sub clause.

PSMK 7.2.2 : Alternative tests

Replace the heading and contents of this sub clause with the following:

"PSMK 7.2.2 : Tests

The contractor shall carry out a minimum of three cube crushing tests per 1 000 m of kerbing placed. The cost of such tests shall be deemed included in the rates tendered for kerbing.

One cube crushing test shall consist of a set of six cubes made with concrete taken from the mixer, the kerbing

□

□

machine or from any part of the work as ordered.

If, after three cubes of any set of six cubes have been tested after 28 days in an approved laboratory, the average crushing strength is found to be more than 3 MPa below the specified strength, the kerbing represented by the cubes will be rejected.

The contractor may apply for resubmission of the rejected section on the basis of cores drilled from this section and tested for the estimated actual crushing strength in accordance with SABS method 865 (excluding appendix A). The cost of drilling and testing the cores is for the contractor's account, regardless of the outcome of the tests on the cores. The number of cores required will be determined by the engineer and the criterion for rejection or acceptance of the section represented by the cores shall be as specified above for cubes."

PSMK 7.3: Responsibility for the cost of testing

Delete this sub clause.

SANS 1200MM: CIVIL ENGINEERING CONSTRUCTION: ANCILLARY ROADWORKS

PSMM 8 Measurement and Payment

PSMM 8.3 Scheduled Items for Permanent Road Signs

PSMM 8.3.3 Sign Supports

Add the following sub-clauses:

"PSMM 8.3.3 (d) Steel tubing (protective treatment), with quick removal post. Unit: No. or ton

The mass measured in the case of (d) will be that of tubing used. Bolts and other accessories for (d) will not be measured. The rate for (d) shall cover the cost of supplying and erecting the supporting structures including all bolts, screws, rivets, welding, and accessories together with the painting required and the provision for breakaway in accordance with the details given (see 3.2.1 and 5.2.1.1)."

Add the following sub-clauses:

"PSMM 8.6 Removal of existing road markings by sandblasting. Unit: m²

The rate shall cover the cost for all grit particle spray equipment and labour to effectively remove existing road markings.

NOTA BENE: The size of the grit particles and the rate of spray shall be so chosen and set that i



C3.4.3: PART C: PROVISION OF THE TEMPORARY WORKFORCE

CONTENTS

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C1 SCOPE

This Specification covers the provisions and requirements relating to the provision of the temporary workforce.

C2 INTERPRETATIONS

C2.1 Supporting documents

The Tendered Rules, Conditions of Contract, Standard and Construction Specifications, Drawings and statutory minimum requirements relating to the employment and remuneration of labour shall inter alia be read in conjunction with this Specification.

C2.2 Definitions and abbreviations

For the purposes of this specification, the definitions given in the Conditions of Contract, the Standard Specifications and the Construction Specifications, together with the following additional definitions shall, unless the context dictates otherwise, apply:

- (a) "Key Personnel" means all contracts managers, site agents, materials and survey technicians, trainers, supervisors, foremen, skilled plant operators, artisans and the like, and all other personnel in the permanent employ of the Contractor or Subcontractor who possess special skills and/or who play key roles in the Contractor's or Subcontractor's operation.
- (b) "Project Committee" means a committee consisting of the Employer, the Engineer, the Contractor, (or their nominated representatives) as well as representatives of the temporary workforce, which is convened from time to time at the discretion of the Engineer, for the



purposes of acting as an avenue for effective communication and liaison between all the parties referred to, in all matters pertaining to the Contract.

- (c) "Subcontractor" means any person or group of persons in association, or firm, or body corporate (whether formally constituted or otherwise) not being the Contractor, to whom specific portions or aspects of the Works are sublet or subcontracted by the Contractor in accordance with the provisions of the Contract.
- (d) "Worker" for the purposes of this Specification means any person, not being one of the Contractor's key personnel, nor any key personnel of any Subcontractor, who is engaged by the Contractor, a Subcontractor or the Employer to participate in the execution of any part of the Contract Works and shall include unskilled labour, semi-skilled and skilled labour, clerical workers and the like.
- (e) "Workforce" means the aggregate body comprising of all workers and shall, unless the context dictates otherwise, include the workforces of the Contractor and all Subcontractors.
- (f) "Liaison Officer" means a representative from the temporary workforce, duly elected by them, to act on their behalf and through whom all matters pertaining to the temporary workforce can be channelised.

C2.3 Status

Where any provisions or requirements of this Specification are in conflict with anything elsewhere set out in the Contract, the provisions and requirements of this Specification shall take precedence and prevail.

C3 PERMITTED SOURCES OF TEMPORARY WORKERS

The Contractor shall as far as possible make optimum use of the human resources outside his own workforce and the workforces of all Subcontractors. The temporary workforce which is to be used in the execution of the Works in terms of Part A may consist of the workers of various communities, and shall not be bound to one particular community.

C4 EMPLOYMENT RECORDS TO BE PROVIDED

The Contractor shall maintain accurate and comprehensive records of all workers engaged on the Contract and shall provide the Engineer at monthly intervals from the commencement of the Contract, with interim records substantiating the actual numbers of employment opportunities which have been generated to date and the amounts actually paid in respect thereof. Such interim records shall be in a format approved by the Engineer.

The Contractor shall, on completion of the Contract, and as a pre-requisite event to the release of any retention money in terms of the Conditions of Contract, provide the Engineer with copies of the Terms of Employment as well as independently audited documentary evidence of the total number of temporary and permanent employment opportunities actually generated during the Contract.

C5 VARIATIONS IN WORKER PRODUCTION RATES

Notwithstanding anything to the contrary as may be stated in or inferred from any other provision of this Contract, the Contractor shall not be entitled to any additional payment or compensation whatever, in respect of any differences as may result between the production rates actually achieved by workers in the course of the execution of the Contract Works and those production rates on which he has based his Tendered.



C6 TRAINING OF THE TEMPORARY WORKFORCE

Selected members of the workforce are to be provided with structured training in accordance with the provisions of Part D.

The Contractor shall make all necessary allowances in his programme of work to accommodate and facilitate the delivery of such structured training and shall comply fully with the requirements of Part D.

The provision of structured training as described in Part D shall not relieve the Contractor of any of his obligations in terms of the Conditions of Contract and the Contractor shall remain fully liable for the provision, at his own cost, of all training of the workforce, additional to that as provided for in Part D, as may be necessary to achieve the execution and completion of the works strictly in accordance with the provisions of the Contract.

C7 RECRUITMENT AND SELECTION PROCEDURES

The Contractor shall be fully responsible for the recruitment and selection of workers to constitute the temporary workforce.

The Contractor shall advise the Engineer in writing of the numbers of each category of temporary worker which he requires, together with the personal attributes which he considers desirable that each category of worker shall possess (taking due cognisance of the provisions of the Contract relating to training).

The Contractor shall, at his own cost, take all necessary actions to advertise within the communities comprising the personnel resources, the fact that temporary employment opportunities exist and the time and place where recruiting will occur. This shall include making contact with the local ward councillors and or labour forums that may exist. Delays in obtaining temporary workers shall not be accepted as reasonable grounds for seeking an extension of time claim.

The Contractor shall record in writing, the details of all persons applying for employment, including inter alia:

- (a) Name, address, age and sex
- (b) Marital status and number of dependants
- (c) Qualifications and previous work experience (whether substantiated or not)
- (d) Period since last economically active
- (e) Preference for type of work or task.

The Contractor shall make his selection of workers from amongst the applicants, taking due cognisance of his requirements for the workforce and the provisions of the contract in regard to the provision of training to the workforce and in accordance with the following principles:

- (a) No potential temporary worker shall be precluded from being employed by the Contractor on the execution of the Works, by virtue of his lack of skill in any suitable operation forming part of the Works, unless -
 - (i) all available vacancies have been or can be filled by temporary workers who already possess suitable skills, or
 - (ii) the Time for Completion allowed in the Contract, or the remaining portion of the Contract Period (as the case may be) is insufficient to facilitate the creation of the necessary skills.



- (b) Preference shall be given to the unemployed and single heads of households.
- (c) The Contractor shall, in so far as is reasonably practicable, give priority to accommodating the applicants' expressed preferences regarding the types of work for which they are selected.
- (d) The selection process shall not be prejudicial to youth (over the age of fifteen years) and women.

After making his selection, the Contractor shall advise the Engineer thereof, in writing and the Engineer shall, without undue delay, ratify the Contractor's selection.

The provisions of this clause shall apply mutatis mutandis in respect of the selection of additional or replacement members of the workforce as may be necessary from time to time during the Contract.

The Contractor shall, after selecting his temporary workforce, arrange at his own cost for the appointment of the Liaison Officer as representative of the workforce to act on their behalf with regards to all matters pertaining to the workforce.

C8 TERMS AND CONDITIONS PERTAINING TO THE EMPLOYMENT OF THE TEMPORARY WORKFORCE

C8.1 All temporary workers engaged in accordance with the provisions of the Construction Specifications, shall be employed on the terms and conditions of employment as are consistent with those as set out in this Contract. The Contractor shall implement and adhere strictly to such terms and conditions relating to the employment of the temporary workforce, and subject only to the provisions of this Contract, shall not employ any temporary worker on terms and conditions which are less favourable to the worker or inconsistent with the standards and norms generally applicable to temporary workers in the Civil Engineering Industry and applicable to the particular area.

C8.2 The Contractor shall pay to all temporary workers engaged in terms of Part A of the Construction Specifications, not less than the minimum rate of remuneration as specified by the Department of Labour for the Gauteng area.

C9 LABOUR RELATIONS AND WORKER GRIEVANCE PROCEDURES

The Contractor, as the Employer of the workforce, shall be fully responsible for the establishment and maintenance at his own cost, of satisfactory labour relations on site and the resolution of all grievances of temporary workers as may occur.

The Contractor shall at all times adhere to the accepted norms and standards of labour relations prevailing generally in the Civil Engineering Construction Industry and shall conduct himself in a fair and reasonable manner, within the constraints as may be imposed upon him by the terms of the Contract.

In the event of any temporary worker engaged by the Contractor in terms of the Contract, being aggrieved with regard to his terms of employment, working conditions and training, he shall have the right, at his discretion, to be supported in any inquiry or disciplinary hearing or investigation instituted by the Contractor by one member of the temporary workforce and one member of the Project Committee, which persons shall be nominated by the worker.

In the event of any grievance not being satisfactorily resolved through the application of normal dispute resolution procedures, then either the Contractor or the worker concerned may require that the matter be referred to the Project Committee for further consideration, with a view to facilitate the resolution thereof.



C10 THE SUBCONTRACTORS' WORKFORCES

The provisions of this Part F shall apply mutatis mutandis to the workforces employed by all Subcontractors engaged by the Contractor and the Contractor shall be fully responsible for ensuring, at his own cost, that the terms of every subcontract agreement entered into are such as to facilitate the application of these provisions in respect of the workforces of all Subcontractors.

The Contractor shall at his own cost and to the extent necessary, assist and monitor all Subcontractors in the application of the provisions of this Specification, and shall, in terms of the Conditions of Contract, remain fully liable in respect of the acts, omissions and neglects of all Subcontractors, in respect of the application of the provisions of this Specification.

C11 MEASUREMENT AND PAYMENT

The Contractor will not be separately reimbursed or compensated in respect of the provision of the workforce and creation of temporary employment opportunities and all the Contractor's costs associated with compliance with the provisions of this part of the Construction Specifications shall, except to the extent provided for in Part D as relevant, be deemed to be included in the rates tendered for the various items of work listed in the Bill of Quantities.

PLEASE NOTE:

Local Labour Work force are to be paid according to the SAFCEC rates, the tender is expected to allow for such in the rates of the various item, provision should be made for the annual increase expected.



