

INVITATION TO TENDER



ORBIT TVET COLLEGE

APPOINTMENT OF A CONTRACTOR FOR INSTALLATION OF ALTERNATIVE ENERGY SOLUTION - AT ORBIT TVET COLLEGE BRITS

Bid Number: B02/2023

Tender Advert: 28 July 2023

Non-Compulsory Briefing/Site Inspection Meeting: 07 August 2023 at 09h00

Venue: ORBIT TVET COLLEGE, Administration Building Entrance, Brits Campus, Reitz
Street, North, Brits

Bid Closing Time/Date: 21 August 2023 at 09h00

Venue: ORBIT TVET COLLEGE, Corporate Centre, Security Gate (Office), c/o Fatima
Bhayat and Bosch Streets, RUSTENBURG, 0300

Name of Bidder:

Contact Person:

Address:

Telephone number:Fax number:

Email address:

SARS Pin number: CSD Registration number.....

Bid Price (15% VAT Incl.):

Bid Price in words:

IMPORTANT DATES

The anticipated timing of the project is as follows:

DESCRIPTION/ACTIVITY	DATE	TIME
Tender Advert	28 July 2023	N/A
Non-Compulsory Site Inspection Meeting	07 August 2023	09:00
Tender close	21 August 2023	09:00
Contract awarded	TBA	N/A
Project duration	4 months	N/A

CONDITIONS FOR COMPLETING BID DOCUMENTS

The Tenderer is to indicate in the checkboxes provided that he has completed the required section of the tender document. Completion of this checklist will assist the Tenderer in ensuring that he has attended to all the required items for submission with this tender.

Should any of the following bid forms not be completed and signed or not handed in with your bid proposal with accompanying supporting documents on closing date and time, the Tenderers' proposal will immediately be disqualified.

The following criteria will be used in assessing the responsiveness of tenders:

MANDATORY REQUIREMENTS		SUBMITTED	
NO.	DESCRIPTION	YES	NO
(1)	Valid Original SARS Tax Clearance Certificate	☐	☐
(2)	Minimum Required CIDB Grading	☐	☐
(3)	Signed Attendance Register at Non-Mandatory Tender Briefing/Site Inspection Meeting	☐	☐
(4)	Completed and Signed Compulsory (SBD4) and (SBD 6.1)	☐	☐
(5)	Authority of Lead partner to sign the documents for JVs (where applicable)	☐	☐
(6)	Completed and Signed Form of Offer and Acceptance	☐	☐
(7)	Signed Letter of Intent to enter into Joint Venture, Consortium or to Sub-contract (Where applicable)	☐	☐
(8)	Complete Bill of Quantities filled in clearly legible and in permanent ink	☐	☐
(9)	Service Providers to have to agree with General Conditions of Contract	☐	☐

IF ANY OF THE ABOVE-MENTIONED CONDITIONS IS NOT MET AND/OR ANY OF THE MENTIONED DOCUMENTS ARE NOT SUBMITTED AS PRESCRIBED, YOUR BID WILL IMMEDIATELY BE DISQUALIFIED.

Bid Documents must be completed with **BLACK INK** and not typed.

Please note: **No tippex is allowed**. All changes must be scratched out with a signature next to each change.

*** Note:**

Any reference to words "Bid" or "Bidder" herein and/or in any other documentation shall be construed to have the same meaning as the words "Tender" or "Tenderer".

ADDITIONAL INFORMATION REQUIRED	SUBMITTED	
	YES	NO
Preferential Procurement Claim form and copy of the B-BBEE Verification Certificate(s) issued by an authorized body or person or a sworn affidavit prescribed by the B-BBEE Codes of Good Practice.	☐	☐
Completed and signed Goal Declaration Form for Contractors;	☐	☐
Bidders must provide details and registration confirmation with CIDB in terms of the CIDB Act 38 of 2000. Provide proof of grading level of 3EB PE or higher	☐	☐
Or The main JV partner to carry out the highest percentage of the work, to have the highest CIDB grading and to lead the contract (where applicable). The combined CIDB grading to meet required CIDB 4GB or Higher;	☐	☐
Proposed methodology covering and demonstrating coherence of the:		
(i) Work organisation programme,	☐	☐
(ii) Resource plan, and	☐	☐
(iii) Methodology for executing the works.	☐	☐
Access/ownership (availability) of plant & equipment (In case of hiring key plant, letter conforming the willingness of the hirer to hire equipment to the bidder);	☐	☐
Record of previous projects which may be relevant in the evaluation of the bid and contact persons (if any);	☐	☐
Supporting documents on project imperatives:		
(i) Plans for promoting and managing safety, health and environmental issues during execution of the project;	☐	☐
(ii) Plans for monitoring and applying quality assurance principles in the execution of the project;	☐	☐
Proof of access to key personnel with relevant experience to execute the works;	☐	☐
Confirmation of company registration with CIPC (Formerly known as CIPRO)	☐	☐

