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JOHANNESBURG DEVELOPMENT AGENCY (JDA)

UPGRADES AND REPAIRS TO THE ORLANDO SWIMMING POOL FACILITY

CONTRACT No.: JDA 19.13.3.B.719254

ISSUED BY:

Johannesburg Development Agency

**The Bus Factory
3 Helen Joseph (formerly President) Street
Newtown
2000**

Contact Name: Thembelihle Mogapi
Telephone No: 011 688 7868
Email Address: Tmogapi@jda.org.za



PREPARED BY:

Mbatha Walters & Simpson

**24 Stirrup Lane
Woodmead Office Park
Woodmead
2191**

Contact Name: Ndumiso Zuma
Telephone: 011 234 2696
Email Address: n.zuma@mwsqs.co.za



NAME OF TENDERER:

CIDB REGISTRATION NUMBER:

CSD SUPPLIER NUMBER:

COMPANY REGISTRATION NUMBER:

TAX VERIFICATION PIN

This tender closes at 12h00 on 03 June 2022 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

The Johannesburg Development Agency reserves the right to cancel/ not award this tender.

PROCUREMENT DOCUMENT FOR BUILDING CONSTRUCTION

JBCC Edition 6.2 (MAY 2018)

REPAIRS TO ORLANDO SWIMMING POOL FACILITY

CONTRACT No.: JDA 19.13.3.B.719254

**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.**

**ALL PAGES OF THE SUBMISSION INCLUDING ATTACHMENTS MUST BE INITIALED AND
NUMBERED.**

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 combatting 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
- E-Mail address:.....anticorruption@tip-offs.com
- Website:.....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

CONTRACT NO. : JDA 19.13.3.B.719254

REPAIRS TO ORLANDO SWIMMING POOL FACILITY

CONTENTS

Number	Heading
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THE TENDER

Part T1:	Tendering Procedures
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T1.1	Tender Notice and Invitation to Tender	(White)
T1.2	Tender Data	(Pink)

Part T2:	Returnable Documents
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T2.1	List of Returnable Schedules and Documents	(Yellow)
T2.2	Returnable Schedules and Documents	(Yellow)

THE CONTRACT

Part C1:	Agreement and Contract Data
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C1.1	Form of Offer and Acceptance	(Yellow)
C1.2	Contract Data	(Yellow)
C1.3	Construction Guarantee	(White)
C1.4	Occupational Health and Safety Agreement	(White)
C1.5	Agreement in terms of Section 37 (2) of the Occupational Health and Safety Act No 85 of 1993	(White)

Part C2:	Pricing Data
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C2.1	Pricing Instructions	(Yellow)
C2.2	Bills of Quantities	(Yellow)

Part C3:	Scope of Work
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C3	Scope of Work	(Blue)
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Part C4:	Site Information
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C4	Site Information	(Green)
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Part C5: Tender Drawings

C5	Drawings	(White)
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Part C6: SHE SPECIFICATIONS

C6	SHE Specifications	(White)
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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	Bills of Quantities completed in full and in pen	<input type="checkbox"/>	<input type="checkbox"/>
ii	Corrections crossed out and initialled	<input type="checkbox"/>	<input type="checkbox"/>
iii	Each page initialled	<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 OHSA and	<input type="checkbox"/>	<input type="checkbox"/>
xii	Construction Regulations	<input type="checkbox"/>	<input type="checkbox"/>
xiii	Business Declaration	<input type="checkbox"/>	<input type="checkbox"/>
xiv	A copy of a valid Tax Clearance Certificate Tax Pin Number.	<input type="checkbox"/>	<input type="checkbox"/>
xv	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 JBCC form (Refer C1.3)	<input type="checkbox"/>	<input type="checkbox"/>
xvii	Proof of CIDB Grading required. In the event of a JV a certificate indicating the combined CIDB grading is required.	<input type="checkbox"/>	<input type="checkbox"/>

JOHANNESBURG DEVELOPMENT AGENCY (JDA)

xviii	A valid original 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="text"/>	<input type="text"/>
xix	Schedule of Recently Completed Contracts	<input type="text"/>	<input type="text"/>
xx	Project Verification Form	<input type="text"/>	<input type="text"/>
xxi	Schedule of Current Contracts	<input type="text"/>	<input type="text"/>
xxii	Schedule of Construction Plant, Equipment and labour	<input type="text"/>	<input type="text"/>
xxiii	Schedule of Proposed Subcontractors	<input type="text"/>	<input type="text"/>
xxiv	Schedule of Proposed Key Personnel and detailed Curricula Vitae of all Key Personnel	<input type="text"/>	<input type="text"/>
xxv	Estimated Monthly Expenditure	<input type="text"/>	<input type="text"/>
xxvi	Methodology Statement	<input type="text"/>	<input type="text"/>
xxvii	Preliminary Construction Programme	<input type="text"/>	<input type="text"/>
xxviii	Labour, Plant and Equipment Histograms	<input type="text"/>	<input type="text"/>
xxix	Audited Financial Statements for past 3 years	<input type="text"/>	<input type="text"/>
xxx	Bank Rating	<input type="text"/>	<input type="text"/>
xxxi	SMME Plan	<input type="text"/>	<input type="text"/>
xxxii	Local Content	<input type="text"/>	<input type="text"/>

PART T1: TENDERING PROCEDURES

T1.1 TENDER NOTICE AND INVITATION TO TENDER

CONTRACT No.: JDA 19.13.3.B.719254

REPAIRS TO ORLANDO SWIMMING POOL FACILITY

The Johannesburg Development Agency invites tenders for the Upgrades and Repairs to the Orlando Swimming Pool Facility, in Orlando West, Soweto.

It is estimated that the tenderers should have a CIDB contractor designation grading of **5ME** or higher. Joint Ventures are eligible to submit tenders provided they satisfy the criteria stated in the tender data.

Documents can be downloaded from the following websites:

www.jda.org.za;

www.etenders.go.za

A compulsory site clarification meeting will take place on **Friday, 27 May 2022 at 10:00** at Orlando Swimming Pool on 65 Makhetha Street, Orlando West, Soweto, Johannesburg.

Queries relating to the issue of these documents or the project may be addressed to Mrs Thembelihle Mogapi on e-mail to: tmogapi@jda.org.za and any procurement related issues may be addressed to Mr Yandisa Dinga on e-mail to: ydinga@jda.org.za.

The closing time for receipt of tenders is 12h00 on 03 June 2022. 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"

PART T1 – TENDERING PROCEDURES

PART T1: TENDERING PROCEDURES**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, (May 2010) as published in Government Gazette No 33239, Board Notice 86 of 2010 of 28 May 2010. (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 P. O. BOX 61877 MARSHALLTOWN, 2107
F.1.2	The Tender	PART T1: TENDERING PROCEDURES T1.1 Tender Notice and Invitation to Tender T1.2 Tender Data PART T2: RETURNABLE DOCUMENTS T2.1 List of Returnable Documents T2.2 Returnable Schedules
	The Contract	PART C1: AGREEMENTS AND CONTRACT DATA C1.1 Form of Offer and Acceptance C1.2 Contract Data C1.3 Construction Guarantee C1.4 Occupational Health and Safety Agreement PART C2: PRICING DATA C2.1 Pricing Instructions C2.2 Bill of Quantities PART C3: SCOPE OF WORK PART C4: SITE INFORMATION

Clause Number	Clause Heading	Data / Wording
F.1.4	Project Manager	<p>Name: Triakon Consulting Engineer</p> <p>Address: Waterford Court, Block D20, 234 Glover Avenue, Die Hoewes, 0157.</p> <p>Tel: 012 941 9876</p> <p>Fax: 086 718 9902</p> <p>E-mail: thabo@trikon.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>In addition, 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	A compulsory site clarification meeting will take place on Friday, 27 May 2022 at 10:00 at Orlando Swimming Pool on 65 Makhetha Street, Orlando West, Soweto, Johannesburg.
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 St (formerly President St) NEWTOWN JOHANNESBURG</p> <p>Identification details: <i>Tender reference</i></p>

Clause Number	Clause Heading	Data / Wording
		JDA 19.13.3.B.719254 REPAIRS TO ORLANDO SWIMMING POOL FACILITY
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 submission of tender offers is: 12h00 on 03 June 2022.
F.2.16.1	Tender offer validity	The tender offer validity period is 120 days.
F.2.16.3		<p>Add the following:</p> <p>“Should a tenderer amend or withdraw his or her tender after the closing date and time, but prior to him or her being notified of the acceptance thereof, or should a tenderer after having been notified that his or her tender has been accepted –</p> <ol style="list-style-type: none"> 1. give notice of his or her inability to execute the Contract in accordance with his or her tender; or 2. fail to sign a contract within the period stipulated in the tender requirements or any extended period determined by the employer; or 3. fail to execute the Contract. <p>he or she shall pay all additional expenses which the employer has to incur in inviting new tenders and pay the difference between his or her tender and any less favourable tender accepted, as well as any consequential loss which may arise as a result of his/her non-fulfilment of his/her obligations: Provided that the employer may exempt a tenderer from the provisions of this sub-regulation if he is of the opinion that such non-performance is justifiable.</p> <p>When during the above-mentioned circumstances it is not deemed expedient to invite new tenders, the employer may entertain a recommendation for acceptance of a tender from those already received.”</p>
F.2.17	Clarification of tender after submission	<p>Add the following:</p> <p>“The tenderer is to provide clarification with regards to a request for clarification from the employer, within 48 hours of the employer making the request, failing which, the tender offer will be considered non-responsive.”</p>
F.2.18		The tenderer shall, when requested by the Employer to do so, submit the names of all management and supervisory staff that will be employed to supervise the labour-intensive portion of the works together with satisfactory evidence that such staff members satisfy the eligibility requirements.
F.2.20	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.

Clause Number	Clause Heading	Data / Wording																	
F.2.23	Certificates	<p>The tenderer is required to submit with his tender:</p> <p>a) A copy of a valid Tax Pin Number.</p> <p>b) An original and valid certified B-BBEE status level verification certificate or a certified copy thereof, substantiating the bidding entity's B-BBEE rating. Only certificates issued by verification agencies accredited by the South African Accreditation System (SANAS), or by registered auditors approved by the Independent Regulatory Board of Auditors (IRBA) will be accepted. The copy must bear an original stamp. Failure to submit as required will result in the bidder scoring zero (0) points for B-BBEE.</p> <p>c) Copies of legal registration documents of company /close corporations/partnership, including certified copies of Identity Documents.</p> <p>d) Joint Venture Agreement and Power of Attorney for Joint Ventures with the Targeted Enterprise.</p> <p>e) Workmen's Compensation Registration Certificate (or proof of payment of contributions in terms of the Compensation for Occupational Injuries and Diseases Act No. 130 of 1993)</p> <p>f) Documents and Schedules listed in Part T2.</p>																	
F.3.4	Opening of tender submissions	Tenders will be opened immediately after the closing time at 12h00 on 03 June 2022.																	
F.3.11.3	Evaluation of Tender Offers	<p>The procedure for the evaluation of responsive tenders is Method 2 (Price and Preferences).</p> <p>The table below indicates the technical evaluation criteria;</p> <table><tr><th>Variables</th><th>Criteria</th><th>Description of criteria</th><th></th></tr><tr><td rowspan="5">(A) Relevant Contactable reference (in client letter head) (PC Certificate will not be accepted)</td><td></td><td rowspan="5">Reference from previous clients of the projects, completed in the past five years</td><td>50</td></tr><tr><td rowspan="4">Maximum five letters, 10 points per letter. 1 letter=10 points 2 letters=20 points 3 letters=30 points 4 letters=40 points 5 letters=50 points</td><td>40</td></tr><tr><td>30</td></tr><tr><td>20</td></tr><tr><td>10</td></tr><tr><td>Variables</td><td>Criteria</td><td>Description of criteria</td><td>Points</td></tr></table>	Variables	Criteria	Description of criteria		(A) Relevant Contactable reference (in client letter head) (PC Certificate will not be accepted)		Reference from previous clients of the projects, completed in the past five years	50	Maximum five letters, 10 points per letter. 1 letter=10 points 2 letters=20 points 3 letters=30 points 4 letters=40 points 5 letters=50 points	40	30	20	10	Variables	Criteria	Description of criteria	Points
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Clause Number	Clause Heading	Data / Wording			
		(B) Experience of proposed key personnel. (Copies of qualifications are required for Contracts Manager, Site Agent, Site Engineer and OHS officer)	Site Agent: Site Agent with minimum 6 years of experience as a Site Agent on mechanical related projects with minimum qualification of a National Diploma in Engineering/Built Environment.	Experience required on mechanical projects of the proposed key person.	40
			Site Engineer: Site Engineer with minimum 3 years of experience as a Site Engineer on mechanical related projects with minimum qualification of a National Diploma in Engineering/Built Environment.		20
			OHS officer: 5 years' experience as construction health and safety officer. Registered with SACPCMP as Construction Health and Safety Agent or equivalent, or proof of application of registration.		20
			General Foreman: General Foreman with minimum 10 years of experience as a General Foreman in mechanical related projects.		20
		Maximum points=150			
		In order for a bidder to move to the next stage of evaluation, the Preference Point System, a minimum of 70% of the maximum points is required, ie; 105 points.			
		The Preference Point System assigns a score to each tenderer based on the tender price and on the tenderer's B-BBEE status. These scores are combined to determine an overall score for the tender. The tenderer with the highest score will be considered for acceptance.			
		The Preference Point System will be applied as follows. For tenders <u>below R50 million</u>			
		<ul style="list-style-type: none">80 points are assigned to priceUp to 20 points are assigned to B-BBEE status			
		The total points for Price and Preference in each case above must add up to 100 points.			
FORMULA FOR SCORING TENDER PRICE					
The following formula will be used to calculate the points for price. $P_s = X [1 - (P_t - P_{min})]$					

Clause Number	Clause Heading	Data / Wording																																
		<p style="text-align: center;">P_{min}</p> <p>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</p> <p>X = Points assigned to price</p> <p>POINTS AWARDED FOR B-BBEE STATUS LEVEL</p> <p>The points allocated to a tenderer will be in accordance with the Preferential Procurement Regulations, 2017 published in Government Gazette No. 40553 dated 20 January 2017.</p> <p>The following table is applicable.</p> <table border="1"> <thead> <tr> <th rowspan="2">B-BBEE Status Level Of Contributor</th><th>Number of Points</th><th>Number of Points</th></tr> <tr> <th>Tenders up to R50 million</th><th>Tenders above R50 million</th></tr> </thead> <tbody> <tr><td>1</td><td>20</td><td>10</td></tr> <tr><td>2</td><td>18</td><td>9</td></tr> <tr><td>3</td><td>14</td><td>6</td></tr> <tr><td>4</td><td>12</td><td>5</td></tr> <tr><td>5</td><td>8</td><td>4</td></tr> <tr><td>6</td><td>6</td><td>3</td></tr> <tr><td>7</td><td>4</td><td>2</td></tr> <tr><td>8</td><td>2</td><td>1</td></tr> <tr><td>Non-Compliant contributor</td><td>0</td><td>0</td></tr> </tbody> </table> <p>Notes :</p> <ol style="list-style-type: none"> 1. "B-BBEE status level of contributor" means the B-BBEE status received by a measured entity based on its overall performance using the relevant scorecard contained in the Codes of Good Practice on Black Economic Empowerment, issued in terms of section 9(1) of the Broad-Based Black Economic Empowerment Act (Act No.53 of 2003). 2. Tenderers must submit an original and valid BBBEE status level verification certificate or a certified copy thereof, substantiating the bidding entities BBBEE rating. Only certificates issued by verification agencies accredited by the South African Accreditation System (SANAS) or by registered auditors approved by the Independent Regulatory Board for Auditors (IRBA) will be acceptable. 3. An EME must submit a sworn affidavit confirming the following: <ul style="list-style-type: none"> · 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. 4. Bidders with annual total revenue of R5 million or less qualify as Exempted and must submit a certificate issued by a registered auditor, accounting officer or an accredited verification agency. 	B-BBEE Status Level Of Contributor	Number of Points	Number of Points	Tenders up to R50 million	Tenders above R50 million	1	20	10	2	18	9	3	14	6	4	12	5	5	8	4	6	6	3	7	4	2	8	2	1	Non-Compliant contributor	0	0
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		<p>5. The submission of such certificates must comply with the requirements of instructions and guidelines issued by the National Treasury and be in accordance with notices published by the Department of Trade and Industry in the Government Gazette.</p> <p>6. ANY SUBMISSION OF A SWORN AFFIDAVIT BY QSE WILL RESULT IN THE SCORE OF ZERO POINTS.</p> <p>7. 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.</p> <p>8. A person will not be awarded points for B-BBEE status level if it is indicated in the tender documents that such a tenderer intends sub-contracting more than 25% of the value of the contract to any other enterprise that does not qualify for at least the points that such a tenderer qualifies for.</p> <p>9. A person awarded a contract will not be permitted to sub-contract more than 25% of the value of the contract to any other enterprise that does not have an equal or higher B-BBEE status level than the person concerned.</p> <p>TOTAL PREFERENCE POINTS</p> <p>The total preference points for a tender are calculated with the formula</p> <p>$PP = P_s + P_{bee}$ where PP is the total number of preference points scored by the tenderer P_s is the points scored for the comparative price of the tenderer, and P_{bee} is the number of points awarded to the tenderer based on his certified B-BBEE status level</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 are:</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 R 120 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>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 any need for clarity.</p>

Clause Number	Clause Heading	Data / Wording
		<p>Unsuccessful bidders will have the opportunity to query the award or decision within 14 days from the day of notification.</p> <p>Bidders are to note that JDA does not bind itself to accept the lowest priced bid.</p>
	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 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 after written notice was given to that bidder; • 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.
F.3.13	Acceptance of Tender Offers	<p>Tender offers will only be accepted if:</p> <ol style="list-style-type: none"> a) The tenderer submits 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; b) The tenderer is registered with the Construction Industry Development Board in an appropriate contractor grading designation; c) The tenderer or any of its directors/shareholders is not listed on the Register of Tender Defaulters in terms of the Prevention and Combating of Corrupt Activities Act of 2004 as a person prohibited from doing business with the public sector; d) The tenderer has not: <ol style="list-style-type: none"> i) abused the Employer's Supply Chain Management System; or ii) failed to perform on any previous contract and has been given a written notice to this effect; e) The tenderer has completed the Declaration of Interest and there are no conflicts of interest which may impact on the tenderer's ability to perform the contract in the best interests of the employer or potentially compromise the tender process. f) The tenderer is registered and in good standing with the compensation fund or with a licensed compensation insurer; g) The employer is reasonably satisfied that the tenderer has in terms of the Construction Regulations, 2014, issued in terms of the Occupational Health and Safety Act, 1993, the necessary competencies and resources to carry out the work safely. h) The tendering entity or the directors/partners of the tendering entity are in good standing with the local authority / municipality.
F.3.18	Number of Paper Copies	<p>The number of paper copies of the signed contract to be provided by the employer is 1 (one).</p>

PART T2 – RETURNABLE DOCUMENTS

T2.1 LIST OF RETURNABLE DOCUMENTS**T2.1.1 Returnable Documents and Schedules required for tender evaluation purposes**

The tenderer must complete the following returnable schedules

- Form A1:** Authority to sign Tender
- Form A2:** Declaration of Interest
- Form A3:** Record of Addenda to Tender Documents
- Form A4:** Banking Details
- Form A5:** Proposed Amendments and Qualifications (if any)
- Form A6:** Certificate of Authority for Targeted Enterprise Partners/Subcontractors
- Form A7:** MBD9 Certificate of Independent Bid Determination
- Form A8:** Particulars of any contracts awarded by an organ of state during the last 5 years
- Form A9:** Fulfilment of the Construction Regulations
- Form A10:** Questionnaire on tenderer's procedures with respect to OHSA and Construction Regulations
- Form A11:** Business Declaration
- Form A12:** A copy of a valid Tax Pin Number
- Form A13:** 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 A14:** Letter of Intent from a Financial Institution to provide a Construction Guarantee in accordance with the JBCC pro-forma (refer C1.3)
- Form A15:** MBD5 Declaration for Procurement above R10 million (Vat Included)
- Form A16:** MBD8 Declaration of Bidders Past Supply Chain Management Practices
- Form A17:** Declaration of State of Municipal Accounts
- 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:** Schedule of Recently Completed Contracts
- Form B4:** Schedule of Current Contracts
- Form B5:** Schedule of Construction Plant, Equipment and Labour
- Form B6:** Schedule of Proposed Subcontractors
- Form B7:** Schedule of Proposed Key Personnel and detailed CV's of all key personnel
- Form B8:** Estimated Monthly Expenditure
- Form B9:** Methodology Statement
- Form B10:** Preliminary Construction Programme
- Form B11:** Labour, Plant and Equipment Histograms
- Form B12:** Audited Financial Statements for past three (3) years
- Form B13:** Bank Rating
- Form B14:** SMME Plan
- Form B15:** Bills of Quantities
- Form B16:** Local Content

T2.1.2 Other Documents that will be incorporated into the contract

- Form of Offer and Acceptance
- Contract Data
- Priced Bill 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

T2.2 RETURNABLE SCHEDULES AND DOCUMENTS

T2.2.1 Returnable Schedules and Documents

Form A1:	Authority to sign Tender
Form A2:	Declaration of Interest
Form A3:	Record of Addenda to Tender Documents
Form A4:	Banking Details
Form A5:	Proposed Amendments and Qualifications (if any)
Form A6:	Certificate of Authority for Targeted Enterprise Partners/Subcontractors
Form A7:	MBD9 Certificate of Independent Bid Determination
Form A8:	Particulars of any contracts awarded by an organ of state during the last 5 years
Form A9:	Fulfilment of the Construction Regulations
Form A10:	Questionnaire on tenderer's procedures with respect to OHSA and Construction Regulations
Form A11:	Business Declaration
Form A12:	A copy of a valid Tax Pin Number.
Form A13:	Certified 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 A14:	Letter of Intent from a Financial Institution to provide a Construction Guarantee in accordance with the JBCC pro-forma (refer C1.3)
Form A15:	MBD5 Declaration for Procurement above R10 million (Vat Included)
Form A16:	MBD8 Declaration of Bidders Past Supply Chain Management Practices
Form A17:	Declaration of State of Municipal Accounts
Form B1:	Proof of CIDB Grading
Form B2:	A valid originally 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:	Schedule of Recently Completed Contracts
Form B4:	Schedule of Current Contracts
Form B5:	Schedule of Construction Plant, Equipment and Labour
Form B6:	Schedule of Proposed Subcontractors
Form B7:	Schedule of Proposed Key Personnel and detailed CV's of all key personnel
Form B8:	Estimated Monthly Expenditure
Form B9:	Methodology Statement
Form B10:	Preliminary Construction Programme
Form B11:	Labour, Plant and Equipment Histograms
Form B12:	Audited Financial Statements for past three (3) years
Form B13:	Bank Rating
Form B14:	SMME Plan
Form B15:	Bills of Quantities
Form B16:	Local Content

FORM A1: Authority to Sign Tender

Notes to tenderer:

1. The signatory for the tenderer shall confirm his/her authority thereto by attaching on the tendering company's letterhead a duly signed and dated copy of the relevant resolution of the board of directors/partners.
2. In the event that the tenderer is a joint venture, a certificate is required from each member of the joint venture clearly setting out:
 - authority for signatory,
 - undertaking to formally enter into a joint venture contract should an award be made to the joint venture,
 - name of designated lead member of the intended joint venture, as required by tender condition F.2.13.4.

.....
SIGNATURE

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

.....
DATE

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

.....
Date

FORM A4: Banking Details

I/We hereby authorise the Employer to approach the following bank for the purposes of obtaining a financial reference:

DESCRIPTION OF BANK DETAIL	BANK DETAILS APPLICABLE TO TENDERER'S HEAD OFFICE
Name of Bank	
Branch Name	
Branch Code	
Street Address	
Postal Address	
Name of Manager	
Telephone Number	
Fax Number	
Account Number	

.....
SIGNATURE

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

.....
DATE

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

[illegible]

DATE _____

JOHANNESBURG DEVELOPMENT AGENCY (JDA)

FORM A6: Certificate of Authority for Targeted Enterprise Partners/Subcontractors

We, the undersigned, are submitting this tender offer jointly with the following Targeted Enterprise Partners/Subcontractors 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			Signature:
			Name:
CIDB registration no:			Designation:
Partner			Signature:
			Name:
CIDB registration no:			Designation:
Partner			Signature:
			Name:
CIDB registration no:			Designation:

.....
SIGNATURE

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

.....
DATE

JDA JBCC

JOHANNESBURG DEVELOPMENT AGENCY (JDA)

FORM A7: Certificate of Independent Bid Determination

I, the undersigned, in submitting the accompanying bid:

(JDA 19.13.3.B.719254 Repairs of Orlando Swimming Pool Facility)

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

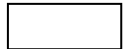
.....
Name of Bidder

JOHANNESBURG DEVELOPMENT AGENCY (JDA)

FORM A8: Particulars of all Contracts awarded by an Organ of State during the last 5 years

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

EMPLOYER	CONSULTING ENGINEER	NATURE OF WORK	VALUE OF WORK	YEAR OF COMPLETION



FORM A8 (Continued)

EMPLOYER	CONSULTING ENGINEER	NATURE OF WORK	VALUE OF WORK	YEAR OF COMPLETION

.....
SIGNATURE

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

.....
DATE

Organ of State means-

- a) a national or provincial department;
- b) a municipality;
- c) a constitutional institution defined in the Public Finance Management Act, 1999 (Act No. 1 of 1999);
- d) Parliament;
- e) a provincial legislature;
- f) any other institution or category of institutions included in the definition of "organ of state" in section 239 of the Constitution and recognised by the [Minister](#) by notice in the *Government Gazette* as an institution or category of institutions to which [this Act](#) applies;

FORM A9: Fulfilment of the Construction Regulations, 2014

In terms of regulation 4(3) 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) 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:

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

JOHANNESBURG DEVELOPMENT AGENCY (JDA)

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 A10: 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/No

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

.....
.....

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

.....
SIGNATURE

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

.....
DATE

FORM A11: Business Declaration

Tender/RFP Number :
Tender/RFP Description :
Name of Company :
Postal Address :
.....
Physical Address :
.....
Telephone :
Fax :
Contact Person :
Cell Phone Number :
E-Mail Address :
Company/enterprise Income
Tax Reference Number ** :
(Insert personal income tax number if a one-person business and personal income tax numbers of
all partners if a partnership)
VAT Registration Number :
Company Registration Number:

1. Type of Firm

- ☐ Partnership
☐ One-person business/sole trader
☐ Close corporation
☐ Public company
☐ Private company

(Tick One Box)

2. Principal Business Activities

.....
.....

3. Total number of years the firm has been in business:

4. Detail all trade associations/professional bodies in which you have membership.

.....
.....

5. Did the firm exist under a previous name?

☐ Yes

☐ No

(Tick one box)

If yes, what was its previous name.....

6. How many permanent staff members are employed by the firm?

Full Time:

Part Time:

7. What is the enterprise's latest annual turnover (excl. VAT): R.....

8. List the personnel or firms who provide the following services:

SERVICE	NAME	CONTACT PERSON	TELEPHONE
ACCOUNTING			
LEGAL			
AUDITING			
BANKING			
INSURANCE			

BANK DETAILS

I/We hereby request and authorize you to pay any amounts which may accrue to me/us to the credit of my/our account with the mentioned bank.

I/We understand that the credit transfers hereby authorized will be processed by computer through a system known as the *"ACB Electronic Fund Transfer Service"* and

I/We also understand that no additional advice of payment will be provided by my/our bank, but details of each payment will be printed on my/our bank statement or any accompanying voucher.

This authority may be cancelled by me/us giving 30 days' notice in writing.

BANK:

BRANCH:

BRANCH CODE:

ACCOUNT NUMBER:

ACCOUNT HOLDER:

TYPE OF ACCOUNT:

PLEASE INCLUDE ORIGINAL SIGNED AND STAMPED LETTER FROM THE BANK CONFIRMING THE COMPANY'S BANKING DETAILS, PHOTOSTAT COPIES AND LETTERS BEARING ELECTRONIC SIGNATURES WILL NOT BE ACCEPTABLE.

JDA JBCC

The undersigned, who warrants that he/she is duly authorised to do so on behalf of the company, affirms that the information furnished in response to this request for proposal is true and correct:

SIGNATURE :

NAME IN FULL :

CAPACITY :

DULY AUTHORIZED TO SIGN ON BEHALF OF:

DATE :

FORM A12: A copy of a valid Tax Pin Number.

The tenderer shall include as an attachment to their submission a copy of a valid Tax Pin Number 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

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

.....
DATE

FORM A13: Municipal Accounts

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 A14: 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 JBCC pro-forma (refer C1.3).

.....
SIGNATURE

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

.....
DATE

FORM A15: 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 A16: 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:		

Item	Question	Yes	No
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"/>
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 A17: 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:

Signature

Date

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: Schedule of Recently Completed Contracts

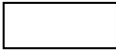
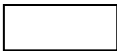
The Tenderer shall list below five Mechanical works contracts of a **similar nature** completed by the Tenderer in the past five years. Similar nature refers to mechanical projects, with a minimum value of R5m. This form is to be completed and submitted together with reference letters from the employer on their letterhead for each of the projects listed.

This information is material to the award of the Contract.
(In the event of insufficient space, attach supplementary documentation)

EMPLOYER (Name, Tel No and Fax No)	PRINCIPAL AGENT (Name, Tel No and Fax No)	NATURE OF WORK	VALUE OF WORK	YEAR OF COMPLETION

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

.....
Date



FORM B4: Schedule of Current Contracts

The Tenderer shall list below the contracts not yet completed. This information is material to the award of the Contract.

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

EMPLOYER (Name, Tel No and Fax No)	LOCATION	NATURE OF WORK	VALUE OF WORK	EXPECTED DATE OF COMPLETION

.....

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

.....

Date

JOHANNESBURG DEVELOPMENT AGENCY (JDA)

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 (type, size, capacity etc.)	QUANTITY	HOW ACQUIRED	
		HIRE/ BUY	SOURCE

Attach additional information in a supplementary document

.....
Signature

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

.....
Date

FORM B6: Schedule of Proposed Sub-Contractors

I/We hereby notify you that it is my/our intention to employ the following Sub-Contractors for work in this contract. Tenderers are to provide details of their subcontractors for the following trades: **All Trades**.

NAMES AND ADDRESSES OF PROPOSED SUBCONTRACTORS	NATURE AND EXTENT OF WORK TO BE SUBCONTRACTED	PREVIOUS EXPERIENCE WITH SUBCONTRACTOR OR RECENT WORK EXECUTED BY THE SUB-CONTRACTOR

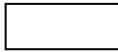
.....

Signature

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

.....

Date



JOHANNESBURG DEVELOPMENT AGENCY (JDA)

FORM B7: 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.

LOCATION	DESIGNATION	NAME AND NATIONALITY OF PROPOSED CANDIDATE	SUMMARY OF QUALIFICATIONS & EXPERIENCE
HEAD OFFICE	Contracts manager		
SITE OFFICE	Site Agent		
	Site Engineer		
	General Foreman		
	Health and Safety Officer		
	SMME Supervisor		

NOTE: Detailed Curriculum Vitae of proposed candidates are to be separately provided. Said CV's **MUST** indicate qualifications (proof of which is to be attached), number of years' experience, and the nature and value of projects completed including the role performed on said projects.

.....
Signature

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

.....
Date

JDA JBCC

FORM B8: Estimated Monthly Expenditure

The Tenderer shall state below the estimated value of work to be completed every month based on his preliminary programme of 5 months and his tendered unit rates.

*** The amounts for contingencies must not be included.**

MONTH	VALUE *
1	R.....
2	R
3	R
4	R
5	R
	COMPLETION OF CONTRACT
TOTAL	R

.....

SIGNATURE

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

DATE

FORM B9: 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.

.....
.....

SIGNATURE

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

DATE

FORM B10: Preliminary Construction Programme

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

.....
.....

SIGNATURE

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

DATE

FORM B11: Labour, Plant and Equipment Histograms

The tenderer shall include as an attachment to their submission the labour, plant and equipment histograms for the works.

.....
.....

SIGNATURE

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

DATE

FORM B12: Financial Statements

The tenderer shall include as an attachment to their submission the Audited Financial Statements for the past three years.

.....
.....

SIGNATURE

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

DATE

FORM B13: Bank Rating

The tenderer shall include as an attachment to their submission a letter from the bank at which he declares he conducts his account. The contents of the bank's letter must state the credit rating that it accords to the tenderer for the business envisaged by this tender.

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 B14: 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 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, and (iv) how will reporting to the client be done (content of reports, frequency etc.).

.....

SIGNATURE

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

DATE

FORM B15: Bills of Quantities (Refer C2.2)

The BoQ pages in white (see C2.2), must be completed in full, completed in pen, corrections are to be crossed out and initialled, and each page initialled.

FORM B16: Declaration Certificate for Local Production and Content for Designated Sectors (MBD 6.2)

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 in the Preferential Procurement Regulations, 2011 and 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), D (Imported Content Declaration: Supporting Schedule to Annex C) and E (Local Content Declaration: Supporting Schedule to Annex C)].

1. General Conditions

- 1.1. Preferential Procurement Regulations, 2011 (Regulation 9) makes provision for the promotion of local production and content.
- 1.2. Regulation 9.(1) prescribes that 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%
Plastic Pipes	_100%
Electrical Cables	_100%
Valves Products	_100%
Bulk Material Handling	_85%
Structural Steel	_100%
Pumps, Medium Voltage (MV) Motor and Associated Accessories	_70%

4. Does any portion of the services, works or goods offered have any imported content?

- (Tick applicable box)
- 4.1 If 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):

<u>Currency</u>	<u>Rates of exchange</u>
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, D and E) audited and certified as correct?
(Tick applicable box)

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)

YES		NO	
-----	--	----	--

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, D and E) is accessible on <http://www.thedti.gov.za/industrialdevelopment/ip.jsp>. Bidders should first complete Declaration D. After completing Declaration D, bidders should complete Declaration E and then consolidate the information on Declaration C. **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.** Declarations D and E should be kept by the bidders for verification purposes for a period of at least 5 years. The successful bidder is required to continuously update Declarations C, D and E with the actual values for the duration of the contract.

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 and the information contained in Declaration D and E which has been consolidated in Declaration C;

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 has been calculated using the formula given in clause 3 of SATS 1286:2011, the rates of exchange indicated in paragraph 4.1 above and the information contained in Declaration D and E.

(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 _____

PART C1 – AGREEMENT AND CONTRACT DATA

PART C1: AGREEMENT AND CONTRACT DATA

C1.1 FORM OF OFFER AND ACCEPTANCE

Offer

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

**UPGRADES AND REPAIRS TO THE ORLANDO SWIMMING POOL FACILITY
CONTRACT NO.: JDA 19.13.3.B.719254**

The tenderer, identified in the Offer signature block below, has examined the documents listed in the Tender Data and addenda thereto as listed in the Tender Schedules, and by submitting this Offer has accepted the Conditions of Tender.

By the representative of the Tenderer, deemed to be duly 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:

WITNESS:

Signature

Signature

Name

Name

Capacity

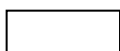
Capacity

Date

Date

Name and address of organisation:

JDA JBCC



Acceptance

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

The terms of the contract, are contained in:

Part C1	Agreements and Contract Data, (which includes this Agreement)
Part C2	Pricing Data
Part C3	Scope of Work
Part C4	Site Information

and drawings and documents (or parts thereof), which may be incorporated by reference into 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 two weeks 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:**WITNESS:**

Signature

Signature

Name

Name

Capacity

Capacity

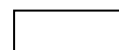
Date

Date

Name and address of organisation:

JOHANNESBURG DEVELOPMENT AGENCY (PTY) LTD
NO. 3 PRESIDENT STREET (HELEN JOSEPH STREET)
NEWTOWN
JOHANNESBURG

JDA JBCC



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

Details

.....

.....

.....

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**PART 1: Data Provided by the Employer**

The Conditions of Contract are the *JBCC Principal Building Agreement (May 2018, Edition 6.2)*, published by the Joint Building Contracts Committee. Copies of these documents may be obtained from the Association of South African Quantity Surveyors (011-3154140), the Master Builders Association (011-205-9000) the South African Association of Consulting Engineers (011-4632022) or the South African Institute of Architects (011-4860684).

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	<p>The Employer is : JOHANNESBURG DEVELOPMENT AGENCY</p> <p>Address (physical) : The Bus Factory, 3 Helen Joseph Street (formerly President Street) Newtown, Johannesburg</p> <p>Address (postal) : PO Box 61877, Marshalltown, 2107</p> <p>Telephone : 011 688 7800</p> <p>Facsimile: : 011 688 7863</p> <p>VAT registration number : 444019718</p>
1.2 [6.1]	<p>The Principal Agent is : Triakon Engineers (Pty) Ltd</p> <p>Address (postal) : Block D20, Waterford Court, 234 Glover Avenue Die Hoewes, 0157.</p> <p>Telephone : 012 947 9876</p> <p>Facsimile : e-mail : thabo@triakon.co.za</p>
1.3 [6.2]	<p>The Agent (1) is : Architect</p> <p>Name : Prosite Plan Africa (Pty) Ltd.</p> <p>Address (postal) : 348 Rivonia Blvd, Rivonia, Sandton, 2148.</p> <p>Telephone : 011 803 8161</p> <p>Facsimile : e-mail : tunde@prositeplan.com</p>
1.4 [6.2]	<p>The Agent (2) is : Quantity Surveyor</p> <p>Name : Mbatha Walters & Simpson (Pty) Ltd.</p> <p>Address (postal) : 24 Stirrup Lane, Woodmead Office Park, Woodmead, 2191</p> <p>Telephone : 011 234 2696</p> <p>Facsimile : e-mail : q.mbatha@mwsqs.co.za</p>

JOHANNESBURG DEVELOPMENT AGENCY (JDA)

Clause	Data
1.5 [6.2]	<p>The Agent (3) is : Civil & Structural Engineer</p> <p>Name : Infrachamps Consulting (Pty) Ltd</p> <p>Address (postal) : 43 Montrose Street, Birchwood Court – West Wing, Midrand, 2055.</p> <p>Telephone : 011 655 7299</p> <p>Facsimile : 086 224 8885</p> <p>e-mail : mondliid@infrachamps.co.za</p>
1.6 [6.2]	<p>The Agent (4) is : Electrical & Mechanical Engineers</p> <p>Name : Izazi Consulting Engineers (Pty) Ltd</p> <p>Address (postal) : 260 Surry Avenue, Ferndale, Randburg, 2194</p> <p>Telephone : 011 789 4715</p> <p>Facsimile :</p> <p>e-mail : stanley@izazi-jhb.co.za</p>
1.7 [6.2]	<p>The Agent (5) is : Community Participation Consultant</p> <p>Name : Mvelo Africa Development and Projects (Pty) Ltd</p> <p>Address (postal) : 4268 Halfbreak Street, Ext. 12 Allendale, Midrand, 1632</p> <p>Telephone : 076 250 5416</p> <p>Facsimile :</p> <p>e-mail : sibongile@mveloafricadev.com</p>
1.8 [6.2]	<p>The Agent (6) is : Occupational Health & Safety Consultants</p> <p>Name : Ubomi Safety Consulting (Pty) Ltd</p> <p>Address (postal) :</p> <p>Telephone : 084 211 1221</p> <p>Facsimile :</p> <p>e-mail : lokanath@ubomisafety.co.za</p>
1.10	<p>The Principal Agent named in 1.2 above is responsible for the preparation of the contract data schedule and must be contacted should the tenderer be uncertain of the information provided or to be provided. Failure to complete the contract data schedule in full may result in the tender being disqualified</p>
2.1 [1.7]	<p>The law applicable to this agreement:</p> <p style="text-align: right;">South Africa</p>
2.1 [1.1]	<p>The works comprise:</p> <p style="text-align: right;">The scope of works comprises of but not limited to the construction of a new earth berm and upgrades to the existing pool pumps, filtration system, etc. to the Orlando Swimming Pool Facility.</p>
2.3 [1.1]	<p>The site is situated in:</p> <p style="text-align: right;">ERF 12402 (65 Makhetha Street, Orlando West, Soweto, Johannesburg.)</p>
2.4 [12.1.5]	<p>Possession of the site:</p> <p style="text-align: right;">Approximately 90 days post tender closing</p>

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Clause	Data
2.5 [12.2.7]	The period for the commencement of the works after the contractor takes possession of the site is 5 working days, provided that all guarantees, insurances, construction permits, etc. are in place as no extension of time will be granted to the Contractor in failing to provide these documents timeously.
2.6 [20.1]	Completion of the works in sections is required: No
2.7 [25.14.2]	Waiver of the contractor's lien or right on continuing possession is required: Yes
2.8 [B 7.0]	Defined restrictions to the site area: The contractor is to adhere to strict working times of 7am – 5pm daily.
2.9 [B 16.0]	Geotechnical investigation of the site has been undertaken: Yes
2.10 [B 7.0]	Existing premises will be occupied: Yes
2.11 [B 16.0]	Provision of temporary services is required: YES (As described below)
	Service
	Water A
	Electricity A
	Telecom A
	Ablutions A
	Note: Option A = Contractor at his cost; Option B = Employer free of charge; Option C = Employer metered (contractor cost)
2.12 [B 16.0]	Protection of existing trees and shrubs is required: Yes - to be identified on site
3.1 [10.1.1]	Contract works insurance is to be effected by the: • Contractor • For an amount of Contract Sum + 20%
3.2 [10.1.2]	Supplementary insurance: is to be effected by the • Contractor • For an amount of Contract Sum + 20%
3.3 [10.1.3]	Public liability insurance is to be effected by the • Contractor • For the sum of R10 million

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Clause	Data
3.4 [11.1.1]	Support insurance: N/A
3.5 [11.1.2-3, 12.1]	Special insurance: N/A
4.0 [19.1.2 24.1-3]	For the works as a whole: The date for practical completion is 5 months after possession of the site The penalty per calendar day is R10 000.00
5.1 [5.6]	Construction documents copies to be supplied to the contractor free of charge: Three copies of the drawings
5.2 [5.4]	The priced document may be used as a specification of materials and goods and work methods: No
5.3 [3.10]	The contractor shall provide a schedule of rates: No (The completed Bills of Quantities must be supplied)
5.4 [3.11]	Changes made to JBCC standard document: Yes - refer to the additions, deletions and alterations to the JBCC Principal Building Agreement as listed under Clause 6.0 below.
5.5 [15.1.1]	On acceptance of the tender the priced document is to be submitted within: Not Applicable - Fully priced BOQ to be submitted with tender
5.6 [B 10.0]	Work to be undertaken by direct contractors : None anticipated at present but the Employer has the right to employ direct contractors at a later date.
5.7 [19.3.3]	On achievement of practical completion, the contractor is to hand over: All required manuals etc. related to the works which must include but not limited to: Electrical, Mechanical, Plumbing & Drainage, etc.