C3.4.4: PART D PROVISION OF STRUCTURED TRAINING

CONTENTS

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D5	MEASUREMENT AND PAYMENT	149

D1 SCOPE

This specification covers the requirements for the provision of the following training:

- (i) Specified structured training to selected members of the workforce and small, medium and micro enterprises (SMME's) by a selected Subcontractor as appointed by the Employer.
- (ii) Additional training deemed necessary by the Contractor, to members of the workforce and small, medium and micro enterprises (SMME's).

D2 INTERPRETATIONS

D2.1 Supporting documents

The Tendered Rules, Conditions of Contract, Standard, Supplementary and Specific Specifications and Construction Specifications and drawings shall inter alia be read in conjunction with this specification.

D2.2 Application

The provisions of this specification shall apply in respect of all workers and small, medium and micro enterprises other than the Contractor's key personnel, who are engaged on the execution of the works.

D3 ENGINEERING SKILLS TRAINING

The Contractor shall, from the commencement of the contract, implement a structured training programme comprising of the training delivered by the Selected Subcontractor and any additional training as provided for by the Contractor, in which the various skills required for the execution and completion of the works are imparted to the workers, and where applicable, small, medium and micro enterprises engaged thereon, in a Programmed and progressive manner. Selected workers shall be trained progressively throughout the duration of the contract in the various stages of a particular type of work.

D3.1 Training programme

The skills training programme to be implemented by the Selected Subcontractor shall comply with the following minimum standards:

- (i) Be accredited by the Civil Engineering Industry Training Scheme (CEITS) or other institution recognised by the Department of Labour, as being appropriate for application on



this project. Accredited training refers to both the trainers as well as to the training materials.

- (ii) Be delivered by suitably qualified and experienced trainers accredited to do so.

D3.2 In house training

The Contractor shall provide with his Tender, full details of any additional accredited and in-house training, viewed to be necessary by the Contractor, which he intends to implement at his own cost. These details shall include the following:

- (i) The name of the accredited training institution and programme
- (ii) The various aspects of each type of training comprised in the programme
- (iii) The manner in which the training is to be delivered
- (iv) The numbers and details of the trainers to be utilised.

D3.3 Additional training

The Contractor shall be responsible for the provision of the following necessary for the delivery of the specified and additional skills training programme, including the following:

- (i) Sufficient skilled, competent and accredited trainers to deliver the additional training programme to workers in accordance with the training programme
- (ii) A suitably furnished venue
- (iii) Transport of the workers as required
- (iv) Tools, equipment, and teaching aids
- (v) Stationery and all other necessary materials.

D3.4 Selection of candidates

Members of the workforce will be selected by the Engineer, assisted by the Contractor and the Liaison Officer, to receive specific training as approved by the Engineer.

The following will be taken into account in the selection of the workers to receive the specified training:

- (i) Previous experience (if any)
- (ii) Previous courses completed (if any)
- (iii) Module specific requirements.

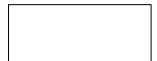
D3.5 Duration of training

The Contractor shall allow in his programme for the selected members of the workforce to be engaged in the specified training modules.

Provision must also be made by the Contractor for members of the workforce to receive any additional training as provided for by the Contractor.

D3.6 Training hours

All specified skills-related training shall take place only during normal working hours and the Contractor shall ensure that the selected workers are available at the appropriate times to undergo such training.



D3.7 Approval of training

Both the Selected Subcontractor's and the Contractor's additional training programme shall be subject to the approval of the Engineer, and if so instructed by the Engineer, the Contractor shall alter or amend the programme and course content to suit changing conditions on site and all changes in the Contractor's programme of work.

D3.8 Training record

The Contractor shall keep comprehensive records of the training given to each worker involved in training as well as the nature and number of each task executed by the worker and whenever required shall provide copies of such records to the Engineer.

D3.9 Remuneration during training

Workers shall be remunerated in respect of all time spent undergoing the specified training in terms of Clause D3.2, at the minimum specified wage rate for the area of the Works.

D3.10 Use of workers

The Contractor shall, in so far as it is reasonably feasible, take due cognizance of the nature of the works to be executed at any given time and use trained workers on those aspects of the works for which they have been trained.

D4 ENTREPRENEURIAL SKILLS TRAINING

D4.1 Selection of Candidates

Members from selected small, medium and micro enterprises employed by the Contractor as Subcontractors will be entitled to receive a structured training programme, comprising of training delivered by a Selected Subcontractor and any additional training as provided for by the Contractor, the training will comprise both management skills as well as business development skills.

D4.2 Performance and monitoring

The Contractor shall closely monitor the performance of all the Subcontractors in the execution of their contracts and shall identify all such Subcontractors who, in his opinion, display the potential to benefit from structured training as may be provided for elsewhere in the Contract and where required by the Engineer, and shall make recommendations in this regard. The final list of candidates will be decided between the Contractor, the Engineer and the Project Committee.

D4.3 Delivery of training

The Contractor shall assist in facilitating in the delivery of the training, by instructing and motivating the Subcontractor's regarding attendance and participation therein.

D4.4 Programming of work and training

The Contractor shall further make all reasonable efforts to co-ordinate the programming of the Subcontractor's work with that of the delivery of the structured training.



D4.5 Training standards

The entrepreneurial skills training programme to be implemented by the selected Subcontractor shall comply with the following minimum standards:

- (i) Be accredited by the Civil Engineering Industry Training Scheme (CEITS) or other institution recognised by the Department of Labour, as being appropriate for application on this project. Accredited training refers to both the trainers as well as to the training materials.
- (ii) Be delivered by suitably qualified and experienced trainers accredited to do so.

D4.6 Certificates

Following completion of the structured training, members of small, medium and micro Subcontractors that have demonstrated understanding of and competence in the training material are to be appropriately certified by the accrediting body.

D4.7 In house training and additional training

The Contractor shall provide with his Tendered, full details of any additional accredited and in-house training, viewed to be necessary by the Contractor, which he intends to implement at his own cost. These details shall include the following:

- (a) The name of the training institution and programme
- (b) The various aspects of each type of training comprised in the programme
- (c) The manner in which the training is to be delivered
- (d) The numbers and details of the trainers to be utilized.

Details of such additional entrepreneurial training shall be attached to Form H of the forms to be completed by the Tenderer.

D4.8 Provision of entrepreneurial training

The Contractor shall be responsible for the provision of the following necessary for the delivery of the entrepreneurial training programme, including the following:

- (a) Sufficient skilled and competent trainers to deliver the additional training programme to trainees in accordance with the training programme
- (b) A suitably furnished venue
- (c) Transport of the trainees as required
- (d) Tools, equipment, and teaching aids
- (e) Stationery and all other necessary materials.

D4.9 Training hours

All specified entrepreneurial training shall take place within normal working hours.

D4.10 Approval of training

Both the Selected Subcontractor's and the Contractor's training programme shall be subject to the approval of the Engineer, and if so instructed by the Engineer shall alter or amend the programme and course content.



D4.11 Training records

The Contractor shall keep comprehensive records of the training given to each Subcontractor involved in training and whenever required shall provide copies of such records to the Engineer. At the successful completion of each course each Subcontractor shall be issued with a certificate indicating the course contents as proof of attendance and completion.

D4.12 Remuneration during training

No remuneration in respect of time spent undergoing specified training in terms of this clause will be made to any of the Subcontractors.

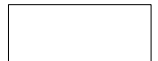
D5 MEASUREMENT AND PAYMENT

D5.1 Basic principles

- a) General
Measurement and payment for all work executed in terms of this contract shall be measured and paid for in accordance with the principles set out in Clause B1232 of the Construction Specifications, irrespective of whether the work is executed as an integral part of the provision of training in terms of this specification.
- b) Training
The Contractor shall only be reimbursed for the amounts actually paid by the Contractor to the Selected Subcontractors as appointed by the Employer, in execution of the Engineer's written instruction, plus a percentage as Tendered to cover all his charges and profits.

D5.2 Scheduled items

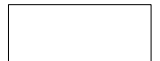
Payment items are included in the bill of Quantities under Section 1200 for the provision of the specified training by selected Subcontractors only. Any additional training as viewed by the Contractor to be necessary shall be viewed to be included under Section 1300 and shall not be paid for separately.



C3.5 MANAGEMENT

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C3.5.1 HEALTH AND SAFETY SPECIFICATIONS

This part of C3.5 Management contains specifications for Health and Safety matters not covered by C3.4 Construction Specifications.

The number of each clause in this specification is prefixed with a E to differentiate these clauses and items.

SECTION E1000: HEALTH AND SAFETY REQUIREMENTS

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E1001	SCOPE	

This health and safety specification establishes the overarching framework within which a contractor is required to satisfy general requirements for occupation health and safety in an engineering and construction works contract.

Note: (1) This specification establishes general requirements to enable the employer and the contractor to satisfy the Occupational Health and Safety Act, 1993 (Act No. 85 of 1993) and the Construction Regulations, 2014.

(2) The Construction Regulations, 2014, require an employer to stop any contractor from executing construction work which is not in accordance with the contractor's health and safety plan for the site or which poses a threat to the health and safety of persons.

E1002 DEFINITIONS

Act: the Occupational Health and Safety Act, 1993 (Act No. 85 of 1993).

competent person: any person having the knowledge, training and experience specific to the work or task being performed.

ergonomics: the application of scientific information concerning humans to the design of objects, systems and the environment for human use in order to optimize human well-being and overall system performance.

hazard: a source of or exposure to danger.

incident: an event or occurrence occurring at work or arising out of or in connection with the activities of persons at work, or in connection with the use of plant or machinery, in which, or in consequence of which:

(a) any person dies, becomes unconscious, suffers the loss of a limb or part of a limb or is otherwise injured or becomes ill to such a degree that he is likely either to die or to suffer a permanent



physical defect or likely to be unable for a period of at least 14 days either to work or to continue with the activity for which he was employed or is usually employed;

- (b) a major incident occurred; or
- (c) the health or safety of any person was endangered and where:
 - (i) a dangerous substance was spilled;
 - (ii) the uncontrolled release of any substance under pressure took place;
 - (iii) machinery or any part thereof fractured or failed resulting in flying, falling or uncontrolled moving objects; or machinery ran out of control.

health and safety plan: a documented plan which addresses hazards identified and includes safe work procedures to mitigate, reduce or control the hazards identified.

health and safety specification: a documented specification of all health and safety requirements pertaining to the associated works on a construction site, so as to ensure the health and safety of persons.

inspector: a person designated as such under section 28 of the Act.

major incident: an occurrence of catastrophic proportions, resulting from the use of plant or machinery, or from activities at a workplace.

reasonably practicable: practicable having regard to:

- (a) the severity and scope of the hazard or risk concerned;
- (b) the state of knowledge reasonably available concerning that hazard or risk and of any means of removing or mitigating that hazard or risk;
- (c) the availability and suitability of means to remove or mitigate that hazard or risk; and
- (d) the cost of removing or mitigating that hazard or risk in relation to the benefits deriving therefrom.

risk: the probability that injury or damage will occur.

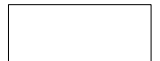
safe: free from any hazard.

scaffold: any temporary elevated platform and supporting structure used for providing access to and supporting workmen or materials or both.

specification data: data, provisions and variations that make this specification applicable to a particular contract.

Structure:

- (a) any building, steel or reinforced concrete structure (not being a building), railway line or siding, bridge, waterworks, reservoir, pipe or pipeline, cable, sewer, sewage works, fixed vessels, road, drainage works, earthworks, dam, wall, mast, tower, tower crane, batching plants, pylon, surface and underground tanks, earth retaining structure or any structure designed to preserve or alter any natural feature, and any other similar structure;



- (b) any formwork, false work, scaffold or other structure designed or used to provide support or means of access during construction work; or
- (c) any fixed plant in respect of work which includes the installation, commissioning, decommissioning or dismantling and where any such work involves a risk of a person falling two metres or more.

substance: any solid, liquid, vapour, gas or aerosol, or combination thereof.

suitable: capable of fulfilling or having fulfilled the intended function or fit for its intended purpose.