TENDER DOCUMENT CHECKLIST

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

ITEMS

NO.	DESCRIPTION	CHECKED (Contractor)
(1)	Correct Tender Offer Amount carried forward to the Summary Page (See Part C2.3)	☐
(2)	All pages requiring signatures signed by the Tenderer	☐
(3)	Bill of Quantities (See Part C2.2)	
	i) Completed in <u>BLACK INK</u> including <u>all summaries</u>	☐
	ii) Corrections crossed out and initialled	☐
(4)	All Returnable Documents and Schedules submitted	
	Respondents Information Sheet	☐
	Schedule of Work carried out by the Tenderer	☐
	Schedule of Current Contracts	☐
	Declaration of Interest (SBD 4)	☐
	Signatories Authority Power of Attorney	☐
	Current Certificate of Good Standing from Compensation Commissioner	☐
	Proposed Key Personnel	☐
	Schedule of Construction Plant and Equipment	☐
	Site Inspection Certificate	☐
	Financial References	☐
	Record of Addenda to Tender Documents	☐
	Enterprise Declaration Affidavit	☐
	Amendments and Qualifications by Tenderer	☐
	B-BBEE Status Level Certificate or for exemption a Letter from Accountant confirming most recent turnover	☐
	Preference Points Claim Form in terms of the Preferential Procurement Regulations 2011 (SBD 6.1)	☐
	Original Valid Tax Clearance Certificate	☐
	CIDB Proof of Registration	☐
	Proposed Schedule of Works	☐

- | | |
|---|--------------------------|
| Completed and Signed Compulsory Declaration Form | ☐ |
| Letter of Intent from Approved Insurer with regard to Performance Guarantee | ☐ |
| Form of Offer and Acceptance | ☐ |
| Construction Guarantee (3 x Pages) (See Part C1.3) | ☐ |

TABLE OF CONTENTS

PART T: THE TENDER.....	1
PART T1: TENDERING PROCEDURES	10
SECTION T1.1: TENDERING NOTICE AND INVITATION TO TENDER	10
SECTION T1.2: TENDER DATA	19
PART T2: RETURNABLE DOCUMENTS	30
SECTION T2.1: LIST OF RETURNABLE DOCUMENTS	30
SECTION T2.2: RETURNABLE SCHEDULES REQUIRED FOR TENDER EVALUATION PURPOSES	31
FORM T2.2.1: RESPONDENT'S INFORMATION SHEET	31
FORM T2.2.2: SCHEDULE OF WORK CARRIED OUT BY TENDERER	32
FORM T2.2.3: SCHEDULE OF CURRENT CONTRACTS	33
DECLARATION OF INTEREST (SBD 4)	35
FORM T2.2.4: SIGNATORIES AUTHORITY (POWER OF ATTORNEY)	39
FORM T2.2.5: CURRENT CERTIFICATE OF GOOD STANDING FROM COMPENSATION COMMISSIONER	41
Note: 41	
FORM T2.2.6: PROPOSED KEY PERSONNEL	42
FORM T2.2.7: SCHEDULE OF CONSTRUCTION PLANT AND EQUIPMENT	43
<u>Attach additional pages if more space is required</u>	<u>43</u>
<u>Attach additional pages if more space is required</u>	<u>43</u>
FORM T2.2.8: SITE INSPECTION CERTIFICATE	44
FORM T2.2.9: HEALTH AND SAFETY PLAN	45
FORM T2.2.10: FINANCIAL REFERENCES	46
<u>Financial Statements</u>	<u>46</u>
<u>Bank Details 46</u>	
FORM T2.2.11: RECORD OF ADDENDA TO TENDER DOCUMENTS	47
<u>Attach additional pages if more space is required</u>	<u>47</u>
FORM T2.2.12: AMENDMENTS AND QUALIFICATIONS BY TENDERER	48
<u>AMENDMENTS AND QUALIFICATIONS.....</u>	<u>48</u>
FORM T2.2.13: B-BBEE STATUS LEVEL CERTIFICATE.....	50
IT IS A CONDITION OF TENDERS THAT:	50
<u>Where two or more bidders have scored the same number of points, the winner must be the bidder that scores the highest number of B-BBEE points; however,</u>	<u>50</u>
<u>If Functionality is being assessed in the tender, the winning bid must be the one with the highest score on Functionality which would have been assessed at the responsiveness stage. 50</u>	
<u>All Trusts, JVs or Consortia will only qualify for B-BBEE points if they submit B-BBEE certificates or they can submit a consolidated B-BBEE certificate as if they were a group structure. 50</u>	
<u>The Valid B-BBEE Certificate must be submitted in the original together with the bid and attached to this page.</u>	<u>50</u>