Clause	Data
5.8 [25.1]	The interim payment certificate: 25th of every month
[25.3.3]	The contract value shall not be adjusted according to CPAP and shall be a fixed priced contract
6.0	CHANGES MADE TO THE STANDARD JBCC DOCUMENT ARE:
	<p>The JBCC Principal Building Agreement makes several references to the Contract Data for specific data, which together with these conditions collectively describe the risks, liabilities and obligations of the contracting parties and the procedures for the administration of the Contract. The Contract Data shall have precedence in the interpretation of any ambiguity or inconsistency between it and the JBCC Principal Building Agreement.</p> <p>Each item of data given below is cross-referenced to the clause in the JBCC Principal Building Agreement to which it mainly applies.</p> <p>The additions, deletions and alterations to the JBCC Principal Agreement are:</p>
1.0	<p>DEFINITIONS AND INTERPRETATION</p> <p>Clause 1.1 is deemed to be amended by the addition and amendments of the following:</p> <p>Change the Definition of "AGREEMENT" to read as follows: AGREEMENT means the agreement arising from the signing of the Form of Offer and Acceptance by the parties.</p> <p>Change the Definition of "CONSTRUCTION PERIOD" to read as follows: The period commencing on the date of site hand over and ending on the date of practical completion.</p> <p>Change the Definition of "CONTRACT INFORMATION" to read as follows: The agreement and all documents referenced therein. The contract documents shall be taken to be mutually explanatory of one another but in the event of ambiguity, discrepancy, divergence or inconsistency in or between them, the JBCC Principal Building Agreement as amended in the contract data shall prevail over all other contract documents.</p> <p>Change the Definition of "CONTRACT SUM" to read as follows: The total of prices in the Form of Offer and Acceptance.</p> <p>EXCEPTIONALLY INCLEMENT WEATHER means weather which is not only extreme or severe but exceeding that which, on the evidence of the past ten years, could reasonably been expected.</p>
6.0	<p>EMPLOYER'S AGENTS</p> <p>Clause 6.5 is deleted and replaced with the following:</p>

Clause	Data
	6.5 “Should the principal agent or any agent be unable to act or cease to be an agent, the employer shall inform the contractor of the new principal agent or agent appointed.
7.0	<p>DESIGN RESPONSIBILITY</p> <p>Clause 7.0 is amended by the addition of the following clauses to the end thereof:</p> <p>7.4 Notwithstanding the provisions of clause 7.2, the contractor is to ensure that nominated, selected or domestic subcontractors shall simultaneously with the signing of the relevant nominated, selected or domestic sub-contract sign and deliver to the employer a design materials and workmanship warranty and undertaking in favour of the employer.</p> <p>7.5 Any subcontractor whose subcontract involves design work will be required to provide to the employer evidence of "professional indemnity" insurance for such design work.</p> <p>If the contractor fails to obtain the necessary design warranties and / or indemnities from the subcontractors, the design responsibility shall be deemed to devolve upon the contractor"</p>
9.0	<p>INDEMNITIES</p> <p>Clause 9.1 is amended by the addition of the following clause to the end thereof:</p> <p>9.1.4 The contractor indemnifies and holds harmless the employer against all liability, losses, claims, damages, penalties, actions, proceedings or judgments (collectively referred to as “Losses”) arising from any infringement of letters, patent design, trademark, name, copyright or other protected rights in respect of any machine, plant, work, materials, thing, system or method of using, fixing, working or arrangement used or fixed or supplied by the contractor, but such indemnity shall not cover any use of the equipment of part thereof otherwise than in accordance with the provisions of the specification. All payments and royalties payable in one sum or by instalments or otherwise shall be included by the contractor in the price and shall be paid by him to those to whom they may be payable. The contractor shall reimburse the employer for all legal and other costs and expenses, including without limitation attorney’s fees on attorney-client scale incurred by the employer in connection with investigation, defending or settling any Losses in connection with pending or threatening litigation in which the employer is a party.</p> <p>Clause 9.2.7 is deleted.</p>
10.0	<p>INSURANCES</p> <p>Delete Clause 10.2</p>

Clause	Data
11.0	<p>SECURITY</p> <p>Clause 11.1 is deleted and replaced with the following clause:</p> <p>11.1 The contractor shall provide the security as stated in the contract data. Such security shall be provided to the employer within twenty-one (21) calendar days of acceptance of the contractor's tender.</p> <p>Clause 11.1.1 is deleted</p> <p>Clause 11.1.2 is deleted and replaced with the following clauses:</p> <p>11.1.2 The employer has selected the security in terms of clause 11.0, which is a fixed construction guarantee and payment reduction. This guarantee is to be issued by the contractor:</p> <p>11.1.2.1 The contractor shall furnish the employer with a fixed construction guarantee equal in value to ten per cent (10%) of the contract sum within fourteen (14) calendar days from the offer of appointment date</p> <p>11.1.2.2 The fixed construction guarantee shall come into force, be administered and expire in terms of the construction guarantee form included under Part C1 Agreement and Contract Data, Clause C1.3 Construction Guarantee.</p> <p>11.1.2.3 The employer shall return the fixed construction guarantee to the contractor within fourteen (14) calendar days of its expiring.</p> <p>11.1.2.4 The payment reduction to the value certified in a payment certificate shall be made [25.12.1, 25.12.3].</p> <p>11.1.2.5 Where the employer has a right of recovery against the contractor [27.0], the employer may issue a written demand in terms of the fixed construction guarantee or may recover from the payment reduction or both.</p>
12.0	<p>OBLIGATION OF THE PARTIES</p> <p>Clause 12.2.18 is amended by the addition of the following clauses:</p> <p>12.2.18 ...including but not limited to fencing off the site</p> <p>12.2.18.1 The contractor shall provide air conditioned office accommodation for meetings suitable for 20 persons. The office accommodation is to be kept clean and fit for use at all times by the contractor.</p> <p>In addition the contractor shall provide air conditioned office accommodation for the resident engineer. The resident engineer's office will be fitted out with a desk, chair, filing cabinet, waste paper bin and internet connectivity. The resident engineer's office will be kept clean and fit for use at all times.</p>

Clause	Data
	<p>12.2.18.2 The contractor shall provide 1No main notice board of an approved design with the title of the project and the names of the employer, the principal agent, the agents and the contractor sign written thereon. The principal agent shall instruct the contractor where the boards are to be erected".</p>
13.0	<p>SETTING OUT</p> <p>Cause 13.0 is amended by the addition of the following clauses at the end thereof</p> <p>13.3 The contractor shall continuously perform tolerance control checks throughout the contract period and report on these at regular intervals to the principal agent in a format approved by the principal agent.</p> <p>Should the contractor fail to comply with this requirement to the satisfaction of the principal agent, progressively as the structure is constructed, the employer shall be entitled to commission a registered land surveyor to do so on the contractor's behalf and at the contractor's expense.</p> <p>13.4 The contractor shall provide general attendance and all reasonable assistance to the abovementioned or any other land surveyor who may be appointed by the employer.</p>
19.0	<p>PRACTICAL COMPLETION</p> <p>Clause 19.0 is amended by the addition of the following clauses to the end thereof:</p> <p>19.8 Without derogating from the generality of the requirements for practical completion the following specific requirements shall apply:</p> <p>19.8.1 Defects occurring after the issue of the practical completion list requiring remedial work that will in the opinion of the principal agent cause disruption will cause the issue of the certificate of practical completion to be withheld until such defects have been rectified to the satisfaction of the principal agent.</p> <p>19.8.2 The following certificates of compliance shall be required (excluding others that may be required by the local / national authority) from the contractor to achieve practical completion:</p> <ul style="list-style-type: none"> a) A certificate from the contractor that all aspects of the construction regulations of 2014 have been complied with. b) A certificate from the contractor that the National Building Regulations have been complied with c) A certificate of compliance with respect to plumbing and drainage d) An electrical certificate of compliance e) A mechanical certificate of compliance. f) A waterproofing certificate of compliance. g) Any other applicable guarantees.

Clause	Data
	<p>19.8.3 A complete set of maintenance and operating manuals together with all workmanship and material warranties and guarantees are to be compiled and issued to the principal agent prior to practical completion being granted. In addition to the abovementioned documentation a formal "on site" handover will be required to be conducted with every discipline in the presence of the contractor as well as the applicable services subcontractor.</p> <p>19.9 After the issue of the certificate of practical completion, entry upon the works to make good defects shall be at such reasonable times as shall be agreed by the principal agent.</p>
23.0	<p>REVISION OF DATE OF PRACTICAL COMPLETION</p> <p>Clause 23.1.1 shall be deleted and replaced with the following:</p> <p>23.1.1 Exceptionally inclement weather</p> <p>"Exceptionally inclement weather" shall be defined as weather conditions in excess of the monthly average recorded for the past 10 (ten) years by the nearest commonly recognised weather bureau in the region of the project.</p> <p>The contractor shall be deemed to have allowed in his programme for the works and opposite this item or in his rates, for the cost of all delays as a result of weather conditions which are average.</p> <p>A delay caused by exceptionally inclement weather conditions will be regarded as a delay only if, in the opinion of the principal agent, 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 30 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" working days.</p> <p>Clause 23.0 is amended by the addition of the following clauses to the end thereof:</p> <p>23.9 Revision to the date for practical completion shall only be considered when work on the critical path of the agreed programme for the works is delayed.</p>
25.0	<p>PAYMENT</p> <p>Clause 25.2 is deleted and replaced by the following:</p> <p>25.2 The principal agent shall issue an interim payment certificate every month until the issue of the final payment certificate. The contractor is to issue his payment requisition to the quantity surveyor by the 18th of each month in preparation for the quantity surveyor to issue a valuation to the principal agent by the 25th of each</p>

Clause	Data
	<p>month, failure to submit a claim will entitle the quantity surveyor to submit a reasonable value for the works done. The payment certificate shall be issued on the date stated and may be for a nil or negative amount.</p> <p>Clause 25.5 is amended by the deletion of the first sentence and replaced with the following:</p> <p>Materials and goods shall not, as a general rule, be included in the value certified. Should the principal agent agree, such materials and goods shall be included in the value certified only where, to the satisfaction of the principal agent, the contractor has issued a bank guarantee to the employer in a format to be approved by the principal agent.</p> <p>Clause 25.12 is amended as follows:</p> <p>Clause 25.12.2 is deleted and replaced with the following:</p> <p>25.12.2 Ninety-five per cent (97.5%) of such value in interim payment certificates issued on to the date of practical completion and up to but excluding the date of final completion</p> <p>Clause 25.10 is deleted and replaced with the following:</p> <p>25.10 The employer shall pay to the contractor the amount certified in an interim payment certificate within thirty (30) calendar days of the date of receipt of the contractor's tax invoice for the amount certified.</p> <p>Clause 25.15 is deleted and replaced with the following clause:</p> <p>25.15 The employer shall pay the contractor the amount certified in the final payment certificate within thirty (30) calendar days of the date of issue of the final payment certificate subject to the contractor giving the employer a tax invoice for the amount due.</p> <p>Clause 25.16 is deleted and replaced with the following clause:</p> <p>25.16 The contractor shall accept or object to the final account within forty-five (45) calendar days of receipt thereof. On acceptance, or should the contractor not object with reasons to the final account within such period, the principal agent shall issue the final payment certificate.</p>
29.0	<p>TERMINATION BY THE EMPLOYER</p> <p>Clause 29.1 is amended by the addition of the following clauses to the end thereof:</p> <p>29.1.4 The contractor's refusal or neglect to comply strictly with any of the conditions of contract.</p>

Clause	Data
	<p>29.1.5 The contractor's estate being sequestrated, liquidated or surrendered in terms of the insolvency laws in force with the Republic of South Africa.</p> <p>29.1.6 The contractor, in the judgment of the employer, has engaged in corrupt or fraudulent practices in competing for or in executing the contract.</p> <p>29.1.7 The contractor fails to perform in terms of the agreement or the employer on reasonable ground believe that the contractor may not be able to comply with his obligation.</p>
31.0	<p>NEW CLAUSE – SMALL CONTRATOR AND TARGETED ENTERPRISE DEVELOPMENT</p> <p>New Clause 31.0 is added, as follows:</p> <p>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 Small Contractor Development of section C3.3 Particular Specifications in Part C3: Scope of Works, is as follows:</p> <p>For SMME:</p> <ul style="list-style-type: none"> • If the Contractor fails to ensure and prove that 40% of the 30% SMME Target Spend is met at the time that 50% of the total contract period is reached, the Employer may, at the Employer's discretion, step in to facilitate the Target being met for which such costs will be recovered from the Contractor through the Recovery Statement • If the Contractor fails to ensure and prove that 60% of the 30% SMME Target Spend is met at the time that 75% of the total contract period is reached, the Employer shall, at the Employer's discretion, apply a Penalty of 50% of the shortfall (shortfall = 75% of 30% Target minus Actual Proven Amount Spent) on the 30% SMME Target Spend Value • If the Contractor fails to ensure and prove that 100% of the 30% SMME Target Spend is met at the time that 95% of the total contract period is reached, the Employer shall, at the Employer's discretion, apply a Penalty of 50% of the shortfall (shortfall = 75% of 30% Target minus Actual Proven Amount Spent) on the 30% SMME Target Spend Value • Notwithstanding anything to the contrary herein, the Contractor will not be relieved of the Contractor's obligation to pay all amounts due to an SMME(s), on a fortnightly and/or monthly basis, regardless of when the Contractor receives payments from the Employer. Should the Contractor fail to fulfil this obligation the Employer shall, at the Employer's discretion, apply a penalty of 10% of the amount(s) due to the SMME(s) on a monthly basis and pay a portion of such amounts (for which such portion shall be determined at the Employer's discretion) directly to the affected SMME(s) <p>Notwithstanding the Contractor's obligation to meet the respective Target Spends, the Contractor shall provide a status report on the progress of meeting this target in the requisite Progress Reports.</p>

Clause	Data
	Furthermore, 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.
32.0	<p>NEW CLAUSE – PROGRESS REPORTS AND PROGRAMME UPDATES</p> <p>New Clause 32.0 is added, as follows:</p> <p>The Contractor is to generate progress reports and programme updates in the format to be provided by the Employer failing which Penalties will be applied as follows:</p> <ul style="list-style-type: none"> • EPWP Targets & Reporting - The Contractor shall ensure that EPWP Targets and Reporting requirements are met at all times. Reporting shall be in the format to be provided by the Employer and at intervals prescribed by the Employer. The penalty for failure, on the part of the Contractor, to submit any EPWP Reports (including all requisite back-up documentation) on the 20th day of each month (or the previous working day should the 20th fall on a non-working day) until the issue of the Certificate of Practical Completion shall be subject to a penalty of R1000.00 per report per calendar day, until the report is submitted and shall not be reversible. The Contractor shall report on the progress of all aspects relating to the Contract as requested in the report format to be provided by the Employer. • Monthly Progress Reporting: The penalty for failure, on the part of the Contractor, to submit any monthly progress report on the 20th day of each month (or the previous working day should the 20th fall on a non-working day) until the issue of the Certificate of Practical Completion shall be subject to a penalty of R1000.00 per report per calendar day, until the report is submitted and shall not be reversible. The Contractor shall report on the progress of all aspects relating to the Contract as requested in the report format to be provided by the Employer. Progress reports shall further include a report on SMME's and Targeted Enterprise for the JDA that includes the following: <ul style="list-style-type: none"> ○ SMME resources on the site, i.e. supervisors, labour, plant tools and equipment ○ SMME progress of works on site ○ SMME Sub-contractor quality control on site ○ SMME expenditure on the Project versus target expenditure ○ Copies of minutes of the SMME Sub-contractor Contractor progress meetings ○ SMME training on the Project ○ Concerns and improvements to be made • Interim Progress Reporting: The penalty for failure, on the part of the Contractor, to submit any interim progress report on the 10th day of each month (or the previous working day should the 10th fall on a non-working day) until the issue of the Certificate of Practical Completion shall be subject to a penalty of R500.00 per report per calendar day, until the report is submitted and shall not be reversible.

Clause	Data
	<p>The Contractor shall report on the progress of all aspects relating to the Contract as requested in the report format to be provided by the Employer. Progress reports shall further include a report on SMME's for the JDA that includes the following:</p> <ul style="list-style-type: none"> ○ SMME resources on the site, i.e. supervisors, labour, plant tools and equipment ○ SMME progress of works on site ○ SMME quality control on site ○ SMME expenditure on the Project versus target expenditure ○ Copies of minutes of the SMME Sub-contractor and Contractor progress meetings ○ SMME training on the Project Concerns and improvements to be made
	<p>Refer to the Preliminaries Section in the Bill of Quantities for any additional amendments to the Standard JBCC Document.</p>

PART 2: Data Provided by the Contractor

The Contractor is advised to read the *JBCC Principal Building Agreement (May 2018, Edition 6.2)* and section 3.0 *Payment and adjustment of preliminaries* contained in the associated *Contract Data CE*, published by the Joint Building Contracts Committee, in order to understand the implications of this Data which is required to be completed. Copies of these documents may be obtained from the Association of South African Quantity Surveyors (011-3154140), the Master Builders Association (011-205-9000) the South African Association of Consulting Engineers (011-4632022) or the South African Institute of Architects (011-4860684)

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

Clause	Data with reference to the JBCC Principal Building Agreement (Edition 6.2, May 2018)	
1.0	<p>The Contractor is.</p> <p>Name :</p> <p>The address of the Contractor is:</p> <p>Address (physical) :</p> <p>.....</p> <p>Address (postal) :</p> <p>Telephone : Facsimile:</p> <p>E-mail :</p> <p>TAX / VAT Registration No :</p>	
2.1	The security provisions selected are:	
[11.1.1]	Variable construction guarantee	NO
[11.1.2]	Fixed Construction Guarantee and Payment Reduction	YES
3.2.4	<p>Contract Value shall be adjusted according to the CPAP: Not applicable</p> <p>This tender is for a fixed rate contract.</p>	
3.2.5 [C 3.0]	<p>Payment of preliminaries:</p> <p>Option A</p>	
3.2.6 [C 4.0]	<p>Adjustment of preliminaries:</p> <p>Option A</p>	

.....
Signature

JDA JBCC

.....
Date

C1.3 CONSTRUCTION GUARANTEE

GUARANTOR DETAILS AND DEFINITIONS

Guarantor means			
Physical address			
Guarantor's signatory 1		Capacity	
Guarantor's signatory 2		Capacity	
Employer means			
Contractor means			
Principal Agent means			
Works means			
Site means			
Agreement means	The JBCC Principal Building Agreement (Edition 6.2., May 2018)		
Contract Sum means	The accepted amount inclusive of tax of <input type="text"/>		
Amount in words			
Guaranteed Sum means	The maximum aggregate amount of <input type="text"/>		
Amount in words			
Construction Guarantee	(Insert Variable or Fixed) <input type="text"/>	(Insert expiry date)	<input type="text"/>

AGREEMENT DETAILS

Sections: Total sections (No or n/a) Last section (No / Identification or n/a)

Principal Agent issues: Interim payment certificates, Final payment certificate, Practical completion certificate/s and Final completion certificate/s

1. VARIABLE CONSTRUCTION GUARANTEE

1.1 Where a variable Construction Guarantee in terms of the Agreement has been selected this 1.0 with 3.0 to 13.0 shall apply. The Guarantor's liability shall be limited to the diminishing amounts of the Guaranteed Sum as follows:

GUARANTOR'S LIABILITY

1.1.1 Maximum Guaranteed Sum (not exceeding 10% of the contract sum) in the amount of:

Amount in words: _____

PERIOD OF LIABILITY

From and including the date of issue of this Construction Guarantee and up to and including the date of the interim payment certificate certifying in excess of 50% of the contract sum

1.1.2 Reducing to the Guaranteed Sum (not exceeding 5% of the contract sum) in the amount of:

Amounts in words: _____

From and including the day after the date of the aforesaid interim payment certificate and up to and including the date of the only practical completion certificate or last practical completion certificate where there are sections

1.1.3 Reducing to the Guaranteed Sum (not exceeding 4.0% of the contract sum) in the amount of:

Amounts in words: _____

From and including the day after the date of the applicable practical completion certificate and up to and including the date of the only final completion certificate or last final completion certificate where there are sections

1.1.4 Reducing to the Guaranteed Sum (not exceeding 2.0% of the contract sum) in the amount of:

Amounts in words: _____

From and including the day after the date of the applicable final completion certificate and up to and including the date of the final payment certificate where payment is due to the Contractor, whereupon this Construction Guarantee shall expire. Where the final payment certificate reflects payment due to the Employer, this Construction Guarantee shall expire upon payment of the full amount certified

1.2 For avoidance of doubt the Guarantor's liability limits set out in 1.1.1 to 1.1.4 shall apply in respect of any claim received by the Guarantor during the period in question

2. FIXED CONSTRUCTION GUARANTEE

2.1 Where a fixed Construction Guarantee in terms of the Agreement has been selected this 2.0 with 3.0 to 13.0 shall apply. The Guarantor's liability shall be limited to the amount of the Guaranteed Sum as follows:

GUARANTOR'S LIABILITY

Maximum Guaranteed Sum (not exceeding 5.0% of the contract sum) in the amount of:

PERIOD OF LIABILITY

From and including the date of issue of this Construction Guarantee and up to and including the date of the only practical completion certificate or the last practical completion certificate where there are sections, upon which this Construction Guarantee shall expire

Amounts in words: _____

3. The Guarantor hereby acknowledges that:

3.1 Any reference in this Guarantee to the Agreement 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 Guarantee is restricted to the payment of money

4. Subject to the Guarantor's maximum liability referred to in 1.0 or 2.0, the Guarantor hereby undertakes to pay the Employer the sum certified upon receipt of the 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 Principal Agent in an interim or final payment certificate has not been made in terms of the Agreement 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) calendar days has elapsed since the first written demand in terms of 4.1 and that the sum certified has still not been paid therefore the Employer calls up this Construction Guarantee and demands payment of the sum certified from the Guarantor

4.3 A copy of the said payment certificate which entitles the Employer to receive payment in terms of the Agreement of the sum certified in 4.0

5. Subject to the Guarantor's maximum liability referred to in 1.0 or 2.0, the Guarantor undertakes to pay 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 Construction Guarantee stating that:

5.1 The Agreement has been cancelled due to the Contractor's default and that the Construction Guarantee is called up in terms of 5.0. The demand shall enclose a copy of the notice of cancellation; or

5.2 A provisional sequestration or liquidation court order has been granted against the Contractor and that the Construction Guarantee is called up in terms of 5.0. The demand shall enclose a copy of the court order

6. It is recorded that the aggregate amount of payments required to be made by the Guarantor in terms of 4.0 and 5.0 shall not exceed the Guarantor's maximum liability in terms of 1.0 or 2.0

7. Where the Guarantor is a registered insurer and has made payment in terms of 5.0, 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 the Construction Guarantee have been expended and shall refund to the Guarantor any resulting surplus. All monies refunded to the Guarantor in terms of this Construction 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 4.0 or 5.0 shall be made within seven (7) calendar days upon receipt of the first written demand to the Guarantor

9. The Employer shall have the absolute right to arrange his affairs with the Contractor in any manner which the Employer deems fit and the Guarantor shall not have the right to claim his release from this Construction Guarantee on account of any conduct alleged to be prejudicial to the Guarantor

10. The Guarantor chooses the physical address as stated above for all purposes in connection herewith

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11. This Construction Guarantee is neither negotiable nor transferable and shall expire in terms of either 1.1.4 or 2.1, or payment in full of the Guaranteed Sum or on the Guarantee expiry date, whichever is the earlier, where after no claims will be considered by the Guarantor. The original of this Construction Guarantee shall be returned to the Guarantor after it has expired

12. This Construction Guarantee, with the required demand notices in terms of 4.0 or 5.0, shall be regarded as a liquid document for the purpose of obtaining a court order

13. Where this Construction 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 _____

Guarantor's
Signatory 2 _____

Witness _____

Witness _____

Guarantor's seal or stamp

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/her capacity as.....and.....

(hereinafter called "the Contractor") of the other part herein represented byin his/her capacity as

WHEREAS the Employer is desirous that certain works be constructed, being contract **UPGRADES AND REPAIRS TO ORLANDO SWIMMING POOL FACILITY – CONTRACT NO.: JDA 19.13.3.B.719254** 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/her capacity as: and: (hereinafter called the CONTRACTOR) of the other part, herein represented by..... in his/her 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 JDA 19.13.3.B.719254
for the

UPGRADES AND REPAIRS TO ORLANDO PARK SWIMMING POOL FACILITY

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 OHSA 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 AGENTS 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.

JOHANNESBURG DEVELOPMENT AGENCY (JDA)

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

1. The Bills of Quantities have been drawn up in accordance with the Standard System of Measuring Building Work (as amended) published and issued by the Association of South African Quantity Surveyors (Seventh Edition), 2015. Where applicable the:
 - a) civil engineering work has been drawn up in accordance with the provisions of the latest edition of SABS 1200 Standardised Specifications for Civil Engineering Works.
 - b) mechanical work has been drawn up in accordance with the provisions of the Model Bills of Quantities for Refrigeration, Air-Conditioning and Ventilation Installations, published by the South African Association of Quantity Surveyors, July 1990).
 - c) electrical work has been drawn up in accordance with the provisions of the Model Bills of Quantities for Electrical Work, published by the South African Association of Quantity Surveyors, (July, 2005).
2. The agreement is based on the JBCC Principal Building Agreement, prepared by the Joint Building Contracts Committee, Edition 6.2, May 2018. The additions, deletions and alterations to the JBCC Principal Building Agreement as well as the contract specific variables are stated in the Contract Data.
3. The JBCC General Preliminaries (May 2018) published by the Joint Building Contracts Committee, are forming part of the overall Preliminaries Bill of Quantities and the preliminaries specific variables are stated within the Preliminaries Bills of Quantities.
4. Descriptions in the Bills of Quantities are abbreviated and comply generally with those in the "General Preambles for Trades 2017" published by the Association of South African Quantity Surveyors.
5. Unless otherwise stated, items are measured net in accordance with the drawings and no allowance is made for waste.
6. The prices and rates to be inserted in the Bills of Quantities are to be the full inclusive for the work described under the several items. Such prices and rates shall cover all costs and expenses that may be required in and for the execution of the work described, and shall cover the cost of all general risks, liabilities and obligations set forth or implied in the documents on which the tender is based, as well as overhead charges and profit. Reasonable prices shall be inserted as these will be used as a basis for assessment of payment for additional work that may have to be carried out.
7. A price or rate is to be entered against each item in the Bills of Quantities, whether the quantities are stated or not. An item against which no price is entered will be considered to be covered by the other prices or rates in the Bills of Quantities.
8. Except where rates only are required, insert all amounts to be included in the total tendered price in the "amount" column and show the corresponding total tendered price.
9. It will be assumed that prices included in the Bills of Quantities are based on Acts, Ordinances, Regulations, By-laws, International Standards and National Standards that were published 28 days before the closing date for tenders. (Refer to www.stanza.org.za or www.iso.org for information on standards).

10. The drawings listed in the Scope of Works used for the setting up these Bills of Quantities are kept by the quantity surveyor and can be viewed at any time during office hours up until the completion of the works.
11. Reference to any particular trademark, name, patent, design, type, specific origin or producer is purely to establish a standard for requirements. Products or articles of an equivalent standard may be substituted, subject to the Principal Agent's approval.
12. Where any item is not relevant to this specific contract, such item is marked N/A (signifying "not applicable")
13. The Contract Data and the standard form of contract referenced therein must be studied for the full extent and meaning of each and every clause set out in Section 1 (Preliminary and General) of the Bills of Quantities
14. The Bills of Quantities is not intended for the ordering of materials or programming of the works. Any ordering of materials or programming of the works, based on the Bills of Quantities, is at the Contractor's risk.
15. The amount of the Preliminary Section to be included in each monthly payment certificate shall be assessed as an amount prorated to the value of the work duly executed in the same ratio as the preliminaries bears to the total of prices excluding any contingency sum, the amount for the Preliminary and General Section and any amount in respect of contract price adjustment provided for in the contract.
16. Where the initial contract period is extended, the monthly charge shall be calculated on the basis as set out in 15 but taking into account the revised period for completing the works.
17. The amount or items of the Preliminary Section shall be adjusted to take account of the theoretical financial effect which changes in time or value (or both) have on this section. Such adjustments shall be based on adjustments in the following categories as recorded in the Bills of Quantities:
 - a) an amount which is not to be varied, namely Fixed (F)
 - b) an amount which is to be varied in proportion to the contract value, namely Value Related (V); and
 - c) an amount which is to be varied in proportion to the contract period as compared to the initial construction period excluding revisions to the construction period for which no adjustment to the contractor is not entitled to in terms of the contract, namely Time Related (T).
18. Where no provision is made in the Bills of Quantities to indicate which of the three categories in 17 apply or where no selection is made, the adjustments shall be based on the following breakdown:
 - a) 10 percent is Fixed;
 - b) 15 percent is Value Related
 - c) 75 percent is Time Related.
19. The adjustment of the Preliminary Section shall apply notwithstanding the actual employment of resources in the execution of the works. The contract value used for the adjustment of the Preliminary Section shall exclude any contingency sum, the amount for the Preliminary Section and any amount in respect of contract price adjustment provided for in the contract. Adjustments in respect of any staged or sectional completion shall be prorated to the value of each section.
20. It is a condition of this tender that the successful contractor shall be required to sub contract a minimum value of work to local SMME's equal to 30% of the building works. In this regard it is envisaged that separate Preliminaries will be required by these respective SMME's to execute their works and the Contractor is duly advised to strictly price separately from the 'Main

Contractors' Preliminaries for Preliminaries to be paid to the respective SMME's in the execution of their works. Bidders are to also ensure that they use market related rates for SMME Pricing. Failure to do so will/may result in the tenderer being disqualified from the bidding process.

21. 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 difference 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.
22. For the purposes of this Bill of Quantities, the following words shall have the meanings hereby assigned to them:
23. the
- | | |
|----------|---|
| 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 each 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 |
24. The units of measurements 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 |
| m ² | = square metre |
| m ² -pass | = square metre-pass |
| ha | = hectare |
| m ³ | = cubic metre |
| m ³ -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 (Cost of material supplied excluding vat, profit and labour, but including transport and delivery costs) |
| Prov Sum | = Provisional Sum |
25. Occupational Health and Safety Act and Construction Regulations
- A payment item in the Bill of Quantities has been made to allow the tenderers to price for compliance with OHSA and the Construction Regulations. This payment item, must also include for the erection of Visitors Indemnity Signs and for ensuring that visitors receive instructions and sign an indemnity declaration.

26. **Building works section location names :**

Single Section

C2.2 BILL OF QUANTITIES

INDEX TO BILLS OF QUANTITIES

<u>Bill No</u>		<u>Page No</u>
1	PRELIMINARIES	
2	EXTERNAL WORKS	33
	Site Clearance, Etc.	33
	Berm Construction	33
3	PROVISIONAL SUMS	36
	Sub-contract Amounts	36
	Budgetary Allowances	36
	SUMMARY	37

BILL NO. 1
PRELIMINARIES

BASIS OF THE CONTRACT

The basis of the Contract shall be the 'Contract Documents' as defined in the JBCC Principal Building Agreement, incorporating the following:

- a) The drawings and Bills of Quantities
- b) The JBCC Edition 6.2 dated May 2018 of the Principal Building Agreement as prepared by the Joint Building Contracts Committee and recommended by the JBCC Constituents.
- c) The JBCC General Preliminaries dated May 2018 for use with the Principal Building Agreement as recommended and published by the Joint Building Contracts Committee shall be deemed to be incorporated in this project specific preliminaries, amended hereinafter described.
- d) The General Preambles for Trades 2017 as recommended and published by the Association of South African Quantity Surveyors shall be deemed to be incorporated in these bills of quantities and no claims arising from brevity of description of items fully described in the said Model Preambles will be entertained.
- e) Supplementary preambles and/or specifications are incorporated in these bills of quantities to satisfy the requirements of this project. Such supplementary preambles and/or specifications shall take precedence over the provisions of the Model Preambles

Tenderers are referred to the above-mentioned documents for the full intent and meaning of each clause thereof, for which such allowance shall be made as may be considered necessary.

Where standard clauses or alternatives are not entirely applicable to this Contract, such modifications, corrections or supplements as will apply are given under each relevant clause heading and such modifications, corrections or supplements, shall take precedence, notwithstanding anything to the contrary contained in the abovementioned documents.

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Where any item is not relevant to this specific Contract, such item is marked 'Not Applicable'.

No claim whatsoever shall be entertained in respect of errors or omissions in pricing due to brevity of descriptions of items, which are fully described when read in conjunction with the relevant clauses of the said principal building agreement, preliminaries and preambles.

Allowance is made opposite each of the clauses for whatever costs and charges necessary for the carrying out, complying with and due observance of the provisions, conditions and requirements set out herein. Only priced items will be considered in respect of any adjustment of this section. Any items left unpriced will be understood to be provided free of charge and no claim for any extras arising out of the omission to price any item will be entertained.

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Pricing of bills of quantities

The **contractor** is to allow opposite each item for all costs in connection therewith. All prices to include, unless otherwise stated, for all materials, fabrication, conveyance and delivery, unloading, storing, unpacking, hoisting, labour, setting, fitting and fixing in position, cutting and waste (except where to be measured in accordance with the standard system of measurement), patterns, models and templates, plant, temporary works, returning of packaging, duties, taxes (other than Value Added Tax), imposts, establishment charges, overheads, profit and all other obligations arising out of this **agreement**. Value Added Tax (VAT) is to be separately stated on the summary page of these **bills of quantities**

Items left unpriced will be deemed to be covered in prices against other items throughout these **bills of quantities** and no claim for any extras arising out of the **contractor's** omission to price any item will be entertained

Prices for all **construction equipment**, temporary works, services and other items shall include for the supply, maintenance, operating cost and subsequent removal and making good as necessary

Abbreviated descriptions

The items in these **bills of quantities** utilise abbreviated descriptions. It is the intention that the abbreviated descriptions be fully described when read with the applicable measuring system and the relevant preambles and/or specifications. However, should the full intent and meaning of any description not be clear, the **contractor** shall, before submission of his tender, call for a written directive from the **principal agent**, failing which it shall be assumed that the **contractor** has allowed in his pricing for materials and workmanship in terms of international best practice

Legal status of contractor

If the **contractor** constitutes a joint venture, consortium or other unincorporated grouping of two or more persons then:

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	<p>1. These persons are deemed to be jointly and severally liable to the employer for the performance of this agreement</p> <p>2. These persons shall notify the employer of their leader who has assigned authority to bind the contractor and each of these persons</p> <p>3. The contractor shall not alter its composition or legal status without the prior written consent of the employer</p> <p><u>SECTION A : JBCC PRINCIPAL BUILDING AGREEMENT</u></p> <p><u>Interpretation (A1 - A7)</u></p>		
A1	<p>Definitions and interpretation as clause 1.</p> <p>Clause 1.1 is deemed to be amended by the addition and amendments of the following:</p> <p>Change the Definition of "AGREEMENT" to read as follows: AGREEMENT means the agreement arising from the signing of the Form of Offer and Acceptance by the parties.</p> <p>Change the Definition of "CONSTRUCTION PERIOD" to read as follows: The period commencing on the date of site hand over and ending on the date of practical completion.</p> <p>Change the Definition of "CONTRACT SUM" to read as follows: The total of prices in the Form of Offer and Acceptance.</p> <p>EXCEPTIONALLY INCLEMENT WEATHER means weather which is not only extreme or severe but exceeding that which, on the evidence of the past ten years, could reasonably been expected</p> <p>F:..... V:..... T:.....</p>	Item	
A2	<p>Law, regulations and notices as clause 2.</p>		
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	Bill No. 1 Preliminaries		
	4		

	F:..... V:..... T:.....	<u>Item</u>		
A3	Offer and acceptance as clause 3.			
	F:..... V:..... T:.....	<u>Item</u>		
A4	Cession and assignment as clause 4.			
	F:..... V:..... T:.....	<u>Item</u>		
A5	Documents as clause 5.			
	Value Added Tax			
	Provision is made in the summary page of these bills of quantities for the inclusion of Value Added Tax (VAT)			
	F:..... V:..... T:.....	<u>Item</u>		
A6	Employer's agents as clause 6.			
	Clause 6.5 is deleted and replaced with the following:			
	6.5 Should the principal agent or any agent be unable to act or cease to be an agent, the employer shall inform the contractor of the new principal agent or agent appointed.			
	F:..... V:..... T:.....	<u>Item</u>		
A7	Design responsibility as clause 7.			
	Clause 7.0 is amended by the addition of the following clauses to the end thereof:			
	7.4 Notwithstanding the provisions of clause 7.2, the contractor is to ensure that nominated, selected or domestic subcontractors shall simultaneously with the signing of the relevant nominated, selected or domestic sub-contract sign and			
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	<p>deliver to the employer a design materials and workmanship warranty and undertaking in favour of the employer.</p> <p>7.5 Any subcontractor whose subcontract involves design work will be required to provide to the employer evidence of "professional indemnity" insurance for such design work.</p> <p>If the contractor fails to obtain the necessary design warranties and / or indemnities from the subcontractors, the design responsibility shall be deemed to devolve upon the contractor"</p> <p>F:..... V:..... T:.....</p>		
		<u>Item</u>	
	<u>Insurances and securities (A8 - A11)</u>		
A8	<p>Works risk as clause 8.</p> <p>F:..... V:..... T:.....</p>	<u>Item</u>	
A9	<p>Indemnities as clause 9.</p> <p>Clause 9.1 is amended by the addition of the following clause to the end thereof:</p> <p>9.1.4 The contractor indemnifies and holds harmless the employer against all liability, losses, claims, damages, penalties, actions, proceedings or judgments (collectively referred to as "Losses") arising from any infringement of letters, patent design, trademark, name, copyright or other protected rights in respect of any machine, plant, work, materials, thing, system or method of using, fixing, working or arrangement used or fixed or supplied by the contractor, but such indemnity shall not cover any use of the equipment of part thereof otherwise than in accordance with the provisions of the specification. All payments and royalties payable in one sum or by instalments or otherwise shall be included by the contractor in the price and shall be paid by him to those to whom they may be payable. The contractor shall reimburse the employer for all legal and other costs and expenses, including without limitation attorney's fees</p>		
	Carried to Collection	R	
Bill No. 1			
Preliminaries	6		

	<p>on attorney-client scale incurred by the employer in connection with investigation, defending or settling any Losses in connection with pending or threatening litigation in which the employer is a party.</p> <p>Clause 9.2.7 is deleted</p> <p>F:..... V:..... T:.....</p>		
A10	<p>Insurances as clause 10.</p> <p>Clause 10.2 is deleted</p> <p>F:..... V:..... T:.....</p>	Item	
A11	<p>Securities as clause 11.</p> <p>Clause 11.1 is deleted and replaced with the following clause:</p> <p>11.1 The contractor shall provide the security as stated in the contract data. Such security shall be provided to the employer within twenty-one (21) calendar days of acceptance of the contractor's tender.</p> <p>Clause 11.1.2 is deleted and replaced with the following clauses:</p> <p>11.1.2 The employer has selected the security in terms of clause 11.0, which is a fixed guarantee for construction and payment reduction. This guarantee is to be issued by the contractor:</p> <p>11.1.2.1 The contractor shall furnish the employer with a fixed guarantee for construction equal in value to ten per cent (10%) of the contract sum within fourteen (14) calendar days from the offer of appointment date.</p> <p>11.1.2.2 The fixed guarantee for construction shall come into force, be administered and expire in terms of the guarantee for construction form included under Part C1 Agreement and Contract Data, Clause C1.3 Guarantee for Construction.</p>	Item	
	Carried to Collection	R	
Bill No. 1 Preliminaries	7		

11.1.2.3 The **employer** shall return the fixed guarantee for construction to the **contractor** within fourteen (14) **calendar days** of its expiring.

11.1.2.4 The payment reduction to the value certified in a **payment certificate** shall be made [25.12.1, 25.12.3].

11.1.2.5 Where the **employer** has a right of recovery against the **contractor** [27.0], the **employer** may issue a written demand in terms of the fixed guarantee for construction or may recover from the payment reduction or both.

F:..... V:..... T:.....

Item

Execution (A12 – A17)

A12

Obligations of the **parties** as clause 12.

Clause 12.0 is amended by the addition of the following clauses:

12.2.18 "...including but not limited to fencing off the site."

12.2.18(a)The **contractor** shall provide air conditioned office accommodation for meetings suitable for 20 persons. The office accommodation is to be kept clean and fit for use at all times by the **contractor**.

In addition the **contractor** shall provide air conditioned office accommodation for the resident engineer. The resident engineer's office will be fitted out with a desk, chair, filing cabinet, waste paper bin and internet connectivity. The resident engineer's office will be kept clean and fit for use at all times.

12.2.18(b) The **contractor** shall provide 1No main notice board of an approved design with the title of the project and the names of the **employer**, the **principal agent**, the **agents** and the **contractor** sign written thereon. The **principal agent** shall instruct the **contractor** where the boards are to be erected".

Carried to Collection

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	F:..... V:..... T:.....	<u>Item</u>		
A13	<p>Setting out as clause 13.</p> <p>Cause 13.0 is amended by the addition of the following clauses at the end thereof</p> <p>13.3 The contractor shall continuously perform tolerance control checks throughout the contract period and report on these at regular intervals to the principal agent in a format approved by the principal agent.</p> <p>Should the contractor fail to comply with this requirement to the satisfaction of the principal agent, progressively as the structure is constructed, the employer shall be entitled to commission a registered land surveyor to do so on the contractor's behalf and at the contractor's expense.</p> <p>13.4 The contractor shall provide general attendance and all reasonable assistance to the abovementioned or any other land surveyor who may be appointed by the employer.</p>			
	F:..... V:..... T:.....	<u>Item</u>		
A14	Nominated subcontractors as clause 14.			
	F:..... V:..... T:.....	<u>Item</u>		
A15	Selected subcontractors as clause 15.			
	F:..... V:..... T:.....	<u>Item</u>		
A16	<p>Direct contractors as clause 16.</p> <p>Attendance on direct contractors</p> <p>In respect of direct contractors the contractor shall:</p>			
	Carried to Collection	R		
Bill No. 1 Preliminaries	9			

	<p>1. Designate an area for the direct contractor to establish a temporary office and workshop and storage of equipment and materials</p> <p>2. Allow the use of personnel welfare facilities, where provided</p> <p>3. Provide water, lighting and single phase electric power to a position within 50m of the place where the direct contract work is to be carried out, other than fuel or power for commissioning of any installation</p> <p>4. Permit the direct contractor to use erected scaffolding, hoisting facilities, etc provided by the contractor, in common with others having the like right, while it remains erected on the site [16.1]</p> <p>F:..... V:..... T:.....</p> <p><u>Item</u></p> <p>A17 Contract instructions as clause 17.</p> <p>Clause 17.0 is deemed to be amended by the addition of the following clause:</p> <p>17.1.21 Acceleration (irrespective of whether or not the principal agent rules that the contractor is entitled to a revision of the date of practical completion), but provided that a contract instruction to accelerate may not, unless otherwise agreed by the contractor, be issued at a time when it would not be reasonable for an experienced contractor to achieve the required acceleration given the available remaining period.</p> <p>17.6 Instructions issued on site are to be recorded in a site instruction book which is to be supplied and maintained on site by the contractor.</p> <p>17.7 Upon receipt of construction information, the contractor shall, before proceeding to execute the works, notify the principal agent where (i) any documents are missing or incomplete or insufficient, (ii) the construction information contains any errors which a reasonable contractor would have discovered in reading or analysing the document concerned.</p> <p>Carried to Collection</p> <p>Bill No. 1 Preliminaries</p> <p>10</p>	<p>R</p>
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	<p>17.8 Where the contractor has not notified the principal agent of any errors, discrepancies or deficiencies in construction information, the contractor shall not be entitled to any adjustment to the contract value or revision of the date for practical completion.</p> <p>17.9 If the contractor fails to obtain the necessary warranties and/or indemnities from the subcontractors, the design responsibility shall be deemed to devolve upon the contractor.</p> <p>F:..... V:..... T:.....</p> <p style="text-align: right;"><u>Item</u></p> <p><u>Completion (A18 – A24)</u></p>		
A18	<p>Interim completion as clause 18.</p> <p>F:..... V:..... T:.....</p> <p style="text-align: right;"><u>Item</u></p>		
A19	<p>Practical completion as clause 19.</p> <p>Clause 19.0 is amended by the addition of the following clauses to the end thereof:</p> <p>19.8 Without derogating from the generality of the requirements for practical completion the following specific requirements shall apply:</p> <p>19.8.1 Defects occurring after the issue of the practical completion list requiring remedial work that will in the opinion of the principal agent cause disruption will cause the issue of the certificate of practical completion to be withheld until such defects have been rectified to the satisfaction of the principal agent.</p> <p>19.8.2 The following certificates of compliance shall be required (excluding others that may be required by the local / national authority) from the contractor to achieve practical completion:</p> <p>a) A certificate from the contractor that all aspects of the construction regulations of 2014 have been complied with.</p>		
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	<p>b) A certificate from the contractor that the National Building Regulations have been complied with.</p> <p>c) A certificate of compliance with respect to plumbing and drainage.</p> <p>d) An electrical certificate of compliance</p> <p>e) A mechanical certificate of compliance.</p> <p>e) Any other applicable guarantees.</p> <p>19.8.3 A complete set of maintenance and operating manuals together with all workmanship and material warranties and guarantees are to be compiled and issued to the principal agent prior to practical completion being granted. In addition to the abovementioned documentation a formal "on site" handover will be required to be conducted with every discipline in the presence of the contractor as well as the applicable services subcontractor.</p> <p>19.9 After the issue of the certificate of practical completion, entry upon the works to make good defects shall be at such reasonable times as shall be agreed by the principal agent.</p> <p>F:..... V:..... T:.....</p>		
		<u>Item</u>	
A20	Completion in sections as clause 20.		
	F:..... V:..... T:.....		
		<u>Item</u>	
A21	Defects liability period and final completion as clause 21.		
	F:..... V:..... T:.....		
		<u>Item</u>	
A22	Latent defects liability period as clause 22.		
	F:..... V:..... T:.....		
		<u>Item</u>	
A23	Revision of the date for practical completion as clause 23.		
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Clause 23.1.1 is deemed to be amended by the addition of the following sub-clauses:

23.1.1 Exceptionally inclement weather

Exceptionally inclement weather" shall be defined as weather conditions in excess of the monthly average recorded for the past 10 (ten) years by the nearest commonly recognised weather bureau in the region of the project.