E1003 INTERPRETATION

E3.1 The Act and its associated regulations shall have precedence in the interpretation of any ambiguity or inconsistency between it and this specification.

E3.2 Compliance with the requirements of this specification does not necessarily result in compliance with the provisions of the Act.

E1004 REQUIREMENTS

E4.1 General requirement

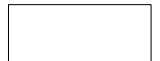
- E4.1.1 The Contractor shall execute the works in a manner that complies with all the requirements of the Act and all its associated regulations, and in so doing, minimize the risk of incidents occurring.
- E4.1.2 The Contractor shall with respect to the site and the engineering and construction works that are contemplated:
 - a) Identify the hazards and evaluate the risks associated with such work constituting a hazard to the health and safety of such employees and the steps that need to be taken to comply with the Act
 - b) As far as is reasonably practicable, prevent the exposure of such employees to the hazards concerned or, where prevention is not reasonably practicable, minimize such exposure.
- E4.1.3 The Contractor shall as far as is reasonably practicable, cause every employee to be made conversant with the hazards to his health and safety attached to any work which he has to perform, any article or substance which he has to produce, process, use, handle, store or transport and any plant or machinery which he is required or permitted to use, as well as with the precautionary measures which should be taken and observed with the respect to those hazards.
- E4.1.4 The Contractor shall ensure that all employees under his or her control are:
 - (a) informed, instructed and trained by a competent person regarding any hazard and the related work procedures before any work commences, and thereafter at such times as may be determined in the risk assessment
 - (b) issued with proof of health and safety induction training issued by a competent person and carry proof of such induction when working on site.



- E4.1.5 The Contractor shall not allow or permit any employee to enter any site, unless such person has undergone health and safety induction training pertaining to the hazards prevalent on the site at the time of entry.
- E4.1.6 The Contractor shall ensure that each visitor to a construction site, save where such visitor only visits the site office and is not in direct contact with the construction work activities:
- (a) undergoes health and safety instruction pertaining to the hazards prevalent on the site; and
 - (b) is provided with the necessary personal protective equipment.
- E4.1.7 The Contractor shall provide suitable on-site signage to alert workers and visitors to health and safety requirements.
- E4.1.8 The Contractor shall not permit any person who is or who appears to be under the influence of intoxicating liquor or drugs, to enter or remain at a workplace.

E4.2 Health and safety representatives

- E4.2.1 The Contractor shall appoint in writing one health and safety representative for every 50 employees of the contractor working on the site, whenever there are more than 20 employees on the site; to:
- (a) review the effectiveness of health and safety measures;
 - (b) identify potential hazards and potential major incidents;
 - (c) in collaboration with his employer, examine the causes of incidents;
 - (d) investigate complaints by any employee of the contractor relating to that employee's health or safety on the site;
 - (e) make representations to the contractor on matters arising from a), b), c) or d) or on general matters affecting the health or safety of the employees at the workplace;
 - (f) inspect the site with a view to the health and safety of employees, at regular intervals;
 - (g) participate in consultations with inspectors at the workplace and accompany inspectors on inspections of the workplace; and
 - (h) participate in any internal health or safety audit.
- E4.2.2 The Contractor shall inform the relevant safety representative:
- (a) beforehand of inspections, investigations or formal inquiries of which he has been notified by an inspector; and
 - (b) as soon as reasonably practicable of the occurrence of an incident on the site.
- E4.2.3 The Contractor shall convene health and safety meetings whenever more than two health and safety representatives have been appointed for the site. These meetings shall be attended by all health and safety representatives and shall be convened at least once every month to:
- (a) make recommendations to the employer regarding any matter affecting the health or safety of persons on the site; and



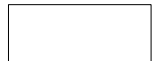
- (b) discuss any incident on the site in which or in consequence of which any person was injured, became ill or died.
- E4.2.4 The Contractor shall consult with the health and safety committee on the development, monitoring and review of the risk assessment.

E4.3 Appointment of construction supervisor and safety officers

- E4.3.1 The Contractor shall appoint a full-time competent employee designated in writing as the construction supervisor for the site, with the duty of supervising the performance of the work falling within the scope of the contract and may appoint one or more competent employees to assist the appointed construction supervisor.
- E4.3.2 A Contractor may having considered the size of the project, the degree of dangers likely to be encountered or the accumulation of hazards or risks on the site, appoint a full-time or part-time construction safety officer in writing, who has in the Contractor's opinion the necessary competencies and resources, to assist the contractor in the control of all safety related aspects on the site.
- E4.3.3 The Contractor shall ensure that the construction supervisor is in possession of the most recently updated version of the fall protection plan.
- E4.3.4 The Contractor shall ensure that the construction supervisor is in possession of the most recently updated version of the fall protection plan.
- E4.3.5 The Contractor shall ensure that the following activities, as relevant, are carried out under the supervision of a competent person and that such persons are appointed in writing:
- (a) all formwork and support work operations;
 - (b) excavation work;
 - (c) demolition work;
 - (d) scaffolding work operations;
 - (e) suspended platform work operations;
 - (f) operation of batch plants; and
 - (g) the stacking and storage of articles on the site.

E4.4 Risk assessment

- E4.4.1 The contractor performing work falling within the contract shall, before the commencement of any such work and during construction work, cause a risk assessment to be performed by a competent person appointed in writing. Such an assessment shall as a minimum:
- (a) identify the risks and hazards to which persons may be exposed to;
 - (b) analyse and evaluate the identified risks and hazards;
 - (c) document a plan of safe work procedures to mitigate, reduce or control the risks and hazards that have been identified;
 - (d) provide a monitoring plan; and



- (e) provide a review plan.

Note: A risk assessment is an important step in protecting workers as well as complying with the law. It helps you focus on the risks that really matter in a particular workplace – the ones with the potential to cause real harm. Workers and others have a right to be protected from harm caused by a failure to take reasonable control measures. The following four steps are recommended:

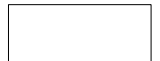
Identify the hazards by looking at what could reasonably be expected to cause harm, ask employees or their representatives what they think, obtain advice from trade associations or publications on health and safety, check manufacturer's instructions or data sheets for chemicals and equipment as they can be very helpful in spelling out the hazards and putting them in their true perspective, review accident and ill-health records, think about long-term hazards to health (e.g. high levels of noise or exposure to harmful substances) as well as safety hazards etc.

Identify who may be harmed and how by identifying how groups of people might be harmed i.e. what type of injury or ill health might occur.

Evaluate the risks and decide on precautions by doing everything 'reasonably practicable' to protect people from harm i.e. by looking at how things are done, what controls are in place and how the work is organised and comparing this against good practice to see if more can be done to bring practices up to standard. Consider if the hazard can be got rid of all together, and if not how can the risks be controlled so that harm is unlikely, e.g. try a less risky option (e.g. switch to using a less hazardous chemical); prevent access to the hazard (e.g. by guarding); organise work to reduce exposure to the hazard (e.g. put barriers between pedestrians and traffic); issue personal protective equipment (e.g. clothing, footwear, goggles etc.); and provide welfare facilities (eg first aid and washing facilities for removal of contamination).

Record the findings by writing down the findings of the risk assessment.

- E4.4.2 The contractor shall ensure that as far as is reasonably practicable, ergonomic related hazards are analysed, evaluated and addressed in the risk assessment.
- E4.4.3 The contractor shall require a competent person to prepare a fall protection plan in compliance with the requirements of the Construction Regulations.
- E4.4.4 Notwithstanding the provisions of the fall protection plan, the contractor shall ensure that:
 - (a) all unprotected openings in floors, edges, slabs, hatchways and stairways are adequately guarded, fenced or barricaded or that similar means are used to safeguard any person from falling through such openings;
 - (b) no person works in an elevated position, unless such work is performed safely as if working from a scaffold or ladder;
 - (c) notices are conspicuously placed at all openings where the possibility exists that a person might fall through such openings;
 - (d) fall prevention and fall arrest equipment is:



- (i) suitable and of sufficient strength for the purpose or purposes for which it is being used having regard to the work being carried out and the load, including any person, it is intended to bear; and
- (ii) securely attached to a structure or plant and the means of attachment thereto is suitable and of sufficient strength and stability for the purpose of safely supporting the equipment and any person who is liable to fall; fall arrest equipment is only used where it is not reasonably practicable to use fall prevention equipment; and
- (f) suitable and sufficient steps are taken to ensure, as far as is reasonably practicable, that in the event of a fall by any person, the fall arrest equipment or the surrounding environment does not cause injury to the person.

E4.4.5 Where roof work is being performed on a construction site, the contractor shall ensure that it is indicated in the fall protection plan that:

the roof work has been properly planned;

the roof erectors are competent to carry out the work;

no employees are permitted to work on roofs during inclement weather conditions or if weather conditions are a hazard to the health and safety of the employees;

prominent warning notices are to be placed where all covers to openings are not of sufficient strength to withstand any imposed loads and where fragile material exists;

the areas mentioned in paragraph (d) are to be barricaded off to prevent persons from entering;

suitable and sufficient platforms, coverings or other similar means of support have been provided to be used in such a way that the weight of any person passing across or working on or from fragile material is supported; and there is suitable and sufficient guard-rails or barriers and toe-boards or other similar means of protection to prevent, so far as is reasonably practicable, the fall of any person, material or equipment.

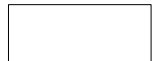
E4.4.6 The contractor shall ensure that:

- (a) all reasonably practicable steps are taken to prevent the uncontrolled collapse of any new or existing structure or any part thereof, which may become unstable or is in a temporary state of weakness or instability due to the carrying out of construction work;
- (b) no structure or part of a structure is loaded in a manner which would render it unsafe; and
- (c) specification data prepared by the designer of the structure is taken into account in the risk assessment;

Note: The specification data provided by the designer should outline known or anticipated dangers or hazards relating to the works and make available all information required for the safe execution of the work. It should provide as relevant, geotechnical information (or make reference to reports provided in the site information), the loading the structure is designed to withstand, the methods and sequence of construction.

E4.5 Health and safety plans

E4.5.1 The contractor shall prior to commencing the works to which this specification applies, submit to the employer for approval a suitable and sufficiently documented health and safety plan, based on this specification and the risk assessment that is conducted.



E4.5.2 The health and safety plan shall as a minimum provide:

- (a) the information contained in Table 1 in respect of each of the hazards associated with work falling within the scope of the contract (see Figure 1); and

Table 1: Example of the format of a health and safety plan

What are the hazards?	Who might be harmed and how?	What are the safe work procedures for the site?	What further action is necessary (monitoring and review)?	Action by whom	Action by when

- (b) an outline of the manner in which the contractor intends complying with the requirements of this specification.

E4.5.3 The contractor shall discuss the submitted health and safety plan with the employer’s representative, modify such plan in the light of the discussions and resubmit the modified plan for approval.

E4.5.4 The contractor shall apply the approved health and safety plan from the date of commencement of and for the duration of the works to which this specification applies.

E4.5.5 The contractor shall conduct periodic audits for compliance with the approved health and safety plan at intervals agreed upon with the employer, but at least once every month.

E4.5.6 The contractor shall update the health and safety plan whenever changes to the works are brought about.

E4.6 Subcontractors

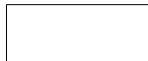
E4.6.1 The contractor may only subcontract work in terms of a written subcontract and shall only appoint a subcontractor should he be reasonably satisfied that such a subcontractor has the necessary competencies and resources to perform the work falling within the scope of the contract safely. Such a subcontract shall require that the subcontractor shall:

- (a) co-operate with the contractor as far as is necessary to enable both the contractor and sub-contractor to comply with the provisions of the Act; and
- (b) as far as is reasonably practicable, promptly provide the contractor with any information which might affect the health and safety of any person at work carrying out work or any person who might be affected by the work of such a person at work or which might justify a review of the health and safety plan.

E4.6.2 The contractor shall provide any sub-contractor who is submitting a tender or appointed to perform a sub-contract falling within the scope of the contract, with the relevant sections of this specification and associated specification data which might be pertinent to the sub-contract.

E4.6.3 The contractor shall take reasonable steps as are necessary to ensure:

- (a) co-operation between all sub-contractors to enable each of those sub-contractors to comply with the requirements of the Act and associated regulations; and



- (b) that each sub-contractor's health and safety plan is implemented.
- E4.6.4 The contractor shall conduct periodic audits for compliance with the approved health and safety plan of each and every sub-contractor working on the site at intervals agreed upon with such contractors, but at least once per month.
- E4.6.5 The contractor shall stop any contractor from executing construction work which is not in accordance with the contractor's or subcontractor's health and safety plan for the site or which poses a threat to the health and safety of persons.
- E4.6.6 The contractor shall ensure that where changes to the works occur, sufficient health and safety information and appropriate resources are made available to the subcontractor to execute the work safely.
- E4.6.7 The contractor shall ensure that:
 - (a) every subcontractor is registered and in good standing with the compensation fund or with a licensed compensation insurer prior to work commencing on site;
 - (b) potential subcontractors submitting tenders have made provision for the cost of health and safety measures during the construction process; and
 - (c) every subcontractor has in place a documented health and safety plan prior to commencing any work on site which falls within the scope of the contract.
- E4.6.8 The contractor shall receive, discuss and approve health and safety plans submitted by subcontractors.
- E4.6.9 The contractor shall ensure that all subcontractors are informed regarding any hazard as stipulated in the risk assessment before any work commences, and thereafter at such times as may be determined in the risk assessment.
- E4.6.10 The contractor shall reasonably satisfy himself that all employees of subcontractors are informed, instructed and trained by a competent person regarding any hazard and the related work procedures before any work commences, and thereafter at such times as may be determined in the risk assessment. The contractor shall satisfy himself and ensure that all subcontractor employees deployed in the site are:
 - a) informed, instructed and trained by a competent person regarding any hazard and the related work procedures before any work commences, and thereafter at such times as may be determined in the risk assessment; and
 - b) issued with proof of health and safety induction training issued by a competent person and carry proof such induction when working on site.

E4.7 Reporting of incidents

The contractor shall notify the employer's representative of any incident as soon as possible after it has occurred and report such incidence to an inspector.

E4.8 Administration

E4.8.1 Notification of intention to commence construction work

The contractor shall notify the Provincial Director of Labour in writing using a form similar to that contained in Annexure A of the Construction Regulations issued in terms of the Act



before construction work commences and retain a copy of such notification in the health and safety file where such work:

involves the demolition of a structure exceeding a height of 3m;

involves the use of explosives to perform construction work;

involves the dismantling of fixed plant at a height greater than 3m;

exceeds 30 days or will involve more than 300 person days of construction work; and includes:

- (a) excavation work deeper than 1m; or
- (b) working at a height greater than 3 m above ground or a landing.

E4.8.2 Health and safety file

E4.8.2.1 The contractor shall maintain on site a health and safety file on site which contains copies of the following, as relevant:

- (a) the notification made to the Provincial Director of Labour in terms of 4.4.1;
- (b) the letters of appointment of health and safety representatives;
- (c) the minutes of all health and safety meetings;
- (d) a comprehensive and updated list of all the subcontractors (nominated, selected or domestic) employed on site by the contractor, indicating the type of work being performed by such sub-contractors;
- (e) a copy of each and every subcontract agreement;.
- (f) the contractor's health and safety plan;
- (g) the health and safety plans of all the contractor's subcontractors who are required to provide such plans;
- (h) the recommendations made to the contractor by the health and safety committee referred to in 4.2.3
- (i) any report made to an inspector by the health and safety committee referred to in 4.2.3; and
- (j) the findings of all audit reports made regarding the implementation of the contractor's or a subcontractor's health and safety plan;
- (k) proof that the contractor and every subcontractor is registered and in good standing with the compensation fund or with a licensed compensation insurer;
- (l) the inputs of the safety officer, if any, into the health and safety plan;
- (m) a copy of risk assessments made by competent persons;
- (n) details of induction training conducted whenever it is conducted;
- (o) proof of all subcontractor's induction training whenever it is conducted;

- (p) letters of appointments for competent persons to supervise prescribed activities;
- (q) proof of the following where suspended platforms are used:
 - (i) a certificate of system design issued by a professional engineer, professional certificated engineer or a professional engineering technologist;
 - (ii) proof of competency of erectors;
 - (iii) proof of compliance of operational design calculations with requirements of the system design certificate;
 - (iv) proof of performance test results;
 - (v) sketches indicating the completed system with the operational loading capacity of the platform;
 - (vi) procedures for and records of inspections having been carried out;
 - (vii) procedures for and records of maintenance work having been carried out;
 - (viii) proof that the prescribed documentation has been forwarded to the provincial director;
- (r) records of the register of inspections made by a competent person immediately before and during the placement of concrete or any other load on formwork; and
- (s) the names of the first aiders on site and copies of the first aid certificates of competency.

E4.8.2.2 The health and safety file shall be made available for inspection by any inspector, subcontractor, employer's representative, employer's agent, health and safety representative or employee of the contractor upon the request of such persons.

E4.8.2.3 The contractor shall hand over the health and safety file to the employer upon completion of the contract together with a record of all drawings, designs, materials used and other similar information concerning the completed structure.

E4.9 First aid, emergency equipment and procedures

The contractor shall where more than five employees are employed at a workplace, provide a first aid box or boxes at or near the workplace which shall be available and accessible for the treatment of injured persons at that workplace. Such first aid boxes shall contain suitable first aid equipment.

The contractor shall ensure that where there are more than 10 employees employed on the site that for every group of up to 50 employees at that workplace, at least one person is readily available during normal working hours, who is in possession of a valid certificate of competency in first aid.



C3.5.2 ENVIRONMENTAL SPECIFICATIONS

This part of C3.5 Management contains specifications for Environmental matters not covered by C3.4 Construction Specifications.

The number of each clause in this specification is prefixed with an F to differentiate these clauses and items.

SECTION F1000 : ENVIRONMENTAL MANAGEMENT

CONTENTS

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F1001 SCOPE

The Contractor is required to comply with the requirements of the detailed EMP throughout construction.

The following are standardised additional specifications applicable. They are intended to assist the appointed Contractors to fulfil the environmental requirements of the project. The objective of the EMP is to ensure that the potential impacts upon the environment are minimised, and that upon completion of each section of work the area is left in a clean and sustainable condition.

Overall the environmental impacts of the project are considered to be low as long as the listed procedures are followed. These are given in the EMP.

The Contractor is advised that there are cost implications to the EMP and these must be factored into the tendered price.

F1002 ENVIRONMENTAL MANAGEMENT PLAN

F2.1 Objectives

The prime objective of the EMP is to minimise or avoid significant environmental impacts by using a pro-active approach and planning procedures.

The second objective is to have a plan in place to rehabilitate areas that have been impacted upon and, thirdly,

To have a plan in place for emergency situations that arise and are detrimental to the environment e.g. fuel or bitumen spills.



The Contractor will be responsible for the day-to-day implementation of the EMP, by himself and all other sub-contractors. During the course of construction regular compliance audits will be undertaken. This environmental auditing will be conducted by qualified environmental practitioners.

F2.2 Environmental Control

The Contractor will oversee the environmental aspects of the construction phase of the project in consultation with the Engineer.

The Contractor will report back to the bi-weekly site meetings with regards to compliance to the environmental specifications.

F2.3 Environmental Awareness Programme

The Engineer will implement an Environmental Awareness Programme for the Contractor, his staff, sub-Contractors and all people working on the project. The initial session will be immediately prior to construction commencing.

F2.4 Method Statements

The Contractor shall submit written method statements for activities that are identified by the Engineer, as being potentially harmful to the environment, or for work that is to be undertaken in areas identified as being environmentally sensitive.

Such activities include dewatering of excavations, pumping, working with cement, erection of construction camps and fuel stores, etc.

The Method Statement shall cover applicable details with regard to:

- construction procedures,
- materials and equipment to be used,
- getting the equipment to and from site,
- how the equipment/ material will be moved while on site,
- how and where material will be stored,
- the containment (or action to be taken if containment is not possible) of leaks or spills of any liquid or material that may occur,
- timing and location of activities,
- compliance/ non-compliance with the Specifications, and
- any other information deemed necessary by the Engineer.

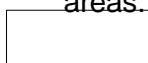
Method statements shall be submitted at least 7 days prior to commencing work on the activity to give the Engineer time to study the method statement and consult with contractor and specialists and to obtain written approval of the method statements. The Contractor shall not commence on that activity until such time as the method statement has been agreed to in writing by the Engineer. This will be done within this 10 day period.

Any changes required to the method statements once construction has commenced must be agreed upon in writing with the Engineer before being instituted.

F2.5 Working Areas

Regardless of the extent of the work, the following applies to all of these areas:

- All materials must be stockpiled or stored in a designated area (at each site) avoiding sensitive areas.



- No materials must be left on site once work is completed neither may they be dumped at any other place on site.
- Litter bins and containers for waste materials must be provided by the Contractor at each site. Bins should be weatherproof and scavenger proof.
- All waste must be placed in the bins and containers. No waste may be left lying on the site.
- Visible anti-litter signs must be displayed around the waste collection points and all employees must be encouraged to observe site rules pertaining to solid waste management practices. A concerted effort should be made to collect and dispose of materials suitable for recycling, separately from the other solid waste.
- No burning or burial of waste is permitted.
- Any soils contaminated by the contractor must be removed or rehabilitated. If a significant amount of soil has to be removed fresh soil must be imported and the site rehabilitated by grading and planting vegetation.
- All waste must be removed to an authorised landfill site, or taken to a facility for recycling.
- Any excess road building materials must either be:
 - taken to a site for stockpiling and future re-use,
 - used for localised rehabilitation, or
 - removed from site by the contractor for disposal.
- The contractor shall provide waste bins for solid waste collection and storage. Such bins should be placed at designated areas within the site. The refuse collected from the site must be removed for landfill disposal at least once a week.
- Vehicles may not park in the road reserve except with the prior permission of the Engineer.
- Every care should be taken to avoid damaging vegetation or land when vehicles are in use.
- Fuel tanks, pumps, and all equipment using oil, diesel, etc. must have drip trays. The drip trays must have sufficient capacity to contain liquids that will spill in the case of failure of the tanks, etc. The waste liquids taken from the trays must be disposed of at a landfill which permits disposing of liquid wastes.
- Only emergency repairs to vehicles and equipment may take place on site. Where emergency repairs take place it is the responsibility of the contractor to ensure that all waste (e.g. spare parts and oils) are removed from site as soon as possible. All other repairs must take place at a yard off-site, where facilities are suitable and waste facilities are appropriate.
- Whenever practical a tarpaulin should be laid down, prior to emergency repairs taking place, to protect the environment from contamination.
- No natural vegetation may be gathered, removed or destroyed in the course of the project, except where agreed to by the landowner.
- No hunting is permitted.
- Fires are prohibited.



- Erosion control measures must be implemented if the need arises.
- Pollution of water courses by any means must be avoided.
- No defacement of any natural or other features will be allowed; this includes markings for road works, unless markings are restricted to the road surface.
- Dust suppression measures should be implemented if and when required.
- Chemical toilets must be provided at all sites and must be within walking distance of the workers. They must be serviced on a regular basis in order to be kept clean and hygienic. The toilets must be placed in a sheltered place and should be locked after working hours if they are outside a camp area. Alternative arrangements to use existing toilets with owners' written consent may be allowed when submitted in writing.
- All waste from toilets must be disposed of at a permitted landfill or waste treatment works.

F2.6 On-site Workers Camp

F2.6.1 Site Camp

The campsite selection should be carried out in consultation with the landowner or relevant authority.