The **contractor** shall be deemed to have allowed in his **programme** for the works and opposite this item or in his rates, for the cost of all delays as a result of weather conditions which are average.

A delay caused by exceptionally inclement weather conditions will be regarded as a delay only if, in the opinion of the **principal agent**, 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 30 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.

Clause 23.0 is amended by the addition of the following clauses to the end thereof:

23.9 Revision to the date for **practical completion** shall only be considered when work on the critical path of the agreed **programme** for the **works** is delayed.

F:..... V:..... T:.....

Item

A24

Penalty for late or non-completion as clause 24.

F:..... V:..... T:.....

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A25

Payment (A25 – A27)

Payment as clause 25.

Prices submitted

Where prices are submitted by the **contractor** or **subcontractor** during the progress of the **works** in respect of **contract instructions** or in regard to a claim under the terms of this **agreement** and notwithstanding the fact that such prices may be used in an interim **payment certificate**, there is to be no presumption of acceptance. Should the **principal agent** wish to accept any such prices prior to the issue of the **certificate of final completion**, it shall be in writing

Clause 25.2 is deleted and replaced by the following.

25.2 The **principal agent** shall issue an interim **payment certificate** every month until the issue of the final **payment certificate**. The **contractor** is to issue his payment requisition to the quantity surveyor by the 18th of each month in preparation for the quantity surveyor to issue a valuation to the **principal agent** by the 25rd of each month, failure to submit a claim will entitle the quantity surveyor to submit a reasonable value for the **works** done. The **payment certificate** shall be issued on the date stated and may be for a nil or negative amount.

Clause 25.5 is amended by the deletion of the first sentence and replaced with the following:

Materials and goods shall not, as a general rule, be included in the value certified. Should the **principal agent** agree, such materials and goods shall be included in the value certified only where, to the satisfaction of the **principal agent**, the **contractor** has issued a bank guarantee to the **employer** in a format to be approved by the **principal agent**.

Clause 25.12.2 is deleted and replaced with the following:

25.12.2 Ninety-five per cent (97.5%) of such value in interim payment certificates issued on to the date of **practical completion** and up to but excluding the date of **final completion**.

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	<p>F:..... V:..... T:.....</p> <p>Clause 25.10 is deleted and replaced with the following:</p> <p>25.10 The employer shall pay to the contractor the amount certified in an interim payment certificate within thirty (30) calendar days of the date of receipt of the contractor's tax invoice for the amount certified.</p> <p>Clause 25.15 is deleted and replaced with the following clause:</p> <p>25.15 The employer shall pay the contractor the amount certified in the final payment certificate within thirty (30) calendar days of the date of issue of the final payment certificate subject to the contractor giving the employer a tax invoice for the amount due.</p> <p>Clause 25.16 is deleted and replaced with the following clause:</p> <p>25.1.1 The contractor shall accept or object to the final account within forty-five (45) calendar days of receipt thereof. On acceptance, or should the contractor not object with reasons to the final account within such period, the principal agent shall issue the final payment certificate.</p> <p>Adjustment of the contract value and final account as clause 26.</p> <p>Fluctuations in costs</p> <p>All fluctuations in costs, with the exception of fluctuations in the rate of Value Added Tax, shall be for the account of the contractor [26.9.5]</p> <p>Cost of claims</p> <p>All costs incurred by the contractor in the preparation of claims shall be borne by the contractor. This provision shall not preclude an adjudicator or an arbitrator appointed in</p>	<p>Item</p>
A26	<p>Carried to Collection</p>	<p>R</p>
<p>Bill No. 1 Preliminaries</p>	<p>15</p>	

	<p>terms of this agreement [30.6 & 7] from making a determination on costs</p> <p>Claims from subcontractors</p> <p>The contractor shall review, assess and adjudicate any claims received by him from any subcontractor and thereafter submit same to the principal agent with a recommendation in order to assist the principal agent in adjudicating the claim [26.6]</p> <p>F:..... V:..... T:.....</p>		
A27	<p>Recovery of expense and/or loss as clause 27.</p> <p>F:..... V:..... T:.....</p>	<p><u>Item</u></p> <p><u>Item</u></p>	
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	<p><u>Suspension and termination (A28 – A29)</u></p> <p>A28 Suspension by the contractor as clause 28.</p> <p>F:..... V:..... T:.....</p> <p style="text-align: right;"><u>Item</u></p> <p>A29 Termination as clause 29.</p> <p>Clause 29.1 is amended by the addition of the following clauses to the end thereof:</p> <p>29.1.4 The contractor's refusal or neglect to comply strictly with any of the conditions of contract.</p> <p>29.1.5 The contractor's estate being sequestrated, liquidated, or surrendered in terms of the insolvency laws in force with the Republic of South Africa.</p> <p>29.1.6 The contractor, in the judgment of the employer, has engaged in corrupt or fraudulent practices in competing for or in executing the contract.</p> <p>29.1.7 The contractor fails to perform in terms of the agreement or the employer on reasonable ground believe that the contractor may not be able to comply with his obligation.</p> <p>F:..... V:..... T:.....</p> <p style="text-align: right;"><u>Item</u></p> <p><u>Dispute Resolution (A30)</u></p> <p>A30 Dispute resolution as clause 30.</p> <p>F:..... V:..... T:.....</p> <p style="text-align: right;"><u>Item</u></p> <p><u>New Clause – Small Contractor and Targeted Enterprise Development</u></p> <p>A31 New Clause 31.0 is added, as follows:</p> <p>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</p>	
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terms of Small Contractor Development of section C3.3 Particular Specifications in Part C3: Scope of Works, is as follows:

For SMME:

- If the Contractor fails to ensure and prove that 40% of the 30% SMME Target Spend is met at the time that 50% of the total contract period is reached, the Employer may, at the Employer's discretion, step in to facilitate the Target being met for which such costs will be recovered from the Contractor through the Recovery Statement
- If the Contractor fails to ensure and prove that 60% of the 30% SMME Target Spend is met at the time that 75% of the total contract period is reached, the Employer shall, at the Employer's discretion, apply a Penalty of 50% of the shortfall (shortfall = 75% of 30% Target minus Actual Proven Amount Spent) on the 30% SMME Target Spend Value
- If the Contractor fails to ensure and prove that 100% of the 30% SMME Target Spend is met at the time that 95% of the total contract period is reached, the Employer shall, at the Employer's discretion, apply a Penalty of 50% of the shortfall (shortfall = 75% of 30% Target minus Actual Proven Amount Spent) on the 30% SMME Target Spend Value
- Notwithstanding anything to the contrary herein, the Contractor will not be relieved of the Contractor's obligation to pay all amounts due to an SMME(s), on a fortnightly and/or monthly basis, regardless of when the Contractor receives payments from the Employer. Should the Contractor fail to fulfil this obligation the Employer shall, at the Employer's discretion, apply a penalty of 10% of the amount(s) due to the SMME(s) on a monthly basis and pay a portion of such amounts (for which such portion shall be determined at the Employer's discretion) directly to the affected SMME(s)

Notwithstanding the Contractor's obligation to meet the respective Target Spends, the Contractor shall provide a status report on the progress of meeting this target in the requisite Progress Reports.

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Furthermore, 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

F:..... V:..... T:.....

Item

NEW CLAUSE – Progress Reports and Programme Updates

A32

New Clause 32.0 is added, as follows:

The Contractor is to generate progress reports and programme updates in the format to be provided by the Employer failing which Penalties will be applied as follows:

- EPWP Targets & Reporting - The Contractor shall ensure that EPWP Targets and Reporting requirements are met at all times. Reporting shall be in the format to be provided by the Employer and at intervals prescribed by the Employer. The penalty for failure, on the part of the Contractor, to submit any EPWP Reports (including all requisite back-up documentation) on the 20th day of each month (or the previous working day should the 20th fall on a non-working day) until the issue of the Certificate of Practical Completion shall be subject to a penalty of R1000.00 per report per calendar day, until the report is submitted and shall not be reversible. The Contractor shall report on the progress of all aspects relating to the Contract as requested in the report format to be provided by the Employer.
- Monthly Progress Reporting: The penalty for failure, on the part of the Contractor, to submit any monthly progress report on the 20th day of each month (or the previous working day should the 20th fall on a non-working day) until the issue of the Certificate of Practical Completion shall be subject to a penalty of R1000.00 per report per calendar day, until the report is submitted and shall not be reversible. The Contractor shall report on the progress of all aspects relating to the Contract as requested in the report format to be provided by the Employer. Progress reports shall further include a report on SMME's and Targeted Enterprise for the JDA that includes the following:

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- o SMME resources on the site, i.e. supervisors, labour, plant tools and equipment
 - o SMME progress of works on site
 - o SMME Sub-contractor quality control on site
 - o SMME expenditure on the Project versus target expenditure
 - o Copies of minutes of the SMME Sub-contractor Contractor progress meetings
 - o SMME training on the Project
 - o Concerns and improvements to be made
- Interim Progress Reporting: The penalty for failure, on the part of the Contractor, to submit any interim progress report on the 10th day of each month (or the previous working day should the 10th fall on a non-working day) until the issue of the Certificate of Practical Completion shall be subject to a penalty of R500.00 per report per calendar day, until the report is submitted and shall not be reversible. The Contractor shall report on the progress of all aspects relating to the Contract as requested in the report format to be provided by the Employer. Progress reports shall further include a report on SMME's for the JDA that includes the following:
 - o SMME resources on the site, i.e. supervisors, labour, plant tools and equipment
 - o SMME progress of works on site
 - o SMME quality control on site
 - o SMME expenditure on the Project versus target expenditure
 - o Copies of minutes of the SMME Sub-contractor and Contractor progress meetings
 - o SMME training on the Project Concerns and improvements to be made

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AGREEMENT

The required information of the **parties** and the amount of the **contract sum** shall be inserted in the **agreement** for signature of the **agreement** by the **parties**

F:..... V:..... T:.....

Item

CONTRA DATA

Tenderers are referred to the Contract Data document for the Project information, Contract information, Tender Closing information, Tenderer's selections

Tenderer's selections

Tenderers must complete the tenderer's selection of the Contract Data document for submission

F:..... V:..... T:.....

Item

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B1	<p><u>SECTION B : GENERAL PRELIMINARIES</u></p> <p><u>Definition and Interpretation</u></p> <p>Clause 1.1 - Definitions.</p> <p>F:..... V:..... T:.....</p> <p style="text-align: right;"><u>Item</u></p> <p>Clause 1.2 - Interpretation.</p> <p>F:..... V:..... T:.....</p> <p style="text-align: right;"><u>Item</u></p>		
B2	<p><u>Documents</u></p> <p>Clause 2.1 - Checking of documents.</p> <p>F:..... V:..... T:.....</p> <p style="text-align: right;"><u>Item</u></p> <p>Clause 2.2 - Provisional bills of quantities.</p> <p>The quantities in provisional bills of quantities are an indication of the works to be executed and are subject to remeasurement</p> <p>F:..... V:..... T:.....</p> <p style="text-align: right;"><u>Item</u></p> <p>Clause 2.3 - Availability of construction information.</p> <p>F:..... V:..... T:.....</p> <p style="text-align: right;"><u>Item</u></p> <p>Clause 2.4 - Ordering of materials and goods</p> <p>F:..... V:..... T:.....</p> <p style="text-align: right;"><u>Item</u></p>		
B3	<p><u>Previous work and adjoining properties</u></p> <p>Clause 3.1 - Previous work - dimensional accuracy.</p>		
	<p style="text-align: right;">Carried to Collection</p>	R	
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B4

F:..... V:..... T:.....

Item

Clause 3.2 - Previous work - **defects**.

F:..... V:..... T:.....

Item

Clause 3.3 - Inspection of adjoining properties.

F:..... V:..... T:.....

Item

The Site

Clause 4.1 - Handover of **site** in stages.

F:..... V:..... T:.....

Item

Clause 4.2 - Enclosure of the **works**.

F:..... V:..... T:.....

Item

Clause 4.3 - Geotechnical and other investigations.

F:..... V:..... T:.....

Item

Clause 4.4 - Encroachments.

F:..... V:..... T:.....

Item

Clause 4.5 - Existing premises occupied.

F:..... V:..... T:.....

Item

Clause 4.6 - Services - known.

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B5	F:..... V:..... T:.....	<u>Item</u>		
	<u>Management of Contract</u>			
	Clause 5.1 - Management of the works .			
	F:..... V:..... T:.....	<u>Item</u>		
	Clause 5.2 - Progress meetings.			
B6	F:..... V:..... T:.....	<u>Item</u>		
	Clause 5.3 - Technical meetings.			
	F:..... V:..... T:.....	<u>Item</u>		
	Clause 5.3 - Technical meetings.			
	F:..... V:..... T:.....	<u>Item</u>		
	<u>Samples, shop drawings and manufacturer's instructions</u>			
	Clause 6.1 - Samples of materials.			
	F:..... V:..... T:.....	<u>Item</u>		
	Clause 6.2 - Workmanship samples.			
	F:..... V:..... T:.....	<u>Item</u>		
	Clause 6.2 - Workmanship samples.			
	F:..... V:..... T:.....	<u>Item</u>		
	Clause 6.3 - Shop drawings.			
	F:..... V:..... T:.....	<u>Item</u>		
	Clause 6.4 - Compliance with manufacturer's instructions.			
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	F:..... V:..... T:.....	<u>Item</u>		
B7	<u>Deposits and fees</u>			
	Clause 7.1 - Deposits and fees.			
	F:..... V:..... T:.....	<u>Item</u>		
B8	<u>Temporary services</u>			
	Clause 8.1 - Water.			
	F:..... V:..... T:.....	<u>Item</u>		
	Clause 8.2 - Electricity.			
	F:..... V:..... T:.....	<u>Item</u>		
	Clause 8.3 - Ablution and welfare facilities.			
	F:..... V:..... T:.....	<u>Item</u>		
	Clause 8.4 - Communication facilities.			
	F:..... V:..... T:.....	<u>Item</u>		
B9	<u>Prime cost amounts</u>			
	Clause 9.1 - Responsibility for prime cost amounts .			
	F:..... V:..... T:.....	<u>Item</u>		
B10	<u>Attendance on subcontractors</u>			
	Clause 10.1 - General attendance.			
	F:..... V:..... T:.....	<u>Item</u>		
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B11

Clause 10.2 - Special attendance.

F:..... V:..... T:.....

Item

General

Clause 11.1 - Protection of the **works**.

F:..... V:..... T:.....

Item

Clause 11.2 - Protection/isolation of existing **works** and **works** occupied in **sections**.

F:..... V:..... T:.....

Item

Clause 11.3 - Security of the **works**.

F:..... V:..... T:.....

Item

Clause 11.4 - Notice before covering work.

F:..... V:..... T:.....

Item

Clause 11.5 - Disturbance.

Disturbance

All demolition work including removal thereof to dispatch areas as well as other works that will cause excessive noise, dust and odour shall only take place after hours between 18h00 and 06h00. Any delays, stoppages and the like arising from or in order to comply with the above will not constitute grounds for an adjustment to the **construction period** or **contract value** whatsoever

F:..... V:..... T:.....

Item

Clause 11.6 - Environmental disturbance.

Controlling all forms of pollution

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C1	<p>The contractor shall be responsible for and take all precautions in controlling by whatever means necessary all forms of pollution emanating from the site during the construction period due inter alia to noise, artificial light, wind-blown sand, dust, deposits of mud, etc</p> <p>The contractor is to ensure that all roads which border the site and are used by the contractor during the execution of the works are kept clean and free of any dirt or debris caused by the execution of the works</p> <p>F:..... V:..... T:.....</p>	Item		
	<p>Clause 11.7 - Works cleaning and clearing.</p> <p>F:..... V:..... T:.....</p>	Item		
	<p>Clause 11.8 - Vermin.</p> <p>F:..... V:..... T:.....</p>	Item		
	<p>Clause 11.9 - Overhand work.</p> <p>F:..... V:..... T:.....</p>	Item		
	<p>Clause 11.10 - Tenant installations.</p> <p>F:..... V:..... T:.....</p>	Item		
	<p>Clause 11.11 - Advertising.</p> <p>F:..... V:..... T:.....</p>	Item		
	<p><u>SECTION C : SPECIFIC PRELIMINARIES</u></p> <p>Warranties for materials and workmanship</p>			
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	<p>Where warranties for materials and/or workmanship are called for, the contractor shall obtain a written warranty, addressed to the employer, from the entity supplying the materials and/or executing the work and shall deliver same to the principal agent on final completion of the contract</p> <p>The warranty shall state that workmanship, materials and installation are warranted for a specific period from the date of practical completion and that any defects that may arise during the specified period shall be made good at the expense of the entity supplying the materials and/or doing the work, upon written notice to do so</p> <p>The warranty will not be enforced if the work is damaged by defects in the execution of the works, in which case the responsibility for replacement shall rest entirely with the contractor</p> <p>F:..... V:..... T:.....</p>		
		<u>Item</u>	
C2	<p>Overtime</p> <p>Should overtime be required to be worked for any reason whatsoever, the cost of such overtime is to be borne by the contractor unless the principal agent has specifically authorised, prior to execution thereof, that costs for such overtime are to be borne by the employer</p> <p>F:..... V:..... T:.....</p>	<u>Item</u>	
C3	<p>Cooperation of the contractor for cost management</p> <p>It is specifically agreed that the contractor accepts the obligation of assisting the principal agent in implementing proper cost management. The contractor will be advised by the principal agent of all cost management procedures which will be implemented to ensure that the contract value does not exceed the budget</p> <p>F:..... V:..... T:.....</p>	<u>Item</u>	
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C4

Overloading

The **contractor** shall take all necessary steps to ensure that no damage occurs due to overloading of any portion of the **works** or temporary works eg scaffolding, etc. The **contractor** shall submit details of his proposed loading, storage, plant erection, etc to the **principal agent** for approval prior to proceeding with such loading, storing or erecting and shall comply with and pay for the **principal agent's** requirements in connection with the provision of temporary support work, etc. Any damage caused to the **works** by overloading shall be made good by the **contractor** at his sole expense

F:..... V:..... T:.....

Item

C5

Propping of floors below

The **contractor** is advised that propping of floors below may be required if he wishes to use any areas of completed suspended reinforced concrete slabs for vehicle access, storage of **materials and goods** and location of plant, scaffolding, etc. The location of these areas and any necessary propping shall be approved by the **principal agent** and the cost thereof shall be borne by the **contractor** temporary works eg scaffolding, etc. The **contractor** shall submit details of his proposed loading, storage, plant erection, etc to the **principal agent** for approval prior to proceeding with such loading, storing or erecting and shall comply with and pay for the **principal agent's** requirements in connection with the provision of temporary support work, etc. Any damage caused to the **works** by overloading shall be made good by the **contractor** at his sole expense

F:..... V:..... T:.....

Item

C6

Testing of flat roof waterproofing for watertightness

Flat roof waterproof areas shall be flooded and kept "ponded" for at least forty eight (48) hours as a test to ensure the watertightness of the waterproofing and before any further construction work is carried out above the waterproofing

Carried to Collection

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	F:..... V:..... T:.....	<u>Item</u>		
C7	<p>Health and safety</p> <p>Without limiting the generality of the provisions of clause 2.0, the contractor's attention is drawn to the provisions of the Construction Regulations issued in terms of the Occupational Health and Safety Act, 1993 as amended. It is specifically stated that the employer shall prepare a documented health and safety specification for the works and that the employer shall ensure that the contractor has made provision for the cost of health and safety measures during the execution of the works. The contractor shall price opposite this item for compliance with the act and the regulations and the reasonable provisions of the aforementioned health and safety specification [2.1]</p> <p>The contractor shall:</p> <ol style="list-style-type: none"> 1. Comply with the health and safety specification for the works 2. Prepare and agree with the health and safety consultant the health and safety plan for the works 3. Cooperate with the health and safety consultant in all respects 4. Manage the compliance of all subcontractors with the regulations and with the health and safety plan and specification 5. Conform to the conditions contained in the employer's health and safety specification <p>F:..... V:..... T:.....</p>	<u>Item</u>		
C8	<p>Green star building certification</p> <p>F:..... V:..... T:.....</p>	<u>Item</u>		
C9	<p>Broad based black economic empowerment (BBBEE)</p>			
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	<p>Tenders submitted will be evaluated taking into account their empowerment rating</p> <p>The employer will be monitoring the broad based black economic empowerment (BBBEE) status of the contractor throughout the execution of the works</p> <p>The contractor is to submit to the principal agent on an annual basis a schedule of spend, split into vendors engaged as subcontractors and suppliers indicating their BBBEE rating including proof of the said rating</p> <p>F:..... V:..... T:.....</p>		
		<u>Item</u>	
C10	<p>Advertising rights</p> <p>The employer may elect to contract with advertising agencies for the erection of advertising hoardings, banners, wraps or the like for the duration of the contract. The contractor shall not prevent such an arrangement and will assist in the facilitation of same. The position and type of advertising structure to be agreed with the principal agent so as not to hinder the contractor in meeting his obligations under this agreement</p> <p>F:..... V:..... T:.....</p>	<u>Item</u>	
C11	<p>Confidentiality</p> <p>The contractor undertakes to maintain in confidence any and all information regarding this project and shall obtain appropriate similar undertakings from all subcontractors and suppliers. Such information shall not be used in any way except in connection with the execution of the works</p> <p>No information regarding this project shall be published or disclosed without the prior written consent of the employer</p> <p>F:..... V:..... T:.....</p>		
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C11

Media releases

All rights of publication of articles in the media, together with any advertising relating thereto or in any way connected with this project, shall vest with the **employer**

The **contractor** together with his **subcontractors** shall not, without the prior written consent of the **employer**, cause any statement or advertisement connected with this project to be printed, screened or aired by the media

F:..... V:..... T:.....

Item
Item

SUMMARY OF CATEGORIES

Category : Fixed R.....

Category : Value R.....

Category : Time R.....

Carried to Collection

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BILL NO. 2
EXTERNAL WORKS

The Tenderer is referred to the relevant Clauses in the Model Preambles for Trades (2008 Edition) and to the Supplementary Preambles which are incorporated at the front of these Bills of Quantities.

SITE CLEARANCE, ETC.

Site clearance, etc.:

- | | | | |
|---|---|----------------|-----|
| 1 | Allow for clearing the area of the site to be built upon of all grass, weeds, shrubs, trees with trunks not exceeding 200mm girth, debris, etc., including grubbing up all roots, scoffling up as required and cart away all vegetation and debris. | m ² | 800 |
| | | m ² | 400 |
| 2 | Strip average 150mm thick layer of topsoil and cart away off site. | m ² | 400 |

BERM CONSTRUCTION

- | | | | |
|---|---|----------------|-----|
| 3 | Berm of 100m x 4m wide with approved G10 material, supplied and carted onto site by the contractor, laid to form 1:1 slope, compacted in 300mm thick layers to a density of at least 95% Mod. AASHTO maximum density. | m ³ | 700 |
| | | m ³ | 60 |
| 4 | Filling in 150mm thick layers with approved imported G9 fill material under berm, supplied and carted onto site by the Contractor, compacted to a density of at least 95% Mod AASHTO maximum density. | m ³ | 60 |

Geosynthetic Clay Liner with bentonite clay layer in between two layers of non-woven continuous geotextile fabric with 300mm side and end laps:

- | | | | |
|---|---|----------------|-----|
| 5 | Geosynthetic Clay Liner fixed on 1:1 slope over berm including overlap at the top of berm . | m ² | 300 |
| | | m ² | 300 |

Surface preparation:

- | | | | |
|---|---|----------------|-----|
| 6 | Trim and level off surface of ground (excavated or filled under previous Contract) to roadbed, including excavating or filling, ripping and scarifying as necessary and compacting the whole area for a depth of 150mm, wetting to optimum moisture content and compacted to a density of at least 93% Mod. AASHTO maximum density. | m ² | 400 |
| | | m ² | 400 |

Carried to Collection

R

		Rate	Amount
<u>Tests:</u>			
7	Allow for all necessary tests by an independent testing authority of compaction and moisture content on compacted filling and backfilling to ensure that the required compactions are being attained, and for submitting results to the Employer's Representative.		
	Item		
<u>Weedkiller:</u>			
8	Treat surface below berm with approved weed killer.		
	m ²		400
Carried to Collection			
		R	

BILL NO. 2
EXTERNAL WORKS
COLLECTION

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Amount

Carried to Summary

R

BILL NO. 3
PROVISIONAL SUMS

The Tenderer is referred to the relevant Clauses in the separate document Model Preambles for Trades (2008 Edition) and to the Supplementary Preambles which are incorporated at the front of these Bills of Quantities.

SUB-CONTRACT AMOUNTS

The following amounts are for goods, services, etc., to be carried out by nominated or selected sub-contractors.

Filtration System and Pool Pumps:

- 1 Allow the amount of R 3 500 000.00 (Three Million Five Hundred Thousand Rands) for the Filtration System and Pool Pumps.

Item 3 500 000 00

- 2 Profit on above item.

Item

- 3 Attendance on ditto.

Item

- 4 Allow the amount of R 150 000.00 (One Hundred and Fifty Thousand Rands) for Electrical Installations to the Filtration System and Pool Pumps.

Item 150 000 00

- 5 Profit on above item.

Item

- 6 Attendance on ditto.

Item

BUDGETARY ALLOWANCES

The following budgetary allowances are for work to be executed by the contractor:

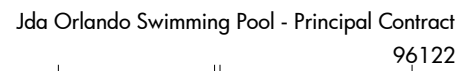
Builder's Work in Connection with Services:

- 7 Allow the amount of R 182 500.00 (One Hundred and Eighty Two Thousand Five Hundred Rand) for Builder's Work in Connection with Services.

Item 182 500 00

Carried to Summary

R

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PART C3 – SCOPE OF WORK

PART C3: SCOPE OF WORK

C3.1. Description of the Works

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- C3.1.2. Overview of the works
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- C3.5.1. Health and safety specification
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PART C3: SCOPE OF WORK

C3.1 DESCRIPTION OF THE WORKS

C3.1.1 Employer's objectives

The Johannesburg Development Agency has been appointed by the City of Johannesburg for the implementation of the Upgrades and Repairs to the Orlando Swimming pool facility.

This contract is for the **Upgrades and Repairs to Orlando Swimming Pool Facility**.

The Johannesburg Development Agency (JDA)'s objective is to repair the Orlando Swimming Pool Facility as per the overview of the works below.

The Project will seek to:

- Improve the functionality of the Swimming Pool Facility.
- Produce a safe working environment for end users to participate in envisioned sporting activity.
- Support local economic development including local SMMEs
- Encourage further investment and upgrading in the area
- Promote improved social cohesion

C3.1.2 Overview of the works

The scope of works comprises of but not limited to alterations to the main building ablution facilities, construction of a new earth berm and upgrades to the existing pool pumps, filtration system, etc. to the Orlando Swimming Pool Facility.

C3.1.3 Location of the works

The site is situated on ERF 12402 (65 Makhetha Street, Orlando West, Johannesburg.)

C3.1.4 Temporary works

The contractor is to design, supply, construct, demolish and spoil at his own cost any temporary works required for the construction of the works.

As the works are to be constructed within a built up sub-urban area, the Contractor will be required to carry out all temporary works that will be necessary to maintain the flow of traffic and to ensure that pedestrian and vehicular access is maintained to local residential buildings and businesses.

C3.1.5 Access and working areas

Access to the site is on Makhetha Street, Orlando West, , Soweto, Johannesburg.

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 tendered 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.

C3.2 ENGINEERING**C3.2.1 Design Services & 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

C3.2.2 Employers Design

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

C3.2.3 Design Brief

The Employer has briefed the consultants as to the design requirements.

C3.2.4 Drawings

The drawings included on the CD/s attached to this document are as per the drawing register appearing in the CD/s attached. Contractors are to ensure that all drawings attached to this document are as per the drawing register. The drawings included with the tender document are for information and tender purposes only. Detail construction drawings will be issued to the contractor at site handover and revisions thereto during the construction stage of the project.

The following drawings are applicable to the contract:

Refer to drawing register on CD/s attached.

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

Only figured dimensions shall be used and drawings are not to be scaled unless so instructed by the principal agent. The principal agent will supply any figured dimensions, which may have been omitted from the drawings.

All drawings and documents are to be considered the sole property of the Consultants and are to be returned to them on completion of the Works.

The drawings, etc., are to be used by the Contractor for the purpose of this Contract only. All drawings must be properly cared for, protected and kept in good condition.

Should any part or parts of the Drawings, Specifications or Bills of Quantities not be clearly intelligible to the Contractor, or the material or articles to be used in the execution of the Works be considered insufficiently described or the manner in which the work is to be carried out not be clear, the Contractor must obtain from the Principal Agent the necessary information to clarify such Drawings, Specification, Bills of Quantities or instructions which request shall be in writing.

The Contractor shall be held solely responsible for and shall, at his own expense, rectify any errors arising out of incorrect interpretation of the Drawings, Specifications, Bills of Quantities or instructions.

Upon receipt of detail drawings for any work, the Contractor shall, before putting that work in hand, ascertain that the dimensions given on the detail drawings correspond with the dimensions of any work already built and which governs the sizes of any work for which details are now issued.

In the event of the detail drawings not agreeing with the works already built, the discrepancy shall be brought to the Principal Agent's attention timeously and the detail drawings shall be returned at once for alterations.

All dimensions will be figured on the drawings or may be calculated from figured dimensions and are always to be followed. No dimensions shall be obtained by scaling.

C3.2.5 Design Procedures

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

C3.3 PROCUREMENT

C3.3.1 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.

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

Unless inconsistent with the context, in these specifications the following terms, words or expressions shall have the meanings hereby assigned to them:

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.

Black Business Enterprise

Black Business Enterprise is a legal entity which adheres to statutory labour practices, is registered with SARS and is a continuing and independent Enterprise, providing a Commercially Useful Function:

- a) Whose management and daily business operations are in the control of one or more Black Persons, and
- b) Which is at least 50,1% owned by one or more Black Persons who are Principals.”

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.

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 subcontract 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 subcontract agreements with locally based SMMEs to a minimum value of **30%**.

The form of contract to be used with SMMEs is the MBSA Domestic Subcontract Agreement 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. 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 Contractor shall subcontract the local SMME works at the Contractor's tendered rates.
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, ie 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 SMME's to be contracted on the Project must be selected from the provided database which is attached on this document contract. The data base includes SMME that are youth, women owned, disabled and ex-combats. The contractor will be expected to give preference to SMME's that comply with all/most of these groups. The following information must be provided by said contractor on the date of tender closure.

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

JDA reserves the right to withdraw our acceptance of offer, should the appointed contractor fail to satisfactorily address the above requirements (1 to 6) within 14 days of the commencement date of the contract. Approved documentation will form part of the contract.

(a) Contract Participation Goal (CPG)

The CPG is the monetary value of the target set by the Employer and will be calculated as follows:

$$\text{CPG} = \text{final contract value (excluding CPA and VAT)} \times (\text{target \% set by the Employer for Targeted Enterprises and local SMME contractors})$$

The final contract value is the total value of certified work measured at the date of issue of the Certificate of Completion.

It is the Contractor's responsibility to ensure that the CPG target is achieved.

(b) Contract Participation Performance (CPP)

The CPP is the monetary value of the Contractor's actual progress towards achievement of the CPG calculated as follows:

$$\text{CPP} = \text{total value (excluding CPA and VAT) of contribution by Targeted Enterprises and local SMME contractors}$$

The Contractor's Contract Participation Performance will be measured monthly in order to monitor the extent to which he is striving to reach the CPG. The basis of monitoring shall be the levels of the individual contributions for Targeted Enterprises and local SMME contractors. Monthly returns, in a format approved by the Employer, are required from the Contractor and shall be submitted with each interim payment certificate. Failure to adhere to this requirement shall result in the delay of any payment due until the Employer's Agent confirms that the information has been received.

To assist in the measurement of CPP, the Contractor shall include in his contract programme details of how he will achieve the CPG. This shall include CPG achievement details for both the specific work indicated for CPG in terms of this contract for completion by Targeted Enterprises and local SMME contractors as well as details for any other work that the Contractor may use towards achieving the CPG. The detail shall be provided not later than one month after the Employer's Agent has accepted the original construction programme and shall be updated with every subsequent revision of the programme.

In the event that the Contractor fails to substantiate that any failure to achieve the Contract Participation Goal (CPG) is due to quantitative under runs, the elimination of items contracted to Targeted Enterprises and local SMME contractors, or any other reason beyond the Contractor's control which may be acceptable to the Employer, the Contractor shall be liable for a penalty as prescribed in Clause JBCC B 12.0 of the Contract Data.

C3.4 CONSTRUCTION

C3.4.1 Works specifications

Applicable national and international standards

For preambles refer to “General Specification of Materials and Methods used for Building Contracts” (GP/ASC)

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.

C3.4.2 Plant and Materials

The contractor shall ensure that adequate plant and materials are procured at his own cost 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.

There is no guarantee given or implied that the Contractor will be permitted to utilise any or all of the plant he proposes to use in the construction of the Works.

C3.4.3 Construction Equipment

The contractor shall ensure that adequate construction equipment is available at his own cost 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.

There is no guarantee given or implied that the Contractor will be permitted to utilise any or all of the equipment he proposes to use in the construction of the Works.

C3.4.4 Existing Services

All known existing services and those services which require relocation and protection, are shown on the services plans. The Contractor’s attention is drawn to the fact that such services information is based on information supplied by others, and accuracy and completeness of this information has not been confirmed. The contractor will therefore be required to proceed with extreme caution in order to avoid damage to existing services.

In general, the engineer may call upon the contractor to re-excavate trenches previously dug and backfilled by others where in the opinion of the engineer such work is necessary to ensure the stability of any other works over such trenches. This in no way relieves the contractor of his responsibilities in term of the works.

C3.4.5 Site Establishment

The Contractor shall make available temporary facilities necessary for providing the works which are not provided by the Employer including telecommunications, security services, medical, fire protection, sanitation and toilets, waste disposal, etc.

The contractor shall not make any changes to the senior management relative to the agreement without the principal agent's express written approval.

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.
- The contractor is to provide suitable hoarding to the entire site for the entire duration of the project to meet the Principal Agent's requirements. Including any necessary making good upon completion.

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 for 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 air-conditioned office space for the engineers for construction monitoring.

C3.4.6 Site Usage

The contractor will have unlimited access to the site, however all construction activities are to comply with the City of Johannesburg's by laws. 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 Principal Agent 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 resident's vehicles.

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

C3.4.7 Permits and way leaves

Way leaves shall be supplied by the contractor. Contractors are to comply with the terms and conditions of the way leaves as supplied by the various service provider departments.

C3.4.8 Alterations, additions, extensions and modifications to existing works

Care must be taken not to affect the structures stability and props must be installed if there is any doubt as to the structural integrity of the building. All rubble must be removed in a manner acceptable to the Principal Agent.

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

The Architect will prepare a handover document including photographs of the existing building.

C3.4.9 Inspection of Adjoining Properties

Contractors are to ensure that adequate inspections of adjoining properties are carried out (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 dealt with in terms of the policies in place by the City of Johannesburg. Photographs must be taken to document the inspection.

C3.4.10 Water and Electricity for Construction Purposes

The cost for temporary water and electricity would be for the contractor's account.

C3.4.11 Survey Control and setting out of the works

By the Contractor

C3.4.12 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 Principal Agent in deciding whether the quality of materials utilised and workmanship achieved by the Contractor comply with the requirements of the Specifications. .

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 Principal 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.

(ii) Costs of Testing

(a) Costs of Testing

The costs of all testing carried out by the independent laboratory 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.

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 Principal Agent

Additional testing required by the Principal 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 Principal 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 Principal 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 Principal 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 Principal Agent will not become involved.

C3.5 MANAGEMENT

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 an E to differentiate these clauses and items.

SECTION E1000: HEALTH AND SAFETY REQUIREMENTS

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 meters 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 requirements

- 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
- (e) 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 Sub-contractor should he be reasonably satisfied that such a Sub-contractor 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 Sub-contractor 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 Sub-contractor'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 Sub-contractor to execute the work safely.
- E4.6.7 The contractor shall ensure that:
 - (a) every Sub-contractor is registered and in good standing with the compensation fund or with a licensed compensation insurer prior to work commencing on site;
 - (b) potential Sub-contractors submitting tenders have made provision for the cost of health and safety measures during the construction process; and
 - (c) every Sub-contractor 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 Sub-contractors.
- E4.6.9 The contractor shall ensure that all Sub-contractors 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 Sub-contractors 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 Sub-contractor 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 Sub-contractors (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 Sub-contractors 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 Sub-contractor's health and safety plan;
- (k) proof that the contractor and every Sub-contractor 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 Sub-contractor'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, Sub-contractor, 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

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 fulfill 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 Sub-contractors, have a clear understanding of safety regulations and procedures.

F2.6.2 Water, wastewater, and storm water

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 storm water 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.

(c) 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.

(d) 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.

(e) **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:

PART C4 – SITE INFORMATION

PART C4: SITE INFORMATION

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 CONDITIONS ON SITE

(Available upon request from the Civil Engineers)

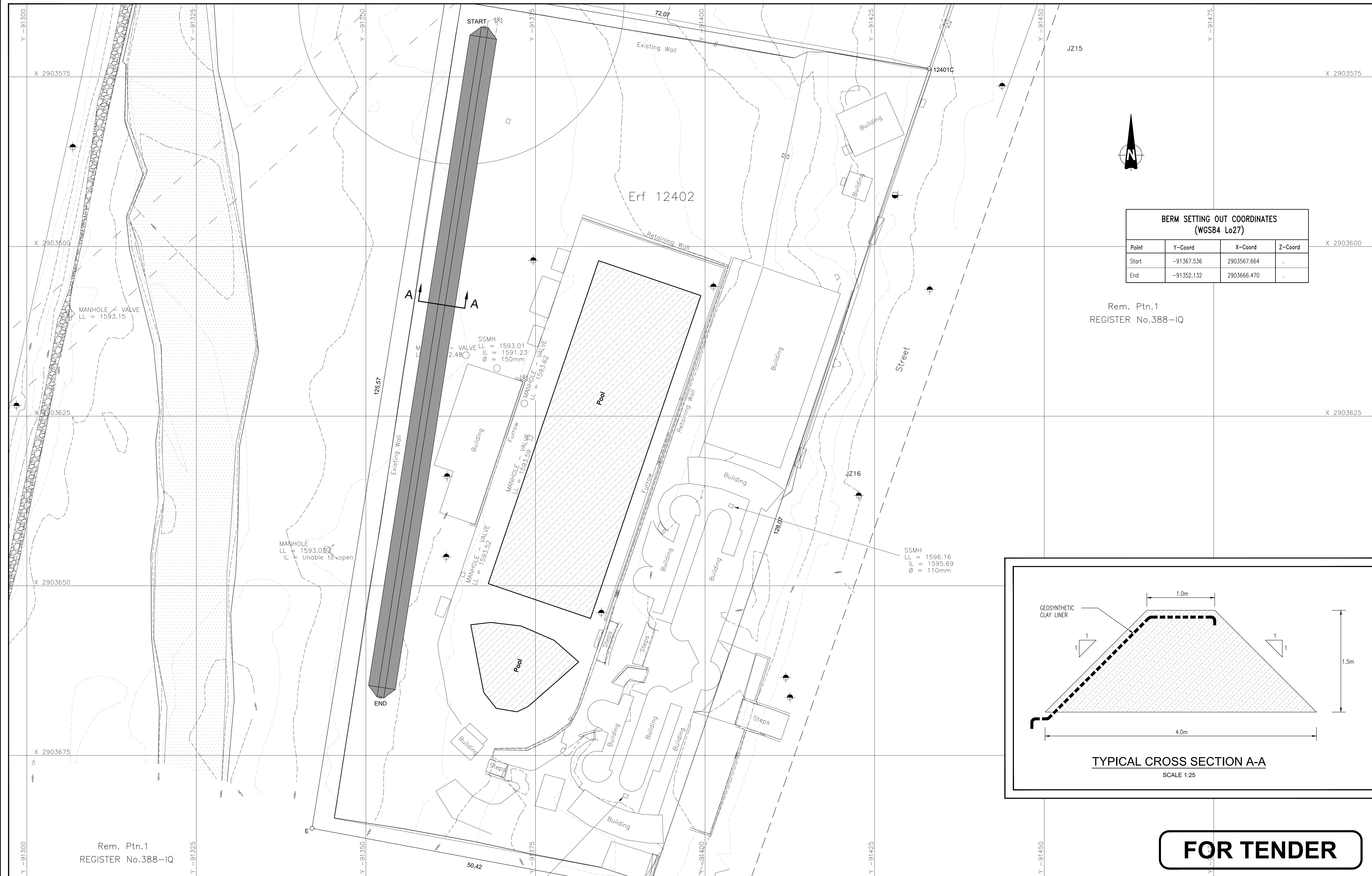
C4.3 OCCUPATIONAL HEALTH & SAFETY SPECIFICATIONS

Attached hereto.

C4.4 DRAWINGS

Drawings are provided separately.

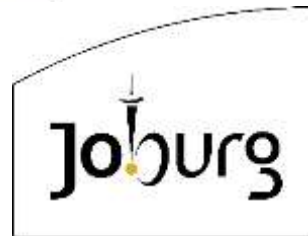
PART C5 – TENDER DRAWINGS



MINOR WORKS SWIMMING POOLS - ORLANDO POOL FLOODING PROTECTION EARTH BERM

[illegible]

PART C6 – SHE SPECIFICATIONS



a world class African city

ELLIS PARK, ORLANDO, DIEPKLOOF AND MEADOWLANDS SWIMMING POOL REFURBISHMENT SHE SPECIFICATIONS

15. December 2021

Company Reg. No.: 2013/028159/07

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Project Name	Ellis Park, Orlando, Diepkloof and Meadowlands Swimming Pool Refurbishment		
RFQ Number / Contract No.			
Person responsible For Drafting Specification	Lokanath von Reumont	Date:	15.12.2021
Revision no.	00		

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1. Objective / Application / Purpose

- 1.1 The purpose of this SHE Specification is to indicate to all Service Providers (i.e. Principal Contractors and its Contractors) the project specific Safety Health and Environmental (SHE) requirements before, during and after construction work, upon which their planning for the effective management of SHE will be based. The Principal Contractors shall ensure that its own project personnel and site based contracting companies are made aware of and fully comply with this SHE Specification, and including all Client SHE procedures, project SHE rules and regulations for construction contracts.
- 1.2 This SHE Specification includes the responsibilities and procedures for all Providers (i.e. Principal Contractors and its Contractors) on the project. The implementation of this SHE Specifications shall be negotiated and agreed by the Client / Agent / Designer / Principal Contractor / Contractor during the designing and drafting of the project specific SHE plan.
- 1.3 The Occupational Health and Safety Act 85 of 1993 and applicable regulations govern the contents and application of this project specific SHE specification with special emphasis on the new Construction Regulation 2014.
- 1.4 The National Environmental Management Act 108 of 1998 and applicable regulations governs the contents of and compliance to the approved project Environmental Management Plan (EMP). This includes the National Environmental Management Waste Act, 59 of 2008 as well as the National Water Act, 36 of 1998.
- 1.5 Regarding all health matters, besides the Occupational Health and Safety Act 85 of 1993, the Basic Condition of Employment Act (75 Of 1997), the Labour Relation Act (66 Of 1995), the Employment Equity Act (55 Of 1998), the Compensation of Injuries and Disease Act (130 of 1993), the Health Act (63 of 1977), the Tobacco Product Control Act (83 of 1993), the Foodstuffs, Cosmetics and Disinfectants Act (54 of 1972), the Human Tissue Act (65 of 1983), the Nursing Act (33 of 2005), the Health Profession Act (56 of 1974), the International Health Regulations Act (28 of 1974), the Regulation on the Management of Bio medic Waste, BR no. 7, 1 Series, 2nd Supplement, the Labour Law nr.23/2007 of 1 August 2007, and where appropriate the International Finance Corporation - World Bank, and country specific legal requirements whichever is the most stringent will apply.
- 1.6 The Designer / Principal Contractor (including its Contractors) shall develop a site specific legal register based on all relevant legislation and SHE standards and submit a copy with the tender documentation as well as in the execution SHE file.
- 1.7 Notwithstanding the aforementioned legal register, the Designer / Principal Contractor (including its Contractors) shall familiarise themselves with all relevant SHE regulations including (but not limited to) the content and implications of the following:
 - a) Design Engineer registered with ECSA
 - b) Construction Manager (s) must be registered with SACPCMP as defined within SACPCMP Act 48: 2000
 - c) Applicable SHE legislation
 - b) Applicable municipal by-laws
 - c) Applicable Client site procedures; standards and instructions
 - d) Applicable legal appointments
 - e) South African National Standards (SANS codes of practice)

2. Project Description

The Ellis Park Swimming pool is to be refurbished to comply with international standards. The Orlando, Diepkloof and Meadowlands swimming pools are to be refurbished to comply with local standards.

Refurbishment will include at least the following:

- Stormwater management
- Roof work
- Plumbing

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- Electrical
- Pool repairs
- Ventilation
- Painting
- Tiling
- Landscaping
- Waterproofing
- Construction of ablution facilities
- Removal of asbestos
- Installing of handrails
- Servicing of filtration systems
- Relocation of filters and pumps
- Construction of walls

2.1 Contractor Design

1. The Principal Contractor shall include a list of contractor-designs planned for the project. The list shall be placed in the H&S plan and shall include the name of the competent designer, who shall also be appointed in writing. Additional designs and designers may be identified in the H&S file.
2. Contractor designs may be required for:
 - a. Site organisation (including drop-zone safety), traffic and access to risk areas.
 - b. Temporary work, including scaffolding.
 - c. Machinery and processes for rigging, lifting, in-situ placement and manufacturing.
 - d. Machinery and processes for welding, finishing (including chemical cleaning, abrasive blasting, painting etc) and testing (including non-destructive testing with the use of ionizing-, non-ionizing radiation etc.).
 - e. Welding access- and shielding structures.
 - f. Fall prevention- and fall arrest designs.
 - g. Temporary installations, including electrical-, effluent-, compressed air- and shielding gas facilities, as required.
 - h. Temporary reinforcing for structures-in-construction which lack inherent stability or stability during inclement weather.
 - i. Access structures used during construction.
 - j. Manufacturing processes, including on-site rigging, assembly, welding, wet-or dry blasting, painting, confined space entry, supply of clean air to workers, hydro-testing etc.
3. Any contractor- design shall conform to Construction Regulation 6 and 12, as these apply.
4. All contractor-designs shall be documented in a drawing or other relevant document and shall include construction sequences and method statements for erection/construction, maintenance, inspection and dismantling, where required.
5. All structures designed by contractors, which require access with a fall risk, shall make provision for safe access.
6. Contractor designers are hereby mandated by the client to:
 - a. Carry out the necessary inspections at appropriate stages to verify that the erection/construction of the relevant structure is carried out in accordance with the design.
 - b. stop any employee from executing any construction work which is not in accordance with the relevant design.
 - c. Inspect and formally declare the structure safe for use in writing and communicate this to the H&S Agent.

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3. Design

- 3.1 The designer must ensure that the applicable safety standards incorporated into the *Construction Regulations (2014)* under *Section 44* of the *OHS Act (1993)* are complied with in the design. The Design Engineer needs to be registered with ECSA.
- 3.2 Before the contract goes out to tender the designer must submit a report to the client including:
- All relevant health and safety information about the design of the relevant structure that may affect the pricing of the construction work;
 - The geotechnical-science aspects if applicable;
 - The loading that the structure is designed to withstand
- 3.3 The designer must inform the client in writing about any hazards or dangers relating to the construction work as well as all relevant information required for the safe execution of the work upon being designed or when the design is subsequently altered.
- 3.4 The designer must refrain, if reasonably practicable, from including anything in the design of the structure which necessitates the use of dangerous procedures or materials if it can be avoided by changing the design or substituting materials.
- 3.5 The designer must take into account the hazards of any subsequent maintenance of the relevant structure and must make provision for such work to be done with as little risk as possible.
- 3.6 The designer must take into account ergonomic design principals in order to minimize ergonomic related hazards in all phases of the life cycle of the structure.
- 3.7 For roof structures lifeline anchor points should be included in the design so that the principal contractor can attach a lifeline for safe roof work during construction. The lifeline anchor points will also ensure the safety of maintenance staff on an ongoing basis after the construction period.
- 3.8 Without derogating from the generality of the above design requirements the following should also be implemented:
- All openings, edges and drops should be barricaded with a suitable and strong enough barrier at least 1000mm high
 - All rails must be able to withstand a minimum force of 100kg
 - Sufficient emergency exits must be provided that lead directly into the open (not into a courtyard or onto a balcony)
 - Shelving must be strong enough to withstand the expected load to be imposed on them

4. Definitions

Johannesburg Development Agency, (JDA)	Client
Triakon	Principal Agent
Contractor	Company to be identified
Sub-Contractor(s):	Company to be identified
Site:	The construction Site as defined in the Site Facilities Layout drawing (SFL)
HSE:	Health, Safety and Environment
HSE Plan:	This document describing the HSE elements of the Project, according to JDA HSE requirements - means a site, activity or project specific documented plan in accordance with the client's health and safety specification.
Incident:	Undesired event which has/had the potential to result in injury/property/equipment damage.
ERP:	Emergency Response Plan

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CM:	Construction Manager
PM:	Project Manager
JSA:	Job Safety Analyses
TRA:	Task Risk Assessment (high risk evaluation)
MS:	Method Statement
OHS Act:	Occupational Health and Safety Act and Regulations
PC:	Principal Contractor
Principal Contractor:	means an employer, as defined in section 1 of the Act who performs construction work and is appointed by the agent / client to be in overall control and management of a part of or the whole of a construction site.
HSE Construction File:	Means a file, or other record in permanent form, containing the information required as contemplated in these specifications.
Safe Plan of Action:	An Action Plan that Principal Contractor shall prepare prior to commence the works, listing the hazards and controls in order to prevent incidents during the course of the works.
HHE:	Health Hazard Evaluation
Competence:	Competence is the ability to undertake responsibilities and perform activities to a recognised standard on a regular basis. It combines practical and thinking skills, knowledge and experience.
Medical Certificate of Fitness	means a valid medical certificate of fitness issued by an occupational medicine practitioner after personally examining and testing the employee; such medical testing shall be relevant to the risks of the construction work on the Construction Site and shall conform to the Occupational Health and Safety Act and Regulations and to the requirements in this H&S specification. The medical certificate of fitness shall be documented on the registered doctor's letterhead and shall contain the information required in Annexure 3 of the Construction Regulations. The medical certificate of fitness shall include proof of registration of the occupational medicine practitioner issuing the medical certificate and the practice number of the practitioner, including a statement that the doctor has personally examined the employee prior to issuing the medical certificate of fitness
Method Statement	refers to a document detailing the key activities to be performed in order to reduce as reasonably as practicable the hazards identified in the risk assessment.
WPS:	Worst Potential Severity
Pr.CHSA	Professional Construction Health & Safety Agent
CHSM:	Construction Health & Safety Manager / Co-ordinator
CHSO:	Construction Health & Safety Officer

5. Order of Precedence

- 5.1 This SHE Specification does not indemnify the Principal Contractor and/or its appointed sub-contractors from any legal responsibility applicable to their operations or services rendered to the client.
- 5.2 This SHE Specification does not take precedence over any Act or legislation (national or otherwise).
- 5.3 This SHE Specification takes precedence over any project procedures regarding health and safety management on site, unless such procedure is of a higher standard and has been accepted and approved by the Client.

6. Costing

SHE related costing shall be considered in accordance to items listed in Annexure 1, Document: Construction Work Tender Phase SHE Information & Costing Checklist Doc. No. PR001.

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7. General Principles and Requirements

- 7.1 JDA Project Management shall officially appoint the Principal Contractor indicating the area of responsibility in writing and include a plot plan for the project in accordance with the OHS Act 85 of 93.
- 7.2 No work and/or site establishment will commence unless the project specific SHE plan has been approved and endorsed by the JDA SHE specialist allocated to the specific project.
- 7.3 No additional costs no time extensions are allowed on a project contract due to work stoppages resulting from failure to comply with SHE requirements.
- 7.4 Transgression from this agreed SHE specification is viewed in serious light and shall be communicated to the Client/Agent immediately upon discovery. Failing to report deviations may result in consequence management that will be actioned by JDA Project Management.
- 7.5 The usage of the JDA Project logo on any signage or documentation is strictly prohibited unless approval is obtained from JDA Project Management.
- 7.6 No construction work shall be performed without Construction Regulation (3 - Permit) or (4 – Notification) compliance.

8. Language

The Client/Agent requires from the Principal Contractor and its sub-contractors that all project rules, instructions, and signage (etc.), pertaining to the work is communicated in a language understood by the workforce.

9. Hours of Work

- 9.1 Permission to exceed these hours is granted under exceptional circumstance by the Department of Labour and should be routed through the Principal Contractor to the client / agent. Environmental authorisation regarding these matters must be displayed and filed in an easily accessible area.
- 9.2 Principal Contractors and Contractors are to ensure that where personnel might be expected to work overtime at night time, proper provision is made for the health and safety of such personnel e.g. lighting, food and amenities.

10. Project Specific Requirements

- 10.1 Although most of the specifications for projects are spelled out in this document JDA reserves the right to add and remove certain criteria following: risk assessments conducted, incident investigations and corrective/preventative measures identified, e.g. process deviation assessments (PDA's) during construction, and constructability reviews during project execution.
- 10.2 Contractors will observe and maintain these project specific SHE specifications as indicated by the JDA Project SHE specialist. Project specific requirements will be attached to this document for the project where such specific requirements have been identified before project execution and made available on site.

11. Vendor Accreditation & Worker' Compensation

- 11.1 All Contractors shall be approved on the Principal Contractor Project Management vendors list. This SHE specification and all the Client/Agent requirements and specifications shall form part of any further tender phase and SHE plan. The Principal Contractor shall verify if their Contractors have made adequate provision for SHE prior to appointment.
- 11.2 The principal contractor needs to assess and evaluate each contractor before employing them on the project, through a grading process.
- 11.3 The principal contractor must be in good standing with the compensation fund and must be in possession of a valid Letter of Good Standing at all times. The Letter of Good Standing must be kept in the safety file

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on site. All contractors to the principal contractor should have their own Letters of Good Standing in their own safety files on site.

12. SHE Bidding and Contract Award

- 12.1 All Contractors invited to participate in the bidding process must review the SHE information submitted in the Request for Quotation (RFQ) documentation. Contractors are required to complete Construction SHE Tender phase document and submit a file with copies of required documents with the submission of their quotation.
- 12.2 All Contractors shall endorse the Construction SHE Tender phase document and verify that all copies of required documents are included prior to submission for evaluation.
- 12.3 All Principal Contractors shall ensure that the Client/Agent's requirements including this SHE specification and baseline risk assessment forms part of their Contractor bidding and SHE plan approval processes.
- 12.4 The Principal Contractor shall provide a project specific organogram including SHE personnel and all appointed person(s) during the tender phase.

13. Roles & Responsibilities

13.1 Contractor Appointed 16.2:

- 13.1.1 The competent person appointed in terms of the OHS Act, Section 16.2, is responsible for the overall management of the project as per the appointment requirements.
- 13.1.2 The appointed 16.2 representing the Principal Contractor shall ensure that:
 - a) All Contractors under his/her direct control comply fully with all relevant SHE legislation, applicable JDA Project SHE rules and regulations, this SHE specification, the SHE plan, SHE scope, construction site layout, risk assessment, fall protection plan, emergency management plan, environmental management plan and risk mitigation plan.
 - b) All contractual SHE requirements including this SHE specification is considered during tender phase and that the necessary method statements are included in to the project scope and SHE plan for implementation.
 - c) The project SHE plan/file is approved by himself/herself prior final approval by JDA Project Management Representative (HSE Specialist).
 - d) Draft a resource utilisation matrix that indicates:
 - i. *The amount of full time supervision required after considering the risks involved for the project;*
 - ii. *The amount of SHE personnel required after considering the risks and degree of danger involved for the project;*
 - iii. *The various trades;*
 - iv. *Job descriptions; roles and responsibilities*
 - v. *Number of personnel reporting to each foreman and/or supervisor;*
 - vi. *To maintain safe work practices and standards, particularly where un-skilled and semi-skilled personnel are involved.*
 - vii. *Ratios shall be agreed with the Client/Agent and reflected in the SHE plan for implementation.*
 - e) All information is recorded and kept in the project SHE file, which shall be available and maintained during the full duration of the project.
 - f) On completion of the project, the required information from the SHE file is endorsed and to JDA Project Management

13.2 Construction Manager

- 13.2.1 A Principal Contractor must in writing appoint one full-time competent construction manager with the duty of managing all the construction work on a single site, including the duty of ensuring occupational health and

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safety compliance, and in the absence of the construction manager an alternate must be appointed by the Principal Contractor. (CR8 (1)) This person must be registered with an accredited body as defined within SACPCMP Act 48: 2000.

13.2.2 A Principal Contractor must upon having considered the size of the project, in writing appoint one or more assistant construction managers for different sections thereof: Provided that the designation of any such person does not relieve the construction manager of any personal accountability for failing in his or her management duties in terms of the Constructions regulation. (CR8 (2)).

13.2.3 A Construction Manager must in writing appoint competent construction supervisors responsible for construction activities and ensuring occupational health and safety compliance on the construction site.

13.3 Project HSE Manager / Co-ordinators

- 13.3.1 JDA Project Management will discuss and agree with each appointed Principal Contractor Project SHE Manager, a Service Level Agreement (SLA) detailing the SHE deliverables on the project. The SLA and project SHE Plan shall include the roles and responsibilities of himself/herself as well as the Construction SHE Officers appointed (or to be appointed) on the project.
- 13.3.2 JDA Project Management will review the performance of the Project SHE Manager at intervals agreed upon and may make recommendations to the Contractor where improvement is required. Where improvements/recommendations are not made, JDA Project Management (HSE) may request the Contractor to remove/replace project SHE personnel.
- 13.3.3 The removal/replacement of personnel will be done in terms of the contractual process.
- 13.3.4 Compile a construction SHE look ahead plan (included in month report). The SHE look ahead plan will focus on project specific risk management i.e. equipment, resources per discipline, training, Contractor appointments, and trend analysis. The SHE look ahead plan shall focus on the current, 14 days and 30 days activities for the duration of the project.
- 13.3.5 The Project SHE Manager shall:

- a) Shall be registered as a Construction Health and Safety Manager with SACPCMP..
- b) Compile a SHE construction execution strategy and present to JDA Project Management prior to execution;
- c) Compile a construction SHE look ahead plan, focussing on current, 14 days and 30 day activities for the project (included in month report). The SHE look ahead plan will focus on project specific risk management i.e. equipment, resources per discipline, training, Contractor appointments, and trend analysis.
- d) Compile the roles and responsibilities of all Construction SHE Officers reporting to him/her specific for the project and ensure that key performance areas are documented and monthly performance discussions are conducted.
- e) Compile the project specific SHE Plan; including roles and responsibilities for him/her and the Construction SHE officer.
- f) Provide a Construction SHE Officer appointment and competency matrix (including internal / external) pre-training requirements in project SHE plan;
- g) Draft trends analysis and forecasting (report);
- h) Be involved in the compilation of the project specific risk assessments;
- i) Arrange site walks with senior management (Quarterly);
- j) Conduct monthly site SHE performance assessments and provide feedback to JDA Project Management (HSE)
- k) SHE performance presentation on sustainability (where required)
- l) Investigate all non-conformances and prepare sustainable recovery plans;
- m) Attend incident/injury investigations and presentations for JDA Project Management (HSE).
- n) Attend the JDA Project Management (HSE) SHE Managers Governance Forum;

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o) Review and verify end of job documentation prior to submission to the Client / Agent;

13.4 Construction HSE Officer:

13.4.1 The Principal Contractor and its Contractors shall appoint as a minimum one full-time SHE Officer for every 100 employees or as per the level of risk of the work, geographical nature of the construction site, risk assessment and OHS Act requirements.

13.4.2 All Construction SHE Officers shall be registered with SACPCMP (The South African Council for Project and Construction Management Professions) per relevant criteria.

13.4.3 The Construction SHE Officer shall be suitably qualified (or equivalent) and experienced to co-ordinate the companies project specific SHE efforts on the site. (CVs shall be provided to the Client/Agent prior to appointment)

13.4.4 A full-time Construction SHE Officer shall be appointed for night shift (s), project risk shall be taken into consideration.

13.4.5 Project SHE resources shall be discussed and agreed with the JDA Project Management (SHE) during the bid clarification phase. Where a need may arise; JDA Project Management may instruct a Contractor at any time to appoint a full/part time Construction SHE Officer.

13.4.6 Until the SACPCMP requirement fully comes into effect, the following is the required / example of Construction SHE Officer competency criteria:

Level	Practical Experience (Years)				Legal Training									Tertiary	Environmental Knowledge / Training		
	0 - 3	3 - 6	6 - 10	10+	Construction Regulations	OHS Act	Incident Investigation / RCAT	HIRA	Auditing	SAMTRAC / Equivalent	Safety Management	Risk Management	NADSAM	BTECH Safety Management	Basic Working knowledge of Environmental Management	Working Knowledge of EMP	Suitable authority to enforce compliance to EMP
Junior HSE Officer	x				x	x		x		x						x	
CHSO		x			x	x		x	x	x			*	*	x	x	x
Senior CHSO		x	*		x	x		x	x	x	*	*	*	*	x		
Project HSE Manager / CHSM			x	*	x	x		x	x	x	*	*	x	*		x	x
X = Minimum	* = Preferred																

13.4.7 The above criterion is used by the JDA Project Management to measure the construction SHE Personnel's level of competency.

13.4.8 Construction SHE Officer shall:

a) Conduct inspections on site and use a format that is acceptable to and agreed upon with the JDA Project Management (SHE).

b) Ensure that all deviations found during inspections shall be documented and rectified as soon as possible. Records of inspections shall be filed in the project SHE file.

14 Construction SHE Plan Requirements

14.1 The following are the minimum requirements for the compilation of the construction SHE plan:

14.1.1 The Client/Agent will provide the Principal Contractor with a copy of the Environmental Authorisation (EA), the Environmental Management Plan (EMP), and the Health Management requirements for inclusion in the SHE file. **(Where applicable)**

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14.1.2 The Principal Contractor shall include environmental and health management specific elements in the project specific SHE Plan with focus on waste management, pollution control, spillage procedures including any project specific information from the health requirements.

14.1.3 All Construction SHE plans must be approved on each page by a Contractors CEO (Chief Executive officer) 16(1) or project appointed 16(2).

14.1.4 JDA Project SHE specialist shall review and approve a Principal Contractors SHE plan.

14.1.5 A Contractor SHE plan/file must be officially transmitted via project document control to the Project Manager with a 2 weeks early warning prior to proposed submission. The Construction SHE Plan/file will be reviewed by the JDA within a 5 working day turn around period.

14.1.6 No construction work (including site establishment) may start without the Construction SHE plan/file being approved by JDA Project Management.

14.1.7 The Principal Contractors SHE plan must be provided to the individual JDA Project Management SHE discipline leads (i.e. Safety Health and Environment) for sign off. NB! An approval refers to endorsement from each discipline on discipline specific requirements only; an approval that is not signed off by all disciplines will be rendered null and void.

14.1.8 The Principal Contractor shall not approve any of its appointed Contractors SHE Plans, without having their SHE plan/file first approved by JDA Project Management.

14.1.9 The Principal Contractor shall provide the JDA Project Management (SHE) with copies of all SHE plan approvals done on their appointed Contractors prior to the commencement of construction work. NB! JDA Project Management (SHE) may reject the approval should the requirements in the SHE Specification(s) not be catered for.

15 Site Establishment and Signage

15.1 Site Establishment

15.1.1 The Principal Contractor to provide a detailed site establishment plan to JDA Project Management (SHE) for review detailing:

- a) *Construction employee facilities*
- b) *Drinking water points*
- c) *Waste disposal points*
- d) *Firefighting equipment*
- e) *Parking areas*
- f) *Emergency assembly/gathering points*
- g) *Storage facilities*
- h) *Office and site layout (dining, ablution and where applicable medical and first aid facilities)*
- i) *Access and traffic management*
- j) *Sub-Contractor allocation (sub division of site establishment)*

15.1.2 The Principal Contractor shall ensure that during site establishment, the facilities, offices and work areas are not exposed to adjacent operational hazards.

15.1.3 The Principal Contractor and its Contractors shall ensure all offices, store, sheds and facilities to be constructed of sound material and to be neat and tidy at all times.

15.1.4 The Principal Contractor and its Contractors shall ensure that all relevant signage is displayed (as per minimum client and legislative requirements).

15.1.5 JDA Project Management (SHE) shall conduct a formal joint site establishment audit with the Principal Contractor at a time frame agreed with the Principal Contractor. A report detailing the audit findings will be submitted to the Principal Contractor who must ensure that deviations are corrected within an agreed time frame. NB! Failure to comply may result in work stoppages and/or consequence management against the Principal Contractor. The Principal Contractor and Contractors shall ensure that daily housekeeping inspections is done and kept on record.

15.1.6 JDA Project Management (SHE) may conduct random inspections on site establishment areas. Where SHE matters have not been adequately addressed, JDA Project Management (SHE) may instruct the Principal

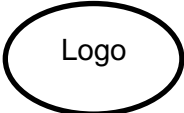
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Contractor to cease work until the matter has been resolved. *NB! Failure to comply may result in an external third party intervention (e.g. another Contractor) at the cost of the non-complying Contractor.* No additional costs or time extensions are allowed on a project contract due to work stoppages resulting from failure to comply with SHE requirements.

15.2 Signage

15.2.1 Signage at site establishment

- Client / JDA Project Management (SHE) committee shall give approval for all site establishment areas and the Principal Contractor to adhere on all prescribed requirements.
- All areas transferred to a Principal Contractor and/or its Contractors for site establishment and/or laydown areas shall be fenced off and identified with the appropriate signage.
- Proposed signage to be discussed and agreed with JDA Project Management (SHE) and must be displayed within the parameters of the transferred site.
- All signage must be maintained and kept in a neat condition. Over-cluttering of signage is prohibited.
- The usage of the Client / JDA Project logo is prohibited on signage unless approval is obtained from the JDA Project Management.
- All signage erected by the Principal Contractor and/or its Contractors shall be removed upon completion of the project or prior to the area being transferred back to the Client/Agent.
- The following are typical examples of what could be used:

(Project Name / Area number)		
Principle Contractor / Contractor Name:	<hr/>	
Responsible Person (Name):	<hr/>	
Contact:	<hr/>	
Construction Permit No.:	<hr/>	

- The Principal Contractor shall display the project construction SHE performance by means of a "Project SHE Performance Board". It is the responsibility of the Principal Contractor construction site manager or his authorised delegate to ensure that the performance data is kept up to date.
- All Contractors must display their respective statistics accordingly within their site office area.
- The minimum personal protect equipment (PPE) requirement notice boards shall be displayed at the identified areas e.g. entrances to workshops, construction areas etc. (Where applicable) Example of PPE board:

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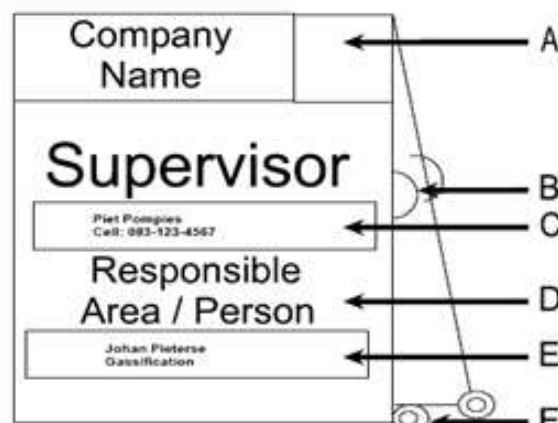
15.2.2 Signage in operational areas

- A project site within an operational area (Brownfields) shall be identified with a construction board (where possible) to identify the Contractor working in the area.
- Where existing signage is in place, the Client/Agent will advise the Contractor if additional signage will be required. Should additional signage be required the guidelines specified below will apply in construction areas.

15.2.3 Signage in construction areas

- A project site outside an operational area (Greenfields) shall be identified with a construction board (See examples below) to identify the project site and Contractors working in the area.
- The type and position of boards to be agreed with the Client /Agent.
- When deciding on type of boards to use, consider the following:
 - Boards to be weather proof;
 - Made of a strong, durable material (Metal, hard plastic, etc.)
 - Consider the size (Possible size of boards could be 1 000mm high by 500mm wide)
- The following are 3 examples of boards that could be considered

Example: 1



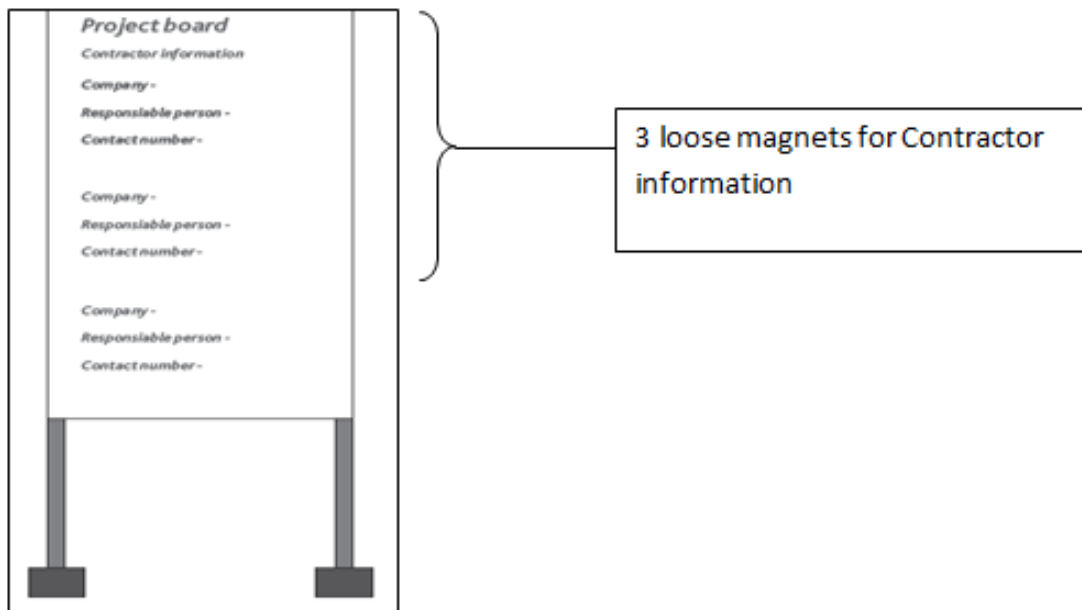
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- i. "A": water proof pouch to contain the permit to work;
- ii. "B": handles attached so as to avoid personnel from pinching their fingers during handling and transportation of the boards.
- iii. "C" & "E": surface areas to be of such a nature that one can write on them with a permanent marker / white-board marker or slide in information (magnetic strips could also be considered)
- iv. "D": makes provision for the Client Representative that has requested the work to be done or the area responsible person (i.e. the permit issuer);
- v. "F": provides for 4 rings / eyelets to the 4 corners of the boards so that the board can be "pegged down" to prevent it from being blown over;
- vi. Both sides of the board to be marked with the same information;
- vii. Boards can either be hinged or welded as a unit at ± 20 °C.
- viii. If boards are hinged, they should be fitted with a chain to prevent the board from falling flat;

Example: 2

Pole mounted board with concrete base:

1 000 mm x 2 000 mm



15.2.4 Signage on barricading

- a) In order to identify barriers, signage will be erected along each continuous length thereof and occur on all sides of barricading;
- b) The signage will contain the following minimum information:
 - i. Service provider company name responsible for the supply and maintenance thereof.
 - ii. The unique barrier number for ease of identification and control purposes.
 - iii. The contact number of the responsible service provider representative.
 - iv. A restriction indicating unauthorised access to the area.

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- c) Signage will be at least 210 mm x 297 mm and manufactured of steel plate.
- d) Signage to be attached to barricading by means of cable ties or similar securing devices.
- e) The signage and attachment devices must in itself not present an additional risk to personnel.

16 Permit To Work

16.1 A permit to work system shall be identified and agreed between JDA Project Management and the Contractor. As a minimum where legally required (Eg. Confined space entry, electrical lock out, excavations etc.), contractor shall develop and document a permit to work procedure for the project and submit it to JDA Project Management for review.

16.2 The permit to work system shall be implemented to control identified high risk activities. The Contractor shall ensure that the proper permit is issued as agreed upon and authorised by an appointed competent person before commencing with the work.

16.3 Contractors shall ensure that all personnel who will be signing on work permits have been trained in the PTW procedure and have competency, and proof of training on record.

16.4 Some of the activities that may require a permit to work within a construction or operational plant / site area are:

- a) *Hot work*
- b) *Cold work in areas where operational plant or equipment can pose a threat*
- c) *Radiographic works*
- d) *Working in confined spaces*
- e) *Excavation work (cable clearance permit)*
- f) *Demolition work*
- g) *Blasting*
- h) *Piling*
- i) *Work being done within 50 metres of an overhead power line*
- j) *Use of a hazardous substance, e.g. lead*
- k) *The moving of any radiography (x-ray) equipment from and to the site.*
- l) *Electrical switching or energising work.*

17 Spark Containment (Cocooning)

17.1 Where tools/equipment that create sparks are used, the Principal Contractor and/or its Contractors is required to have a spark containment procedure in place.

17.2 The spark containment procedure shall cater for screening for the protection of onlookers, passers-by, adjacent equipment and product. The spark containment procedure shall be in line with the JDA Project Management (HSE) specific requirements include (but not limited to):

- a) *Cocooning provided where all hot work is done.*
- b) *Communication and access methods for entering cocoons*
- c) *Cocooning to be constructed from suitable material*
- d) *Type of cocooning blankets to be specified and as per standard (spark/flare resistant and in good condition)*
- e) *Gas testing requirements (To be done at every flange within 11 metre radius of culverts)*
- f) *Entrances to culverts to be cordoned off.*
- g) *Drains in the vicinity of hot work must be covered.*
- h) *Spark containment to be done to cover culverts.*
- i) *When hot work (piping, welding etc.) is done in the vicinity of grating, grating must be covered (i.e. by blankets that have been wetted)*

17.3 Cocooning must be done in such manner to contain all sparks (100% cocooning), whilst taking into consideration adequate visibility.

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18 Machinery, Tools and Equipment

18.1 The Contractor to provide a management procedure, indicating their plan to manage machinery, tools and equipment. This procedure shall include, but not limited to the following key aspects:

- a) *Identify the relevant personnel to be trained in such procedure;*
- b) *Training and competency requirements;*
- c) *Inspection and audit protocols for machinery, tools and equipment;*
- d) *Review and monitoring plan for machinery, tools and equipment management.*

18.2 The Contractor shall ensure that machinery; tools and equipment are identified, registered, inspected and declared safe. All machinery, tools and equipment shall further be listed on an inventory list and a copy handed to security and a copy shall be kept at the construction site.

18.3 All machinery, tools and equipment shall be used shall maintained in a good condition. The Contractor will be held responsible for the testing and inspection of such equipment by the particular /appointed electrical department / provider. A valid label (disc or sticker) must be displayed on the tool or equipment as proof of inspection conducted by the Client/Agent's representative.

18.4 No machinery, tool or equipment will be allowed onto the site that is of a sub-standard nature or pose a threat to the health and safety of person.

18.5 Home-made tools are strictly prohibited.

18.6 Explosive Actuated Fastening Devices (if applicable)

1. The Principal Contractor shall submit proof of competency and the appointment letter of the person in charge of explosive actuating fastening devices and of the person in charge of the issuing and collection of cartridges and nails. This shall be placed in the H&S plan.
2. The H&S Plan shall include the method statement for the safe use of explosive actuating fastening devices, including the type of PPE, barricading and warning notice which the contractor intends to use and the method of accounting for cartridges and nails.
3. The H&S Plan shall include proof of training and competency of all operators using explosive actuating fastening devices.
4. A template inspection register of explosive actuating fastening device shall be included in the H&S Plan.
5. A template record for the issuing and collection of cartridges and nails shall be included in the H&S Plan
6. For the purposes of acquisition/storage/transport of the Cartridges, the Principal Contractor is required to hold a permit in terms of the Explosives Act; this Permit for the transportation of Blank Cartridges used in Powder-Actuated Tools shall be placed in the H&S plan;
 - a. Applications for registration, licenses and permits must be submitted to the Chief Inspector's Office in Pretoria.
 - b. The Principal Contractor is required to be in possession of a continuous transport licence, but is not required in terms of the Explosives Act, to hold a permit for the use of the blank cartridges.
 - c. Once the cartridges are delivered to the appointed responsible person, this responsible person is then required to ensure that the regulations governing the safe use of explosive powered tools in terms of the Construction Regulation 21 of the Occupational Health and Safety Act, Act 85 of 1993 are complied with.

19 Tool Boxes and Gang Boxes

19.1 Home-made trunks/toolboxes are strictly prohibited.

19.2 Tool boxes shall; as a minimum:

- a) *Be designed and manufactured of suitable material.*

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- b) *Fitted with handles on both sides*
- c) *Have a weight restriction of 25 kg for hand carried toolboxes.*
- d) *If fitted with wheels, the wheels shall be manufactured of suitable material and size to withstand the weight of the toolbox.*
- e) *Each toolbox shall be identified and numbered.*

19.3 Gang boxes shall; as a minimum:

- a) *Be designed and manufactured of suitable material.*
- b) *Where lids are on top of the gang box, it shall be fitted with a mechanism i.e. fixed bracket to prevent the lid from closing unexpectedly.*
- c) *Each gang box shall be identified, numbered and include a weight restriction and load capacity*
- d) *Each gang box shall be registered and inspected on a weekly basis by an appointed designated with the duty of inspecting tools and equipment.*
- e) *Tools and equipment shall be stored neatly inside the gang box.*
- f) *Appropriate handles / lifting devices for safe loading and unloading*
- g) *Each toolbox shall be registered and inspected on a weekly basis by an appointed person, designated with the duty of inspecting tools and equipment.*
- h) *Appropriate handles / lifting devices for safe loading and unloading*
- i) *Each toolbox shall be registered and inspected on a weekly basis by an appointed person, designated with the duty of inspecting tools and equipment.*

20 Cranes

20.1 General Requirements

20.1.1 All Contractors providing crane services shall be on the JDA Project Management (HSE) approved vendors list. No cranes may be leased or third party leased from any other Service Provider that is not an approved JDA Project Management (HSE).

20.1.2 Contractors requiring the services of companies not on the vendors list, i.e. Tower Crane Supplier should present a request via the JDA Project Management (HSE) Project Manager to initiate the vendor control process.

20.1.3 No Contractor may hire in a hire crane services if not prior approved in writing by the JDA Project Management (HSE) appointed commercial official, non-conformances relating thereto will be classified as a serious safety violation.

20.1.4 Where crane services are used on site, (mobile and/or tower); the Contractor shall ensure that each operator has a file containing the required information in the cab of the crane at all times, available for inspection by the Client/Agent.

20.1.5 This file shall include (but not limited to) the following:

- a) *JDA Project Management (HSE) specific procedure (including parking of cranes in inclement weather)*
- b) *Relevant operator legal appointment*
- c) *Relevant operator competencies*
- d) *Load chart*
- e) *Valid load test certificates (Cranes including rigging equipment)*
- f) *Daily crane inspections*
- g) *Proof of compaction tests*

20.1.6 The crane operator is required to where his/her relevant personal protective equipment (PPE) at all times on the construction site.

20.2 Mobile Cranes

20.2.1 A Contractor must, in addition to compliance with the Driven Machinery Regulations, 1988 and local legislation ensure that where mobile or/and tower cranes are used they are designed, operated and erected under the supervision of a competent person.

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20.2.2 A relevant risk assessment and method statement are developed and applied the effects of wind forces on the mobile or/and tower cranes are taken into consideration and that a wind speed device is fitted (tower cranes) that provides the operator with an audible warning when the wind speed exceeds the design engineer's specification.

20.2.3 All cranes to be inspected by the Client rigging department prior to entering any construction site. A valid inspection sticker (disc or label) shall be displayed at all times.

20.2.4 The mobile or/and tower cranes operators are competent to carry out the work safely and operators have a medical certificate of fitness to work in such an environment, issued by an occupational health practitioner.

20.2.5 All mobile cranes shall make use of approved material under the outriggers in order to distribute load over as large area as possible.

20.2.6 All mobile cranes shall be equipped with a drip tray that has to be in place under the crane when the crane is in operation.

20.3 Tower cranes

20.3.1 A Contractor must, in addition to compliance with the Driven Machinery Regulations, 1988 and local legislation ensure that where tower cranes are used they are designed, operated and erected under the supervision of a competent person.

20.3.2 A relevant risk assessment and method statement are developed and applied the effects of wind forces on the tower cranes are taken into consideration and that a wind speed device is fitted (tower cranes) that provides the operator with an audible warning when the wind speed exceeds the design engineer's specification.

20.3.3 The mobile or/and tower cranes operators are competent to carry out the work safely and operators have a medical certificate of fitness to work in such an environment, issued by an occupational health practitioner.

20.3.3 The bases for the tower cranes and tracks for rail-mounted tower cranes are firm, level and secured approve by a competent civil engineer.

21 Grinding Activities

21.1 The Contractor shall ensure that grinding activities form part of a risk assessment.

21.2 18.2 The Contractor shall provide a safe work procedure to JDA Project Management (HSE) for review during the SHE Plan/File approval phase. This procedure shall include, but not limited to the following key areas:

- i. *Identify the relevant personnel to be trained in such procedure*
- ii. *Training and competency requirements*
- iii. *Inspection and audit protocols for machinery, tools and equipment*
- iv. *Review and monitoring plan for machinery, tools and equipment management*

21.3 When working with grinders, the Contractor(s) shall ensure:

- 21.3.1 All grinders are fitted with a "dead man switch".
- 21.3.2 The "dead man switch" is not disabled for continuous running of the grinder.
- 21.3.3 There is no locking device fitted to the grinder trigger.

21.4 Appointed supervisor(s) to check and verify that an operator does not by pass the "dead man switch" with the use of cable ties/cable ties or similar method.

21.5 The use of pneumatic 9" grinders is strictly prohibited.

21.6 The usage of 9" (nine inch) grinders will be permitted only if agreed with JDA Project Management (HSE) and subject to the following provisions:

- 18.6.1 A risk assessment with appropriate risk mitigation measures is developed for the usage of such grinder.
- 18.6.2 Relevant inspections are in place.
- 18.6.3 Personnel training/competency declarations are in place.

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18.6.4 Only certified grinder wheels with the correct revolutions per minute (RPM) are used.

22 Portable Electrical Equipment

22.1 All portable electrical equipment must be signed off as inspected by the Client before being brought onto the premises/ project.

22.2 A valid label (disc or sticker) must be displayed on the tool or equipment as proof of inspection conducted by the Client/Agent's representative or appointed service provider.

23 Pressure Testing

23.1 There Contractor shall compile a pressure testing procedure, based on the project specific need and submit to the Client/Agent for review. Such procedure shall include (but not limited to) the following:

- a) *Emergency response plan*
- b) *Safe making plan/process (E.g. Use of nitrogen including effective management of the potential hazards)*
- c) *Equipment integrity processes*
- d) *Equipment calibration requirements*
- e) *Identify the pressure testing medium to be used*
- f) *Identify the equipment material to be pressure tested (E.g. Steel, plastic. etc.)*
- g) *JDA Project Management (HSE) requirements (where required)*

23.2 No pressure testing may be conducted on temporary pipe support trestles, all pipes will be pressure tested on ground except where the pipe is in a pipe-rack and is already tied down with bolts or supports.

23.3 Fire hydrants shall not to be used as a source of pressure testing water, without prior permission from the Local Authority Emergency Management Department.

24 Temporary Pipe Supports (Trestles)

24.1 All temporary pipe supports such as trestles will be approved by a certified engineer upon submitting a design drawing and welding and testing procedure for such trestles and application thereof.

24.2 Trestle parts (top and bottom) are seen as a unit. Each unit shall be numbered and registered for inspection and maintenance purposes. Records of such inspections must be kept on the construction site.

24.3 Modifications to trestles (or part thereof) are strictly prohibited, and only the correct application of trestles is allowed.

25 Generators

25.1 All generators must be signed off as inspected by the Client before being brought onto the premises. A valid label (disc or sticker) must be displayed on the generator as proof of inspection conducted by the Client/Agent's representative.

25.2 When used, all generators must have a spill tray as well as stop blocks used.

25.3 All generators to be maintained and operated portable generators in accordance with the manufacturer's use and safety instructions.

25.4 Proper earthing of generators must be practiced where an earthing rod is used and spiked in the ground in accordance to compliance to a COC.

25.5 All generators will be inspected at a frequency determined by the Contractor, but acceptable to JDA Project Management (HSE).

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26 Construction Mobile Plant / Vehicles

26.1 International requirements (Where applicable)

26.1.1 Contractors' safety management systems shall, where the transport of workers (by road, water or air) is an integral requirement of the project/contract work, include a documented policy or standard covering:

- a) *Accident / injury insurance for travellers;*
- b) *Criteria for selection of service provider;*
- c) *Auditing of the service provider*

26.2 Route Management (Abnormal loads, Cross country)

26.2.1 The contractor shall provide a comprehensive route management plan (E.g. Abnormal loads - cross country) based on a transport risk assessment and/or transport impact study. This plan shall form part of the SHE plan/file.

26.2.2 Safe routes shall be mapped out, overnight stoppages clearly identified, roadside support infrastructure any public crossings shall be clearly marked by placing of warning / stop signs and controlled by the Contractor (flagman).

26.2.3 All drivers shall familiarise themselves with the road hazards of the routes they take.

26.2.4 The Client/Agent may request an advance driving training for Contractor drivers exposed to unique environment hazards or/and a vehicle tracking device.

26.3 General requirements

26.3.1 The Contractor shall fully comply with any South African National Standard and applicable client specific requirements.

26.3.2 All drivers shall familiarise themselves with the road hazards of the routes they take.

26.3.3 The Contractor (including drivers) shall be aware and ensure to compliance the required National road and traffic legislation, Construction regulations, Driven Machinery Regulations Legislation and Client/Agent site specific regulations.

26.3.4 Moving within operational area within peak hours is subjected to approval by the Client/Agent.

26.3.5 Statistics of vehicle accidents that occurred on construction roads / sites must be reflected on the SHE construction site monthly report and incident register including statistics and will be made available to the client / agent. Traffic incidents will also be displayed on the statistics board at the construction site entrance.

26.4 Site requirements

26.4.1 All competent drivers (construction vehicle or mobile plant) shall have an authorisation card on person at all times. Such card shall be available on request to any authorised officer.

26.4.2 Persons operating construction vehicles and/or mobile plant on the Client/Agent premises will carry proof of competency and medical fitness (where applicable) on person at all times.

26.4.3 A competent driver of construction vehicles and/or mobile plant shall not transport any passenger if not properly seated. Seatbelts shall be worn on forklifts, earthmoving machinery or any other construction machinery.

26.4.4 All civil construction vehicles shall be fitted with orange rotating lights. A buggy whip/flag pole may be requested on construction sites and will be prescribed by the Agent/Client.

26.4.5 All tractors, dumper cars and forklifts must be equipped with an approved roll over protection system and safety belt.

26.4.6 Every Eazi/Mobi lift shall have a clearly sounded alarm, which sounds when the machine is moving in any direction.

26.4.7 On all earth moving sites, construction vehicles must be visible and not be parked near earthmoving machines.

26.4.8 Drivers shall be responsible for the safe transportation of all loads; this includes the proper securing of all loads through the correct methods with use of correct securing devices. Loads protruding from vehicles shall be made visible by the use of red flags in the day and red lights if they are transported at night.

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26.5 Vehicle fuelling / refuelling

26.5.1 All vehicles fuelling and servicing areas shall have a concrete floor including a concrete kerb to contain any spillage. Where major spills are likely, the Contractor must make provision for spill kit, and personnel must be trained in its use.

26.5.2 Where refuelling is done on site from a portable container, proper refuelling procedures should be implemented to prevent spillages.

26.5.3 All fuelling/refuelling facilities are subject to approval by the Client/Agent after assessment by the Client/Agent Environmental Department and Emergency Management Departments.

26.6 Prohibitions

26.6.1 No employees will be allowed to be transported on the back of open vehicles ("bakkies" / Light Delivery Vehicles) unless the requirements stipulated in the relevant legislation and area requirements are complied with.

26.6.2 Persons are not allowed to be transported on vehicles/ trucks with loose loads, equipment and tools equipment.

26.6.3 Unauthorised vehicles are not allowed in the vicinity where earthworks are carried out or near pits and earthmoving workshops.

26.6.4 No contamination to the ground is allowed, and all spills to be cleaned up immediately.

27 Mobile Elevated Work Platforms (MEWPs)

27.1 The Contractor shall compile a safe work procedure when working on mobile elevating work platforms, based on the project specific need and submit to the Client/Agent for review.