The site must be selected with due regard to the environment. Due care should be taken to avoid areas where sensitive vegetation and habitats occur.

When the site selection process has been completed, the contractor will define the boundaries of the site and erect a fence with a controlled access around it if practical.

All activities associated with the camp must be restricted to the demarcated area.

It is the responsibility of the contractor to ensure the safety of all personnel within the boundaries of the site. The contractor should have an on-site contingency plan detailing measures to be observed in the case of a health, safety or environmental emergency.

The contractor should ensure that all employees, employed by him and/or employed by subcontractors, have a clear understanding of safety regulations and procedures.

F2.6.2 Water, wastewater, and stormwater

Site occupants must have access to safe drinking water.

If water is stored on site a clear distinction should be made between drinking water and multi-purpose water storage facilities.

All water used on site must be taken from a legal source and comply with recognised standards for potable and other uses.

Wastewater that is contaminated with soaps, detergents and other undesirable materials, such as grease and oils, should be collected in conservancy tanks and disposed of safely in a wastewater treatment facility.

It is illegal to discharge water into a public stream if the quality does not conform with required health standards.



In all camps stormwater must be managed to prevent erosion.

Run-off will be diverted to control ponds so that silt may settle and any pollutants are trapped.

Subsequently, any pollutants must be treated, or removed and disposed of at a permitted landfill site or recycling facility.

All materials should be protected from the rain to prevent them being washed into stormwater channels.

F2.6.3 Ablution Facilities

The contractor shall provide proper and adequate sanitary facilities for all site employees.

These facilities shall be maintained in good and working condition at all times. Odours emanating from these facilities should be controlled within acceptable levels.

F2.6.4 Fires and Cooking Facilities

Fires will not be allowed.

The contractor must supply cooking facilities that are suitable for the environment and are not liable to cause the outbreak of fires. Fire-fighting equipment must be supplied by the Contractor at suitable locations.

F2.7 Plant and Equipment Storage Facility

F2.7.1 Plant

At the end of the shift all plant should be driven or transported back to the campsite for proper and safe overnight storage.

The contractor should ensure that equipment left elsewhere is stored in a manner that will not impact negatively upon the environment.

The plant should be regularly inspected for fuel and oil leaks that may be harmful to the environment, and/or aquatic life if washed into a stream or river.

F2.7.2 Hazardous Materials

Hazardous materials should be stored under lock and key in designated areas with properly displayed and visible warning signs.

All storage of hazardous materials must comply with legislation and regulations.

F1003 REHABILITATION

Upon completion of each section of work the site must be cleared of all equipment, waste and any rehabilitation work must be undertaken. This may include local grading of soils and re-vegetation where sites have been disturbed.

Immediately after the demolition of the campsite, the contractor shall restore the site to its original state, paying particular attention to its appearance relative to the general landscape.

It is imperative that any potential erosion problems are addressed. This may require subsequent site visits to monitor the efficacy of erosion control measures.



F1004 EMERGENCY PLANS

The onus is on the contractor to assess the potential risks to the environment as a result of the project. For example, accidental spillage of materials may pollute the soil or any water body.

The contractor must draw up a suitable emergency plan to contain such pollution. The emergency plans and procedures must be taught to all the workers on site, so that everyone is prepared to cope with an emergency.

Appropriate equipment must be available to carry out the emergency plans.

F1005 ENVIRONMENTAL AUDITING AND PENALTIES

On a regular basis, a qualified auditor will carry out a site audit to ascertain and verify the contractor's level of compliance with the requirements of the EMP.

Transgression will be treated as a contravention of the contractual agreement.

Deviation from these prescribed requirements will be met with penalties that are intended to enforce compliance.

It is a requirement that the contractor keep concise records of mitigatory measures undertaken at each site to minimise environmental impacts.

Any emergency situations that impact upon the environment should be recorded by the contractor together with the action that was taken to rehabilitate and remediate the site.

A copy of all completed environmental audits will be given to the contractor and the employer by the auditor.

Any public complaints regarding the environment must be recorded and discussed with the Engineer to determine an appropriate course of action.

The contractor will be responsible for all costs incurred in the rehabilitation of sites.

The contractor will be responsible for all costs incurred where emergency procedures are implemented to deal with accidents that impact upon the environment.

The contractor will be responsible for ensuring that all procedures required to rehabilitate all sites are implemented.

If third parties are called to the site to perform clean up and rehabilitation procedures, the contractor will be responsible for all costs.

Penalties will be imposed for contravention of the EMP, as specified in the EMP:



ELECTRICAL WORKS SPECIFICATIONS

GENERAL TECHNICAL SPECIFICATION

SCOPE

This section covers the general technical specification for electrical reticulation. It calls for the erection of all the necessary site works and for the supply, testing, delivery, off-loading, erection and commissioning of all the equipment.

STATUS

This is a general specification and the specific requirements of the project are given in the detailed technical specification. Should any requirements specifically called for in the detailed specification differ from this general specification, the detailed specification shall be followed.

DEVIATION FROM SPECIFICATIONS

The tender shall submit with his tender, details and drawings indicating any aspect where his proposed design differ from the requirements and layout shown in this specification. Failure to do so will be taken to mean full compliance with the specification.

APPROVAL OF DRAWINGS

The successful tenderer shall submit detailed drawings of all facets of the works for approval by the Engineer prior to commencement of manufacture and construction.

EQUIPMENT INSPECTION AND TESTING

The Engineer reserves the right to inspect any equipment at manufacture's work at any stage during manufacture.

The contractor shall arrange for the Engineer to witness any routine or type testing at the factory. Days' notice of such testing is required.

Equipment shall not be dispatched from the factory until final factory testing has been witnessed by the Engineer or until his authority has been given for dispatch.

TESTING CERTIFICATES

Copies of all test certificates shall be submitted to the Engineer for acceptance.

SAFETY REQUIREMENTS

The Contractor shall take all the necessary steps and precautions to ensure the safety of personnel or equipment when working on or near live electrical equipment. He shall make all arrangements for switching or disconnecting of equipment with the Engineer.

Section A: Installation of Cables

CABLE TYPES

Aluminium cables shall be used throughout unless otherwise specified or approved. All unarmoured cables shall be installed in sleeves unless clearly specified to the contrary.



COMPETENCE OF PERSONNEL

It is a definite requirement that the Contractor shall only employ personnel fully conversant with cable manufacture's recommendations for joining and terminating cables.

IDENTIFICATION OF CABLES

Cables shall be identified at all terminations by means of metallic bands or marked with labels or tags. [Refer also to SANS 10142 par 7.1.3 (c)].

The use of PVC with punched characters is not acceptable.

The identification numbers of cables shall be shown on "as built" drawings of the installation.

TRENCHING

The Contractor shall be responsible for all trenching excavations unless specified to the contrary.

The Contractor shall, before testing commences, familiarise himself with routes and site conditions and the procedure and order of doing the work shall be planned in conjunction with general construction programme for other services requirements.

The Contractor shall acquaint himself with position of all the existing services such as storm water pipes, water mains, sewer mains, gas pipes, telephone cables, etc before any excavations are commenced. For this purpose he shall approach the local municipal authority and any other authority which may be involved in writing.

The Contractor will be held responsible for damage to any existing services brought to his attention by the relevant authorities and shall be responsible for the cost of repairs.

The Contractor shall take all the necessary precautions and provide the necessary warning signs and/or lights to ensure that the public and/or employees on site are not endangered.

The Contractor shall ensure that the excavations will not endanger existing structure, roads other sit constructions or other property.

MECHANICAL EXCAVATIONS

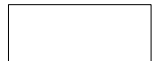
Power driven mechanical excavators may be used for trenching operations provided that they are not used in close proximity to other installations likely to be damaged by use of such machinery.

The use of power-driven mechanical excavators shall be subjected to the approval of the Engineer. Should the excavator produce trenches that exceed the required dimensions, payment based on volumetric excavation rates will be calculated on the required dimensions only.

BLASTING

No guarantee is given or implied that blasting will not be required.

Should blasting be necessary and approved by the Engineer, the Contactor shall obtain the necessary from the relevant Local Authorities. The Contractor shall take full responsibility and observe all conditions and regulations set forth by the above authorities.



ROUTES

Trenches shall connect the points shown on the drawings in straight line. Any deviations due to obstructions or existing services shall be approved by the Engineer beforehand.

The Engineer reserves the right to alter any cables route portion thereof in advance of cable laying.

Payment in respect of any additional or wasted work involved shall be at the documented rates.

The removal of obstructions along the cable routes shall subject to the approval of the Engineer.

SHORING AND WATERLOGGING

The contractor shall provide for use in shoring for use in locations when there is a danger of the sides of the trench collapsing due to waterlogging or other ground conditions. Refer to the factories, Machinery and Building Work Act, No.22 of 1944 Regulation D16.

The strength of shoring must be must be adequate for site conditions prevailing and the shoring must be braced across the trench.

The contractor shall provide all pumps and equipment required to remove accumulated water from the trenches. Water or any other liquid removed shall be disposed of without any nuisance hazard.

TRENCHING

Trenching shall be programmed in advance and the approved programme shall not be departed from except with the consent of the Engineer.

Trenching shall be as straight as possible and shall be excavated to the dimensions indicated in this specification.

The bottom of the trench shall be of smooth contour and shall not sharp dips or rises which may cause tensile forces in the cable during backfilling.

The excavated material shall be placed adjacent to each trench in such a manner as to prevent nuisance, interference or damage to adjacent drains, gateways, trenches, water furrows, other works, properties or traffic. Where this not possible the excavated materials shall be removed from site and returned for backfilling on completion of cable laying.

Surplus material shall be removed from site and disposed of at the cost of the Contractor.

Trenches across roads, access ways or foot paths shall not be left open. If cables cannot be laid immediately the contractor shall install temporary "bridges" or cover plates of sufficient strength to accommodate the traffic concerned.

In the vent of damage to other services or structure during trenching operations the Contractor shall immediately notify the Engineer and institute repairs.

Prior to cable laying the trench shall be inspected thoroughly and all objects likely to cause damage to the cables either during or after laying shall be removed.

Where ground conditions are likely to reduce maximum current carrying capacities of cables or where the cables are likely to be subjected to chemical or other damage or electrolytic action, the Engineer shall be notified before installing the cables. The Engineer will advise on the course of action to be taken.



Extreme care shall be taken not to disturb surveyor's pegs. These pegs shall not be covered with excavated material. If the surveyor's pegs are disturbed, they shall be replaced by a person qualified to do so.

DIMENSIONS AND TRENCHES

Cable trenches for one or two cables shall not be less than 300mm wide and need not be more than 400mm wide. This dimension shall be valid for the total trench depth.

The width shall be increased where more cables are installed.

Where trenches change direction or where cable lack is to be accommodated.

Trench depth shall be determined in accordance with cable laying depths and bedding thickness.

Payment will be made on a volumetric excavation rate calculated on the basis of the given maximum dimensions or the actual dimensions, whichever is the lesser.

JOINT HOLES

Where cable joints are required to be made in the course of a cable run, a joint hole shall be excavated of sufficient size to enable the cable jointed to work efficiently and unimpeded.

BEDDING

The bottom of the trench shall be filled across the full width with 75mm layer of sufficient soil sifted through a 6mm mesh and levelled off.

Only sandy clay or loam soil with a satisfactory thermal resistivity (not exceeding 1.5xC m/W) may be used for this purpose. Sea or river sand, ash, chalk, peat, clinker or clayey soil shall not be used. The use of crusher sand is acceptable.

Where no suitable soil is available on site, the Contractor shall import fill from elsewhere and make all the necessary arrangement to do so. The cost of importing soil for bedding purposes shall be included in the unit rates for excavation.

After cable laying a further layer of bedding shall be provided to extend to 75mm above the cables.

The bedding under joints shall be fully consolidated to prevent subsequent setting.

CABLE SLEEVES

Where cables across under roads, railway tracks, other services areas, etc. where cables enter buildings, the cables shall be installed in pipes.

Pipes shall be jointed in accordance with the manufacturer's instructions.

Sleeves shall have a minimum diameter of 100mm. They shall extend at least 2m beyond the tracks of a rail way line or of the outermost tracks where there is more than one line. In the case of roads, the sleeves shall extend at least 1m beyond the road edge or kerb on both sides of the road.

All sleeves shall be granted 1:400 for water drainage.

Cable sleeves shall be installed to the spacing and depths stated in paragraph 4.0 below.



Galvanized metallic sleeves up to and including 76mm diameter shall be supplied and installed by the Contractor.

The ends of all sleeves shall be sealed with a non-hardening watertight compound after the installation of cables. All sleeves intended for future use shall likewise be sealed.

BACKFILLING

The Contractor shall not commence with the backfilling of trenches without prior notification Local Authority, so that the cable installation may be inspected. Should the Contractor fail to give a timeous notification, the trenches shall be re-opened at the Contractor's cost. Such an inspections will not be unreasonable delayed.

For high voltage cables (1kV to 11kV) a colored plastic marking tape shall be installed 400mm above the cable. The tape shall be yellow, with a red skull and crossbones with word "ELECTRIC CABLE / ELEKTRIESE KABEL". These markings shall not be more than 1m apart from center to center

Backfilling shall be undertaken with soil suitable to ensure setting without voids. The maximum allowable diameter of stones present in the backfill material is 75mm.

The Contractor shall have allowed in his tender for the importation of suitable backfill material if required.

The backfill shall be compacted in layers of 150mm and sufficient allowance shall be made for final settlement. The Contractor shall maintain the refilled trench at his expense for the duration of the contract. Surplus material shall be removed from site and suitable disposed of.

On completion, the surface shall be made good to match the surrounding area.

In the case of roadways or paved areas the excavations shall be consolidated to the original density of the surrounding material and surface finish reinstated.

CABLE MARKERS (for HV cables only, except otherwise specified)

Cable markers shall be provided along all HV cables routes but need only be provided along LV cable routes where specified.

Cable shall consists of concrete blocks in the shape of truncated pyramids \, approx., 300mm high, 150 x 150mm at the top and 250 x 250mm at the bottom.

Brass plates shall be cast into the tops of the blocks in manner that they cannot be prised loose. The word "ELECTRIC CABLES/ELEKTRIESE KABEL" shall be stamped on the brass plate as well as direction arrows and the cable voltage rating.

Cable markers shall be installed on the surface along all the underground routes and shall project 35mm above normal ground level unless the projected markers could be hazard to pedestrian or other traffic in which case they shall be installed flush with the surface.

Cable markers shall be installed at the beginning and end of cable run (e.g. where a cable enters a substation or building), at all changes of direction, above all joints, above cable pipe entries and exits and at intervals not exceeding 50m along the cable route. The position of cable markers shall be indicated on the "as built" drawings.



SAR AND PROVINCIAL ADMINISTRATION OR NATIONAL ROAD CROSSINGS

The Contractor shall not trench beneath any railway tracks with the SAR Administration’s supervision. The Contractor shall request the Engineer timeously to arrange for the necessary supervision. The cost of such supervision shall be paid by the Client.

The Engineer will arrange for the necessary way leaves and permission to cross SAR property and rail way tracks, or provincial or national road reserves and Postal Authority approval of proposed cable routes.

The Contractor shall carry out the crossing installation in strict accordance with SAR and Provincial Administration’s requirements and stipulations. Where this requirements are in contradiction with this specification, the Engineer’s ruling shall be sought.

The Contractor shall ensure that he will comply with various Administration’s requirements regarding crossing of Provincial and National roads, especially with regards to the safeguarding of the public. The Contractor shall also provide proof of adequate insurance cover against any claim from any accident as result of work done by the Contractor during the crossing operation. The Client shall also be indemnited from all liability in this regard.

The Contractor shall liaise with the various Administrations well in advance regarding the intended dates, times and expected duration of the crossing operation and obtain their approval of the programme and method of operation before commencing with work.

INSTALLATION OF UNDERGROUND CABLES

INSTALLATION DEPTH

Cables shall be installed at the following minimum depths below final ground level:

Up to 1kV 600mm

Up to 11kV 1000mm

All cable depth measurements shall be made to the top of the cable when laid directly in ground or to the top of the duct or sleeve where these are provided.

The above depths shall apply to the top layer where cables are installed in layers.

The Contractor may only deviate from the above depths provided prior authority in writing has been obtained from the Local Supply Authority. In this event the cables shall be protected with a suitable concrete covering.

The depth of cables pipes or ducts beneath railway lines or roads shall be not less 1.1m below the formations level.

CABLE SPACINGS

Cables installed in the same trench shall be laid parallel to each other with the following spacing between cables (LV: up to 1kV; HV up to 11kV):

LV/LV 2 cable diameters

LV/HV 900mm minimum



Where HV and LV cables have to be installed in the same trench, the HV cable shall be laid on the one side of the trench at a depth of 1.200mm and then covered with 900mm of soil. The LV cable shall be laid on the other side of the trench, i.e. not above the HV cable, and then completely backfilled.

Cables for telephones, communication systems and other low voltage systems (less than 50V) shall be separated from power cables by at least 1m. All control or pilot cables shall be laid at least 300mm from power cables.

Cables shall not be buried on top of each other unless layers are specified. The minimum spacing between layers shall be 200mm.

CABLE LAYING

Except where ducts, tunnels or pipes are provided, cables shall be laid directly in the ground.

The cables shall be removed from the drum in such a manner that the cable is not subjected to twisting or tension exceeding that stipulated by the cable manufacture.

Cable rollers shall be used as far as possible to run out cables. Rollers shall be spaced so that the length of the cable in trench will be totally suspended during the laying operations and sufficiently close to prevent undue sagging and the cable from touching the ground. Rollers shall also be placed in the trench in such a manner that they will not readily capsize.

Cable rollers shall have no sharp projecting parts liable to damage the cable.

Where cables have to be drawn through pipes or ducts, a suitable sock shall be used and particular care shall be exercised to avoid abrasion, elongation or distortion of any kind. In the case of oil filled cables, a cable sock may never be used. Special eyes giving access to the interior of the cable, must be utilized.

The maximum allowable tension when pulling a cable, is 70N/mm of conductor area

It will be assumed that the price or rates contained in the tender includes for the installation of cables in pipes and ducts or below existing or newly installed services.

The Engineer shall be informed timeously of the intention to carry out all cable laying operations to allow an inspection of the work so required.

INSTALLATION OF CABLES IN CONCRETE TRENCHES

GENERAL

This paragraph covers the installation of cables in building trenches, service ducts, etc. inside building will be constructed and installed by others.

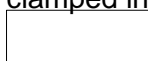
INSTALLATION

Cables shall be installed on one of the following way:

DS1 On horizontal cable trays

DS2 On horizontal metal supports with suitable clamps

DS3 On vertical cable trays or metal supports fixed to the side of the trench, the cable shall be clamped in position.



Cables shall not be bunched and laid on the floor of the building trenches.

COVERS

The covering of concrete trenches shall as a rule fall outside the scope of electrical installation. The Contractor shall however be responsible for the cutting or drilling and smoothing of holes for cable through cheque plates, concrete or other covering as required.

Cables shall enter and exit the trench through sleeves protruding 300mm beyond the covering. The sleeves shall be permanently secured in position and the open space between the cable and sleeves shall be sealed with a non-hardening, watertight compound.

FILLED TRENCHES

Where specified, floor trenches shall be filled with sand.

If sand filling is specified, the cable cables shall be fixed to non-corroding supports

Sand-filled trenches other than in substations shall be covered in one of the following ways:

- a) Reinforced concrete covers
- b) Sand and cement screed
- c) Removable chequer plates

Method (a) above shall be used where vehicular traffic may be encountered over trenches. Unless otherwise specified allowance for a mass of 2 tons shall be made.

FIXING OF CABLES TO TRAYS OR STRUCTURES

INSTALLATION

Cables may be installed in one of the following ways:

- a) On horizontal cable tray
- b) Against vertical cable trays with suitable clamps
- c) Against horizontal or vertical metal supports or brackets with suitable clamps
- d) On clamps which are fixed to the structure

CLAMPS

Suitable clamps (cleats) which will secure cables without damage shall be used. Metal clamps or drilled hard wood blocks shall be used. Clamps shall consist of two halve that can be bolted together. The correct clamp size to fit the cable shall be used. Cables of different sizes may only be fixed by a common clamp when the clamp is specially made to accommodate the various cables.



SPACING OF SUPPORTS

Two methods of supporting cables are found in practice. The most general known method is the restrained installation where the distance between supports is small enough to prevent any noticeable sag in the cable. The alternative method is the unrestrained installation where the distance between supports should be great enough to ensure that there will be obvious sag in each span between supports.

SPACING OF SUPPORTS OF UNRESTRAINED CABLES

Large single core cables shall always be installed according to this method. Generally, single core cables with conductors exceeding a cross sectional area of 185mm should be supported at spacing in excess of 2m since the sag between supports will safely accommodate any thermal expansion.

Reducing the spacing between the supports to 1.5m or less shall be avoided at all costs, as expansion cannot be taken up by a change of sag and chances of sheath failure become considerable.

SPACING OF SUPPORTS OF RESTRAINED CABLES

The maximum spacing between cleats (clamps) to which cables are fixed in horizontal and vertical cable routes shall be determined in Table BS.1. Additional cleats shall be installed at each bend or offset in the cable run. The maximum distance between supports or cleats for multicore control cables shall be 20 times the outside diameter of the cable with a maximum spacing of 500mm for unarmoured cables and 30 times the outside diameter of the cable with a maximum spacing of 900mm for armoured cables. Spacing of supports for cables for high voltage lighting shall be in accordance with Table 8 of SABS 0142. A minimum of 20mm ventilation clearance shall be maintained between cables and the wall to which they are cleated.

GROUPING AND SPACING OF CABLES IN BUILDING AND STRUCTURES

SPACING CORRECTION FACTORS

Cables shall as a rule be spaced two cable diameter apart, for which no grouping correction factor need to be applied.

CABLES ON DIFFERENT LEVELS

Where parallel cables runs are installed along a three-phase circuit, the cables shall be installed in trefoil formation and bound together at 300mm intervals.

HIGH VOLTAGE CABLES

High voltage cables shall be separated from other cables and services throughout the installation and shall as far as possible be installed in separate floor trenches, pipes or metal channels. Where this not feasible a minimum spacing of 500m shall be maintained.

CABLE FOR OTHER SERVICES

Cables for telephone, communication systems and other low voltage systems (less than 50V) shall be separated from power cables. In building ducts a physical barrier shall be provided between power cables and cable for other services. Where armoured cables are used for such other services, they will be installed on separate cable trays or shall otherwise be at least 1m away from power cables. Where unarmoured cables are used for these other services, they shall be installed in separate conduits or metal channels.



TERMINATION AND JOINTING OF CABLES

GENERAL

Cables ends shall be terminated with glands or in cable boxes with the associated accessories such as clamps, shrouds, etc. complying in al respect to the manufacture’s specifications.

Connection of cables to switchgear shall always be effected in such a way the various phases, seen from the front of the switchgear will be in the following positions:

- No.1 conductor left (red) (A)
- No.2 conductor center (white) (B)
- No.3 conductor right (blue) (C).

Exposed armouring shall be covered with bitumen-based paint. All cable ends shall be supplied with the necessary earth connection.

A P4000 “SANKEYSTRUT’ channel or other approved means of support shall be provided to remove mechanical stress from the glands.

Cable cores shall be marked with heat-shrunk sleeves where necessary to identify the phases.

Refer to par. 5.2.1. (d) of SABS 0142.

The current carrying capacity and breakdown voltage of the cable end shall be the same as for the complete cable.

Cables shall be terminated in accordance with the recommendation laid down by the manufacture of the cables and glands employed.