27.2 Such procedure shall include (but not limited to) the following:

- a) *Emergency response plan (Entrapment, overturning, falling and collision)*
- b) *Positioning of mobile elevated work platform (power lines, overhead machinery)*
- c) *Selection/choice of mobile elevating work platform (with protected controls/ guardrails)*
- d) *Mobile elevating work platform placement (Ground conditions / stability)*
- e) *Provision for outrigger spreader plates*
- f) *Personnel requirements (Fall arrest equipment, competency, training)*
- g) *Falling objects*
- h) *Weather conditions*
- i) *Material handling (loads to be used on platforms)*

27.3 Training and competency

27.3.1 Operators shall attend a recognised operator training course.

27.3.2 The operator's valid certificate, card or licence (identifying the list of the categories of mobile elevated work platforms the operator is allowed to use) shall be include in the SHE file.

27.3.3 The Contractor shall ensure in addition to formal training, operators shall be trained on the controls and operation on the specific make and model of MEWP they are required to operate.

27.4 Inspection, maintenance and examination

27.4.1 The Contractor to develop and implement a programme of daily visual checks, regular inspections and servicing schedules in accordance with the manufacturer's instructions and the risks associated with each mobile elevated work platform.

27.4.2 Where defects are found, it should be reported immediately and taken out of service.

27.4.3 The mobile elevated work platform must be thoroughly examined at least every six months by a competent person.

27.5 The Contractor shall ensure the following relating to MEWPs:

27.5.1 The work platform shall remain tidy at all times.

27.5.2 Shall only be used on firm and level ground. (Temporary covers shall be strong enough to withstand the applied pressure)

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27.5.3 Outriggers shall be extended and chocked before raising the platform. (Spreader plates may be necessary – check the equipment manual.)

27.5.4 The platform shall be fitted with effective guard rails and toe boards.

27.5.5 Arresting falls: if there is still a risk of people falling from the platform a harness with a short work restraint lanyard must be secured to a suitable manufacturer provided anchorage point within the basket to stop the wearer from getting into a position where they could fall from the carrier.

27.5.6 Tools and equipment shall be properly secured.

27.5.7 Work during inclement weather is prohibited.

28 Roadside Construction

28.1 On sites that are located away from the existing roads or outside factory boundaries the Contractor will, after liaising with the Client/Agent, be responsible to set up the necessary road signs and speed limits.

28.2 A project specific traffic management plan based on SARTSM chapter 13 volume 2 needs to be used

28.3 Site requirements

28.3.1 All roadside construction sites shall be barricaded to create a 2m safe zone. Such barricading must be visible at night.

28.3.2 Flagmen controlling traffic (where needed) must be properly trained.

28.3.3 Project construction sites must be clearly marked with signs, which must be kept clean and well maintained.

28.3.4 Speed limits should be managed however, consistent with safe site operations and traffic movements.

28.3.5 Risk assessments to include specific identified traffic hazards.

28.4 Personnel requirements

28.3.1 Appropriate personal protective equipment must be worn. High visibility reflective vests must be worn by all employees working in or entering roadside barricaded areas.

28.3.2 All employees to be trained in working procedures drawn up for the specific construction site. Example: communication methods, emergency evacuation procedures etc.

29 Forklifts

29.1 Where forklifts are used that is propelled by liquid petroleum gas, the Contractor shall cause such vehicles to be inspected on scheduled basis as to not cause fire hazards in areas where ignition sources exist.

30 Working at Heights

30.1 Fall Protection Plan / Fall Protection Planner

30.1.1 The Contractor must compile a project specific fall protection that includes (but not limited to) following:

- a) *Construction Regulation requirements.*
- b) *People requirements: Training, tie off, medical fitness, fit for purpose, access to work areas*
- c) *Equipment requirements: Lanyards on tools; safe securing of material; barricading and signage (where applicable) NB! Only solid barricading will be allowed to be used at areas where there is a fall hazard present.*
- d) *Identify and specify the type of safety harness and lifelines to be used.*

30.1.2 The Contractor shall appoint a competent person (fall protection plan developer), responsible for the preparation of a project specific fall protection plan based on credible scenarios and ensure such plan is implemented, amended where and when necessary and maintained as required and take steps to ensure continued adherence to the fall protection plan.

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30.1.3 Elements that may be included in the rescue plan includes (but not limited) to:

- a) Working at heights rescue
- b) Confined space entry rescue
- c) Water environments rescue

30.2 Fall protection equipment / Fall prevention equipment

30.2.1 Only "double lanyard" safety harnesses, as fall arrest devices.

30.2.2 All safety harnesses shall be South African National Standards (SANS) approved will be worn when working at an elevation of 1, 5 metres or more or where personnel are working above or over hazardous equipment.

30.2.3 Safety harnesses shall be:

- a) *An approved type*
- b) *Numbered and placed on a register.*
- c) *Inspected as per agreed frequency*
- d) The Contractor to ensure that all relevant employees are trained in the usage of harnesses including how to tie off on anchor points

30.2.4 Life lines shall be:

- a) *Installed only by an approved vendor and a competent installer.*
- b) *Constructed as per legal requirement.*
- c) *Assessed on a daily basis by the person responsible for inspecting lifeline equipment and installations.*
- d) The Contractor shall ensure, where lifelines are used, the 100 % tie off rule will apply. Employees working in the area of a lifeline shall also be tied off at all times.

30.2.5 The Contractor shall make provision prevent objects and/or material from falling from elevated areas to protect persons working below.

30.2.6 Warning signs are to be erected and areas where falling equipment may cause a hazard will be properly barricaded and access to these areas controlled.

30.2.7 All tools and equipment as well as associated items; including but not limited to nuts, bolts grinding discs etc. shall be transported/carried to elevated working platforms in suitable and sufficient containers.

30.2.8 Contractors are to ensure that all equipment and hand tools can be secured to either the person or the structure with lanyards, bearing in mind that heavy hand tools should never be tied down to a person as it may cause fall incidents. Only small hand tools are to be tied down to users. When hand tools are not being used it must be tied down to the structure.

30.2.9 The usage of a chin strap (attached to a hard hat) to prevent the potential of the hard hats falling from heights can be implemented as a best practice, provided that employees are trained in the usage thereof.

30.3 Openings

30.3.1 The contractor shall ensure that all openings are covered with a suitable guard which shall be highly visible, designed with imposed loads factored and firmly affixed and not easily removable over the opening hazard.

30.3.2 The cover shall be identified with signage to indicate the opening hazard which the barricading and cover is protecting.

30.3.3 The signage may be A-4 sized and be in universally recognized "Danger" symbols and colours, and in an understandable language of the workforce.

30.3.4 Openings so contemplated shall also be guarded by a rigid, affixed barricade capable of withstanding a lateral force of 100 kg.

30.3.5 All openings so defined shall be logged or registered to permit ongoing inspection by an appointed person; to check for integrity and to allow assurance of recognition by personnel affected.

30.4 Prohibitions (working at heights)

30.4.1 The contractor shall not permit any employee to work on heights or erection of steelwork, where such employee may be exposed to inclement weather.

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30.4.2 Safety belts are not allowed on site.

30.4.3 No beam crawling or walking on pipes is allowed on site. Alternative working measures to be investigated, assessed and discussed with the Agent.

30.4.4 No bags or sacks to be used to carry tools/equipment or associated items; including but not limited to nuts, bolts grinding discs etc.

30.5 Drop Zones

30.5.1 Drop zones may be erected as a last resort; only where other means of protection have been exhausted or impractical to apply.

30.5.2 Drop zone requirements:

a) *The area must be assessed and be of suitable size to sustain potential falling tools, material or equipment. (The probability that items may ricochet off structures and equipment must also be taken into consideration.)*

b) *Entrance to designated drop zones while overhead work is being conducted will not be allowed, unless the activity has been stopped and all potential falling items have been secured.*

c) *Standby person to control access to the drop zone*

d) *Catch nets may be installed*

30.5.3 Drop zones must be erected with solid barricading, made visible with snow netting and must have adequate warning signage (pictograms and written warnings) displayed.

30.5.4 The appointed supervisor for the area will be responsible for the erection, maintenance, inspection and control of all drop zones.

30.5.5 Hand-over of drop zones may be done from one Service provider to another by means of formal handover document.

31 Structures

31.1 The Contractor will inform JDA Project Management (HSE) (in writing) of any known or anticipated dangers or hazards relating to the construction work, (fall protection).

31.2 The Contractor shall make available all relevant information required for the safe execution of the work upon being designed or when the design is subsequently altered. The Contractor shall assess and consider alternative / substituting materials in the design phase and refrain from including anything in the design of the structure necessitating the use of dangerous procedures (rigging activities) or materials hazardous to the health and safety of persons.

31.3 The Contractor shall ensure that all reasonably practicable steps are taken to prevent the uncontrolled collapse of any new or existing structure or any part thereof, which may become unstable or is in a temporary state of weakness or instability due to the carrying out of construction work.

31.4 The Contractor shall ensure that imposed loads are clearly indicated in the design and indicated as rigging attachment point(s).

31.5 All drawings pertaining to the design of the relevant structure must be kept on site and shall be available for inspection on request.

32 Temporary Works

1. No temporary work shall be permitted on site unless it is designed by a competent designer appointed in writing and the signed design documents are in the H&S file on site.
2. The Principal Contractor shall appoint Temporary works designers in writing.
 - a. The Principal Contractor shall submit the proof of competency and appointment letter of the competent person(s) appointed as temporary works designer in the H&S plan.
 - b. The temporary works designer shall be competent to design, inspect and approve the erected temporary works on site before use.
 - c. The principal contractor, the construction manager and the temporary works designer shall ensure that:

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The temporary works drawing or any other relevant document includes construction sequences and methods statements, including those for the removal of temporary structures in high risk areas, including the concrete reservoir roof construction, tunnel construction and others;

- i. The temporary works designer has been issued with the latest revision of any relevant structural design drawing;
 - ii. The temporary works design and drawing is used only for its intended purpose and for a specific portion of a construction site;
 - iii. The temporary works drawings are approved by the temporary works designer before the erection of any temporary works.
 - iv. The temporary works design and drawing are used solely for its intended purpose.
3. The Principal Contractor shall appoint a temporary works supervisor
 - a. The Principal Contractor shall submit the proof of competency and appointment letter of the competent person(s) appointed as temporary works supervisor in the H&S plan.
 - b. The temporary works supervisor shall supervise all temporary works operations and shall ensure that all equipment used in temporary works structure are carefully examined and checked for suitability.
4. The Principal Contractor shall define risk controls in the H&S plan which ensure:
 - a. That a team of competent persons adequately erect, support brace and maintain all temporary works structures; the H&S plan shall contain the evidence that all persons required to erect, move or dismantle temporary works structures are provided with adequate training and instruction to perform those operations safely;
 - b. That all temporary works structures are capable of supporting all anticipated vertical and lateral loads that may be applied to them and that no loads are imposed onto the structure that the structure is not designed to withstand; this includes the requirement that the foundation conditions are suitable to withstand the loads caused by the temporary works structure and any imposed load in accordance with the temporary works design;
 - c. That all temporary works structures are done with close reference to the structural and design drawings
 - d. That, where any uncertainty exists, the services of a structural designer are available and that consultation and advice is acquired prior to risk work performed;
 - e. That detailed activity-specific drawings pertaining to the design of temporary works structures are kept in the H&S file;
 - f. That all erected temporary works structures are inspected and approved by the temporary works designer before use. This process shall be defined in the H&S plan and shall include a written letter of approval by the temporary work designer upon completion of the structure's construction.
 - g. That all temporary works structures are inspected by the temporary works supervisor immediately before, during and after the placement of concrete, after inclement weather or any other imposed load and at least on a daily basis until the temporary works structure has been removed; the inspector must be appointed in writing and proof of competency must be included in the H&S plan. The register documenting the results of the inspection must be placed in the H&S file;
 - h. That no person casts concrete or place a load on a temporary work structure until authorization in writing has been given by the designer;
 - i. In the case of concrete work, that, after casting concrete, the temporary works structure is left in place until the concrete has acquired sufficient strength to safely support its

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own weight and any imposed load, and is not removed until authorization in writing has been given by the temporary works supervisor;

- j. That any non-conformity identified during work with temporary works structures is prevented and corrected;
- k. Safe use of solvents or oils or any other similar substances used in temporary works operations (see also hazardous chemical substances);
- l. That all access to temporary work structure is solely by means of scaffolds, secured ladders or staircases for all work to be carried out above the foundation bearing level and that fall prevention structures must be erected preventing persons from falling off the temporary work structure during erection & dismantling, during the casting of concrete, during inspections and during any work performed on top of the structure. Where no fall prevention can be secured, a fall arrest system shall be included in the design and shall be complied with at all times

33 Radiography, Ultrasonic, NDT

33.1 The Contractor performing radiography, ultrasonic or other non-destructive testing (NDT) on the site must comply with the requirements of the relevant legislation, codes of practice and project specific client / agent procedures.

33.2 The Contractor shall develop a project specific procedure on radiography, ultrasonic or other non-destructive testing (NDT) including (but not limited to):

- a) *The radiographic, ultrasonic or non-destructive testing methodology*
- b) *Safe making process/plan*
- c) *Training and competency requirements*
- d) *Barricading/signage requirements*
- e) *Transportation and storage requirements (source)*
- f) *Supervision requirements*
- g) *Waste removal process*

33.3 The contractor shall ensure that:

33.3.1 Radiography technician safety, operating, transportation and storage of radioactive sources and equipment will strictly comply.

33.3.2 No radioactive sources may be brought onto operational area or construction site without prior written consent of the client / agent / principal contractor a PTW for operational sites will also a pre requisite.

33.3.3 All site radiography testing work is supervised by a radiation protection appointed supervisor.

33.3.4 All waste material resulting from the test shall be removed from site.

34 Excavations

34.1 The Contractor shall obtain a cable clearance from the relevant JDA Project Management (HSE) prior to any excavation work.

34.2 Digging or excavation operations by the Contractor may not commence without an excavations method statement and soil classification certificate (*A, B, C soil classification*) and a written permit from the client / agent.

34.3 All excavations to be on register and inspected daily before work commences and after inclement weather by the Contractor appointed competent person. Work may only commence if the excavation is declared safe and his findings noted in the inspection register, this includes any additional safety measures taken.

34.4 Safe means of access/egress shall be provided either by secure ladders or sloping. Stairway stepping may be used, however the steps shall be maintained at an agreed frequency and documented in the SHE Plan.

34.5 Unexpected contamination identified through excavation processes must be reported to the Client/Agent immediately. The relevant health assessment (where required), pollution and soil removal and/or remediation must commence before work can continue.

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34.6 The construction work includes excavation risks:

- a. The risk of collapse due to factors including liquefaction, environmental exposure, pressure during concrete works.
- b. Risks of persons fall in the excavation during temporary works, concrete works and prolonged work inside the excavations.
- c. Risk of other contractors and vehicles entering risk zones relating to the excavations.
- d. Loading of the edges during rigging procedures and others.

34.7 The letters of appointment and proof of competency of the competent excavation supervisors and inspectors shall be placed in the H&S plan.

34.8 A template of the inspection registers must be placed in the start-up H&S file.

34.9 The principal contractor shall take cognisance of the geotechnical study pertaining to the conditions at the construction site and must plan all excavation work in accordance with the recommendations of the professional engineer.

34.10 The principal contractor must ensure that all excavation work on site is planned and included in the traffic safety-, fall protection- and housekeeping/storage plans.

34.11 The principal contractor must ensure that every excavation, including all bracing and shoring, is inspected daily, prior to the commencement of each shift and that no person enters the excavation or works in a risk zone until the excavations is assessed and declared safe.

34.12 All excavations must be left open for the minimum of time required and those that are left open on the site must be protected by a barrier or a fence of at least one metre in height, as close to the excavation as is practicable. The protective barrier or fence must adequately prevent persons from falling in the excavation and barrier taping is not sufficient for this purpose. Excavations near vehicle routes must have a solid barricade.

34.13 Excavation shoring and bracing, if required, shall be designed by a designer appointed in writing, who shall inspect and approve the installed shoring and bracing.

34.14 Where persons work, inspect or test excavations, warning signs must be in place next to an excavation.

34.15 Delivery trucks must not enter the excavation area unless controlled by a responsible person at the excavation site.

34.16 Equipment which needs to be placed inside an excavation shall be subject to a risk assessment and all rigging shall occur under supervision of an appointed competent supervisor.

34.17 The risk controls for ensuring excavation safety, including working inside and around excavations must be documented in the H&S plan.

34.18 All above excavation safety requirements shall, mutatis mutandi, apply to contractors and sub-contractors of the Principal Contractor.

35 Shoring and barricading

35.1 Shoring and bracing must be applied in all excavations deeper than 1 meter. Excavations deeper than 1.5 metres to be sloped or battered at the minimum angle of repose.

35.2 Where it is not possible to slope the sides, the risk assessment must identify methods to ensure that the excavation(s) do not collapse. Safe access to be provided in case of collapse, either secure ladders or slope.

36 Underground cables

36.1 Where cables are buried in reserves at a nominal depth of 0.8m, pick axes shall only be used, freely swung, to a maximum depth of 300mm, below 300mm depth, round nosed shovels shall be used only. Where not practical due to compaction of the soil, pick axes may be used (with a scraping action only, never freely swung) together with round nosed shovels.

36.2 Where cables are exposed, they shall be covered by wooden boards or other means to prevent people from walking on them as soon as possible after exposure. Persons working in such excavations shall wear rubber boots, where directed to do so.

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36.3 In the event of accidental damage to cables, pipes or underground services, the work shall be stopped and the damage reported to the permit office.

37 Excavation Material

37.1 Excavated material must be placed at least 1m from the face of the excavation. Excavated material must be done on the same day, where this is not possible; it must be communicated to the Client/Agent and alternative arrangements made.

37.2 Excavated material must be placed at least 1m from the face of the excavation and must be removed on the same day, where not possible; the Client/Agent must be notified and alternative arrangements made.

37.3 The Contractor is responsible for the management of excavations during and after work, and shall make provision for appropriate barricading, illumination, signage, and management of interference to walkways, traffic, and rescue in water environments.

38 Asbestos Work

38.1 Upon discovery of any Asbestos during construction work, the Contractor shall immediately stop work and report to the Client/Agent.

38.2 No asbestos work shall be carried out prior to the approval of an Approved Inspection Authority who will assess and confirm that all control measures are in place before work may commence.

38.3 Only an approved Contractor registered for as an Asbestos Contractor may be used. Proof of registration to be made available upon request.

38.4 The registered Contractor to submit a plan regarding Asbestos work which shall include (but not limited to) the following:

- a) *Barricading and access control requirements*
- b) *Warning signs to be erected*
- c) *Specify the correct PPE to be worn:*
- d) *Specify the handling, storage and disposal methods*

39 Demolition Activities / Work

39.1 A registered demolition work contractor (SA requirement) must ensure that before any demolition work is carried out, and in order to ascertain the method of demolition to be used, a detailed structural engineering survey of the structure to be demolished is carried out by a competent person and that a method statement on the procedure to be followed in demolishing the structure is developed by that person.

39.2 During a demolition, the competent person contemplated in paragraph above must check the structural integrity of the structure at intervals determined in the method statement contemplated in paragraph above, in order to avoid any premature collapses.

39.3 Prior to a site being demolished, it must be made safe from all utilities and chemical products.

39.4 No person may enter a demolition site without access being granted.

39.5 Demolition work must be done under the supervision of a competent person appointed in writing.

39.6 Any demolition work during the construction on project must be addressed through a specific risk assessment and method statement by a competent person appointed in writing.

39.7 The method statement must include the engineering survey, where applicable, and shall be approved in writing by the construction manager.

39.8 The H&S Plan must document the name, signed letter of appointment, competency and the curriculum vitae of the competent person(s) appointed to design and supervise all demolition work.

39.9 Safe work instructions for employees working on demolition must be documented in writing.

40 Tunnelling

40.1 No person may enter a tunnel, which has a height dimension of less than 800 millimetres.

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41 Scaffolding

41.1 General requirements

- 41.1.1 All scaffolding activities shall comply with the applicable SANS code.
- 41.1.2 The roles and responsibilities of scaffolding personnel to be adequately documented, and each person made aware of their roles and responsibilities. No person is allowed to execute their work out of their scope.
- 41.1.3 There must be adequate number of scaffolding supervisors appointed in relation to the size of the project area.
- 41.1.4 Delegation of responsibilities to be catered for.
- 41.1.5 Emergency response methods shall be established.

41.2 Erection and dismantling

- 41.2.1 Scaffold builders must be trained and declared competent, as per SANS code.
- 41.2.2 Contractor to check and verify the validity and authenticity of competency certificates.
- 41.2.3 Approved erection and dismantling methods to be documented in a procedure, including the means of fixing scaffold boards.
- 41.2.4 No scaffolding wooden planks may be used close to hot surfaces.
- 41.2.5 Scaffold builders must ensure safe positioning and good communication during the erecting and dismantling phases, this shall be documented in the required procedure.
- 41.2.6 A scaffold supervisor shall ensure that a scaffold is safe for erection and fit for purpose prior to handing over to the scaffold user.
- 41.2.7 Scaffolding boards should always be properly secured to prevent displacement.
- 41.2.8 During dismantling, all loose objects must be removed from the scaffold before dismantling.

41.3 Laydown areas

- 35.3.1 Scaffolding laydown areas shall be allocated by the owner.
- 35.3.2 Scaffolding laydown areas requirements:
 - a) *Scaffolding material may only stacked/stored the allocated laydown areas.*
 - b) *Scaffold material must not restrict the safe movement of people in the laydown area.*
 - c) *Scaffolding laydown to be positively barricaded (i.e. scaffolding frame with orange snow netting).*

41.4 Client requirements

- 41.4.1 Where production activities result in contamination of a project scaffold material, it must be reported to the Client/Agent. The contamination to be cleaned up prior to dismantling taking place.

41.5 Scaffold user requirements

- 41.5.1 All users of scaffolding shall attend scaffolding users training / working at heights training prior to using any scaffold.
- 41.5.2 All users of scaffolding must ensure that the trapdoor is closed when performing work on platforms.

42 Working in Inclement Weather

- 42.1 The project shall implement an early warning system to identify inclement weather.
- 42.2 Construction work done during electrical storms
 - 42.2.1 The Contractor shall ensure that all employees are removed from heights and all employees are as safe as possible, in inclement weather conditions.
 - 42.2.2 No work is allowed on the construction site during electric storms where employees cannot be protected from it. Protection involves:
 - a. *Eating area fitted with a lightning mast*
 - b. *Workshops*
 - c. *Substation*
 - d. *Inside buildings*

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- 42.2.3 No work is allowed in electrical storms on top of open structural steel even when earthed.
- 42.2.4 No work is allowed on height where the lightning is within a 10 km radius.
- 42.2.5 After inclement weather on-site risk assessments must be reviewed to include wet conditions.

42.3 Crane operations during inclement weather

- 42.3.1 Crane operations will stop during lightning within a 10km radius and wind above 28 km/h; crane driver will not be allowed to leave the crane with the booms extended.
- 42.3.2 Lifting operation will stop during rain. (Rigging and hand lifts)
- 42.3.3 Booms on all cranes must be retracted.
- 42.3.4 All rigging operations will stop and employees will be removed from site.

42.4 Construction work done during rain

- 42.4.1 During rainy conditions all work on steel structures should stop.
- 42.4.2 No electrical tools may be used during rainy weather in open areas.
- 42.4.3 Work can be done in water proof areas where there is a zero risk for electrocution.
- 42.4.4 Areas cleared for work during rain:
- Workshop(s)
 - Sub-Station(s)
 - Office(s)
 - Work on ground level with the provision that the area is maintained in a safe dry condition.

42.5 Scaffolding activities during inclement weather conditions

- 42.5.1 During inclement weather only limited scaffolding actions are permitted; i.e. erecting and dismantling activities.
- 42.5.2 Guidelines for safe choice(s):

Weather type	Building and dismantling of Scaffolding
Lightning	Stop all activities
Rain: Light	Stop all activities
Rain:	Heavy Stop all activities
Wind: > 28km/h < 40km/h	Full use
Wind: > 40km/h	Stop all activities
Mist: Light	Full use
Mist: Heavy	Full use
Hail:	Stop all activities

42.5.3 Sometimes it might be necessary to allow scaffolding activities to continue during abnormal equipment and process conditions as this could impair personnel safety or pose an environmental risk. In such cases; scaffolding activities may continue with the provision that the relevant team ensures that a comprehensive risk assessment (e.g. task risk assessment, is done, whilst considering both work and weather conditions.

42.5.4 All scaffold users must:

- Ensure that scaffolding is inspected immediately after inclement weather conditions
- Ensure that the risks associated with working at heights during inclement weather are identified and reasonably mitigated.
- Be cautious of slip/trip hazards when performing activities during inclement weather.
- Take note of the weather when completing the daily safe task instructions on site (where applicable)

42.6 Driving in inclement weather

- 42.6.1 The Contractor to ensure that the danger of driving in wet conditions is adequately covered in a risk assessment.

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42.6.2 The risk assessment may include (but not limited to):

- a. *Route planning*
- b. *Speed reduction*
- c. *Planning for emergency situations.*
- d. *Driving precautions for slippery surfaces.*
- e. *Visibility hazards*

43 Suspended Platforms

43.1 The contractor must appoint a competent person in writing who must ensure that all suspended platforms work operations are carried out under his or her supervision and that all suspended platform erectors, operators and inspectors are competent to carry out their work.

43.2 No contractor may use or permit the use of a suspended platform, unless the design, stability and construction thereof comply with the all of the required safety standards and he or she is in possession of a certificate of system design issued by a professional engineer, certificated engineer or a professional technologist for the use of the suspended platform system.

44 Rope Access Activities / Work

44.1 The contractor must appoint a competent person in writing as a rope access supervisor with the duty of supervising all rope access work on the site, including the duty of ensuring occupational health and safety compliance in relation to rope access work.

Provided that the appointment of any such person does not relieve the construction manager of any personal accountability for failing in his management duties in terms of this requirement.

44.2 No contractor may use or allow the use of rope access work unless the design, selection and use of the equipment and anchors comply and he or she is in possession of a site specific fall protection plan developed by a competent person applicable to the specific work and environment prior to the commencement of the work, including records of maintenance and inspections of all the equipment used for the work operations.

45 Material Hoist

45.1 The contractor must ensure that every material hoist and its tower have been the platform of every material hoist to be designed in a manner that it safely constructed in accordance with the generally accepted technical standards and are strong enough and free from defects.

45.2 The contractor of a material hoist may not require or permit any person to operate a hoist, unless the person is competent in the operation of that hoist.

45.3 The material hoist contains the loads being conveyed and that the combined mass of the platform and the load does not exceed the designed lifting capacity of the hoist.

45.4 The contractor must ensure that the tower of every material hoist is erected on firm foundations and secured to the structure or braced by steel wire guy ropes, and extends to a distance above the highest landing to allow a clear and unobstructed space of at least 900 millimetres for over travel.

45.5 The contractor must enclosed on all sides at the bottom, and at all floors where persons are at risk of being struck by moving parts of the hoist, except on the side or sides giving access to the material hoist, with walls or other effective means to a height of at least 2100 millimetres from the ground or floor level.

45.5 The contractor must enclosed on all sides at the bottom, and at all floors where persons are at risk of being struck by moving parts of the hoist, except on the side or sides giving access to the material hoist, with walls or other effective means to a height of at least 2100 millimetres from the ground or floor level.

45.6 The contractor must provide with a door or gate at least 2100 millimetres in height at each landing, and that door or gate must be kept closed except when the platform is at rest at such a landing.

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46 Rope Rigging

46.1 Raising or lowering equipment using a rope:

46.1.1 The raising or lowering of equipment by hand using a rope has a high risk and it often results in loads being dropped and persons injured.

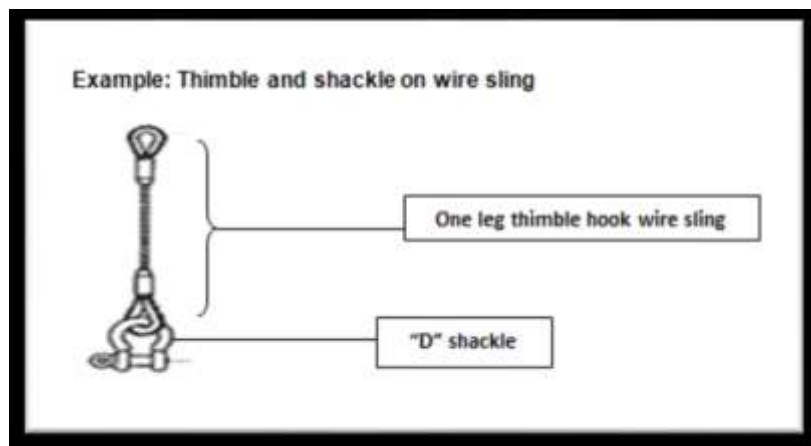
46.1.2 The safest option is therefore not to allow this activity but rather use other means to lift / lower loads. Should it however not be practical and a load needs to be raised / lowered by hand the following guidelines shall apply.

46.1.3 The, ropes, connection points will be only be used by a competent operator as per company safety operating procedure and installation will be approved by a competent person.

46.2 Raising / lower loads by hand shall conform to the following requirements:

46.2.1 Load requirements

- a) Only loads of 20 kg mass or less may be raised or lowered by hand using a rope.
- b) Ensure that all equipment, tools, and fire extinguishers etc. to be lifted / lowered are placed in a bag or container is secured to the rope in such a manner that the load cannot become detached from the rope or fall out of the bag or container. Precaution should also be taken as to the type of bag used.
- c) Material not suitable (i.e. plastic buckets, paint cans are not suitable containers) could easily tear when the load is being raised.
- d) Examples of suitable lifting bags and containers:
- e) Loads may not be connected to the rope by means of a knot. A mechanical connection (D shackle) to a thimble (figure 2) that is spliced into the rope (sling) is the only acceptable means of connection



46.2.2 Rope requirements

- a) The rope used shall be of sufficient length, load bearing capacity and in a good physical condition.
- b) Manila and polypropylene ropes are allowed.
- c) Before the initial use of ropes, ropes are to be inspected by the rigging department. Thereafter it shall be inspected visually for defects and the results recorded before and after usage.
- d) The Service Provider to have a system of managing the numbering, control and inspection of all ropes.
- e) Ropes to be anchored while hoisting and lowering loads from and to ground level.
- f) Dead end (other end of the rope), where the load is not attached shall be firmly fixed to a solid anchor point during lift/lowering operations.

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46.2.3 Personnel requirements

- a) *The area beneath the lifting or lowering site shall be barricaded to ensure that no persons enter under any suspended load.*
- b) *A person must be present to enforce access control at barricaded area.*
- c) *At all times during lifting / lowering operations a minimum of two people must be in control of the rope to which the load is connected.*
- d) *Where work is to be done above three building floors consider temporary lift for the transport of people and their toolboxes must be provided.*

46.2.4 The following key points minimum requirements:

a) Load

- ☐ *Estimated mass.*
- ☐ *Sufficient basket / holder.*
- ☐ *Connection.*

b) Rope

- ☐ *Length and diameter.*
- ☐ *Dead end attachment.*
- ☐ *Condition.*

c) People

- ☐ *Operator competency / training.*
- ☐ *Access control and barricading.*
- ☐ *Person who operates the rope need to beware of all hazards/risks involved in the tasks.*
- ☐ *Identify potential places where the load can get stuck or hooked whilst lifting / lowering takes place.*

47 Bulk Mixing Plants and Delivery Trucks

47.1 The Contractor shall establish a management procedure for the management of deliveries to site. This shall include the suppliers of concrete. Roles and responsibilities of relevant person(s) in the process shall be clearly documented. This management procedure shall form part of the SHE Plan/File and is subject to review by JDA Project Management (HSE) prior to implementation.

47.2 The Contractor must ensure that the operation of a bulk mixing plant is supervised by a competent person who has been appointed in writing and is aware of all the dangers involved in the operation thereof are conversant with the precautionary measures to be taken in the interest of SHE.

47.3 The contractor must ensure that the placement and erection of a bulk mixing plant complies with all the requirements set out by the manufacturer and that such plant is erected as designed.

47.4 If batching occurs on site,

1. The Principal contractor must appoint a competent bulk mixing plant supervisor in writing.
2. A bulk mixing plant operator must be appointed, and no other person may operate the plant.
3. The Principal Contractor must ensure that the machinery and plant comply with the legal requirements and is suitable for the application on the construction site.
4. The bulk mixing plant 's installation, maintenance and repair record document are on site at all times.
5. The bulk mixing plant procedure is included in the H&S plan and the relevant documents to be used are placed in the start-up H&S file.
6. The fall protection plan shall include a batch plant risk assessment.

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47.5 Earth Works

1. Any earth works shall be risk assessed and a comprehensive method statement included in the H&S plan; controls for the following risk shall be included:
 - a. Traffic controls during earth works.
 - b. Access and egress from the mass earth works site.
 - c. Access controls to risk areas.
 - d. Windblown dust.
 - e. Stockpiling of different materials.
 - f. Loading and off-loading of materials.
2. A competent person shall be appointed to be in charge of each earth works' areas.
3. Every mobile construction plant shall:
 - a. Be in serviceable condition and safe.
 - b. Be inspected by a competent person daily and the result of the inspection logged in a register kept in the vehicle.
 - c. Where non-conformities are identified, these shall be subject to immediate and documented appropriate corrective action.
 - d. Have a serviced portable fire extinguisher installed at all times.
 - e. Be operated by a competent operator appointed in writing; the operator shall:
 - i. Be in possession of a conforming operator's license;
 - ii. Be in certified medically fit as a mobile plant operator.

48 Explosive Actuated Fastening Devices

48.1 The Contractor shall establish a management procedure for the management of explosive actuated fastening devices when applicable to the project. This management procedure shall form part of the SHE Plan/File and is subject to review by JDA Project Management (HSE) prior to implementation.

48.2 The required procedure shall be compiled by a competent person and shall include (but not limited to) the following as a minimum:

- a) *Clearly documented roles and responsibilities*
- b) *Clear authorisation requirements*
- c) *Control and usage requirements*
- d) *Competency/training requirements*
- e) *Proof of licence required*
- f) *Declaration at Client security*
- g) *Transportation requirements*
- h) *Types of devices to be used on site*
- i) *Permit requirements*

48.3 The Contractor may not use or permit any person to use an explosive actuated fastening device, unless the client / Agent have provided approval in writing.

48.4 The Contractor must ensure that user is trained in the operation, maintenance and use of such a device and the user is provided with suitable protective equipment.

48.5 The Contractor must ensure the explosive actuated fastening device is provided with a protective guard around the muzzle end, which effectively confines any flying fragments or particles and the firing mechanism is so designed that the explosive actuated fastening device, will not function unless it is held against the surface with a force of at least twice its weight and the angle of inclination of the barrel to the work surface is not more than 15 degrees from a right angle.

48.6 The contractor must ensure that the issuing and collection of cartridges and nails or studs of an explosive actuated fastening device are controlled and done in writing by a person having been appointed in

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writing for that purpose; and recorded in a register by a competent person and that the recipient has accordingly signed for the receipt thereof as well as the returning of any spent and unspent cartridges.

49 Electrical Installations

49.1 Prior to connection to any SBU operational electrical supply, the contractor shall assess the electrical load and obtain written approval from the client / agent. All electrical installations must be checked and approved in writing by the contractor's representative (certified with the Electrical Contractors Board of South Africa) requirements.

49.2 The contractor shall ensure that before construction commences and during the progress thereof, adequate steps are taken to ascertain the presence of and guard against danger to workers from any electrical cable or apparatus which is under, over or on the site.

49.3 The contractor shall have a designated, appointed and competent person to inspect at least once a week all temporary electrical installations on the site. A certificate of compliance (COC) must be available for each temporary building, store, office, etc. A copy of the COC must be posted at the installation for easy reference.

49.4 Earth leakage protection shall be provided by the contractor and shall be tested before use and thereafter on a scheduled basis, the results of which shall be registered in a logbook.

ALSO see "Machinery, tools and equipment" and "Portable electrical tools"

50 Lock Out / Tag Out (LoTo)

50.1 Lock-out systems consist of isolation of electrical, hydraulic, pneumatic and mechanical systems; contractors are advised to ensure that they have the latest copies of Client LOCK OUT procedures available and that personnel are trained. Where the contractor intended to implement The Company's LOCK OUT procedure (Greenfield's) this procedure will be forwarded to the client / agent for review prior to commencement of work.

50.2 A copy of the approved lock-out procedure shall be available in the SHE file at the project site. The Contractor, his employees and Client/Agent shall be trained in accordance with this procedure and declared competent by the contractor to lock out electrical equipment. All personnel shall; at all time; adhere to the procedure's requirements.

51 Use of Temporary Storage of Flammable Liquids

51.1 Flammable liquids store facilities must comply with legislation and applicable Client Standard and must be approved by the Client Emergency Services (EMS).

51.2 All flammable liquid stores on site shall be adequately identified by the required signage, and capacities clearly marked. Material safety data sheets (MSDSs) shall be available for all chemicals and flammable liquids and included in the site SHE File.

51.3 Flammable liquid storage areas shall make provision for spill containment to provide a physical barrier between the soil and any hazardous liquids that might be spilled.

51.4 The Contractor must ensure that where flammable liquids are being used, applied or stored at the workplace concerned, it is done in a manner that it does not cause a fire or explosion hazard, and that the workplace is effectively ventilated.

51.5 No person may smoke in any place, in which flammable liquid is used or stored, and the contractor must affix a suitable and conspicuous notice at all entrances to any such areas prohibiting such smoking. Ensure that adequate amount of efficient fire-fighting equipment is installed in suitable locations around the flammable liquids store with the recognized symbolic signs.

51.6 All containers holding flammable liquids are kept tightly closed when not in actual use and, after their contents have been used up, are removed from the construction site and safely disposed of.

51.7 Where flammable liquids are decanted, the metal containers are bonded and earthed.

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53 Housekeeping and General Safeguarding

53.1 Housekeeping

53.1.1 The Contractor shall establish an effective waste and housekeeping management plan for the project. This management procedure shall form part of the SHE Plan/File and is subject to review by JDA Project Management (HSE) prior to implementation. The procedure shall make provision for waste segregation and include a certificate for recognized and approved waste site, when applicable.

53.1.2 A contractor must, in addition to compliance with the Environmental Regulations for Workplaces, 1987, promulgated by Government Notice No. R. 2281 of 16 October 1987 ensure that suitable housekeeping is continuously implemented on each construction site, including: proper storage, removal of scrap plan and ensuring that placement on site does not obstruct means of access and egress from workplace and passageways.

53.1.3 The Contractor to conduct daily housekeeping inspections and may appoint a housekeeping crew(s), at least one cleaning crew per discipline. Housekeeping crews to consist of a minimum of 3 – 5 people who will actively assist in creating and maintaining a safe work environment.

53.1.4 PPE may not be left on site unattended during lunch or knock off times. All scrap unwanted material, tools and equipment etc. to be removed from site on a daily basis.

53.1.5 Materials not to be left unsecured in elevated areas. Control measures to be implemented to prevent accumulation of dust and eye injuries. (Foreign objects in eye.)

53.1.6 Contractors to ensure that nails protruding through timber are bent over or removed.

53.1.7 The Client/Agent will perform periodic housekeeping audits. Where an inadequate standard of housekeeping is found (safety/hygiene), JDA Project Management (HSE) may instruct the Contractor to cease work until the area has been neatened up and/or made safe.

NB! No additional costs or time extensions to the contract will be allowed due to such stoppage. Failure to comply may result in the site being cleaned by another Contractor at the cost of the non-complying Contractor.

53.1.8 On completion, the contractor is responsible for clearing of the site and safe disposal of all materials, scrap, temporary buildings and building bases to the satisfaction of the client / agent.

53.2 Safe guarding / Access control

53.2.1 The contractor is required to have an effective safe guarding procedure in place for the project (where required.)

54 Stacking and Storage

54.1 A Contractor must, in addition to compliance with the provisions for the stacking of articles requirements ensure that a competent person is appointed in writing with the duty of supervising all stacking and storage on a construction site. This competent person will ensure that adequate storage areas are provided, there are demarcated storage areas and that all areas will be kept neat and under control.

54.2 The Contractor shall establish and stacking and storage management plan for the project to ensure that all stacking areas are identified and managed in a safe manner. The required plan shall include (but not limited to) the following as a minimum:

- a) *Manual handling requirements*
- b) *Stacking/storage at heights*
- c) *Stacking/storage methods to be used*
- d) *Load bearing platforms for stacked/stored materials*
- e) *Barricading requirements (E.g. Walkways)*
- f) *Access control requirements*
- g) *Quarantined and/or redundant material management*
- h) *Emergency response*
- i) *Fire precautions*

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54.3 The Contractor is prohibited to perform stacking/storage activities behind flammable stores.

54.4 In pipe racks/pipe reserves, scaffolding may not be used for temporary storage of pipes, nor may temporary structures be erected.

55 Fire Precautions

55.1 A contractor must ensure that all appropriate measures are taken to avoid the risk of fire sufficient and suitable storage is provided for flammable liquids, solids and gases smoking is prohibited and notices in this regard are prominently displayed in all places containing readily combustible or flammable materials.

55.2 All fire equipment to clearly be marked on the site establishment plot plan.

55.3 In confined spaces and other places in which flammable gases, vapours or dust can cause danger.

55.4 Fires:

55.4.1 No open or unattended fires are allowed within the construction site.

55.4.2 The burning of waste is prohibited and all waste will be relocated to the waste area of client prior approval needs to be obtained by the Client/Agent representatives.

55.4.3 Approval for braai fires must be obtained from the relevant client / agent.

55.5 Designated smoking areas

55.5.1 The Contractor shall make provision for designated smoking areas on a construction site within an approved site establishment.

55.5.2 Smoking is only permitted in designated areas on site.

55.5.3 The Contractor to provide suitable facilities for their own personnel at locations agreed with the Client.

55.5.4 The Contractor to ensure these facilities are equipped with sufficient waste bins (e.g. one for cigarette stubs and one for general waste), firefighting equipment and the necessary signage as required by legislation.

55.5.5 The Contractor to ensure these facilities is kept clean and tidy on a daily basis.

56 Construction Employee Facilities

56.1 The Contractor shall identify and budget according to his project scope the welfare facilities. A plot plan indicating site facilities shall be reflected in the SHE Plan.

56.2 The Contractor must provide at or within reasonable access of every construction site, the following clean, hygienic and maintained facilities in addition to the project specific health requirements:

a) *Shower facilities after consultation with the employees or employees representatives, or at least 1 shower facility for every 15 persons; (provision for each sex)*

b) *At least 1 sanitary facility for each gender and for every 30 workers;*

c) *Changing facilities for each gender; and*

d) *Sheltered eating areas with dedicated pre-dining and hand washing facilities*

i. *The Contractor to ensure that the cleanliness of the eating areas are maintained with regard to dust management, waste management and provide stable tables and chairs.*

56.3 The contractor shall ensure that all construction employee facilities are identified in the approved site establishment plot plan and are easily accessible.

56.4 A Contractor must provide reasonable and suitable living accommodation for the workers at construction sites who are far removed from their homes and where adequate transportation between the site and their homes, or other suitable living accommodation, is not available.

56.5 A Contractor shall make provision for the positioning, access, cleaning, and maintenance of temporary mobile construction welfare facilities on pipeline or similar type of construction projects.

56.6 A Contractor shall make provision for locker facilities on site, which shall be physically secured, to prevent potential falling. Locks shall be provided on each locker. The Contractor must establish and implement rules for storage in lockers, and all employees to be trained on such rules.

56.7 Storage of food, tools and/or PPE together is strictly prohibited.

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57 Drinking Water

57.1 A Contractor shall ensure adequate provision is made for drinking water on site as well as in lay down areas taking into consideration that no eating or drinking in operational areas are allowed.

57.2 Water for drinking shall be drawn only from taps in messing areas at points on site marked "drinking water". Adequate provision shall be made for suitable containers (cups or similar) for persons to drink water. In addition, provision should also be made for the cleaning of drinking containers/cups. No home-made cups such as cut cool drink cans or plastic bottles will be accepted. The sharing of cups will also not be permitted.

57.3 No equipment or system shall be connected to the drinking water system without prior approval of the JDA Project Management (HSE). Should any contamination of the drinking water occur the Contractor must report it immediately to the Client. JDA Project Management (HSE) must ensure before installation of any utilities such as electricity, water and sewerage the client must approve the installation or provision thereof with clear indications and collar codes on.

58 General Hygiene

58.1 The Service Provider shall ensure general hygiene practices such as the wearing of socks, regular washing of hands, no spitting on site etc. are included in the safety management system and is implemented and monitored on site.

59 Liquor, Drugs and Weapons

59.1 Liquor, drugs (narcotic/recreational) and weapons (guns, personal knives, grenades, etc.) are not permitted on the construction site. In the event that these are discovered on site, the Contractor shall immediately inform the JDA Project Management (HSE).

59.2 Random testing and searching shall be performed, and any person found with liquor, drugs or weapons or under the influence of liquor/drugs may be handed over to the Local Police.