TERMINATION OF PAPER-INSULATED CABLES

The ends shall be terminated in cable end boxes filled with bituminous, cold filling or resin oil semi-fluid compound or heat-shrinkable termination.

HEAT SHRINKABLE MATERIALS SHALL ONLY BE USED IN EXCEPTIONAL CIRCUMSTANCES WITH WRITEN PERMISSION OF THE ENGINEER.

Before terminating or jointing paper-insulated cables, a test to establish the presence of moisture must be carried out.

The following procedure may be followed:

- i. Place an adequate quantity of cable impregnating oil in suitable container and heat up to 130 deg C.
- ii. Cut a small length (300mm) of cable concerned and remove the armouring and sheath, taking care not to handle the dielectric in any way.
- iii. Dip a section of the outer insulating impregnated paper (belt paper) in the heated oil, taking care not to contaminate the tapes with moisture from the hands. If frothing appears on the surface of the oil, this is a clear indication of the presence of moisture in the paper.



- iv. The same procedure should then be repeated on the insulating impregnated paper around the cores (especially those layers closest to the cores). Frothing will also indicate the presence of moisture.
- v. Should only a small number of bubbles appear on the surface of the oil, this is an indication of air bubbles on the paper and not moisture since the presence of moisture will result in series of bubbles rising to the surface of the oil for a number of seconds, until all moisture has been removed.

The armouring shall be bonded to the main earth bar of the switchgear or transformer, but the Bond shall be easily removable for testing purposes.

The lead sheath shall be wiped against the conical wiping gland.

All cut cable ends which will be exposed to the atmosphere for more than two hours shall be Sealed and wiped to prevent penetration of moisture.

TERMINATION OF XLPE CABLES

Cross-linked polyethylene cables (XLPE) shall be terminated in accordance with the recommendations laid down by the manufactures of the cables employed.

The copper tapes of the earth screen on the cable shall be bonded to the main earth bar of the switchgear or transformer, but the bond shall be easily removable for testing purposes.

The cable shall be firmly secured on the switchgear by means of clamp to prevent mechanical stress on the cable and terminations.

TERMINATION OF PVC-INSULATED CABLES

Cable ends shall be terminated by means of adjustable glands.

The glands shall be fitted in accordance with the cable and gland manufacture's instruction.

CONNECTION OF CABLE CONDUCTORS

Suitable lugs shall be used, preferable solidly sweated to the cable conductor ends. Lugs may be crimped, using mechanical or pneumatic tools designed for this purpose, on condition that evidence is submitted that the method used complies with the performance requirements of BS 4579, Part 1: "COMPRESISSION JOINTS IN COPPER".

Contact surface shall be thoroughly cleaned and smoothed and fixing bolt shall match the hole size of the lug.

Cables that are connected to clamp type terminals where the clamping screws are not in direct contact with conductor, need not to be lugged but the correct terminal size shall be used.

Ferrules shall be used as far as possible where cable conductors are connected directly to equipment with screws against the conductor strands.

When cutting insulation from cable conductors to fit into lugs, care shall be taken that no strands are left exposed. Under no circumstances may any of the conductor strands be cut to fit the lug.



JOINTS

Joints in cable runs will not be allowed unless specified in the Detail Technical Specification authorized by the Engineer.

Detail Project Technical Specification

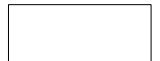
SCOPE OF WORK

The contract consists mainly of the following:

- i Installation of small power and lighting for the pavilion and guard house
- ii Installation of internal wet services for the pavilion and guard house
- iii Installation of HVAC for ablution facilities and change rooms
- iv Installation of footpath new pedestrian lighting for Kopano stadium footpaths
- v Installation of new rugby pitch and athletics track with 35m lighting masts, new lighting control panels, feeder cables,

The electrical work shall include the following:

- vi. Supply and installation of the main exterior distribution kiosk supplying power to all the distribution boards in the precinct of the public area
- vii. Arrange, co-ordinate and install the point of supply in accordance to the correspondence with and standards of the local supply authority (City Power) and the electrical design drawings,
- viii. Liaising with City Power technical and Maintenance teams,
- ix. Supply, install, test and commission low voltage reticulation consisting of 25mm² /35mm² and 50mm² aluminium cable, 16mm² copper clad steel cables for earthing and associated control and protection gear in existing road and co-ordination with the Civil Contractor (including trenching and concrete encasement),
- x. Supply, install, test and commission the lighting scheme consisting of 10m poles and approved luminaires,
- xi. Testing and cleaning of all service sleeves is to be done before services are to be drawn through the sleeves after the Engineers approval,
- xii. Commission, aiming of luminaires and testing of the system to the satisfaction of the Engineer shall form part of this contract,
- xiii. Compliance to OHS Act and regulations must be adhered,
- xiv. Provision of As-built drawings and documentation,
- xv.** Provision of City Power Hand-Over documentation.



DESIGN PHILOSOPHY

The street, specialist areas lighting and pedestrian walkways lighting shall comply with all applicable SANS standards, City Power specifications and other standards as stipulated by the Local Authority. These shall include the standards and specifications listed in Table 1 below:

SANS 60598-1:2007	Luminaires Part 1: General Requirements and Tests
SANS 60598-2-3	Luminaires Part 2-3: Particular Requirements – Luminaires for Road and Street lighting
SANS 475:2006	Luminaires for Interior Lighting, Street lighting and Floodlighting – Performance Requirements
SANS 10098 – 1:2007	Public lighting Part 1: The lighting of public thoroughfare
SANS 529:1994	Heat-resistant wiring cables
SANS 1088:2004	Luminaire entries and spigots
SANS 1277:1980	Street lighting luminaires
VC 8011:1999	Lamp holders
CP_TSSPEC_011	Specification for discharge lamps
CP_TSSPEC_014:2004	Specification for Street Light Luminaires
CP_TSSTAN_035:2004	Standard for the Planning of Public Lighting
CP_TSSTAN_036:2004	Standard for the Installation of Public Lighting Infrastructure
CP_TSSPEC_032:2006	Steel Lighting Masts
CP_TSSPEC_073	Specification for control gear for street lighting
CIE Publication 27	Photometry of luminaires for street lighting
SANS 1507:2002	Electric cables with extruded solid dielectric insulation for fixed installations (300/500V to 1900/3300V) Part 1 – General & Part 2 – Wiring cables
SANS 60529	Degrees of protection provided by enclosures (IP Code)

Table 1: SANS Standards and Specifications



SUPPLY AUTHORITY

City Power shall be the supply authority. The Electrical Contractor shall comply with all relevant rules and regulations of the supply authority.

Eskom shall be the supply authority for power connection purposes only. The Electrical Contractor shall comply with all relevant rules and regulations of the supply authority.

INFORMATION

The tenderer's attention is drawn to the fact that if the information schedules in this specification are not complete, his tender may be disqualified.

CABLE SLEEVES

Where cables cross under roads or other services, the cable shall be installed in PVC pipes. All sleeves shall be installed at a minimum depth of 1500mm under finished ground level. The Contractor shall liaise with closely with the civil contractor to ensure the timely installation of the sleeves.

The ends of all sleeves shall be sealed with a non-hardening watertight compound after the installation of cables. All sleeves intended for future use shall likewise be sealed and clearly marked on the as built drawings. Future sleeves shall also be fitted with draw wire.

The Contractor shall supply and install the following uPVC sleeves:

- Sleeves 110mm diameter

NOTICES

The Electrical Contractor shall issue all notices and make the necessary arrangements with Supply Authorities, Telkom, Provincial or National Road authorities and other Authorities as may be required with respect to the installation. The Contractor will be held responsible for damage to any existing services brought to his attention by the relevant authorities and will be responsible for the cost of repairs.

ELECTRICAL EQUIPMENT

All equipment and fittings supplied must be suitable for the relevant supply voltage and frequency and must be approved by the Client Representative.

DRAWINGS

The drawings generally show the scope and extent of the proposed work and shall not be held as showing every minute detail of the work to be executed.

WORK SEQUENCE

The sequence, in which the work must be carried out, must be established in consultation with Engineer.

SUPERVISION

The work shall at all times, for the duration of the contract be carried out under the supervision of a skilled and competent representative of the contractor, who will be able and authorised to receive and carry out instructions on behalf on the contractor. A sufficient number of workman shall be employed at all times to ensure satisfactory progress of the work.



SUPPLY OF MATERIAL

The Client reserves the right to supply any of item of material or equipment required for this service.

SERVICE CONDITIONS

All equipment shall be designed for the climatic conditions appertaining to the service.

MAINTENANCE OF ELECTRICAL SUPPLY

All interruptions of the electrical supply that may be necessary for the execution of the work will be subjected to prior arrangement between the Contractor, the Client and the Engineer.

SUPPLY AND CONNECTION

The electrical supply will be obtained from the miniature substation situated on Hoof Street to supply the new 80A, 3 phase kiosk, installed in the position as depicted on the layout drawings.

CABLES

The cable to supply the lights shall be 25mm² aluminium cable, 35mm² aluminium cable and 50mm² aluminium cable to the Main supply source.

EXCAVATIONS

Tenders must base their cost for trenching in the earth, soft, and hard rock on the total quantities indicated in the Bill of Quantities. The actual quantities, based on the dimensions specified below for trenches for the applicable number of cables to be laid, will be measured on-site during the service and adjustment will be made according to the price per cubic metre as inserted by the tenderer. Payment for cable trenching having a greater volume than that specified for the purpose will not be considered except where extra excavation is necessary to bypass obstacles such as water pipes, drains, large boulders etc. In all such instances, the amount of the extra excavations must be agreed upon on site between the Engineer and the Contractor.

The cable-trench shall be excavated to the following dimensions

	depth	width
LT Cables	600mm	300mm

The width shall be increased where more than more than three cables are laid together so that the cables may be placed at least two cable diameters apart throughout the run.

Before any excavation in hard rock take place, the written approval of the Engineer shall be obtained. Where cables can be installed to the required depth due to unfavourable ground conditions, concrete slabs 800mm x 250mm shall be installed above the cable. Cable markers will be installed above these the positions and it shall be indicated on the as built drawings.

STREETLIGHTS AND OTHER ESTERIOR LIGHTING SYSTEMS

Luminaires

- xv Luminaires shall be the totally enclosed type.
- xvi They shall be vandal-proof, weather-proof, hail-proof, insect-proof, corrosion-proof and resistant to both solar and ultra-violet radiation.
- xvii The general construction of the luminaire shall be robust and all components such as lamp-holders and brackets and control gear shall all be according to City Power Specifications.
- xiv The proposed shall fully meet the technical performance characteristics specified for each LED luminaire type in this bid document's detailed bill of quantities.
- xv Servicing existing street light luminaires.

Control Switches

- xv Photo-electric control units, in conjunction with contactors, shall automatically switch the streetlights and other lighting systems at dusk and dawn.
- xvi The control switches shall be protected against mechanical and wilful damage.
- xvii They shall be positioned such that they will not receive illumination from artificial lighting systems, yet will be accessible for maintenance purposes.
- xviii Secured facilities for manual overriding of automatic switching systems shall be provided in either the street lighting distribution/control boxes in basement substations or the pole-mounted ones.
- xix Every control box shall have one photo-electric control unit to control all the light circuits supplied from that box.

LED Luminaires Light Poles

- xv The poles shall be designed in accordance with SANS 10225:1991.

SCHEDULE OF CABLES

Supply, install and connect the following cables:

LT cables: aluminium XLPE PVC underground
 25mm² cable 600/1000 volt

LT cables: 16mm² CCS earth cable

AS BUILT DRAWINGS

At the completion of the electrical installation, the Engineer will provide one set of drawings to the Electrical Contractor for the preparation of the as built drawings.