59.3 No person under the influence is permitted on site.

59.4 Personnel under medical treatment shall report it to their management immediately. (SBU may declare dry construction camp.)

60 Cell phones and Hand-Held Radios

60.1 The usage of cell phones is not permitted in operating plants.

60.2 The Service Provider to provide suitable storage for personal items including mobile phones.

60.3 Predominantly, hand radios (where applicable - Tetra) will be utilized for communication on site.

61 Risk Assessments

61.1 A comprehensive baseline risk assessment covering all possible hazardous tasks throughout the project must be drawn up before starting the construction work. The risk assessment must include the following:

- Identification of hazards or hazardous tasks
- Identification of possible risks or injuries
- Evaluation of the risks in terms of:
 - Severity (how severe is the injury, illness or damage)
 - Frequency (how often is the hazardous task done or how often do people come in contact with the hazard)
 - Exposure (how many workers are exposed to the hazard)
- Risk scores based on the above evaluation
- Control measures

61.2 Risk assessments must be done for new work that was not covered in the original baseline risk assessment if the scope of work changes or something was mistakenly omitted. Risk assessments may also

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need to be done when the risk assessment is reviewed once a year. Risk assessments should also be reviewed after an incident has taken place.

61.3 All risks and control measures need to be communicated to all workers and proof of this must be kept on the person of workers that have been thus inducted.

61.4 Specific risks that must be taken into account for the JDA project must include but are not limited to:

- Risks arising from electrical installation work
- Risks arising from use of hand tools
- Risks arising from the use of scaffolding and trestles
- Risks arising from working at heights
- Risks arising from the use of lifting equipment
- Risks arising from working near the local residents
- Any other risks related to the works

61.5 The Contractor is required to have a sound risk management process in place that identifies hazards and risks, and approved risk management measures to be used.

61.6 The Contractor shall have a documented procedure which includes the risk methodology, the risk matrix, identification of risk and hazards to which a person is exposed; an analysis and evaluation of the risks and hazards identified; a documented plan of safe work procedures to mitigate, reduce or control the risks and hazards identified; a monitoring plan catering for frequencies as well as a review plan.

61.7 Contractor will be required to analyse its works information/scope of work, including equipment and execution activities. For each, a risk assessment will be required which defines systems and safe work procedures and planned task observations that would be used in order to complete the activity safely.

61.8 Contractor risk assessments shall be compiled by a competent team, and facilitated by a competent appointed risk assessor, by using the Contractor's own approved format.

61.9 The Contractor will be provided with a Client baseline risk assessment, which shall be incorporated into the Contractor risk management system for the project. Preliminary hazard identification must still be done by the Contractor prior to work on site.

61.10 Potential hazards (see list below) are listed in this SHE specification, in order to make contractors aware of the potential hazards that may be encountered on site.

Note: The list may is not comprehensive, and the onus lies with the Contractor to ensure that all the hazards in their scope of work are identified, before and during the project, and the necessary risk assessments carried out.

61.11 Should the Client/Agent identify any hazardous activities on the site, where the Contractor has not submitted a risk assessment, the Client/Agent may instruct the Contractor to submit a risk assessment prior to execution of such activity.

61.12 The Contractor shall conduct planned job observations and documented the methodology in a procedure.

61.13 Some of the identified potential hazards on a typical project include (but not limited to):

Hazardous Environments: Confined spaces Dust Fumes Extreme environmental conditions (distances, temperature extremes, medical service) Extreme situational conditions (E.g. hours of work). Insufficient lighting Noise (in excess of 85 dBA in certain areas) Water Work that may have an impact on the public Working at heights and on elevated structures	Hazardous Operations: Concrete pouring Concreting Crane lifts (sometimes in windy conditions) DB Installations Erecting and demolishing structures Erecting and dismantling scaffolding Erecting and dismantling support-work and formwork Excavations Piling Welding / grinding / cutting Hazardous Equipment:
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above other persons (fall protection plans required) Working in and around excavations or floor openings Working next to moving plant Working next to or in existing plants or mining operations Working next to public roads / railway lines / bodies of water Working next to revolving equipment Working with chemical products Working within the vicinity of or in electrical installations or in the proximity of power lines	Air compressors Batch plants Chains and slings Conveyor belts Cranes Earth moving equipment Excavators Ladders Lifting equipment Pressure vessels Scaffolding Trucks
Hazardous Substances: Biological hazards Chemicals Diesel Liquid petroleum Solvents	Hazardous Tools: Angle grinders Circular saws Electric hand tools Explosive power tools Welding units – arc and gas

61.14 The following are guidelines on the required levels of risk assessments (RA)

Company baseline risk assessment 2 Types of baseline RAs <input type="checkbox"/> Company baseline risk assessment (Company approved scope) <input type="checkbox"/> Project baseline risk assessment (Project approved scope) <i>Intention</i> <input type="checkbox"/> Broad based (not task focussed) <input type="checkbox"/> High level <i>Inclusions</i> <input type="checkbox"/> Scope activities <input type="checkbox"/> Management activities (PC, EC) <i>Responsibility</i> <input type="checkbox"/> Corporate SHE Management level and applicable management	Task specific risk assessments <i>Intention</i> <input type="checkbox"/> Based on approved scope (not on site conditions) <input type="checkbox"/> Medium level <input type="checkbox"/> Task specific-relates to SWP's and method statements <input type="checkbox"/> Dissects critical steps /phases within tasks and evaluate/rate accordingly <i>Inclusions</i> <input type="checkbox"/> Scope related activities <input type="checkbox"/> Analysing risk for the task <i>Responsibility</i> <input type="checkbox"/> SHE Management teams,	On site risk assessments. <i>Intention</i> <input type="checkbox"/> Based on task and activities <input type="checkbox"/> Low level <i>Inclusions</i> <input type="checkbox"/> On site conditions relating to task and activities <input type="checkbox"/> Complexity of work (Ground level vs. Heights) <input type="checkbox"/> Worker inputs <input type="checkbox"/> Permit conditions <input type="checkbox"/> Plant specific conditions etc. <i>Responsibility</i> <input type="checkbox"/> Competent supervision and/or relevant employees
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62 Construction SHE Forums

62.1 The Contractor shall establish a monthly construction SHE Forum. The required attendance (as a minimum) shall comprise of the Contractors SHE Manager, SHE officers, Construction supervisors, SHE representatives, chairpersons of all Sub-Contractor SHE committees and JDA Project Management (SHE) shall be invited for attendance.

62.2 The purpose of the Construction SHE Forum is as follows:

- To co-ordinate the SHE effort of all contractors on the site with regard to the interaction between the different contractors;
- To function as a forum where the individual contractors are able to have input to the improvement of the SHE standards set for the site;

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- c) *To co-ordinate the different needs of the different contractors with regard to SHE training on the site and to further develop the project induction-training programme to suit changing needs*
- d) *To review the incidents on the site and act as an overall steering committee with regard to the performance of the individual SHE committees.*

62.3 SHE matters for discussion (as a minimum) include:

- a) *Work look ahead*
- b) *Accident / Safety incidents and incident trends analysis*
- c) *Accident investigations*
- d) *Hazardous materials / substances*
- e) *Work procedures*
- f) *Protective clothing / equipment*
- g) *Housekeeping*
- h) *Work permits*
- i) *Non-conformances*
- j) *Emergency preparedness*
- k) *Traffic control*
- l) *Medicals and other health matters*
- m) *Training*
- n) *Forthcoming high hazard activities*
- o) *General health and safety issues*
- p) *SHE Plan compliance*
- q) *Matters arising from contractor's SHE meetings*
- r) *Client learning insights*

62.4 Minutes of meetings for all meetings shall be available on site for review and auditing by the Client/Agent.

62.5 Project Meetings

62.5.1 All project meetings shall have SHE as a standing agenda point.

62.6 JDA Project Management (HSE) Service Provider SHE Managers Forum

62.6.1 JDA Project Management (HSE) schedules a periodic Service Provider SHE Managers Forum. All Service Provider SHE Managers (on active projects only) shall attend this Forum.

63 **SHE Inspections and Audits**

63.1 SHE Inspections

63.1.1 The Contractor shall continually monitor all activities under their control and to conduct formal SHE inspections on all activities on a frequency as agreed with the Client/Agent.

63.1.2 All deviations revealed during inspection shall be rectified as soon as possible; records of inspections shall be kept in the SHE File.

63.1.3 The Contractor will log each finding in a tracking register, where corrective actions are identified and each finding must be closed out. Trend analysis must be done to proactively identify focus areas and areas of concern.

63.1.4 The Contractor shall track the effectiveness of corrective action taken and shall provide feedback to JDA Project Management (HSE) on a monthly basis via the SHE Month report.

63.1.5 The Contractor shall ensure that recurrence findings are addressed by issuing a formal non-conformance report. JDA Project Management (HSE) shall officially be informed of all non-conformance reports issued.

63.1.6 JDA Project Management (HSE) will also conduct formal inspections at least once a month, and deviations revealed therein must also be rectified within the required timeframes.

63.1.7 JDA Project Management (HSE) may request a recovery/action plan from the Contractor relating to identified concerns.

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63.2 SHE Audits

63.2.1 Contractor must make provision for inspection and audit arrangements both internally and externally in the SHE Plan.

- a) Internal arrangements shall identify:
 - i. Specify type of audits conducted
 - ii. Frequency and by whom
 - iii. SHE Assessment schedule and site walks
 - iv. SHE Assessment protocol used
 - v. Management visibility
 - vi. A copy of the Contractor corporate audits shall be forwarded to JDA Project Management (HSE) SHE upon completion.
- b) External arrangements shall identify
 - i. Plan for external audits and inspections

63.2.2 The Principal Contractor shall carry out monthly audits on the Contractor's SHE performance. This audit shall include the Contractor's SHE programmes, systems and performance on the project (both in the contractor's site establishment and on the site). A copy of the audit with recommended remedial actions, time frames, and an indication of the status of rectification of deviations identified in previous audits shall be forward to JDA Project Management (HSE) (SHE) by the first week of each month for the previous month.

64 Deviations and Trend Management

64.1 The Principal Contractor shall be required to continually monitor all activities under his control and to conduct formal SHE inspections of all such activities on a weekly basis, indicated by law, or more frequently where it is considered necessary by JDA Project Management (HSE). Inspection records shall be kept on record.

64.2 All deviations shall be tracked on a register and trend analysis shall be drafted to proactively address areas of concern and specific focus areas. All logged deviations must track the effectiveness of corrective actions and ensure that each deviation is closed out.

64.3 Re-occurrence findings shall be documented and addressed through formal non-conformance systems.

64.4 The Principal Contractor will notify JDA Project Management (SHE) of deviation trends as well as all non-conformances relating to re-occurrence findings on the SHE month end report.

64.5 Where Principal Contractors (and its contractors) are working across multiple JDA projects, corrective actions and/or improvements relating to deviations or concerns identified on such projects must be consistently applied across projects. Failure to do so may result in consequence management that will be actioned by JDA Project Management (HSE).

64.6 JDA Project Management (HSE) shall conduct formal inspections at least once a month, and deviations that are revealed must also be rectified within an agreed timeframe. A recovery/action plan may be requested to address close out of deviations.

65 Incident And Accident Reporting

The Contractor must have an incident and accident reporting and investigation procedure and identify the types of incidents/accidents reported as well as client reporting requirements. This procedure shall include Client requirements; identify the types of incidents/accidents to be reported and a project reporting flowchart.

65.1 Greenfields

65.1.1 Before establishment of a first aid facility on site, the contractor shall negotiate and agree with the client about site medical facility and client / agent on minimum standards in order to clarify the type of treatment. The HSE Management team / medical officers may at any time audit such facilities. Injury classifications (To be requested) shall be used as a guideline to classify and allocate all injuries (Base on Best Practice –SA).

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65.1.2 Where the Contractor is making use of their own medical facility the responsible person shall ensure that all injuries are reported to JDA Project Management (SHE) for confirmation of classification of all injuries treated outside these facilities.

65.2 Brownfields

65.2.1 The Contractor shall ensure that all injuries are treated at the approved Medical station.

65.2.2 The following documentation must accompany the injured person(s) to the approved medical station:

- a) *Injury report to medical station.*
- b) *Copy of ID*
- c) *Completed Workman's Compensation Letter (WCL 2 form)*
- d) *The Client injury classifications shall be used as a guide line.*

65.3 Only injuries which are classified as project related shall be accepted and recorded for statistical purposes. Including the following:

- a) *Any occupational injuries and diseases/illnesses on site, fatal cases, lost work day cases, restricted work cases, flying or falling objects, machinery out of control, failure of safety or alarm systems, dangerous substance spilled or uncontrolled release of substance under pressure, failure to comply with medical fitness requirements*
- c) *Any damage caused to the property or environment*
- d) *Near misses*

Reporting shall also include the following:

- e) *All visits from Department of Labour,*
- f) *Any condition that may endanger the adjacent and surrounding plants and any condition that may endanger the construction activities must be reported to the Client/Agent representative.*
- g) *Incidents caused by incongruences relating to medical fitness, poor control over legally required health management, and or deviation from specified health requirements*
- h) *Loss of containment (such as release of contaminated water, hazardous chemicals into receiving environment.)*

65.4 Reporting of all incidents are mandatory to determine trends and identification of root causes.

66 Incident and Accident Investigation

66.1 All reportable incidents and recordable cases, serious environmental or health related incidents, shall be jointly investigated by the Contractor and the JDA Project Management (HSE). These shall be recorded by the Contractor as required by legislation.

66.2 The Contractor shall compile a notification and investigation report in an agreed format and shall be submitted to the JDA Project Management (HSE). Notification shall be immediate and investigation within two (2) working days.

66.3 All reportable incidents, recordable cases, serious environmental and health incidents, first aid injuries or near misses with the potential to cause injury or property damage, shall be investigated by the Service Provider. JDA Project Management (SHE) shall be invited to all investigations.

66.4 The format of the investigation report shall be based on the Contractor company standard, however, first agreed with JDA Project Management (SHE) prior to use.

NB! The Agent may request the Contractor to update information in the report as part of continual improvement and to ensure sustainability.

66.5 Injury learning's and insights template (one pager) should be completed following the investigation outcome. This shall be submitted to JDA Project Management (SHE) within 3 days following the final investigation.

66.6 The Contractor shall ensure the corrective and preventative actions recommended in the report are implemented on the site.

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66.7 Contractor appointed incident investigators shall be trained in incident investigation techniques with a recognised institution.

66.8 The Contractor shall ensure that all corrective/preventative actions are implemented on the site.

66.9 The Contractor shall ensure that all incidents/injuries will be logged in a project incident/injury register and shall be kept up to date.

66.10 The Contractor shall make provision for sharing best practices and lessons learned and ensure that these are communicated within the company; across projects; nationally and internationally (where applicable).

66.11 To ensure sustainability, the Contractor shall ensure that the relevant lessons learned and best practices changes are incorporated back into master documents.

66.12 The Contractor shall have continuous safety improvement activities toward achieving zero harm.

67 Personal Protective Equipment

67.1 Contractors shall make provision for a PPE procedure with regard to the issue, use, acceptance; inspection; maintenance; training and return and replacement policy with regard to personal protective equipment.

67.2 Contractors are required to keep an updated register of all PPE issued.

67.3 No person is allowed to enter the site without the JDA Consulting Engineering required PPE (SANS approved).

a. The Contractor shall ensure that project specific PPE requirements are considered and included in the pricing during the RFQ and bidding phase.

b. The Contractor shall ensure that their company logo is displayed on the PPE so that personnel can easily be identified.

67.5 Foot Protection

a) Foot protection shall comply with SANS 20347.

b) Only steel toe-capped footwear that is slip resistant, oil/chemical resistant and anti-static is allowed.

c) Only safety half boots are worn as foot protection. Safety shoes are prohibited.

d) Safety boots shall be worn with socks at all times and be laced up completely.

67.6 Welding

a) Welders' and bracers' welding helmets are fitted to hardhats and they wear respirators where applicable.

b) Welders, bracers and cutters wear suitable double eye protection (Face shield and Safety Glasses), gloves, apron and spats. Suitable spark containment screening shall be provided to protect onlookers and passers-by.

67.7 Reflective clothing

Employees working in the vicinity of earth moving construction vehicles shall wear reflective colour blazers for visibility.

67.8 Ear Protection

Ear protection shall be worn in any designated noise zone and where noise generating equipment and tools are being used. The contractor shall conduct a survey on db levels and implement protection accordingly.

67.9 A Contractor shall ensure action is taken against an employee who continuously fails to comply. Should a contractor fail to implement appropriate actions in order to control his employees action shall be taken against the Contractor. Personal protective equipment (PPE) must be the last line of defence in safety control measures. Control measures which have to be thoroughly explored and implemented before resorting to PPE are:

- Mitigating the hazard (so it does not exist at all anymore)

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- Controlling the hazard through engineering controls such as the construction of physical barriers etc. in order to isolate the hazard from people.
- Administrative controls such as safe work procedures

67.10 The limitations of PPE must be explained to the workers so that they do not become overly brave when wearing certain PPE. The proper use of the PPE must be explained to the workers so that they get maximum benefit from the PPE as intended by the manufacturers.

67.11 Based on the risk assessment PPE requirements will be determined for each particular hazardous task.

67.12 Manufacturers' specifications should be verified with on-site requirements and once PPE is delivered the specifications need to be checked again to ensure that the right product has been delivered. Using inadequate footwear, gloves or dust masks can have serious consequences.

67.13 PPE that should be worn on site includes:

- Overalls
- Safety shoes
- Dust masks (for certain work)
- Hard hats (for certain work)
- Safety harnesses (for certain work)
- Ear plugs (for certain work)
- Gloves (for certain work)

68 Safety Orientation, Induction and Training

68.1 The Contractor shall ensure that all its employees are adequately orientated, inducted and trained to perform their scope specific tasks. The training costs and requirements shall be reflected in the project tender document. A training matrix shall form part of the SHE plan/file and adhered to. Proof of attendance register(s) shall be available on site.

68.2 The Contractor shall identify all training needs and incorporate the client and project specific training into the construction SHE plan and training module.

68.3 Training and training materials (language barriers to be considered) will be presented and available on site and personnel shall be certified competent. Personnel shall keep their training cards on person at all times.

Safety Induction

Safety induction is to comprise of the following:

68.4 General Safety Induction

68.5 All employees and visitors are required to attend an induction course. This course must be completed before anyone is allowed to work on the project site. The Contractor shall make provision for time for each person to attend such induction course and other formalities required to enable the employee to comply fully with site rules, work permits, safety, security, medical and industrial relation requirements as per contractual agreement.

68.6 Induction Training required by Project

68.7 All Contractor employees entering the Project site shall comply with the safety regulations. Before a Contractor employee shall be granted access the Project operational area, the "SHEQ" induction shall be done.

68.8 General Construction Site Induction

68.9 General construction site induction shall be drafted and carried out by the Contractor as per approved SHE plan training matrix. The Contractor shall ensure that all his employees undergo a site induction with regard to the general hazards prevalent on the construction site, construction risk assessment, rules and regulations, and other related aspects. Job Specific Induction will be carried out by a competent Supervisor or Trainer on the site. Advance drivers training may be a pre-requirement.

68.10 Each Contractor will be required to ensure that before an employee commences work on the specific project that the supervisor in control with responsibility for his employees; has informed the employees of daily of their scope of authority and any hazards associated with the work performed. This will include man-task specifications and the discussion of any standard task procedures or hazardous operational procedures that will be performed by the employees. The Contractor is to ensure that the supervisor is satisfied that the employee is

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conversant with all hazards associated with any work that will be performed by conducting formal task observations. Safe task observations shall be conducted formally as per agreed frequency, in order to ensure that employees are following the set procedures.

68.11 Behaviour based safety systems may be implemented on the site and as such all persons are to give their full commitment and cooperation to this initiative should it roll-out on site.

68.12 The Contractor shall maintain comprehensive records of personnel under his control attending induction training. Acknowledgement of receiving and understanding the induction must be signed by all persons receiving the induction accordingly.

68.13 General training pre-requisites:

All employees must be inducted before starting work. Inductions should at minimum include:

- Section 14 of the OHS Act (1993)
- Section 15 of the OHS Act (1993)
- Risk assessment
- Safe work procedures
- Emergency procedures
- PPE usage and limitations
- Introduction of key personnel
- Reporting of incidents and near misses
- Disciplinary procedure

69 Toolbox Talks

69.1 The Contractor is expected to have safety "tool box" talks at least twice a week. The topic of these talks shall be in accordance with identified risks and trends associated with the project and the format shall be presented to the JDA Project Management (SHE) for acceptance.

69.2 JDA Project Management (SHE) may vary the frequency of the toolbox talks as circumstances depicts.

69.3 A spokesman who is proficient in a language that is commonly understood by all personnel should give the presentation or translate the presentation if so required by the group.

69.4 The Contractor to ensure toolbox talks are held in small groups and the area where the toolbox talks are held are conducive to an effective communication session (i.e. noise levels, size of work force, visibility etc. to be considered).

69.5 The Contractor to have a management plan to deal with employees who arrive late/don't join the toolbox talks. This plan must be discussed with JDA Project Management (HSE) prior to implementation.

69.6 Proof of toolbox talks shall be kept on site.

69.7 A DSTI (Daily Safety Task Instruction) similar on-site risk assessment must be done for every activity / work team. It must be done at the work area and include task and neighbouring hazards and risks. This continuous risk assessment must be done daily. All employees must be involved, and the DSTI must be signed off by the Contractor supervisor and CHSO.

70 Safety Stand Downs

70.1 JDA Project Management (HSE) may, at periodic intervals, request that formal Safety Stand downs are held on the projects.

70.2 A spokesman who is proficient in a language that is commonly understood by all personnel should give the presentation or translate the presentation if so required by the group.

70.3 The Contractor to ensure Safety Stand downs are held with the entire workforce in an area conducive to hold an effective communication session (i.e. noise levels, size of work force, visibility etc. to be considered).

70.4 Attendance of this Safety Stand down sessions shall be kept and proof shall be forwarded to JDA Project Management (SHE).

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71 Emergency Preparedness

71.1 The Contractor will develop a project specific emergency procedure focusing on the Client /Agent Emergency Management guideline.

71.2 The Contractor shall ensure that the emergency procedure is approved in writing by the Client / Agent Emergency Management Department or where there is no such service by the Client/Agent site SHE Manager.

71.3 Such Emergency procedure shall include (but not limited to):

- a) *A person is designated and appointed as emergency coordinator.*
- b) *All sub-contractors to appoint an emergency coordinator.*
- c) *Each Contractor shall designate and appoint on site emergency evacuation marshals.*
- d) *Radio communication between evacuation marshals and emergency coordinators.*
- e) *Provision for emergency procedure during overtime/night time or weekend work.*
- f) *Communication with the Works Emergency Control Centre during an emergency.*
- g) *Communication methods to be established (sirens, public announcement systems)*
- h) *A schedule for emergency exercises to take place, based on credible scenarios in collaboration with the relevant Client and/or JDA Project Management (HSE) .*
- i) *All exercises will be recorded as per emergency exercise register.*
- j) *Requirements for first-aid and medical and fire and rescue shall be addressed in the emergency procedure.*
- k) *The Contractor to ensure that the necessary firefighting equipment is in place in the respective areas. Subject to approval by the Emergency Management Services.*
- l) *All employees, evacuation marshals and emergency coordinators must be trained in the emergency procedure.*
- m) *The provision for clear walk ways and access control during an emergency*
- n) *Emergency telephone and ambulance numbers must be available at all telephones and displayed on site.*

72 Environmental Management

72.1 The Contractor shall have an Environmental Management Plan (EMP) for the specific site. It must include all requirements reflected in the Environmental Impact Assessment (EIA) and Environmental Authorisation (EA) where applicable. These documents must be obtained from the JDA Project Management (PM) or as agreed.

72.2 Employees must be trained in the application of the environmental waste management plan. This training may be included in the project specific induction training and/or toolbox talks. Proof to be made available on request.

72.3 All waste from servicing must be disposed of in accordance with the environmental legislation. The Client/Agent reserves the right to request the contractor to produce a certificate of disposal for all waste or contaminated soil generated from these activities.

72.4 The Contractor shall develop a waste register and produce a certificate of disposal for all waste and contaminated soil generated from these activities. All waste disposal slips (licenced waste disposal sites) shall be kept on record.

72.5 The Contractor shall ensure that all waste to be removed from site is done in accordance with client site specific procedures and is carried out by a registered waste removal company.

72.6 Spills of diesel, oil and other hazardous chemicals should be prevented at all times. All equipment that has the potential for spillages or leakages shall be equipped with drip trays. In the event of a spill, the source of the spill must identify and addressed. The spill must be cleaned immediately and any contaminated soil must be removed and disposed of through a recognised waste disposal method with the approval of the Client/Agent's representative.

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73 Administration

Proper and effective SHE administration is important for correct execution and control of construction SHE matters.

73.1 Contractors shall ensure that they keep up-to-date SHE filing system including all required documentation pertaining to legislative requirements. This includes but not limited to:

1. SHE specification (client / agent / own) 2. SHE plan 3. Notification of work to authorities 4. Appointments 5. Competency records of appointments 6. Inspection records and equipment registers 7. Non-conformances records 8. Audits 9. Risk assessments 10. Incident reports 11. Incidents investigations 12. Records of notification to authorities of incidents 13. First-aid training 14. Health and hygiene reports 15. Health and safety rep training	16. Induction training 17. Load tests results 18. SHE meeting minutes 19. Electrical connection certificates 20. Maintenance schedules and results 21. Fall protection plans 22. PPE registers 23. Medical records 24. Crane lifts riggers studies 25. Method statements 26. Emergency evacuation plans 27. Traffic demarcation plans 28. Authorisation information 29. Waste minimisation and management plans 30. Environmental documentation (EMP; EA) 31. Letter of good standing (COIDA) 32. Management of change procedure 33. Look ahead plan 34. Contractor grading and approval process
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73.2 The Contractors Construction SHE officer will evaluate all contractors filing systems and provide instructions on improvements or changes.

74 SHE End Of Job Documentation

74.1 During and after completion of the construction work, the principal contractor will provide 1 hard copy of the following documents to JDA Project Management (HSE) for review. All documents shall be endorsed by the Contractor (16-2) prior to submission to JDA Project Management (SHE).

- a) *All transfer of responsibilities - Section 37(2) agreements.*
- b) *A copy of all SHE contractors' agreement*
- c) *All construction risk assessments*
- d) *Approved SHE plan updated*
- e) *Notification to Department of Labour (stamped copy)*
- f) *List of all contractors, their details and work scope*
- g) *All contractors' letters of good standing (COIDA Act)*
- h) *Legal appointment letters*
- i) *A register of all accidents / incidents*
- j) *Investigation reports of all accidents and incidents. (All corrective actions completed)*
- k) *Proof of all accidents / incidents reported to the Department of Labour*

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- l) Client / agent / principal contractor / contractor management SHE audits (site establishment, legal compliance, in-house, external and site audits)*
- m) Copies of all non-conformance reports received / issued (including recovery plans)*
- n) A comprehensive SHE report (statistics, recognitions, achievements, lessons learnt, SHE programme summary, project manager / site manager review, contractors performance review, for the project)*

74.2 Once reviewed and approved by JDA Project Management (SHE) the Contractor shall scan in the information and provide 3 electronic CDs of all information, including the original hard copy and submit as SHE end of job documentation.

75 Project management (HSE) SHE Management & Monitoring

75.1 JDA Project Management (HSE) may conduct a full SHE performance assessment on Principal Contractors or Contractors during the execution phase.

75.2 JDA Project Management (HSE) shall carry out at least monthly official site visits on all Principal Contractors or Contractors on site who will be provided with copies of the reports. Based on these site visits JDA Project Management (HSE) may request a recovery/action plan from the Contractor, however shall also follow-up on the close out of identified deviations.

75.3 All SHE personnel and/or other personnel have the authority and responsibility to stop work if there is a life-threatening situation and/or the danger of substantial material loss/damage. If and when the JDA Project Management (HSE) stop the principal contractor from performing any work that poses a threat to the health and safety of others, then there will be no extension of time claim approved for such stoppage. The direct immediate remedial action must be taken by the Contractor supervision and/or site manager. JDA Project Management (HSE) must be informed immediately of any such stoppage.

75.4 The Contractor shall co-operate with the Client/Agent and provide all necessary assistance and information of these reports on the site construction safety file.

76 Non-Conformance Process

76.1 JDA Project Management (HSE) views SHE non-conformances in a serious light and no excuses will be entertained. SHE non-conformance may have a negative impact on future contract awards.

76.2 JDA Project Management (HSE) reserves the right to issue a SHE non-conformance report to any Contractor after informing the JDA Project Management (HSE) Project manager for not complying with SHE requirements on the site.

76.3 Contractors must action the non-conformance within the prescribed timeframe by proving a recovery plan, which shall be presented to JDA Project Management (HSE).

76.4 Non-conformances must be addressed according to the Contractor's own disciplinary codes and procedures.

76.5 Expenses incurred due to SHE non-conformances shall be for the account of the Contractor in question.

76.6 Any "stop work order" shall be followed up; the Contractor's construction manager shall present a written recovery report including remedial actions to avoid re-occurrence and the subject will be discussed at the next project and safety meeting.

76.7 The construction director, after consultation with the contractor's site manager, has the authority to initiate disciplinary action for contravening safety regulations and, if considered or advised necessary, to instruct the contractor's construction manager to remove certain of its personnel from the site.

77 Performance Measurements

77.1 Measurement and Tracking

- a) Risk matrix evaluation and status*
- b) Status of SHE plan implementation*
- c) Number of action items listed each month (to see if stability is being reached)*
- d) The decrease in incidents reoccurring (indicates the effectiveness of this process)*

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- e) *Failure if any, from the Construction SHE officers side in delivering monthly conformance reports*
- f) *The time to consolidate data (does not exceed three working days)*
- g) *The time to perform trend analysis (does not exceed three working days)*
- h) *Incident/accident investigations (to be completed within three working days)*
- i) *Contractor SHE performance assessments (Green, Yellow, Orange, Red)*
- j) *Lost workday case and recordable case rate and objectives for this project will be in accordance with the client criteria.*

77.1.1 In the short term the success of the Contractors is indicated by the proper analysis of trends and determining the correct root causes and compiling an appropriate action plan.

77.1.2 In the long term the success of the Contractors is indicated by the tracking of action plans, close out and sustainability.

77.2 Measurement and Review of SHE Performance

77.2.1 Monthly measuring and monitoring of SHE performance indicators are mandatory for all Contractors. All contractors shall measure and monitor SHE trends in the SHE statistics and provide the Principal Contractor SHE Manager/CHSO with this information on a monthly basis.

77.2.2 The Principal Contractor shall collate information from the various contractors and compile a comprehensive construction SHE Month end site report trend analysis, recovery plan of the statistics. This report will be submitted to JDA Project Management (HSE) on a monthly basis, no later than the 01 of every month.

77.2.3 JDA Project Management (HSE) and/or Contractor SHE Manager/Construction CHSO shall review the data and may provide suggestions to improve on the SHE performance.

77.2.4 The Principal Contractor shall ensure that all SHE performance indicators and information displayed on the Project SHE Performance Board shall be kept up to date.

77.2.5 The Principal Contractor to ensure that all contractors display their respective statistics accordingly within their site office area.

78 **Occupational Health & Hygiene**

78.1 General (Occupational Health and Hygiene)

78.1.1 Medicals for all employees that work on construction sites need to be done by an occupational health practitioner and kept in the safety file on Annexure 3 of the *Construction Regulations (2014)*, the costs of which will be borne by the Contractor.

78.1.2 The Contractor shall ensure that each of its construction employees have a medical fitness certificate issued by an Occupational health practitioner.

78.1.3 The Contractor shall make available an employee's specific job medical fitness work profile together with the specific workplace health risks as per company own and JDA Project Management (HSE) health specifications to be used by the Occupational Health Practitioner. Records of such attendance must be kept on site.

For example, a general worker should be medically fit to carry out manual handling tasks and lifting items of 20 – 25 kg. If this is not specified, the medical surveillance conducted on this person would not detect if the person is not able to perform tasks associated with being a general worker.

78.1.4 Any person who is on site for more than one year will be required to go for a re-evaluation medical annually upon expiry of the 12-month period.

78.1.5 Any person normally working on the site and subsequently away from site for more than one year shall be required to undergo another pre-medical.

78.2 Health Optimization

78.2.1 Construction Health Optimisation will be responsible for matters concerning Occupational Health and Occupational Hygiene. Objectives include:

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- i. *Contribute towards protecting the lives and health of all stakeholders of the project. This shall include owner, contractor, sub-contractor and service provider personnel involved with the project and operations resulting from it, as well as the general public potentially affected by project and operational activities;*
- ii. *provide guidelines, recommendations and suggestions as to the legal, health and technical requirements necessary to eliminate or minimise exposure of stakeholders to the products and therefore also to the effects resulting from these and*
- iii. *Support the objective of Occupational Health, namely to pursue sustainable compatibility between business operations and stakeholders in its activities.*

78.3 Lighting

78.3.1 Workplaces should, to the degree feasible, receive natural light and be supplemented with sufficient artificial illumination to promote workers' safety and health.

78.3.2 Emergency lighting of adequate intensity must be installed and automatically activated upon failure of the artificial light source to ensure safe shut-down, evacuation, etc.

78.4 Ventilation and Temperatures

78.4.1 Sufficient fresh air must be supplied for indoor and confined work spaces.

78.4.2 Factors to be considered in ventilation design include physical activity, substances in use and process related emissions.

78.4.3 Mechanical ventilation systems shall be maintained in good working order. Point-source exhaust systems required for maintaining a safe ambient environment must have local indicators of correct functioning.

78.4.4 Re-circulation of contaminated air is generally not acceptable. Air inlet filters must be kept clean and free of dust and microorganisms.

78.4.5 Air distribution systems must be designed so as not to expose workers to draughts.

78.4.6 The temperature in work, rest room and other welfare facilities should, during service hours, be maintained at a level appropriate for the purpose of the facility.

78.5 Cleaning

78.5.1 Washbasins with running hot and cold water shall be installed in sufficient numbers where demanded by the character of the work and when contaminants or pollution must be confined to the place of work.

78.5.2 The washbasins must have soap and/or other appropriate cleaning agents. Places of work, traffic routes and passageways shall be kept free from waste and spillage, regularly cleaned, and maintained.

78.6 Welfare facilities

78.6.1 Welfare facilities must include locker rooms, an adequate number of toilets with washbasins, and a room dedicated for eating/dining area.

78.6.2 Separate eating facilities shall be provided for employees wearing clean and soiled work clothes respectively.

78.6.3 Gender-segregated changing rooms with lockers and benches should be provided when special work-clothes are required.

78.6.4 Hot and cold-water shower facilities and wash basins should be available in connection with locker rooms.

78.6.5 Water supplied to areas with food preparation or for the purpose of personal hygiene (washing or bathing) must meet drinking water quality standards.

78.6.6 If the circumstances (e.g. dirt, dangerous substances, humidity, blood, microorganisms, etc.) so require, separate lockers must be installed for isolating street- from work-clothes for the exposed employees.

78.6.7 Work-clothes that may be contaminated with dangerous or contagious substances or in any way involve a health hazard to the worker, his family or the general public shall not leave the premises of work but shall be collected on site and adequately cleaned and disinfected at the employer's expense.

78.6.8 Staff exposed to risk of contamination shall change clothes and undergo decontamination before entering common facilities such as eating places.

78.6.4 Hot and cold-water shower facilities and wash basins should be available in connection with locker rooms.

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78.6.5 Water supplied to areas with food preparation or for the purpose of personal hygiene (washing or bathing) must meet drinking water quality standards.

78.6.6 If the circumstances (e.g. dirt, dangerous substances, humidity, blood, microorganisms, etc.) so require, separate lockers must be installed for isolating street- from work-clothes for the exposed employees.

78.6.7 Work-clothes that may be contaminated with dangerous or contagious substances or in any way involve a health hazard to the worker, his family or the general public shall not leave the premises of work but shall be collected on site and adequately cleaned and disinfected at the employer's expense.

78.6.8 Staff exposed to risk of contamination shall change clothes and undergo decontamination before entering common facilities such as eating places.

78.7 Personal Protective Equipment

78.7.1 The employer shall identify and provide appropriate personal protective equipment (PPE) that will offer adequate protection to the worker, co-workers and occasional visitors without incurring unnecessary inconvenience.

78.7.2 The employer shall actively enforce use of PPE if alternative technologies, work plans or procedures cannot eliminate or sufficiently reduce a hazard or exposure.

78.7.3 The employer shall ensure that PPE is cleaned when dirty, properly maintained and replaced when damaged or worn out. Proper use of PPE shall be part of the recurrent training programs for employees.

78.8 Drinking water

78.8.1 The employer shall ensure an ample supply of drinking water at all places of work.

78.8.2 Water supplies shall be conveniently located especially for areas of elevated temperatures, high physical activity, and cold or dry environments.

78.8.3 Drinking water supplies shall be clearly and conspicuously marked especially where non-drinking water is also available for human consumption.

78.8.4 Efforts shall be made to keep the water temperature below 15°C and water outlets shall be clearly marked "drinking water". Quality must conform to SANS 241.

78.9 Noise

No employee may be exposed to a noise level greater than 85 dB(A) for a duration of more than 8 hours per day. In addition no unprotected ear should be exposed to a peak sound pressure level (instantaneous) of more than 140 dBC. The use of hearing protection must be actively enforced.

78.10 Illumination, light radiation and reflection

Work area light intensity must be adequate for the general purpose of the location and type of activity and must be supplemented with dedicated work station illumination as needed. All light sources should be energy efficient with minimum heat emission.

78.11 Temperature

78.11.1 The employer shall maintain indoor temperatures that are reasonable and appropriate for the type of work.

78.11.2 Risks of heat or cold related stress must be adequately addressed and feasible control measures implemented for work in adverse environments.

78.11.3 The wet bulb globe temperature (WBGT) or a nationally recognized method of equal standing should be used for screening environmental contribution to heat stress.

78.12 Hazardous materials

78.12.1 The employer shall avoid the use of any hazardous substance by replacing it with a substance that under its normal conditions of use is not dangerous or less dangerous to the workers, if the nature of the activity so permits.

78.12.2 Precautions must be taken to keep the risk of exposure as low as possible.

78.12.3 Work processes, engineering and administrative control measures must be designed, maintained and operated so as to avoid or minimize the release of hazardous substances into the working environment.

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78.12.4 The number of employees exposed or likely to become exposed must be kept at a minimum and the level of exposure maintained below internationally established or recognized exposure limits.

78.12.5 The employer must ensure that all chemicals and hazardous materials present are labelled and marked according to national and internationally recognized requirements and standards. International Chemical Safety Cards (ICSC), Materials Safety Data Sheets (MSDS) or equivalent data/information in an easily understood language must be readily available to exposed workers and first-aid personnel.

78.12.6 The employer must ensure adequate and competent supervision of the work, work practices, and the appropriate use of PPE.

78.13 Biological Agents

78.13.1 The employer shall avoid the use of any harmful biological agent by replacing it with an agent that, under its normal conditions of use, is not dangerous or less dangerous to the workers, if the nature of the activity so permits.

78.13.2 Precautions must be taken to keep the risk of exposure as low as possible.

78.13.3 Work processes, engineering and administrative controls must be designed, maintained and operated to avoid or minimize release of biological agents into the working environment.

78.13.4 The number of employees exposed or likely to become exposed must be kept at a minimum. Levels of exposure must be maintained below internationally established/recognized exposure limits.

78.13.5 Measures to eliminate and control hazards from known and suspected biological agents at the place of work shall be designed, implemented and maintained in close co-operation with the local health authorities and according to recognized international standards.

78.14 Health Information and Training

78.14.1 The employer shall ensure that workers prior to commencement of new assignments have received adequate training and information enabling them to understand the hazards of work and to protect their health from hazardous ambient factors that may be present.

78.14.2 The training must adequately cover:

- a) *Knowledge of materials, equipment, and tools;*
- b) *Known hazards in the operations and how they are controlled;*
- c) *Potential risks to health; d) precautions to prevent exposure;*
- d) *Hygiene requirements;*
- e) *Wearing and use of protective equipment and clothing; and*
- f) *Appropriate response to operation extremes, incidents and accidents.*

78.14.3 A basic occupational training program and specialty courses shall be provided as needed to ensure that workers are oriented to the specific hazards of individual work assignments.

78.14.4 Training shall generally be provided to management, supervisors, workers, and occasional visitors to areas of risks and hazards.

78.14.5 Training shall also be provided to account for new or changed risks whenever procedures are altered, or new materials/equipment introduced.

78.14.6 Training should be repeated periodically and supported by feasible incentives.

78.14.7 Workers with rescue and first-aid duties shall receive dedicated training so as not to inadvertently aggravate exposures and health hazards to themselves or their co-workers.

78.14.8 Training activities for employees and visitors shall be adequately monitored and documented. Service providers and contractors must be contractually required to submit to the employer adequate training documentation before start of their assignment.

78.15 Health Performance Monitoring

78.15.1 The employer shall arrange for regular inspection and testing of all safety features and hazard control measures at the premises.

78.15.2 The Principal Contractors are to make provision for the inspection and auditing of all sub-Contractor's facilities and activities on site.

78.15.3 A program must be drawn up to specify the frequency and extent of inspections and time frames for the implementation of remedial actions agreed upon and recorded.

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78.15.4 Records shall be kept of all inspections, tests, and calibrations. Surveillance of the working environment shall be conducted.

78.15.5 The employer shall document compliance using an appropriate combination of portable and stationary and analyses shall be conducted according to internationally recognized methods and standards.

78.15.6 Monitoring methodology, locations, frequencies, and parameters shall be established individually for each project following a review of the seriousness of the inherent hazards. When extraordinary protective measures are required, the employer shall provide appropriate and relevant health surveillance to workers prior to first exposure and at regular intervals thereafter.

78.15.7 The surveillance shall, if deemed necessary be continued after termination of the employment.

78.16 Health accidents and diseases monitoring

78.16.1 The employer shall establish procedures and systems for reporting and recording:

- a) *Occupational accidents and diseases; and*
- b) *Dangerous occurrences and incidents.*

78.16.2 The systems must require and enable workers to report to their immediate supervisor immediately any situation they believe presents a serious danger to life or health.

78.16.3 The systems and the employer shall further enable and encourage workers to report all:

- a) *Occupational injuries and near misses;*
- b) *Suspected cases of occupational disease; and*
- c) *Dangerous occurrences and incidents.*

78.16.4 The employer must with the assistance of a competent person investigate all reported occupational accidents, occupational diseases, dangerous occurrences, and incidents together with near misses.

78.17 Waste prevention

78.17.1 Processes should be designed and operated to prevent, or minimize, the quantities and toxicities of wastes generated in accordance with the following strategy:

- a) *Substituting raw materials or inputs with less hazardous or toxic materials, or with those where processing generates lower waste volumes*
- b) *Applying manufacturing process that convert materials efficiently, providing higher product output yields, including modification of design of the production process, operating conditions, and process controls*
- c) *Instituting good housekeeping and operating practices, including inventory control to reduce the amount of waste resulting from materials that are out-of-date, off-specification, contaminated, damaged, or excess to plant needs*
- d) *Waste segregation to prevent the commingling of non-hazardous and hazardous waste, thus minimizing the volume of hazardous waste*

78.18 Medical Surveillance

78.18.1 JDA Project Management (HSE) has/shall prescribe the basic requirements for employee's medical examination and tests to be done for the project, based on the risk profile of the construction sites.

78.18.2 The medical surveillance program shall consist of the following for all personnel who will perform on the site of the project:

- a) *Pre-employment*
- b) *Periodic medical surveillance*
- c) *Exit medical surveillance*

78.18.3 Medical findings and restrictions identified during medical surveillance must be formally communicated to the respective employees.

78.19 Amenities and sanitary facilities

Amenities and sanitary facilities shall conform to the requirements of the OHS Act (85 of 1993), Facilities Regulations, Construction Regulations and Hazardous Chemical Substances Regulations, the Water Services Act no 18522 of 1997 as well as SANS 10400-F (Site operations), Q (non-water-borne means of sanitary disposal), and SANS 241 (Drinking water) as well as any additional requirements by the Company. The change

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rooms, showers, toilets and dining rooms shall adhere to the minimum requirements as stipulated in the Facilities regulations.

78.20 Food supply and Outlets

All facilities where food is prepared or sold must conform to standards similar to South African legislation namely the National Building Regulations and Building Standards Act (103 of 1977), Health Act and Regulations (63 of 1977) and the Regulations governing general hygiene requirements for food premises (regulation 723 of 2002 – Regulations governing general hygiene requirements for food premises and the transport).

78.21 Tuck shops

Should tuck shops be provided the requirements will be same as for food and outlets points at the construction site (depending on the types of commodities offered for sale). Compliance to the national legislation (e.g. Health Act, Cosmetics, Food stuffs and Disinfectants Act, regulations and local bylaws) or international legislation in cases of international projects.

78.22 Domestic waste

Domestic waste emanating from dining areas and ablution facilities shall be clearly marked and supplied with lids and liners. Food waste shall only be discarded in domestic waste bins. Employees shall be clearly instructed to these requirements.

78.23 Medical waste

78.23.1 A procedure shall be drawn up by the contractor for the safe handling and disposal of medical waste and shall include: separation of sharps from other medical waste, proper identification of medical waste during generation, storage and disposal, a dedicated lockable area, a maximum storage period of 3 months, or a specified in the applicable legislation, and recording the amount of waste generated and disposed.

78.23.2 Transport and disposal of medical waste is to be done by an organisation legally registered to perform such actions. Safe disposal certificate shall be obtained and kept on record for all disposed medical waste in accordance with SANS 10248:2004.

78.24 Smoking policy

78.24.1 The minimum requirement for a smoking policy is as follows:

- i. *A smoking policy shall be developed and prominently displayed at various places by the Contractor.*
- ii. *No smoking is permitted at the workplace or inside any building or facility, except in designated smoking areas.*
- iii. *No place shall be allocated, marked or used as both workplace and designated smoking area.*
- iv. *An office or boardroom may not be designated as a smoking area.*
- v. *Designated smoking areas inside buildings shall be separated from the rest of the workplace by a solid partition and an entrance door on which the sign "smoking area" is displayed. "Smoking area" shall be written in black letters, at least 2 cm in height and 1, 5 cm in breadth, on a white background.*
- vi. *Adequate cross ventilation must be provided in designated smoking areas in such a way that air from the smoking area is directly exhausted to the outside and is not re-circulated to any other area within the workplace.*
- vii. *A designated smoking area within a building may not block access to an "emergency route" for evacuation, as described in SANS 10400.*
- viii. *The area must be provided with bins for cigarette butts.*
- ix. *Shelter against sun and rain must be provided for outside smoking areas.*
- x. *No smoking shall take place in shared areas like dining rooms, ablution facilities and passages*
- xi. *The area must be kept clean and neat at all times.*

78.25 Health Records

Records of the results of all assessments, patient treatment contacts, monitoring and medical surveillance reports, and maintenance of control measures are to be kept for the period as prescribed in the OHS Act (85 of 1993) and such records shall be made available on request for perusal by Client.

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78.26 Buildings and Facilities

78.26.1 All permanent buildings and facilities shall conform to:

- a) *Client Specifications; Design Specifications for Buildings;*
- b) *SANS 10400; Application of the National Building Regulations and;*
- c) *The Facilities Regulations of the OHS Act.*

78.26.2 In addition to buildings destined for use by permanent personnel, permanent structures should be erected to provide sanitary and other facilities to contractor employees performing duties on site during plant maintenance. Additional space for use by contractors during maintenance actions to erect temporary structures as store rooms and administration space should be identified on the plot plan and set aside for that use.

78.26.3 These areas are to be supplied with separate hand washing and potable water, electricity connections and suitable drains. All persons within the boundaries of a construction site are to have ready access to amenities and sanitary facilities. It is incumbent upon the employer of such persons to provide these facilities and in the case of persons who visit the site for whatever reason, upon the principal contractor to provide and maintain these facilities. All amenities and facilities must, at all times, be kept in a clean and hygienic condition.

79 **Project / Site Access**

1. The following persons are permitted on site

- a) Client employees: may enter the site autonomous but must be accompanied by a representative of the Principal Contractor being visited at all times. Client employees are regarded as 'working employees on site' and must conform to the applicable H&S and Environmental site conditions defined by JDA Consulting Engineers and by the visited Principal Contractor.
- b) Client professional construction team members and authorised associates: may enter the site autonomous. These employees are regarded as 'working employees on site' and must conform to the applicable H&S and Environmental site conditions defined by JDA Consulting Engineers and by the visited Principal Contractor.
- c) Engineers and authorised associates: may enter the site autonomous and move about the site as arranged with the controlling Principal Contractors. These employees are regarded as 'working employees on site' and must conform to the applicable H&S and Environmental site conditions defined by JDA Consulting Engineers.
- d) H&S Agent and authorised associates: may enter the site autonomous but must be accompanied by a representative of the Principal Contractor visited at all times. These employees are regarded as 'working employees on site' and must conform to the applicable H&S and Environmental site conditions defined by JDA Consulting Engineers.
- e) Lender's Technical Advisors and employees: these employees are visitors and must be accompanied by a representative of the Principal Contractor visited at all times. Where the Lender's Technical Advisors' employees require to access risk areas, those employees are regarded as 'working employees on site' and must conform to the applicable H&S and Environmental site conditions defined by JDA Consulting Engineers.
- f) Construction principal-, contractor-, and sub-contractor employees: employees of Principal Contractors, contractors or sub-contractors must appear on an approved list held by the security personnel at the site entrance; this list is supplied and updated by the H&S officer of the Principal Contractor to whom the contractor or sub-contractor reports after all access requirements are met.
- g) Authorised delivery personnel: these employees are visitors and may not enter the site autonomous; the access rules are listed herein.
- h) Authorised visitors of the client or any principal contractor: these persons are visitors and may not enter the site autonomous; the access rules are listed herein.
- i) DOL inspectors: these employees are visitors and may not enter the site autonomous; they must be accompanied by the Principal Contractor's safety officer.

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- j) DEAT inspectors: these employees are visitors and may not enter the site autonomous; they must be accompanied by the Principal Contractors' environmental officer.

2. Site access is subject to the following safety & security controls:

- a) All site access is restricted to persons authorised by JDA to access the site; access is restricted and reserved by JDA.
- b) In this regard, JDA may issue notices during the course of the construction.
- c) Access security services:
 - i. The project principal contractor is responsible for access control to the site. In addition, there will be another layer of security and site access control that will be provided by JDA directly which will mainly control access in terms of the National Key-Point requirements.
 - ii. The appointed Security Contractors shall operate the access control points to the site and, where required communicate with principal contractors in respect of the prevailing security arrangements and requirements.
- d) Employees, delivery personnel and visitors shall solely gain access to the site via the designated security process.
- e) The appointed Security Contractor shall also apply the JDA access rules as defined herein.
- f) The Principal contractor must ensure that:
 - i. Employees of the Principal Contractor appear on an approved list held by the security personnel at the site entrance; this list is supplied and updated by the health and safety officer of the Principal Contractor.
 - ii. Employees of contractors or sub-contractors of the Principal Contractor must appear on an approved list held by the security personnel; this list is supplied and updated by the H&S officer of the Principal Contractor to whom the contractor or sub-contractor reports.
- g) JDA employees, Client professional construction team members and their employees, the H&S Agent and designated associates, Lender's Technical Advisors and employees may enter the site if the names of these authorised persons appear on an approved list held by the security personnel; this list is supplied and updated by the JDA & PC HSE Manager.
- h) Any visitor wishing to access the site must:
 - i. Report to the access point.
 - ii. Communicate the name and telephone number of the persons who is visited to the security personnel; the security personnel will phone the person who is receiving the visitor and require that this person collects the visitor at the entrance gate. Under no circumstances will a visitor be permitted to enter the construction site unaccompanied by the person being visited.
 - iii. Each visitor must be inducted by the visiting Principal Contractor in its visitor's health and safety site induction: this is training in the Principal Contractor's specific health, safety and environmental inductions for site visitors. Training is done by the Principal Contractor's H&S officer.
 - iv. Be accompanied by a designated employee of the Principal Contractor being visited at all times.
 - v. Visitors must park their vehicles in the designated parking area. Visitors must not drive on site.
 - vi. All general access rules apply to visitors.
 - vii. Delivery vehicles must conform to the following:
 - a) The delivery must be planned or announced with the security services by the Principal Contractor; and
 - b) The delivery vehicle must be guided by a spotter designated by the Principal Contractor;

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- c) Vehicles entering the site must be roadworthy, driven by a person with a valid South African or International drivers' license and must adhere to road traffic- and site traffic rules.
- d) Delivery vehicles must have a designed access and exit route and drivers must be trained to stay on it.
- e) Delivery drivers must stay with their vehicles and must not use the employee's facilities on site unless authorised by a supervisor.
- f) The security personnel must inspect the delivery vehicles in accordance with the approved delivery access method statement of the Principal
- g) Where a driver is repeatedly delivering or where a delivery company is sending a defined cohort of drivers for delivery to site, the Principal Contractor may issue a vehicle pass to the designated fleet and a delivery entrance pass to the delivery driver:
- h) The Principal Contractor shall make those arrangements for his entrance security with the Security Company;
- i) A list of designated vehicles/ and or drivers shall be kept at the security gate and kept up to date by the H&S officer of the Principal Contractor.
- j) The list shall include the verification of the designated driver's:
 - I. Applicable driver's license and PDP
 - II. Medical certificate of fitness
 - III. The list shall include the verification of the designated delivery trucks' Operator Permit.
- k) General site access rules
 1. All site access is restricted to persons authorised by the security personnel to access the site; access rules are defined by JDA Consulting Engineering and applied by the security personnel.
 2. All persons entering the site must carry employer identification.
 3. Security guards may inspect and search any person or vehicle entering or leaving the site.
 4. Employees of Principal Contractors may only enter after the H&S Agent has approved the Principal Contractors' health and safety plan.
 5. Employees of Contractors and sub-contractors may only enter after the Principal Contractor has approved the Contractors' health and safety plan.
 6. All employers whose employees work on site (except for visitors and delivery personnel who do not perform work on site) shall enter into a Mandatory Agreement with JDA Consulting Engineering.
 7. Visitors must be accompanied by a representative of the person being visited at all times.
 8. Vehicles entering the site must be roadworthy, driven by a person with a valid South African or International drivers' license and must adhere to road traffic- and site traffic rules.
 9. Vehicles must remain on the dedicated routes.
 10. Access of contractor vehicles to site is controlled by the Principal Contractors who will provide the security personnel with the list of vehicles permitted to access the site. Unless a vehicle is on this list, it will not be allowed on site and must park in the parking area at the access gate.
 11. When on site, all vehicles must be parked in designated parking areas. This applies also to vehicles entering the construction areas and who are required to remain on the site.
 12. No person is allowed to enter or remain on site if that person is or appears to be under the influence of intoxicating liquor or drugs.

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13. No person shall bring any intoxicating liquor or drugs on site.
14. No weapons or firearms are permitted on site.
15. All equipment brought to site shall be identified and placed on the equipment register of the contractor; it shall be verifiable as such at all times.
16. All equipment, materials, machinery or articles taken off site shall be identified and the Principal Contractors shall issue a release pass for such articles; if any person presents at the exit gate with articles to be removed off site, the security will not allow the person/vehicle/plant to leave unless such release pass is issued.
17. Cameras are not allowed to be used on site, unless with the permission of JDA.

3. Site access is subject to the following occupational health controls:

- a. All contractor employees and all persons entering risk zones are subject to fitness for work- and medical surveillance examinations as defined in the applicable CHSS. The Principal Contractor's H&S Officer and the Client Agent shall decide whether an employee has to submit to fitness for work medical testing and this decision shall be final.
- b. In the case of any employee taking prescribed medicines, the employer shall ensure that the employee is only allowed to work if the effects or side effects of such medicine do not constitute a threat to the health or safety of the person concerned or other persons on the construction site; each employer shall be accountable for compliance in respect of that employer's employees on site.
- c. Visitors are not required to present a medical certificate of fitness if they do not enter a risk zone; all visitors determined to be 'working employees' in this document must be in possession of a medical certificate of fitness.
- d. All persons working on site, shall be in possession of a valid medical certificate of fitness.
- e. Administrative controls: all **persons working** on the site must have been issued with:
 - i. A Medical certificate of fitness relating to the work risk exposures. The certificate must be issued in the format required by this H&S specification.
 - ii. Proof of H&S and Environmental induction: training in the Principal Contractor's specific health, safety and environmental induction defined in the approved health and safety plan. Training is done by the Principal Contractor's H&S officer
- f. Administrative controls: all visitors wishing to access the site must be permitted to do so by a Principal Contractor and must follow that Principal Contractor's access rules; such visitors must be inducted by the visiting Principal Contractor in its visitor's health and safety site and Environmental induction, as defined in the approved health and safety and environmental management plans. Training is done by the Principal Contractor's H&S officer or environmental representative.

4. General access and site rules

- a. All employees of all contractors working at the construction site shall access the site in vehicles which have seats firmly secured and adequate for the number of employees to be carried; this means that strictly no personnel may be transported in the load body of an LDV or a truck and that all construction personnel must be brought to site in a bus, taxi or inside the cab of a vehicle.
- b. No employee shall be transported together with goods or tools.
- c. All construction vehicles operating on the roads adjacent to the construction site must comply with the requirements of the National Road Traffic Act, 1996.
- d. The Principal Contractor shall ensure that all employees and visitors are aware and comply with the site's safe speed restriction, defined by the principal contractor at the hand of the risk assessment.
- e. Every construction vehicle shall:
 - i. Be in serviceable condition and safe.

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- ii. Be inspected by a competent person daily and the result of the inspection logged in a register kept in the vehicle.
 - iii. Where non-conformities are identified, these shall be subject to immediate and documented appropriate corrective action.
 - iv. Have a serviced portable fire extinguisher installed at all times.
 - v. Be operated by a competent driver appointed in writing; the driver shall:
 - 1. Be in possession of a conforming driver's license;
 - 2. Be in certified medically fit as a driver.
5. All access-, road traffic- and site rules of project shall be complied with.
6. All activities planned to occur in the campsite shall be risk assessed and planned; this includes risk controls for the parking of staff- and visitor's vehicles, parking of mobile plant and machinery, dedicated storage areas, planned and compliant stacking practices, traffic controls, including the safe separation of pedestrian (employee) transport from risk areas.
7. No plant maintenance shall be performed on the construction site. Contractors and vehicles which are not roadworthy, leak oil or diesel or in any other way unsafe must not be allowed on site.

80 **Appendixes**

79.1	Costing		Appendix 1
79.2	DOL Notification:	-	Appendix 2
79.3	Medical Fitness	-	Appendix 3
79.4	Baseline Risk Assessment	-	Appendix 4
79.5	Covid19 Specification		Appendix 5

APPENDIX 1 - COSTING

SWIMMING POOL REFURBISHMENT
OHS COSTING
JDA

Doc no. PR001

The scope of work and the health and safety specifications as well as the Occupational Health and Safety Act (1993) and all relevant Regulations need to be considered when pricing for health and safety. Full compliance is expected during construction.

Every item from 1-17 below needs to be priced and any additional cost (if applicable) should be added as a lump sum in item 18.

ITEM	PAYMENT REFERENCE	DESCRIPTION	UNIT	QTY tender	RATE	TOTAL
		OHS				
1		Covid related costs, (lump sum)				
2		Full time safety officer				
3		Training				
4		First aid provisions				
5		Signage				
6		PPE				
7		Barricading				
8		Traffic management				
9		Electrical COC for site camp				
10		Welfare facilities				
11		Medicals				
12		Safety File				
13		Copies of checklists				
14		Waste disposal				
15		Induction cards				
16		Safety of sub-contractors				
17		Safety of any other specialised services				
18		Any additional OHS costs related to the work (lump sum)				
TOTAL						

APPENDIX 2 – DOL NOTIFICATION

ANNEXURE 2

**NOTIFICATION OF CONSTRUCTION WORK
Regulation 4 of the Construction Regulations, 2014**

1. (a) Name and postal address of Principal Contractor:

.....

- (b) Name and telephone number of Principal Contractor's contact person:

.....

2. Principal Contractor's compensation registration number:

.....

3. (a) Name and postal address of Client:

.....

- (b) Name and telephone number of Client's contact person or agent:

.....

4. (a) Name and postal address of Designer(s) for the project:

.....

- (b) Name and telephone number of Designer's contact person:

.....

5. Name and telephone number of Principal Contractor's Construction Supervisor on site appointed in terms of Regulation 8(1):

.....

6. Name/s of Principal Contractor's sub-ordinate Supervisors on site appointed in terms of Regulation 8(2):

.....

7. Exact physical address of the construction site or site office:

.....

8. Nature of the construction work:

.....

.....

.....

9. Expected commencement date:

.....

10. Expected completion date:

.....

11. Estimated maximum number of persons on the construction site:

Total

Male

Female

12. Planned number of Contractors on the construction site accountable to Principal Contractor:

13. Name(s) of Contractors already chosen:

Principal Contractor's Signature:

Date:

Client's Signature:

Date:

- THIS DOCUMENT IS TO BE FORWARDED TO THE OFFICE OF THE DEPARTMENT OF LABOUR **PRIOR TO COMMENCEMENT** OF WORK ON SITE.
- **ALL PRINCIPAL CONTRACTORS** WHO QUALIFY TO NOTIFY MUST DO SO EVEN IF ANOTHER PRINCIPAL CONTRACTOR ON THE SAME SITE HAD DONE SO PRIOR TO THE COMMENCEMENT OF WORK.

APPENDIX 3 – MEDICAL FITNESS



Annexure 3

OCCUPATIONAL HEALTH AND SAFETY ACT, 85 OF 1993

Medical Certificate of Fitness

[illegible]

APPENDIX 4 – BASELINE RISK ASSESSMENT

DOCUMENT NR:	HIRA/01/2021	<div>SWIMMING POOL REFURBISHMENT</div> <div>Project Specific Baseline Risk Assessment</div>	  a world class African city
INITIAL ISSUE DATE:	15/12/2021		
REVISION DATE:	0		
REVISION NO:	0		
NEXT REVISION:	14/12/2022		

No	HAZARD / ASPECT / ACTIVITY	RISK / IMPACT	CON	SAFETY			HEALTH			ENVIRO			IRR VALUES			CONTROLS / MITIGATES	LEGAL CONTROLS	SAFETY			HEALTH			ENVIRO			CONTROLLED RISK VALUE		
				S	F	E	S	F	E	S	F	E	S	H	E			S	F	M	S	F	E	S	F	E	S	H	E
1	Site Establishment	Lifting Operations: loading & off-loading of trucks and trailers, manual handling, staking & storage, motorized & mobile equipment, (Ref to further mentioned hazards)	Normal	3	2	3	3	2	3	3	3	3	8	8	9	* (HSE Management Program); * Quarterly Business Unit MD & Division GM assessments / audits; * HSE Department assessments / audits; * Suitable qualified Supervisors; * Inspection/recording and corrective action plan and follow up, overall control register, training requirement assessment (matrix)	* OHS Act, * MH&S Act. Minerals Act & regulations, * SANS, any other related Legislation as may be required by Clients. (sources).	3	1	3	3	1	3	3	1	3	7	7	7
2	Excavation by hand	Back / shoulder Injury from pick work	Normal	4	4	3	2	4	3	1	1	1	11	9	3	* Safe distance between worker * Training (inductions) * Safe Work Procedure for hand tools & Equipment * All work executed under supervision * Complete Daily Safe Task Instruction prior to execution of task	* OHS Act, Construction Regulations * Project Specifications	4	1	3	2	1	3	1	1	1	8	6	3
2.1		Hand and wrist injury from shovel work	Normal	2	4	4	2	4	4	1	1	1	10	10	3	* Routine Maintenance of equipment * Correct PPE * Training in hand / small tools * Continuous supervision		2	1	4	2	1	4	1	1	1	7	7	3
2.2		Falling into excavation	Normal	3	4	3	1	1	1	1	1	1	10	3	3	* Solid barricading around excavations Road & walkway closures * Visible warning signage and lights (day & night) * Supervision		3	1	3	1	1	1	1	1	1	7	3	3
2.3		Getting hit by passing vehicle	Normal	4	4	4	1	1	1	1	1	1	12	3	3	* Stop & Go controls * Safe Work Procedures * Visible Point of Control / Flagman * Highly visible / reflective PPE	* South African Road Traffic Signs Manual (SARTSM) ch 13 vol 2	4	1	4	1	1	1	1	1	1	9	3	3
3	Storage of Flammables	Fire	Normal	4	4	3	3	3	1	3	3	1	11	7	7	*SWP * Training * Signage * PPE (fire extinguisher), supervision, housekeeping checklist, fire ext. check	* OHS Act, General Safety Regulations	4	1	2	3	3	1	2	2	1	7	7	5
3.1		Inhalation if poisonous fumes	Normal	2	1	2	4	3	3	1	1	1	5	10	3	* Training, No smoking during use, PPE (fire extinguisher), supervision, fire ext. check	* OHS Act, General Safety Regulations	2	1	2	4	2	1	1	1	1	5	7	3
4	Use of compaction equipment	Foot and or leg injury	Normal	4	4	2	2	2	2	1	1	1	10	6	3	* Training, PPE, supervision, compaction equip. inspections	* OHS Act, Construction Regulations, Driven Machinery Regulations	4	2	2	2	1	1	1	1	1	8	4	3
4.1		Fire	Normal	2	2	2	2	2	2	2	2	2	6	6	6	* Ensure there is no smoking while equipment is being refuelled, routing maintenance of equipment, supervision, fire ext. check	* OHS Act, Construction Regulations, General Safety Regulations, Driven Machinery Regulations	2	1	1	2	1	1	2	1	1	4	4	4
4.2		Injury due to falling equipment during transportation	Normal	3	2	3	1	1	1	1	1	1	8	3	3	* Ensure that compaction equipment is transported safely with the use of proper lifting equipment and machinery (not to be carried in front of TLB bucket), supervision	* OHS Act, Construction Regulations, Driven Machinery Regulations	3	1	1	1	1	1	1	1	1	5	3	3
4.3		Damage to property	Normal	3	2	3	1	1	1	1	1	1	8	3	3	* Routine maintenance of equipment, training, supervision	* OHS Act, Construction Regulations, Driven Machinery Regulations	3	1	1	1	1	1	1	1	1	5	3	3
5	Working in the road reserve or road	Hit by car or other vehicle	Normal	4	3	4	1	1	1	1	1	1	11	3	3	* Implementation of traffic management plan, SWP, Training, PPE, discipline if traffic management plan is not implemented, supervision	* OHS Act, Construction Regulations, SARTSM ch13 vol 2	4	3	1	1	1	1	1	1	1	8	3	3
5.1		Cause accident between public road users	Normal	5	3	3	1	1	1	1	1	1	11	3	3	* Traffic management plan, SWP, Training, PPE, supervision	* OHS Act, Construction Regulations, SARTSM ch13 vol 2	5	2	2	1	1	1	1	1	1	9	3	3
6	Use of grinder	Amputation of a limb	Normal	4	2	2	2	2	2	1	1	1	8	6	3	SWP, Training, PPE, Guarding, Routing maintenance of equipment, supervision, grinder inspections	OHS Act, Construction Regulations	4	1	1	2	1	1	1	1	1	6	4	3
7	Repairing mobile plant	Being crushed by plant	Normal	4	3	4	2	2	2	1	1	1	11	6	3	Routing maintenance of lifting jacks, secure bracing of bucket, follow procedure for use of jack, training, supervision	OHS Act, Construction Regulations, Driven Machinery Regulations	4	2	2	2	1	1	1	1	1	8	4	3
7.1		Hand injuries	Normal	4	3	3	2	2	2	1	1	1	10	6	3	Ensure the right tool is used for the job, PPE, training, supervision	OHS Act, Construction Regulations, Driven Machinery Regulations	4	2	2	2	1	1	1	1	1	8	4	3
7.2		Incident due to incompetency of operator	Normal	3	3	3	1	1	1	1	1	1	9	3	3	Formal training, SWP, discipline if SWP is not followed	OHS Act, Construction Regulations, Driven Machinery Regulations	3	1	2	1	1	1	1	1	1	6	3	3
8	Storage of materials	Injury due to falling objects	Normal	3	3	3	2	1	1	1	1	1	9	4	3	Routing maintenance of store, sufficient storage space, suitable shelving, adequate lighting, supervision, housekeeping checklist	OHS Act, Construction Regulations, General Safety Regulations	3	1	1	2	1	1	1	1	1	5	4	3
8.1		Injury due to tripping	Normal	3	3	3	1	1	1	1	1	1	9	3	3	Ensure that passageways are kept free from materials, adequate lighting, supervision, housekeeping checklist	OHS Act, Construction Regulations, General Safety Regulations	3	1	1	1	1	1	1	1	1	5	3	3

REVISION NO:	0	Project Specific Baseline Risk Assessment	a world class African city
NEXT REVISION:	14/12/2022		

No	HAZARD / ASPECT / ACTIVITY	RISK / IMPACT	CON	SAFETY			HEALTH			ENVIRO			IRR VALUES			CONTROLS / MITIGATES	LEGAL CONTROLS	SAFETY			HEALTH			ENVIRO			CONTROLLED RISK VALUE		
				S	F	E	S	F	E	S	F	E	S	H	E			S	F	M	S	F	E	S	F	E	S	H	E
8.2		Fire	Normal	3	2	3	2	1	1	2	2	2	8	4	6	Store flammable materials separate from flammable liquids, dispose of contaminated materials (oilly or otherwise), PPE (fire extinguisher),SWP, training, supervision, fire extinguisher checklist	OHS Act, Construction Regulations, General Safety Regulations	3	2	1	2	1	1	2	1	1	6	4	4
9	Use of mobile toilets	Disease due to lack of cleanliness	Normal	2	2	2	4	3	4	3	3	3	6	11	9	Routine maintenance of equipment, Reporting procedure (of lack of maintenance), Training, use of toilet paper, supervision, facilities check	OHS Act, Construction Regulations, Facilities Regulations	2	1	1	4	1	4	3	1	1	4	9	5
9.1		Contamination / Infections from chemicals used	Normal	2	2	2	4	3	4	1	1	1	6	11	3	Awareness trianing about chemicals used		2	1	1	4	1	3	1	1	1	4	8	3
10	Working in the sun	Dehydration	Normal	2	2	2	4	3	4	1	1	1	6	11	3	Training, Drinking enough water, PPE, supervision	OHS Act, General Safety Regulations	2	1	1	4	1	4	1	1	1	4	9	3
10.1		Heat stroke	Normal	2	2	2	4	3	4	1	1	1	6	11	3	Training, Drinking enough water, PPE, supervision		2	1	1	4	1	4	1	1	1	4	9	3
11	Lifting with crane truck or TLB	Use of damaged cranes; crane not on stable ground; out riggers not extended in full; no maintenance; anti toe block not working; side mirrors damaged or dirty; windscreen damaged or dirty/ poor visibility; tires damaged/pressure not adequate; wheel nuts not tithed; no sufficient lubrication; oil leaks; damage to hydraulic pipes and leaks; loose connections on battery; damage (cracks) on boom sections; damaged brake system; reverse alarm not in working order; indication lights not functional; insufficient fluid levels (diesel, water, hydraulic oil, transmission fluid, brake fluid, engine oil); fluids taped in to wrong area; uncertified/incompetent crane operator; use of damaged slings, shackles est.; incompetent/uncertified person conducting slinging and rigging; no signal man for lifts; guide ropes not attached to load; guide ropes not sufficient length; more than one person giving hand signals; person not trained in hand signals.	Normal	5	3	3	2	1	1	2	1	2	11	4	5	HSE Manual. daily pre ignition checklist, log book, defects report flow and action procedure, monthly certification and license review, placement of correct type and size fire extinguisher, maintenance of fire extinguishers, monthly written inspections, monitoring of ground stability (compacting), enforcement of use of outrigger pads, placement of drip try, fiscal barricade of crane work parameter, planned maintenance schedule, placement of flag/whistle man, training on hand signals and assessment, induction, signage and notices display in overhead work area, employee control pack, overall control register, selection and placement, medical screening and review, emergency preparedness and response plan, safe work procedure --, planned task observation, job safety analysis , issue base risk assessment,- DSTI before work commence, toolbox talks, daily pre work workplace inspection and action, load test certificate, rope test certificate, calibration certificate and review, client permit to work, inspections and audits, corrective action plan with designation of responsibilities and target dates, SHE rep inspection reports, , visible felt leadership.	OHS Act 85 of 1993 driven machinery regulations 18, OHS Act 85 of 1993 general machinery regulations 2-3-9-10, SANS 1-8: 2- edition 1.01 - The Installation and Operation of Cable Cranes and Aerial Rope-ways 11.3, 4.3, 5.4, 5.2, 5.1.3, 5.1.4, 11.1, 4.1, 7.3, 5.1.1, 4.6.4, 5.1.2, 4.5.2, 4.2, 10, 10.2, 4.6.1, 7.4, 7.1, 7.2, 4.6.3, (OHSA) Construction Regulations GNR 1- of 18 July 2- 20, Notice of Incorporation of the National Code Of Practice for the evaluation of training providers for lifting machine operators under Driven Machinery Regulations Government Notice R295 of 26 February 1988 published under Government Notice R145 in Government Gazette 27292 of 18 February 2- 1, Notice of Incorporation of the National Code Of Practice for the evaluation of training providers for lifting machine operators under Driven Machinery Regulations Government Notice R295 of 26 February 1988 published under Government Notice R145 in Government Gazette 27292 of 18 February 2- 1, (MHSA) Chapter 8 - Machinery and Equipment Regulations 8.5, (OHSA) Driven Machinery Regulation GNR295 of 26/2/1988 18(3),	5	2	1	2	1	1	2	1	1	8	4	4
11.1		Employees not trained in fall arrest equipment; employees not trained in fall rescue plan; employees not trained in emergency plan; use of incorrect personal protective equipment; use of damaged fall arrest equipment; tools and equipment not secured when elevated; openings in floors not secured; handrails not complete or secured; live lines not erected; lifelines not of correct material; whet structure/steel; inclement whether wind - thunder est.; persons/employees moving under over head work, fall arrest and rescue equipment not to standard.	Normal	5	3	3	2	1	1	2	1	2	11	4	5	HSE Manual. daily pre ignition checklist, log book, defects report flow and action procedure, monthly certification and license review, placement of correct type and size fire extinguisher, maintenance of fire extinguishers, monthly written inspections, monitoring of ground stability (compacting), enforcement of use of outrigger pads, placement of drip try, fiscal barricade of crane work parameter, planned maintenance schedule, placement of flag/whistle man, training on hand signals and assessment, induction, signage and notices display in overhead work area, employee control pack, overall control register, selection and placement, medical screening and review, emergency preparedness and response plan, safe work procedure --, planned task observation, job safety analysis , issue base risk assessment - DSTI before work commence, toolbox talks, daily pre work workplace inspection and action, load test certificate, rope test certificate, calibration certificate and review, client permit to work, inspections and audits, corrective action plans, SHE rep inspection reports, fall protection plan, attachment of guide ropes, openings and holes control register, rigging study review and approval, communication	OHS Act 85-of 1993 general safety regulations 2-2a-2b-2c-3-6-14, OHS Act 85 of 1993 construction regulations 3-6-7-8-9-14-15-16-30. - SANS 5-1:2- - Personal protective equipment against falls from a height - Full Body Harnesses 4.2, (OHSA) General Safety Regulations GNR 1- of 30 May 1986 6, (OHSA) Construction Regulations GNR 1- of 18 July 2- 8(4), (OHSA) Construction Regulations GNR 1- of 18 July 2- 8(2), Minerals (Prospecting and Mining) Act 33 of 1992 - Regulations for the health, safety and welfare of persons in mines [Nam] 50. SANS 1- 7: 2- edition 3 Load securement on vehicles Part 1: General requirements 7.6	5	2	1	2	1	1	2	1	1	8	4	4
12	Use of electricity at the site camp	Electrocution	Normal	4	3	3	2	1	1	1	1	1	10	4	3	Lock out procedure, Training, Routine maintenance, COC for site camp installation,	OHS Act, Construction Regulations	4	2	1	2	1	1	1	1	1	7	4	3
12.1		Fire	Normal	2	2	2	2	2	2	2	2	2	6	6	6	COC for site camp installation, including on site accommodation, PPE (fire extinguisher), training, supervision, fire ext. inspection		2	1	1	2	1	1	2	1	1	4	4	4

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				S	F	E	S	F	E	S	F	E	S	H	E			S	F	M	S	F	E	S	F	E	S	H	E														
13	Use of mobile plant	Injury due to malfunction of machine	Normal	4	3	3	1	1	1	1	1	1	10	3	3	SWP, Training, Routing maintenance, supervision, mobile pant checklist	OHS Act, Construction Regulations, Driven Machinery Regulations	4	2	1	1	1	1	1	1	1	7	3	3														
13.1		Injury due to incompetence of operator	Normal	4	3	3	1	1	1	1	1	1	10	3	3	SWP, Training, obtaining the required medical and competency certificates of operators before they start work.		4	2	1	1	1	1	1	1	1	7	3	3														
13.2		Damage to property	Normal	3	3	3	1	1	1	3	1	1	9	3	5	Routine maintenance of plant, training, supervision, mobile plant checklist		3	1	1	1	1	1	3	1	1	5	3	5														
13.3		Injury to a child or other pedestrian due to the incompetence of a flag man/lady or banks man/lady	Normal	5	2	4	1	1	1	1	1	1	11	3	3	When working near a school or a crèche or where there are lots of children a flagman/lady needs to be used to marshal children and communicate with mobile plant operator to Traffic management plan, SWP, Training, PPE, ensure that traffic management plan is followed, supervision.		5	2	1	1	1	1	1	1	1	8	3	3														
13.4		Vehicular accident	Normal	4	1	4	1	1	1	1	1	1	9	3	3	Get off the plant at lunch time and stretch the hamstring and walk around to loosen the back muscles. Maintain good posture while sitting and don't slouch. Routine maintenance of plant on springs(shocks) and seats, supervision		4	1	2	1	1	1	1	1	1	7	3	3														
13.5		Ergonomic injury to the lower back	Normal	2	1	4	4	3	4	1	1	1	7	11	3	OHS Act, Construction Regulations, Driven Machinery Regulations		2	1	4	4	2	4	1	1	1	7	10	3														
14	Laying pipes	Failure of lifting equipment	Normal	4	3	2	1	1	1	1	1	1	9	3	3	SWP, maintenance of equipment, training, PPE, discipline if SWP is not followed, supervision, lifting equip. inspections	OHS Act, Construction Regulations, Driven Machinery Regulations	4	2	1	1	1	1	1	1	1	7	3	3														
14.1		Finger injuries while guiding pipes into position	Normal	3	3	2	1	1	1	1	1	1	8	3	3	Do not get in between the two pipes, guide with hands on the side of the pipe not on the front edge. Training, PPE, supervision		3	2	1	1	1	1	1	1	1	6	3	3														
14.2		Getting pushed over by the swinging pipe	Normal	4	2	2	1	1	1	1	1	1	8	3	3	Stay clear of the pipe while it is in the air being lowered into the trench, training, PPE, supervision		4	1	1	1	1	1	1	1	1	6	3	3														
15	Delivery of materials	Vehicular accident	Normal	3	3	3	1	1	1	3	1	1	9	3	5	Traffic management plan, SWP, Training, PPE, disciplining those that do not implement the traffic management plan, supervision	OHS Act, Construction Regulations, Driven Machinery Regulations	3	1	1	1	1	1	3	1	1	5	3	5														
15.1		Failure of lifting equipment	Normal	3	3	3	1	1	1	3	1	1	9	3	5	SWP, maintenance of equipment, training, PPE, discipline if SWP is not followed, supervision, lifting equip. register		3	1	1	1	1	1	3	1	1	5	3	5														
15.2		Injuries to the hand and feet from carrying or dropping materials	Normal	4	3	4	1	1	1	1	1	1	11	3	3	PPE, training, supervision		4	1	4	1	1	1	1	1	1	9	3	3														
16	Use of sub-contractors	Injury due to incompetence, faulty equipment, lack of right equipment, lack of training	Normal	5	3	4	4	3	4	3	3	3	12	11	9	Safety plan approval, 37(2) agreement, completion of contractor list, Monthly audits and reports, Stop contractor if not compliant, supervision	OHS Act, Construction Regulationsv	5	1	4	4	1	4	3	1	3	10	9	7														
17	Excavating with TLB/Excavator	Injury through being run over by TLB	Normal	4	3	4	2	1	1	1	1	1	11	4	3	Planned maintenance, SWP, training, supervision, mobile plant pre start check	OHS Act, Construction Regulations, Driven Machinery Regulations	4	1	4	2	1	1	1	1	1	9	4	3														
17.1		Getting hit by TLB bucket	Normal	4	3	4	2	1	1	1	1	1	11	4	3	SWP, training, supervision, mobile plant prestart check		4	1	4	2	1	1	1	1	1	9	4	3														
17.2		Injury due to lack of communication between banks man/lady and operator	Normal	3	3	3	1	1	1	1	1	1	9	3	3	SWP, training, PPE, supervision		3	1	3	1	1	1	1	1	1	7	3	3														
17.3		Property damage	Normal	3	3	3	1	1	1	1	1	1	9	3	3	Routine maintenance of TLB, training, supervision, mobile plant prestart check		3	1	3	1	1	1	1	1	1	7	3	3														
17.4		Vehicular accident	Normal	4	3	3	1	1	1	3	1	1	10	3	5	Traffic management plan, SWP, Training, PPE, disciplining those that do not implement the traffic management plan, supervision, mobile plant prestart check	OHS Act, Construction Regulations, Driven Machinery Regulations, SARTSM vol 2 ch 13	4	1	3	1	1	1	3	1	1	8	3	5														
17.5		Fire	Normal	3	3	3	1	1	1	2	1	1	9	3	4	SWP, Routing maintenance, Training, PPE, supervision	OHS Act, General Safety Regulations	3	1	3	1	1	1	2	1	1	7	3	4														
18	Manual lifting	Lifting heavy unmanageable equipment can cause back injury, tripping over access material or debris in work area or access routes; one person caring un manageable equipment; tripping over equipment cables whilst caring; falling trough openings and edges that is not secured; lacerations an pinches as result of no personal protective equipment not utilized or incorrect personal protective equipment. + Back injuries, muscle stress, fractures, lacerations, equipment damage, disabling injuries, lacerations, amputations, puncture wounds.	Normal	4	4	4	4	2	1	1	1	1	12	7	3	Safe work procedure --, planned task observation, job safety analysis , issue base risk assessment, fiscal barricading, grinding off sharp edges, toolbox talks, personal tips on use of correct lifting methods, employee control pack, induction,- DSTI before work commence, daily pre work workplace walkabout inspection and action, personal protective equipment survey and issue record, incident recalls, first aiders, first aid boxes and training.	Gauteng: Health Care Waste Management Regulations Schedule 9.2, SANS 1-3: 1997 edition 1.1.: The warehousing of dangerous goods— enclosed storage areas and covered and uncovered outdoor storage yards 10, Gauteng: Health Care Waste Management Regulations 2(5), Gauteng: Health Care Waste Management Regulations 19, Labour Act 6 of 1992 - Regulations relating to the health and safety of persons at work [Nam] 205(1), BCEA: Code of Good Practice on the Protection of Employees during pregnancy and after the birth of a child: GNR 1441 13 November 2000 7.2, Labour Act 6 of 1992 - Regulations relating to the health and safety of persons at work [Nam] 205(2), Labour Act 6 of 1992 - Regulations relating to the health and safety of persons at work [Nam] 205(4), BCEA: Code of Good Practice on the Arrangement of Working Time GN R.1440 on 13 November 1998 10.10.	4	1	4	4	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1

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				S	F	E	S	F	E	S	F	E	S	H	E			S	F	M	S	F	E	S	F	E	S	H	E
19	Working near public	Death or serious injury due to failure of lifting equipment or improper use of plant resulting in financial loss, bad reputation and down time	Normal	4	4	4	3	1	1	4	1	1	12	5	6	Follow safe work procedures and safety plan, implement audit instructions, all supervisors to take responsibility for safety from the CEO to the foreman, disciplining of those individuals be they management or labourers if they don't implement safety plan, supervision, lifting equipment checklist, load test certificate	OHS Act, Construction Regulations, Driven Machinery Regulations	4	1	4	3	1	1	4	1	1	9	5	6
19.1		Running over a child	Normal	5	5	5	1	1	1	1	1	1	15	3	3	When working near a school or a crèche or where there are lots of children a flagman/lady needs to be used to marshal children and communicate with mobile plant operator to stop and go. SWP, training, supervision		5	1	4	1	1	1	1	1	1	10	3	3
19.2		Falling into excavations	Normal	5	4	4	1	1	1	1	1	1	13	3	3	Ensure that excavations are closed asap. Ensure that open excavations are barricaded with mesh or yellow barriers filled with water. Ensure that excavations in the road are marked with reflective signage SWP, training, supervision		5	1	4	1	1	1	1	1	1	10	3	3
19.3		Materials or tools falling onto public from height	Normal	5	5	5	1	1	1	1	1	1	15	3	3	Ensure that warning signs are posted, the area is barricaded off and a supervisor is marshalling people away from dangerous areas		5	1	4	1	1	1	1	1	1	10	3	3
20	Plumbing	Injury from use of drills	Normal	3	3	3	3	3	3	3	3	3	9	9	9	SWP, maintenance of equipment, training, PPE, supervision	OHS Act, Construction Regulations	3	1	3	3	1	3	3	1	3	7	7	7
20.1		Falling into excavation	Normal	3	3	3	1	1	1	1	1	1	9	3	3	SWP, training, PPE, supervision		3	1	3	1	1	1	1	1	1	7	3	3
20.2		Electric shock from cables	Normal	3	3	3	1	1	1	1	1	1	9	3	3	SWP, maintenance of equipment, training, PPE, supervision		3	1	3	1	1	1	1	1	1	7	3	3
21	Roof work	Vehicular accident	Normal	4	4	3	1	1	1	1	1	1	11	3	3	SWP, engineering controls (lifelines), training, PPE, supervision	OHS Act, Construction Regulations, Construction regulations	4	2	3	1	1	1	1	1	1	9	3	3
21.1		Falling off roof	Normal	4	4	3	1	1	1	1	1	1	11	3	3	SWP, engineering controls (lifelines), training, PPE, supervision		4	2	3	1	1	1	1	1	1	9	3	3
21.2		Falling while trying to access the roof	Normal	4	4	3	1	1	1	1	1	1	11	3	3	SWP, proper erection of scaffolding, training, ladder maintenance and inspections, supervision		4	2	3	1	1	1	1	1	1	9	3	3
21.3		Injury from falling equipment	Normal	4	4	3	1	1	1	1	1	1	11	3	3	SWP, training, PPE, supervision		4	1	3	1	1	1	1	1	1	8	3	3
22	Working at Heights	Employees not trained in fall arrest equipment; employees not trained in fall rescue plan; employees not trained in emergency plan; use of incorrect personal protective equipment; use of damaged fall arrest equipment; tools and equipment not secured when elevated; openings in floors not secured; handrails not complete or secured; live lines not erected; lifelines not of correct material; whet structure/steel; inclement whether wind - thunder est.; persons/employees moving under over head work, fall arrest and rescue equipment not to standard.	Normal	5	4	3	1	1	1	1	1	1	12	3	3	Fall protection plan, fall rescue plan, emergency preparedness and response plan, application of fall arrest equipment training, monitoring of weather conditions, selection and placement (HSE Manual), employee control pack, medical screening and review, induction, fall protection training, rescue team selection and training,- DSTI before work commence, holes and openings control register, safe access permit, safe work procedure --, planned task observation, job safety analysis , issue based risk assessment , toolbox talks, daily pre work workplace walkabout inspection and action, incident recall, notices and signs display on all entrances, personal protective equipment survey and issue record, pre use inspection, log in log out register kept from store, visible felt leadership.	OHS Act 85-of 1993 general safety regulations 2-2a-2b-2c-3-6-14, OHS Act 85 of 1993 construction regulations 3-6-7-8-9-14-15-16-30. - SANS 5-1:2- - Personal protective equipment against falls from a height - Full Body Harnesses 4.2, (OHSA) General Safety Regulations GNR 1- of 30 May 1986 6, (OHSA) Construction Regulations GNR 1- of 18 July 2- 8(4), (OHSA) Construction Regulations GNR 1- of 18 July 2- 8(2), Minerals (Prospecting and Mining) Act 33 of 1992 - Regulations for the health, safety and welfare of persons in mines [Nam] 50. SANS 1- 7: 2- edition 3 Load securement on vehicles Part 1: General requirements 7.6	5	2	3	1	1	1	1	1	1	10	3	3
23	Painting	Inhalation of paint fumes from store	Normal	1	1	1	4	4	3	1	1	1	3	11	3	SWP, engineering controls (ventilation), training, PPE, supervision	OHS Act, Construction Regulations,	1	1	1	4	2	3	1	1	1	3	9	3
23.1		Falling	Normal	4	4	3	1	1	1	1	1	1	11	3	3	SWP, maintenance of equipment, training, PPE, supervision		4	2	3	1	1	1	1	1	1	9	3	3
23.2		Injury from falling equipment	Normal	4	4	3	1	1	1	1	1	1	11	3	3	SWP, training, PPE, supervision		4	2	3	1	1	1	1	1	1	9	3	3
24	Concrete work	Eye injury	Normal	3	3	3	1	1	1	1	1	1	9	3	3	Training, PPE, supervision	OHS Act, Construction Regulations,	3	1	3	1	1	1	1	1	1	7	3	3
24.1		Skin burn / dermatitis	Normal	1	1	1	1	3	3	1	1	1	3	7	3	Training, PPE, supervision		1	1	1	1	1	1	1	1	1	3	3	3
24.2		Respiratory system damage	Normal	1	1	1	4	3	4	1	1	1	3	11	3	Training, PPE, supervision		1	1	1	4	2	4	1	1	1	3	10	3
25	Brick work	Injuries to the hand and feet from carrying or dropping bricks	Normal	1	4	3	1	1	1	1	1	1	8	3	3	PPE, training, supervision	OHS Act, Construction Regulations,	1	2	3	1	1	1	1	1	1	6	3	3
25.1		Cement burns	Normal	2	1	1	2	4	2	1	1	1	4	8	3	Training, PPE, supervision		2	1	1	2	2	3	1	1	1	4	7	3
25.2		Eye injury from cement	Normal	3	4	2	2	1	1	1	1	1	9	4	3	Training, PPE, supervision		3	2	2	2	1	1	1	1	1	7	4	3
25.3		Falling while using ladder	Normal	3	4	2	1	1	1	1	1	1	9	3	3	Inspection of the ladders and planned maintenance, Training, supervision		3	3	2	1	1	1	1	1	1	8	3	3
25.4		Hit by a car or other vehicle	Normal	4	4	4	1	1	1	1	1	1	12	3	3	SWP, Traffic management plan, Training, PPE, supervision		4	2	4	1	1	1	1	1	1	10	3	3
25.5		Injury while using hand tool	Normal	4	4	4	1	1	1	1	1	1	12	3	3	Training, PPE, supervision		4	2	4	1	1	1	1	1	1	10	3	3
25.6		Falling while working on scaffolding or trestle	Normal	5	4	3	1	1	1	1	1	1	12	3	3	SWP, training, checking of scaffolding and trestles, supervision		5	2	3	1	1	1	1	1	1	10	3	3