END OF SPECIFICATION



PART C4: SITE INFORMATION



PART C4: SITE INFORMATION

THE JABULANI TRANSIT ORIENTED DEVELOPMENT PROJECTS GROUND: PHASE – 5 (COMPLETION FOR THE TRAFFIC CIRCLE)

CONTRACT NO.: JDA 17.2.6.B.700251.1 PH5

Information Only

All data and descriptions contained in this section of the contract documents are given for information purposes only and cannot be interpreted as prescriptive despite the fact that the text may give the opposite perspective. If any conflict arises between the content of this section and other sections of the contract documents, the latter take precedence.

C4.1 LOCALITY PLAN



C4.2 DESCRIPTION OF THE WORKS

C4.2.1 EXISTING SITE

(a) Project location and limits



The road is situated in between the following two intersections (Koma Street and Bolani Road) and (Bolani Link and Bolani Road). The site is located within Soweto Johannesburg

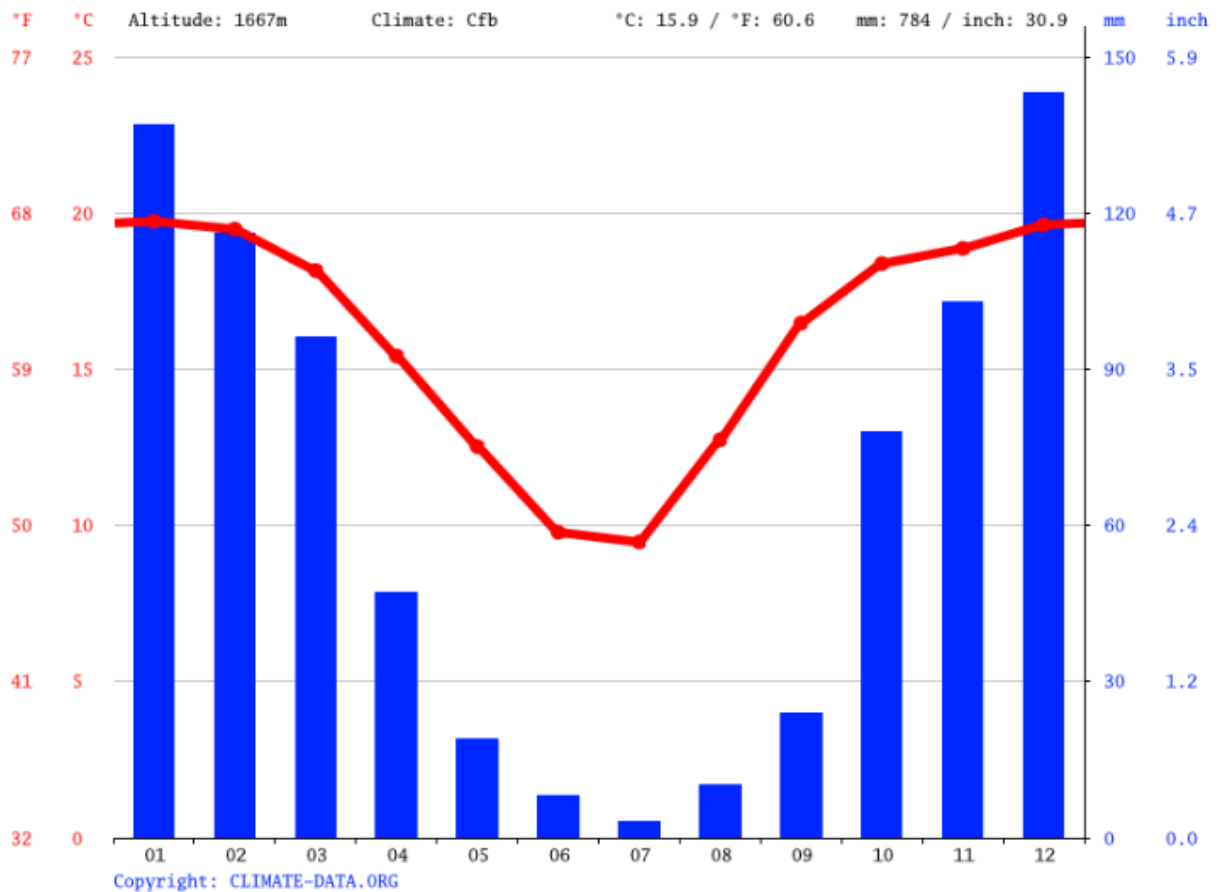
b) Precipitation

The difference in precipitation between the driest month and wettest month is 140mm. The maximum rainfall occurs in December. Table C4.1 shows January being the wettest with 125 mm. Table C4.1 and Figure C4.2 below give the average annual rainfall data distribution.

TABLE C4.1 - RAINFALL DATA

Month	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual Average
Average Monthly (mm)	137	116	96	47	19	8	3	10	24	78	103	143	784
No. Days Rainfall	12	11	10	6	2	1	1	2	3	8	11	14	81

TABLE C4.2 – CLIMATE GRAPH/WEATHER BY MONTH SOWETO



The driest month is July, with 3 mm | 0.1 inch of rainfall. Most of the precipitation here falls in December, averaging 143 mm | 5.6 inch.





PART C5: TENDER DRAWINGS



PART C5: LIST OF DRAWINGS:

The work shall be carried out in accordance with the following drawings which form part of these contract documents:

LIST OF DRAWINGS (PROVIDED WITH THIS TENDER DOCUMENT):

Document No.	Title
	GENERAL LAYOUT/LOCALITY PLAN
HHO-7254-103-1001	Locality Plan: Bolani Road
HHO-7254-103-1002	General Layout Plan: Bolani Road Sheet 1 of 2
HHO-7254-103-1003	General Layout Plan: Bolani Road Sheet 2 of 2
	TYPICAL CROSS SECTIONS
HHO-7254-103-1101	Typical Cross Sections: Bolani Road Sheet 1 of 5
HHO-7254-103-1102	Typical Cross Sections: Bolani Road Sheet 2 of 5
HHO-7254-103-1103	Typical Cross Sections: Bolani Road Sheet 3 of 5
HHO-7254-103-1104	Typical Cross Sections: Bolani Road Sheet 4 of 5
HHO-7254-103-1105	Typical Cross Sections: Bolani Road Sheet 5 of 5
HHO-7254-103-1106	Typical Cross Sections: Koma Road Access to BP Station: Sheet 6 of 6
HHO-7254-103-2701	Duct and Junction Box Detail Sheet 1 of 1
HHO-7254-103-2801	Protection Culvert Detail Sheet 1 of 2
	SETTING OUT PLANS
HHO-7254-103-1201	Setting Out Plan: Bolani Road Sheet 1 of 2
HHO-7254-103-1202	Setting Out Plan: Bolani Road Sheet 2 of 2
HHO-7254-103-1203	Setting Out Plan: Bolani Road Sheet 1 of 1
HHO-7254-103-1204	Setting Out Plan: Bolani Road
	LONGITUNDINAL SECTION
HHO-7254-103-2001	Longitudinal Section: Bolani Road Sheet 1 of 1
HHO-7254-103-2002	Longitudinal Section: Koma/Bolani Road Sheet 1 of 3
HHO-7254-103-2003	Longitudinal Section: Bolani Road/Hospital and Mall Entrance Sheet 2 of 3
HHO-7254-103-2004	Longitudinal Section: Bolani/Legogo Roundbout Sheet 3 of 3
	SEWER LAYOUTS
HHO-7254-103-1401	Existing Sewer & Proposed Layout: Bolani Road Sheet 1 of 2
HHO-7254-103-1402	Existing Sewer & Proposed Layout: Bolani Road Sheet 2 of 2
	CROSS SECTIONS
HHO-7254-103-3601	Cross Section: Bolani Road Sheet 1 of 2
HHO-7254-103-3602	Cross Section: Bolani Road Sheet 2 of 2
HHO-7254-103-3603	Cross Section: Bolani Road Sheet 3 of 3
HHO-7254-103-3604	Cross Section: Koma/Bolani Road Sheet 1 of 3
HHO-7254-103-3605	Cross Section: Bolani Road/Hospital And Mall Entrance Sheet 2 of 3
HHO-7254-103-3606	Cross Section: Bolani/Legogo Roundabout Road Sheet 3 of 3
	STORMWATER LAYOUT
HHO-7254-103-1621	Proposed Stormwater Layout: Bolani Road Sheet 1 of 1
	ELECTRICAL LAYOUT
HHO-7254-103-1441	Existing Electrical Layout: Bolani Road Sheet 1 of 2
HHO-7254-103-1442	Existing Electrical Layout: Bolani Road Sheet 2 of 2

	TELECOMMUNICATIONS LAYOUT
HHO-7254-103-1443	Existing Telecommunications Layout: Bolani Road Sheet 1 of 2
HHO-7254-103-1444	Existing Telecommunications Layout: Bolani Road Sheet 2 of 2
	WATER LAYOUT
HHO-7254-103-1461	Existing And Proposed Water Layout: Bolani Road Sheet 1 of 2
HHO-7254-103-1462	Existing And Proposed Water Layout: Bolani Road Sheet 2 of 2
	ROAD SIGNS AND MARKINGS
HHO-7254-103-1801	Road Signs and Markings: Bolani Road Sheet 1 of 2
HHO-7254-103-1802	Road Signs and Markings: Bolani Road Sheet 2 of 2
HHO-7254-103-1803	Road Marking Detail
HHO-7254-103-1801	Road Signs and Markings: Bolani Road Sheet 1 of 2
HHO-7254-103-1802	Road Signs and Markings: Bolani Road Sheet 2 of 2
HHO-7254-103-1803	Road Marking Detail
	INTERSECTIONS DRAWINGS
HHO-7254-103-2301	Intersection Layout: Koma/Bolani Road Sheet 1 of 3
HHO-7254-103-2302	Intersection Layout: Bolani/Hospital Road Sheet 2 of 3
HHO-7254-103-2303	Intersection Layout: Bolani/Legogo Road Sheet 3 of 3
	STORMWATER LONG SECTIONS
HHO-7254-103-2011	Stormwater Long Section: Network 1: Sheet 1 of 2
HHO-7254-103-2012	Stormwater Long Section: Network 1: Sheet 2 of 2
	DUCT LAYOUT
HHO-7254-103-1643	Proposed Traffic Signal Duct Layout: Bolani Road Sheet 1 of 2
HHO-7254-103-1644	Proposed Traffic Signal Duct Layout: Bolani Road Sheet 1 of 2
	DETAILS
HHO-7254-103-2801	Protection Detail: Geogrid Sheet 1 of 1
HHO-7254-103-2701	Duct And Junction Box detail Sheet 1 of 1
HHO-7254-103-2201	Bolani Road: Concrete And reinforcing Details
HHO-7254-103-2501	Bolani Road Traders Shelter: General Arrangement Sheet 1 of 2
HHO-7254-103-2502	Bolani Road Traders Shelter: General Arrangement Sheet 2 of 2
HHO-7254-103-2503	Bolani Road Bus Shelter: General Arrangement Sheet 1 of 1
HHO-7254-103-2601	Stormwater Details Sheet 1 of 2
HHO-7254-103-2602	Stormwater Details Sheet 2 of 2
	TRAFFIC SIGNAL LAYOUT
HHO-7254-103-4401	Traffic Signal Layout: Koma/Bolani Road Sheet 1 of 2
HHO-7254-103-4402	Traffic Signal Layout: Bolani Road/Jabulani Mall/Hospital Sheet 2 of 2
	JRA STANDARD DETAILS
JRA-SD-SW-051	Stormwater Details
JRA-SD-SW-060	Stormwater Details
JRA-SD-SW-061	Stormwater Details
JRA-SD-SW-090	Bedding of Stormwater Pipes with Tables
JRA-SD-SW-100	Stormwater Details
JRA-SD-SW-101	Stormwater Details

ANNEXURES

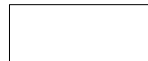
A-Geotechnical and Material Support

B- OHS Specification



ANNEXURE A

Geotechnical and Material Report



ANNEXURE B

OHS Specification