No	HAZARD / ASPECT / ACTIVITY	RISK / IMPACT	CON	SAFETY			HEALTH			ENVIRO			IRR VALUES			CONTROLS / MITIGATES	LEGAL CONTROLS	SAFETY			HEALTH			ENVIRO			CONTROLLED RISK VALUE		
				S	F	E	S	F	E	S	F	E	S	H	E			S	F	M	S	F	E	S	F	E	S	H	E
26	Scaffold Operations (Erection & dismantling)	Incompetent person supervising; unstable ground; material corrosion; use damaged equipment; mixed components (equipment); no toe boards placed; legers not spaced evenly; insufficient material; wrong design for load (heavy, medium or light); height exceeding three times base with; equipment not built to s.a.n.s standard; scaffold not erected to s.a.n.s standard; ladder fitted on outside of scaffold; trap doors not fitted; incompetent persons erecting scaffold; inclement whether (rain, wind, lightning, est.); use of damaged or home made un approved tools; tools not fitted with lanyards; employees not trained in fall protection plan, employees not trained in fall arrest equipment; employees not trained in fall rescue plan; employees not trained in emergency plan; use of incorrect personal protective equipment; use of damaged fall arrest equipment; persons walking/working under suspended loads; throwing of components.	Normal	5	4	5	1	1	1	1	1	1	14	3	3	Selection and placement (HSE Manual), safe work procedure --, planned task observation , job safety analysis --, employee control pack, daily pre use inspections (safe for use or un safe for use tagging), fall protection plan, emergency action and response plan, issue base risk assessment, visible felt leadership,- component checks, fitting of lanyards to tools and equipment, monitoring of whether conditions, monitoring of ground stability, personal protective equipment survey and issue record, overall control register, fiscal barricading on parameters of scaffold.	OHS Act 85 of 1993 general safety regulations 6, OHS Act 85 of 1993 construction regulations 7-8-14-15., SANS 1-5: 2- edition 1.1 - Code of Practice- The Design, Erection, Use and Inspection of Access Scaffolding 10.8, 12, 10.6.1, 10.21, 7.3.1, 15, 11.5, 10.3, 11.4, 14, 10.4, 11.3, 10.7, 10.20, 10.18, (OHSA) Construction Regulations GNR 1- of 18 July 2- 14(2), (OHSA) General Safety Regulations GNR 1- of 30 May 1986 6, Ethekwini Municipality: Building By-laws published under P.N. 82 of 1932 (as amended) Chapter 9.; Ethekwini Municipality: Building By-laws published under P.N. 82 of 1932 (as amended) Chapter 9.; SANS 1-5: 2- edition 1.1 - Code of Practice- The Design, Erection, Use and Inspection of Access Scaffolding 7.3.2., SANS 1-5: 2- edition 1.1 - Code of Practice- The Design, Erection, Use and Inspection of Access Scaffolding 7.2, SANS 1-5: 2- edition 1.1 - Code of Practice- The Design, Erection, Use and Inspection of Access Scaffolding 7.2.2, SANS 1-5: 2- edition 1.1 - Code of Practice- The Design, Erection, Use and Inspection of Access Scaffolding 10.9.2,	5	1	4	1	1	1	1	1	1	10	3	3
26.1		Falling off scaffolding	Normal	5	5	5	3	3	2	1	1	1	15	8	3	SWP, Routing maintenance of equipment, Training, PPE, supervision		5	1	4	3	2	2	1	1	1	10	7	3
26.2		Getting hit by falling equipment	Normal	4	4	4	1	1	1	1	1	1	12	3	3	SWP, Training, PPE, supervision		4	2	4	1	1	1	1	1	1	10	3	3
26.3		Injury during erection and dismantling of scaffolding	Normal	5	4	5	1	1	1	1	1	1	14	3	3	SWP, Training, PPE, supervision		5	1	4	1	1	1	1	1	1	10	3	3
27	Structural support work	Collapse of structure	Normal	5	4	3	1	1	1	1	1	1	12	3	3	SWP, Inspection and approval by competent engineer in writing, Routine maintenance of equipment, supervision	OHS Act, Construction Regulations	5	2	3	1	1	1	1	1	1	10	3	3
28	Hot work	Burns	Normal	4	3	2	1	1	1	2	1	1	9	3	4	SWP, Routing maintenance, Training, PPE, supervision	OHS Act, Construction Regulations,	4	1	2	1	1	1	2	1	1	7	3	4
28.1		Fire	Normal	4	3	2	3	3	2	3	3	2	9	8	8	SWP, Routing maintenance, Training, PPE, supervision		4	1	2	3	1	2	3	1	2	7	6	6
29	Stacking of Material & Equipment	Sharp edges (nip points); incorrect manual lifting method; unstable stack; stacking material to high; use incorrect or no personal protective equipment; material debris in access route; heavy un manageable size equipment.	Normal	3	3	3	3	2	1	1	1	1	9	6	3	Toolbox talks, physical barricading, personal tips on use of correct lifting method, scheduled housekeeping, HSE Manual, stacking and storage practices, , waste management, SHE rep inspection and reporting, emergency preparedness and response plan, personal protective equipment survey and issue record,- DSTI before work commence, pre work work place walkabout inspection and action, safe work procedure --, planned task observation, job safety analysis , issue based risk assessment . first aiders, first aid boxes, incident recalls.	(OHSA) General Safety Regulations GNR 1- of 30 May 1986 8(1), Metsimaholo Local Municipality - Public Health Regulations 14, Gauteng: Health Care Waste Management Regulations Schedule 9.2, Ethekwini Local Municipality - Interim Code Relating to Fire Prevention and Flammable Liquids and Substances 73(2)(a), SANS 1-3: 1997 edition 1.1.: The warehousing of dangerous goods— enclosed storage areas and covered and uncovered outdoor storage yards 10, 11, SANS 1-7: 2- edition 3 Load securement on vehicles Part 2: General freight 6(4), Ethekwini Local Municipality - Interim Code Relating to Fire Prevention and Flammable Liquids and Substances 73(1), SANS 1-9: 2- edition 5 - Transportable metal containers for compressed gas: Basic design, manufacture, use and maintenance 11.2.2, (OHSA) General Safety Regulations GNR 1- of 30 May 1986 8(2), (OHSA) Construction Regulations GNR 1- of 18 July 2- 26, (OHSA) General Safety Regulations GNR 1- of 30 May 1986 8(4), Ethekwini Local Municipality - Interim Code Relating to Fire Prevention and Flammable Liquids and Substances 73(3), 73(2)b.	3	1	3	3	1	2	1	1	1	7	6	3

No	HAZARD / ASPECT / ACTIVITY	RISK / IMPACT	CON	SAFETY			HEALTH			ENVIRO			IRR VALUES			CONTROLS / MITIGATES	LEGAL CONTROLS	SAFETY			HEALTH			ENVIRO			CONTROLLED RISK VALUE		
				S	F	E	S	F	E	S	F	E	S	H	E			S	F	M	S	F	E	S	F	E	S	H	E
30	Loading & Offloading Operations	Use of damaged cranes; crane not on stable ground; out riggers not extended in full; no maintenance; anti toe block not working; side mirrors damaged or dirty; windscreen damaged or dirty/ poor visibility; tires damaged/pressure not adequate; wheel nuts not tithed; no sufficient lubrication; oil leaks; damage to hydraulic pipes and leaks; loose connections on battery; damage (cracks) on boom sections; damaged brake system; reverse alarm not in working order; indication lights not functional; insufficient fluid levels (diesel, water, hydraulic oil, transmission fluid, brake fluid, engine oil); fluids taped in to wrong area; uncertified/incompetent crane operator; high wind speeds; poor visibility; no rigging study for weighs to be lifted over 5 ton; use of damaged slings, shackles ect; incompetent/uncertified person conducting slinging and rigging; no signal man for lifts; guide ropes not attached to load; guide ropes not sufficient length; more than one person giving hand signals; person not trained in hand signals; employees not trained in fall protection plan, employees not trained in fall arrest equipment; employees not trained in fall rescue plan; employees not trained in emergency plan; lining up holes with fingers; use of damaged tools; tools not fitted with lanyards; use of incorrect personal protective equipment; use of damaged fall arrest equipment; persons walking/working under suspended loads; swinging steel	Normal	4	3	4	3	1	4	1	1	1	11	8	3	HSE Manual, daily pre ignition checklist, log book, defects report flow and action procedure, monthly certification and license review, placement of correct type and size fire extinguisher, maintenance of fire extinguishers, monthly written inspections, monitoring of ground stability (compacting), enforcement of use of outrigger pads, placement of drip try, fiscal barricade of crane work parameter, planned maintenance schedule, placement of flag/whistle man, training on hand signals and assessment, induction, signage and notices display in overhead work area, employee control pack, overall control register, selection and placement, medical screening and review, emergency preparedness and response plan, safe work procedure --, planned task observation, job safety analysis, issue base risk assessment,- DSTI before work commence, toolbox talks, daily pre work workplace inspection and action, load test certificate, rope test certificate, calibration certificate and review, client permit to work, inspections and audits, corrective action plan with designation of responsibilities and target dates, SHE rep inspection reports, , visible felt leadership	OHS Act 85 of 1993 general admin regulations 2, OHS Act 85 of 1993 general safety regulations 2-2a-2c-3-8, OHS Act 85 of 1993 construction regulations 6-20-21-26, OHS Act 85 of 1993 driven machinery regulations 18, OHS Act 85 of 1993 general machinery regulations 2-3-4-7-10. - SANS 1-7: 2- edition 3 Load securement on vehicles Part 2: General freight 6(4), SANS 1-7: 2- edition 3 Load securement on vehicles Part 1: General requirements 5.1, SANS 1-7: 2- edition 3 Load securement on vehicles Gauteng: Health Care Waste Management Regulations Schedule 9.1, SANS 1-3: 1997 edition 1.1.: The warehousing of dangerous goods— enclosed storage areas and covered and uncovered outdoor storage yards 11, SANS 1-7: 2- edition 3 Load Securement on Vehicles Part 7: Abnormal Loads 7(6),	4	1	4	3	1	4	1	1	1	9	8	3
31	Asbestos removal	Asbestosis	Normal	5	5	4	5	5	5	2	5	3	14	15	10	Only registered asbestos contractor to be used	Asbestos Regulations, Construction Regulations	2	2	1	2	2	2	1	2	1	5	6	4

APPENDIX 5 – COVID 19 SPECIFICATION

COVID-19 SPECIFICATION

CONTENTS:

1. Introduction
2. Administration
3. Sanitizers
4. Social Distancing
5. Masks
6. Ventilation
7. Symptom Screening
8. Costing
9. Risk Assessment
10. Checklist
11. Compliance Officer Appointment
12. Poster

1. Introduction

This SHE Specification Annexure is compiled in accordance with the following directive and needs to be complied with by the principal contractor and all sub-contractors:

DIRECTIVE BY THE MINISTER OF EMPLOYMENT AND LABOUR IN TERMS OF REGULATION 10 (8) OF THE REGULATIONS ISSUED BY THE MINISTER OF COOPERATIVE GOVERNANCE AND TRADITIONAL AFFAIRS IN TERMS OF SECTION 27 (2) OF THE DISASTER MANAGEMENT ACT, 2002 (ACT NO. 57 OF 2002)

COVID-19 HOTLINE: 080 002 9999

2. Administration

- a) The project specific risk assessment must be updated to include covid-19 risks.
- b) If more than 500 workers are on site the risk assessment and policy concerning the protection of employees must be submitted to the Department of Employment and Labour and the safety committee.
- c) All employees must be notified of the above mentioned Directive and how to implement it.
- d) All workers must be notified not to come to work if they show the symptoms of covid-19, (dry cough, sore throat, fever etc).
- e) A covid-19 manager must be appointed to address employee concerns and to keep workers informed.
- f) The implementation of the Directive, the updated risk assessment and updated safety plan must be monitored and supervised.
- g) The number of workers on site must be minimized through rotation, staggering of work hours, shift systems, remote work arrangements or similar measures in order to achieve social distancing.
- h) Contact between workers and between workers and public must be minimized.
- i) Awareness must be raised through leaflets, posters etc.
- j) The Department of Health and Department of Employment and Labour must be notified of any worker that has been diagnosed with covid-19.
- k) Root cause investigation must be done on any case of covid-19 at the work place.
- l) Administrative support must be given to the Department of Health for contact-tracing measures.

3. Sanitizers

- a) All sanitizers must be 70% alcohol
- b) Sufficient sanitizers must be provided free of charge.
- c) When interaction with the public is required sufficient hand sanitizer must be supplied for the worker and the member of the public to use.
- d) Before work starts, at regular intervals during work and after work ends surfaces must be cleaned.

- e) Toilets, door handles, common areas and shared equipment must be regularly disinfected.
- f) Biometric systems must be disabled or made covid-19 proof.
- g) Adequate facilities for washing hands with soap and water must be provided.
- h) Only paper towels must be supplied for drying hands.
- i) Workers must be informed about needing to regularly wash their hands during work.

4. Social Distancing

- a) The workplace must be arranged so as to ensure minimal contact. If practicable 1.5m between workers.
- b) If not possible to keep 1.5m distance a physical barrier must be installed between work stations.
- c) The required PPE must be supplied free of charge.
- d) Adequate supervision must be provided to ensure implementation of control measures.
- e) Break times must be staggered to avoid large gatherings.

5. Masks

- a) All workers must wear their masks.
- b) Masks must be provided free of charge.
- c) Training must be provided in the correct usage of masks.
- d) Arrangements must be made for the washing and drying of re-usable masks.
- e) The public must be kept out of the site and if a member of the public enters the site they must be issued with a mask.

6. Ventilation

- a) The work place must be adequately ventilated by natural or mechanical means.
- b) If filters are used in the ventilation system they must be cleaned and replaced in line with the manufacturers' instructions.

7. Symptom Screening

- a) All workers must be screened for observable symptoms during clock-in. Fever, cough, sore throat, redness of the eyes, shortness of breath.
- b) Workers must be required to report additional symptoms such as: body aches, loss of smell, loss of taste, nausea, vomiting, diarrhea, fatigue, weakness, tiredness.
- c) Workers must be informed to report as soon as they experience any of the above symptoms.
- d) The employer must comply with the Department of Health symptom screening and medical surveillance and testing when needed.
- e) Workers exhibiting symptoms must not be permitted to work.
- f) Workers that exhibit symptoms while at work must be isolated, provided with FFP1 surgical mask and transported safely to receive medical examination or self isolation.
- g) Work stations of workers with symptoms/diagnosed as infected must be disinfected.
- h) All those that have had contact with an infected person must be referred for screening.

- i) An application must be made for the infected person under Clause 4 of the Directive dated 25. March 2020 (Temporary Employer Relief Scheme, Regulation 10.8).
- j) If a worker contracted covid-19 as a result of occupational exposure a claim under the COIDA in terms of Notice 193 dated 03. March 2020 must be made.
- k) There must be no discrimination against an infected person.
- l) A diagnosed worker must only be allowed back to work once the employer has ensured social distancing measures at work and PPE usage measures are strictly adhered to at work.

8. Costing

The following items should be considered as a minimum for the costing of the covid-19 risk control measures:

- a) Face masks to cover nose and mouth, preferably washable
- b) Hand sanitizer, sufficient for staff and visitors
- c) Disinfectant for work surfaces
- d) Infrared thermometer
- e) Paper towels for drying hands after washing with soap and water
- f) Physical barriers if a social distancing of 1.5 m is not possible

9. Risk Assessment

Title of Assessment: CoronaVirus COVID-19 (SARS)		Date of Assessment: 30/04/2020																																																																			
Assessment No: 1		Project Name:																																																																			
Work Section:		Supervisor Name:																																																																			
Std PPE: Overalls, Safety vest, hardhat, steel toe-cap boots or shoes, to be worn whilst performing work activity		The frequency or probability exposure is a value from 1 to 3. The higher the risk the higher the value.																																																																			
This risk assessment must be reviewed and communicated to all affected employees, after any change in work activity, when new hazards are identified and after accidents or incidents. This RA does not replace the daily DSTI done on site.		<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <th colspan="7">F x P x S = RR</th> <th colspan="2">INDIV. RISK RATING = RR</th> <th colspan="2">ACTION BY</th> </tr> <tr> <th colspan="2">EXPOSURE</th> <th colspan="5">SEVERITY(S)</th> <th>LOW RISK</th> <th>1 to 6</th> <th colspan="2">Address in one week</th> </tr> <tr> <th>FREQUENCY - (F)</th> <th>PROBABILITY - (P)</th> <th>Process</th> <th>Regulation</th> <th>Injury</th> <th>Damage</th> <th>Environment</th> <th>CLASS</th> <th>MEDIUM RISK</th> <th>7 to 12</th> <th>Address in 24 hours</th> </tr> <tr> <td>Occasionally 1</td> <td>Unlikely 1</td> <td>< R10 thousand</td> <td>Site concern</td> <td>First aid only</td> <td>< R10 thousand</td> <td>1-10L spill</td> <td>1 - Minor</td> <th>HIGH RISK</th> <th>13 to 20</th> <th>Address immediately</th> </tr> <tr> <td>Daily 2</td> <td>Possible 2</td> <td>< R100 thousand</td> <td>Local attention</td> <td>Medical care</td> <td>< R100 thousand</td> <td>11-100L spill</td> <td>2 - Serious</td> <td colspan="3"></td> </tr> <tr> <td>Continuously 3</td> <td>Certain 3</td> <td>< R 1 million</td> <td>National attention</td> <td>Fatal / Sec 24</td> <td>< R 1 million</td> <td>101-1000L spill</td> <td>3 - Major</td> <td colspan="3"></td> </tr> </table>		F x P x S = RR							INDIV. RISK RATING = RR		ACTION BY		EXPOSURE		SEVERITY(S)					LOW RISK	1 to 6	Address in one week		FREQUENCY - (F)	PROBABILITY - (P)	Process	Regulation	Injury	Damage	Environment	CLASS	MEDIUM RISK	7 to 12	Address in 24 hours	Occasionally 1	Unlikely 1	< R10 thousand	Site concern	First aid only	< R10 thousand	1-10L spill	1 - Minor	HIGH RISK	13 to 20	Address immediately	Daily 2	Possible 2	< R100 thousand	Local attention	Medical care	< R100 thousand	11-100L spill	2 - Serious				Continuously 3	Certain 3	< R 1 million	National attention	Fatal / Sec 24	< R 1 million	101-1000L spill	3 - Major			
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(TASK/OPERATIONAL STEPS) Job/Activities/Plant/Materials or Process (Source of Hazard) e.g. Pouring concrete		HAZARD DESCRIPTION (What danger exists from an Unsafe Act or Condition that can cause harm or loss) e.g. Safety goggles not worn		INITIAL RISK RATING <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <th>F</th> <th>P</th> <th>S</th> <th>RR</th> </tr> </table>		F	P	S	RR	RISK CONTROL MEASURES Engineering & Administrative actions to eliminate, reduce, transfer or control hazards e.g. PPE Issue Records maintained		RESIDUAL RISK RATING <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <th>F</th> <th>P</th> <th>S</th> <th>RR</th> </tr> </table>		F	P	S	RR	RECOMMENDATIONS PROCEDURE																																																			
F	P	S	RR																																																																		
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Coronavirus (COVID-19) (CV19) General		Employees (including those considered at increased risk) Employees are not aware of the risks from CV19 and become infected due to lack of awareness of control Measures.		<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <th>F</th> <th>P</th> <th>S</th> <th>RR</th> </tr> <tr> <td>3</td> <td>2</td> <td>2</td> <td>12</td> </tr> </table>		F	P	S	RR	3	2	2	12	. Health department provides advice on what CV19 is, what the risks are, the symptoms, how CV19 is spread, and how to avoid catching or spreading germs (simple Do's and Don'ts, Contact nearest clininc or medical proffesional. . The WHO (World Health Organization) provides information and a free 3hour online training course for emerging respiratory viruses, including CV19: https://openwho.org/courses/introduction-to-ncov . . Additional consideration will be given to those employees who may be deemed to be at increased risk. . Outbreak is monitored daily. . Advice on risks, symptoms and control measures has been passed onto employees. Only one third of the workforce to be on site. N95 masks to be worn. Lunch time splitting for the workforce should be considered to avoid large crowds. The site work areas should be adequately cleaned before work can resume.		<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <th>F</th> <th>P</th> <th>S</th> <th>RR</th> </tr> <tr> <td>1</td> <td>1</td> <td>1</td> <td>3</td> </tr> </table>		F	P	S	RR	1	1	1	3	Wash your hands throughly with soap and water for at least 20 seconds after touching or suspecting of contaminated surface or person. Paste chat showing symptoms identification of COVID-19 at assembly point, Office and entrance. Have emergency numbers in place visible to all workers/staff members on site. Cover your mouth when coughing or sneezing. Do not use a mask to prevent catching the virus - this will more likely spread the virus than prevent it. Only wear a mask if you have the virus or of you are caring for someone with the virus. Then, you need to change the mask often; not touch the front of the mask and dispose of it safely.																																											
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Coronavirus (COVID-19) (CV19)	Employees are not aware of the need to self-isolate or how to self-isolate	3	2	2	12	1. Health department SA Instant reply(Whatsapp) online.provides advice on when to self-isolate and access to an online interactive and personal checklist: 3. Advice on how to self-isolate has been passed onto employees	1	1	1	3	If you can, self isolate – this means, don't go to work, religious gatherings, shopping centers or use public transport. Stay at home and keep a good distance from others – at least one meter away from everyone at all times.
Coronavirus (COVID-19)	Construction Employees/workers	3	2	2	12	<p>1. Department of Health South Africa provides advice for all personnel in the Republic of South Africa</p> <p>2. Try and keep at least a one meter radius between you and others. This is because an infected person who might cough or sneeze will release droplets into the air which will carry in the air for only one meter before falling to the floor. Standing at least a meter away keeps you safe.</p> <p>3. If you are using public transport or you are in a confined space such as a lift or small closed room, and somebody standing or sitting close to you (one meter or more) is coughing and not covering their mouth and nose, cover your own mouth or nose to droplets escaping from their mouth or nose infecting you via your mouth, nose or eyes</p> <p>4. Don't shake hands, hug or kiss – come up with new, fun ways to greet that don't require physical contact.</p> <p>5. Try not to touch surfaces such as handrails, handles, seats, buttons etc and if you do, wash your hands thoroughly afterwards and do not touch your face, nose, mouth or eyes 6. to eliminate spreading the virus.</p> <p>7. Only wear a mask if you are experiencing symptoms and not to prevent contracting the virus – this can be a health hazard in itself. If you wish to wear a mask, do not use it more than once if it is disposable, wash your mask often and make sure it is dry before wearing it again. Don't touch the front of your mask with your hands. Use only the elastics to</p> <p>8. Only one third of the workforce should be back on site to help with social distancing. 9. N95 masks should be worn or FFP1 surgical masks. 10. Physical observable screening to be done including the use of a thermometer. 11. Social distancing should be implemented as much as possible and tasks planned accordingly to avoid large crowds working together.</p>	1	1	1	3	<p>Wet your hands with clean, running water (warm or cold), turn off the tap, and apply soap, Lather your hands by rubbing them together with the soap, Scrub your hands for at least 20 seconds, Rinse your hands well under clean and running water.</p> <p>Wash your hands often and properly – especially after you have sneezed or coughed. This means: Wet your hands with clean, running water (warm or cold), turn off the tap, and apply soap; Lather your hands by rubbing them together with the soap; Scrub your hands for at least 20 seconds; Rinse your hands well under clean, running water. If you want to, use hand sanitizer after washing but washing your hands properly will eliminate the virus. If you want to, wear a surgical or construction mask (the options bought over the counter are fine) but otherwise, just making sure your cover your mouth or nose when you cough or sneeze is sufficient.</p>

(COVID-19) Travel (Domestic)	Travelling for work to an area with a higher risk of COVID-19 or on transport with a Higher risk.	3	2	2	12	1. Personnel are to use alternative business meeting options such as Teams/Skype. 2. Advice and guidance on travel regularly communicated to employees.	1	1	1	3	If you can avoid travel to other countries for now, do so. Make use of modern technology to video conference or call into meetings
Coronavirus (COVID-19) (CV19) Travel (Travelling abroad)	Employees Travelling abroad for work To an area with a higher risk of CV19.	2	2	2	8	.Health department SA has advised that no longer travel are permitted to higher risk areas. . Practical alternatives to travel including postponing trips and holding meetings via video conferencing are implemented. . Advice and guidance on travelling and a list of affected Areas have been passed onto employees.	1	1	1	3	If you can avoid travel to other countries for now, do so. Make use of modern technology to video conference or call into meetings
Coronavirus (COVID-19) (CV19) Travel (Returning from travelling abroad)	Employees Returning to the South Africa after travelling abroad for work (or otherwise) to an area with a higher risk of CV19.	3	2	3	18	1. Health department SA (Whatsapp) +27 60 012 3456 online provides advice on when to self- isolate and access to an online interactive and personal checklist.	1	1	1	3	Wash your hands often and properly – especially after you have sneezed or coughed. This means: Wet your hands with clean, running water (warm or cold), turn off the tap, and apply soap; Lather your hands by rubbing them together with the soap; Scrub your hands for at least 20 seconds; Rinse your hands well under clean, running water. If you want to, use hand sanitizer after washing but washing your hands properly will eliminate the virus.
Coronavirus (COVID-19) (CV19) Booked annual leave	Employee(s) may become affected due to travelling to an	2	2	2	8	1. Employee(s) are granted permission to cancel at short notice any pre- booked annual leave to an affected area. Although employers are encouraged to pay employees during special leave to incentivise voluntary self-isolation in an attempt to curb the pandemic and contain the spreading of Coronavirus, payment in terms of the law is not compulsory. We strongly recommend that these aspect be addressed in an emergency Pandemic policy	1	1	1	3	In respect of employees who refuse to voluntarily self-isolate and are forced to remain at home because they are displaying symptoms, Section 7 of the Employment Equity Act states that medical testing may be justified inter alia in light of medical facts and employment conditions, the general health and safety obligations says employers are legally entitled to insist on medical testing before allowing an employee who is displaying symptoms to attend work.

Coronavirus (COVID-19) (CV19) Visiting the site	Workers may become affected due in contact with visitor or sharing documents, Pen, greetings or visitors cough	3	2	3	18	Visitors must sign a declaration form (COVID 19 Health Declaration Questionnaire) at security gate before entry to site. Visitors must be given soap to wash hands at security gate and Sanitizer after, Working from home will be considered and encouraged. Staff are encouraged to liaise with suppliers/buyers and other interested parties prior to meetings to identify potential risk to exposure	1	1	1	3	Always stand 1.m away from suspecting COVID-19 person. All visitors must ensure to comply with prevention method drafted by management. Visitors wash their hands before come in contact with workers/ staff onsite. Suspected person with virus must be contact medical professionals immediately.
Coronavirus (COVID-19) (CV19) Symptomatic or exposed employee(s)	Employees, general public,family members, Employee(s) are symptomatic of CV19 or has been in close contact with someone with COVID-19	2	2	2	8	. Employee(s) is/are advised to contact and follow Health department SA Instant replay (Whatsapp) +27 60 012 3456 online provides details and information of your any experienced symptoms. . Go for medical checks up for COVID-19 at nearest clinic or hospital . Colleagues who have had contact with a symptomatic employee will be made aware of the symptoms and advised to contact health department for guidance.	1	1	1	3	. If medical professional determines the employee is symptomatic and certifies them unfit for work, they will be treated as off sick as per normal policy and Visit nearest medical professional or clinic and get tested. PREVENTATIVE TIPS – Wash your hands regularly with soap or an alcohol-based hand sanitizer. – Avoid touching your eyes, nose, and mouth with unwashed hands. – Avoid close contact with people who are sick. – Cover your cough or sneeze with a flexed elbow or a tissue, then throw the tissue in the bin. – Clean and disinfect frequently touched objects and surfaces
Coronavirus COVID-19 (CV19). Employees/ works with coronavirus symptoms	Co-workers, staff and public	3	2	3	18	Employee(s) is/are advised to contact and follow Health department SA (Whatsapp) +27 60 012 3456 online provides details and information of your any experienced symptoms	1	1	1	3	. Go for medical checks up for COVID-19 at nearest clinic or hospital . If medical professional determines the employee is symptomatic and certifies them unfit for work, they will be treated as off sick as per normal policy

10. Checklist

The following checklist is to be completed by the contractor before starting work and at weekly intervals thereafter

ADMINISTRATIVE					
No	QUESTION	YES	NO	N/A	COMMENT
1	Has the project specific risk assessment been updated to include covid-19 risks?				
2	If more than 500 workers are on site has the risk assessment and policy concerning the protection of employees been submitted to the Department of Employment and Labour and the safety committee?				
3	Have employees been notified of the above mentioned Directive and how to implement it?				
4	Have workers been notified not to come to work if they show the symptoms of covid-19, (dry cough, sore throat, fever etc)?				
5	Has a covid-19 manager been appointed to address employee concerns and to keep workers informed?				
6	Has the implementation of the Directive, the updated risk assessment and updated safety plan been monitored and supervised?				
7	Have the number of workers on site been minimized through rotation, staggering of work hours, shift systems, remote work arrangements or similar measures in order to achieve social distancing?				
8	Has contact between workers and between workers and public been minimized?				
9	Has awareness been raised through leaflets, posters etc?				
10	Has the Department of Health and Department of Employment and Labour been notified of any worker that has been diagnosed with covid-19?				
11	Has root cause investigation been done on any case of covid-19 at the work place?				
12	Has administrative support been given to the Department of Health for contact-tracing measures?				

SANITIZERS

No	QUESTION	YES	NO	N/A	COMMENT
1	Are all sanitizers 70% alcohol?				
2	Have sufficient sanitizers been provided free of charge?				
3	When interaction with the public is required has sufficient hand sanitizer been supplied for the worker and the member of the public to use?				
4	Before work starts, at regular intervals during work and after work ends have surfaces been cleaned?				
5	Have toilets, door handles, common areas and shared equipment been regularly disinfected?				
6	Have biometric systems been disabled or made covid-19 proof?				
7	Have adequate facilities for washing hands with soap and water been provided?				
8	Have only paper towels been supplied for drying hands?				
9	Have workers been informed about needing to regularly wash their hands during work?				

SOCIAL DISTANCING

No	QUESTION	YES	NO	N/A	COMMENT
1	Has the workplace been arranged so as to ensure minimal contact? If practicable 1.5m between workers.				
2	If not possible to keep 1.5m distance has a physical barrier been installed between work stations?				
3	Has the required PPE been supplied free of charge?				
4	Has adequate supervision been provided to ensure implementation of control measures?				
5	Have break times been staggered to avoid large gatherings?				

MASKS

No	QUESTION	YES	NO	N/A	COMMENT
1	Are all workers wearing their masks?				
2	Are masks provided free of charge?				
3	Has training been provided in the correct usage of masks?				
4	Have arrangements been made for the washing and drying of re-usable masks?				

5	Are the public kept out of the site and if a member of the public enters the site are they issued with a mask?				
VENTILATION					
No	QUESTION	YES	NO	N/A	COMMENT
1	Is the work place adequately ventilated by natural or mechanical means?				
2	If filters are used in the ventilation system are they cleaned and replaced in line with the manufacturers' instructions?				
SYMPTOM SCREENING					
No	QUESTION	YES	NO	N/A	COMMENT
1	Are all workers screened for observable symptoms during clock-in? Fever, cough, sore throat, redness of the eyes, shortness of breath.				
2	Are workers required to report additional symptoms such as: body aches, loss of smell, loss of taste, nausea, vomiting, diarrhoea, fatigue, weakness, tiredness?				
3	Have workers been informed to report as soon as they experience any of the above symptoms?				
4	Does the employer comply with the Department of Health symptom screening and medical surveillance and testing when needed?				
5	Are workers exhibiting symptoms not permitted to work?				
6	Are workers that exhibit symptoms while at work isolated, provided with FFP1 surgical mask and transported safely to receive medical examination or self isolation?				
7	Have work stations of workers with symptoms/diagnosed as infected been disinfected?				
8	Have all those that have had contact with an infected person been referred for screening?				
9	Has an application been made for the infected person under Clause 4 of the Directive dated 25. March 2020 (Temporary Employer Relief Scheme, Regulation 10.8)				
10	If a worker contracted covid-19 as a result of occupational exposure has a claim under the COIDA in terms of Notice 193 dated 03. March 2020 been made?				
11	Has there been no discrimination against an infected person?				

12	Has a diagnosed worker only been allowed back to work once the employer has ensured social distancing measures at work and PPE usage measures are strictly adhered to at work?				
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11. Compliance Officer Appointment

The following appointment is to be made by contractors

I,, CEO appointee of hereby appoint you,

..... as COVID-19 OFFICER for the project

..... to ensure that the **DIRECTIVE BY THE MINISTER OF EMPLOYMENT AND LABOUR IN TERMS OF REGULATION 10 (8) OF THE REGULATIONS ISSUED BY THE MINISTER OF COOPERATIVE GOVERNANCE AND TRADITIONAL AFFAIRS IN TERMS OF SECTION 27 (2) OF THE DISASTER MANAGEMENT ACT, 2002 (ACT NO. 57 OF 2002)** is implemented and maintained.

In terms of this appointment, you are required to ensure that the above mentioned directive is effectively implemented and complied with.

Without derogating from the generality of the duties mentioned above your duties include but are not limited to the following:

- Ensure that workers are screened upon entry to the site
- Ensure that everyone is issued free of charge the required PPE
- Ensure that everyone wears their PPE at all times
- Ensure that the work area is so arranged that a 1.5 m social distance can be kept
- Ensure that all workers are informed of the requirements of the above directive and how to implement them
- Ensure that no one who is exhibiting the symptoms of covid-19 are allowed to work on site
- Ensure that anyone found to be infected with covid-19 is isolated and safely transported for medical examination and self isolation
- Ensure that an investigation is done for any incident of infection due to occupational exposure and that the required corrective measures are implemented

Should there be areas of concern, you must bring these to my attention.

This appointment is valid from till the end of the project.

.....
Signature: CEO

.....
Date:

Kindly confirm your acceptance of this appointment by completing the following:

ACCEPTANCE

I, understand the implications of the appointment as detailed above and confirm my acceptance thereof.

.....
Signature: Covid-19 Officer

.....
Date:

12. Poster

The following posters and similar others are to be put up by the contractor

THERE'S ONLY ONE THING
YOU NEED TO UNDERSTAND
ABOUT HOW A CORONAVIRUS
SPREADS



@weimankow

THE VIRUS SPREADS WHEN
these droplets



@weimankow

SO IF YOU SEE SOMEONE WHO IS
VISIBLY COUGHING/SNEEZING/SICK,
YOU CAN CHOOSE TO:



- ① KEEP YOUR DISTANCE.
2m to 0.5m will keep you safe
from large droplets.

@weimankow

OR,



② GIVE THEM A MASK.
THEY CAN COUGH / SNEEZE INTO IT
AND PROTECT EVERYONE ELSE NEARBY

@weimankow

AND IN GENERAL, IT'S A GOOD
IDEA TO AVOID CROWDS, BECAUSE
YOU DON'T KNOW WHO MIGHT BE
SICK.



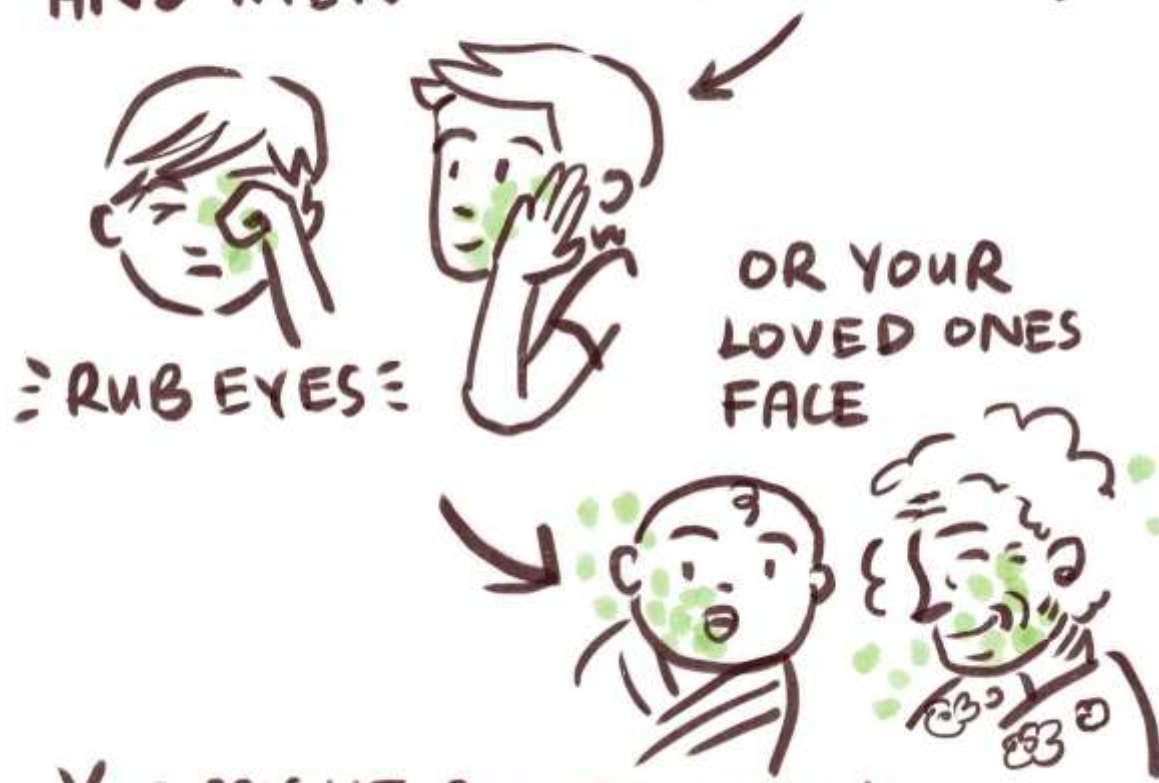
@weimankow

HOWEVER, SOMETIMES A SICK PERSON'S SALIVA CAN GET ON OTHER THINGS...



@weimankow

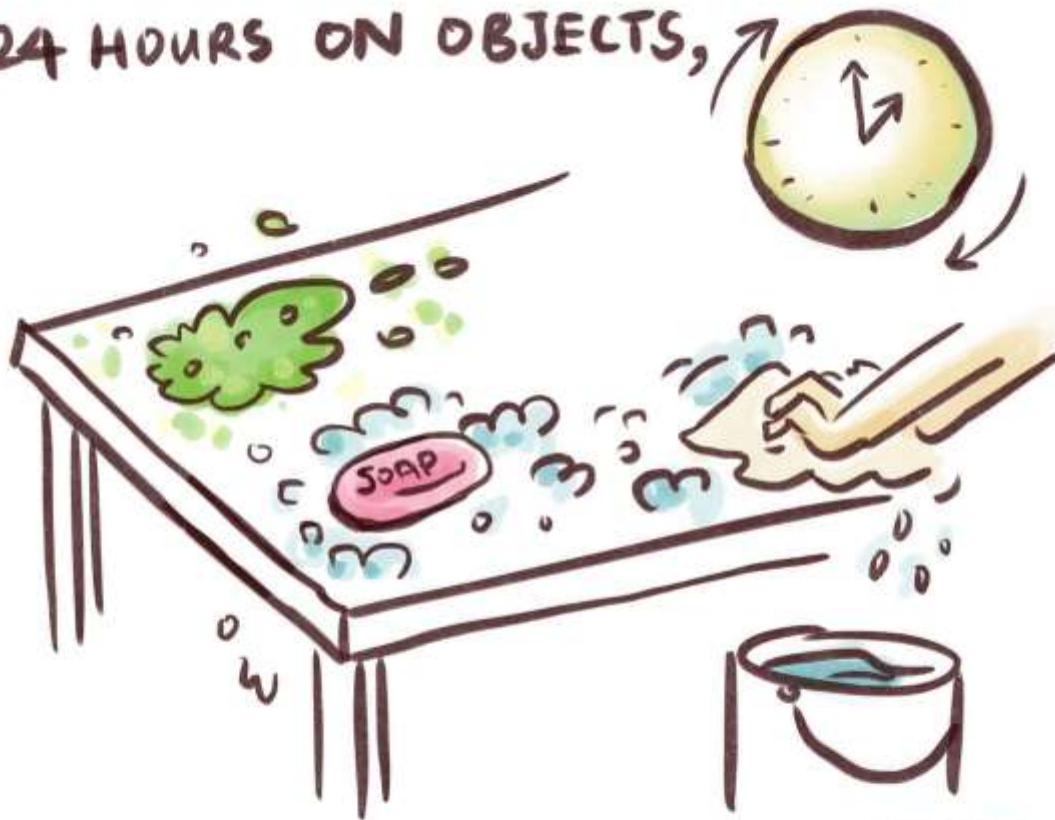
AND IF YOU TOUCH ANY OF
THESE THINGS BY ACCIDENT,
AND THEN TOUCH YOUR FACE,



YOU MIGHT ALL FALL SICK.

@weimankow

VIRUSES CAN LAST FOR UP TO
24 HOURS ON OBJECTS,



AND THE ONLY EFFECTIVE WAY TO
GET RID OF THEM IS TO WASH THEM
OFF WITH SOAP.

@weimankow

WHICH IS WHY IT IS ALSO
GOOD TO FOLLOW THESE

5

PRECAUTIONS

1 DO NOT TOUCH YOUR FACE.
(OR ANYONE ELSE'S FACE.)

IF YOU HAVE TO, WASH YOUR HANDS
WITH SOAP THOROUGHLY FIRST.



@weimankow

WHAT IS THOROUGHLY?

WASH THE
BACK OF YOUR
HANDS

BETWEEN
THE FINGERS

UNDER
THE NAILS



FOR 20
SECONDS

ENOUGH TIME TO
SING "HAPPY BIRTHDAY"
TWICE



@weimankow

2 THROW AWAY MASKS ONCE THEY FEEL GROSS, DON'T WEAR THEM FOR MORE THAN A DAY!

*BACTERIA GROWS ON THE INSIDES OF YOUR MASK IF YOU WEAR THEM TOO LONG

ALSO, DON'T TOUCH THE OUTSIDE OF THE MASK IF YOU CAN.

IF YOU DID, DON'T WORRY, JUST WASH YOUR HANDS WITH SOAP AFTER

@weimankow



3 DO NOT SHARE FOOD, UTENSILS, CUPS, TOWELS.



@weimankow

AND FINALLY,

5 ALWAYS WASH YOUR
HANDS WITH SOAP ...

- BEFORE YOU
EAT



- AND AFTER
BEING OUT
IN THE PUBLIC

@weimankow