FORM T2.2.14: PREFERENCE POINTS CLAIM FORM IN TERMS OF THE PREFERENTIAL PROCUREMENT REGULATIONS 2017 (SBD 6.1).....	51
FORM T2.2.15: TAX CLEARANCE REQUIREMENTS.....	57
IT IS A CONDITION OF TENDERS THAT:	57
Note:	57
FORM T2.2.16: PROOF OF REGISTRATION WITH CONSTRUCTION INDUSTRY DEVELOPMENT BOARD	58
Note:	58
FORM T2.2.17: COMPULSORY DECLARATION FORM	59
FORM T2.2.18: LETTER OF INTENT.....	61
PART C: THE CONTRACT	62
PART C1: AGREEMENT AND CONTRACT DATA	63
SECTION C1.1: FORM OF OFFER AND ACCEPTANCE	63
SECTION C1.1.1: FORM OF OFFER	63
SECTION C1.1.2: FORM OF ACCEPTANCE	65
SECTION C1.1.3: SCHEDULE OF DEVIATIONS.....	67
SECTION C1.2: CONTRACT DATA	69
SECTION C1.2.1: CONTRACT DATA EC (Employer to Contractor).....	70
SECTION C1.2.2: CHANGES TO JBCC PRINCIPAL BUILDING AGREEMENT (PBA)	75
SECTION C1.2.3: CONTRACT DATA: CONTRACTOR TO EMPLOYER (CE)	82
SECTION C1.3: CONSTRUCTION GUARANTEE (PRO-FORMA).....	88
CONSTRUCTION GUARANTEE (PRO-FORMA)	89
SECTION C1.4: OCCUPATIONAL HEALTH AND SAFETY AGREEMENT BETWEEN EMPLOYER AND CONTRACTOR.....	95
PART C2: PRICING DATA.....	98
SECTION C2.1: PRICING INSTRUCTIONS	98
SECTION C2.2: PROVISIONAL BILLS OF QUANTITIES.....	100
PART C3: SCOPE OF WORKS	101
SECTION C3.1: DESCRIPTION OF WORKS	101
SECTION C3.1.1: LOCATION OF THE WORKS.....	101
SECTION C3.1.2: OVERVIEW AND EXTENT OF THE WORKS.....	101
SECTION C3.2: ENGINEERING.....	101
SECTION C3.2.1: DESIGN RESPONSIBILITY	101
SECTION C3.2.2: DRAWINGS	102
SECTION C3.3: PROCUREMENT	103
SECTION C3.3.1: PREFERENTIAL PROCUREMENT PROCEDURES	103
SECTION C3.3.2: PARTICIPATION OF TARGETED GENERAL LABOUR (UNSKILLED and SEMI-SKILLED)	104
Minimum Targeted General Labour(Unskilled and Semi-Skilled) Contract Participation Goal	104
SECTION C3.3.3: COMMUNITY LIAISON OFFICER	108
SECTION C3.3.4: PARTICIPATION OF TARGETED ENTERPRISES	108

Minimum Targeted Enterprises Contract Participation Goal	108
SECTION C3.4: CONSTRUCTION	111
SECTION C3.4.1: WAY LEAVES, PERMISSIONS AND PERMITS.....	111
SECTION C3.4.2: CONSTRUCTION STANDARDS	112
SECTION C3.4.3: GENERAL CONDITIONS OF CONTRACT.....	112
SECTION C3.5: MANAGEMENT	113
SECTION C3.5.1: PLANNING AND PROGRAMMING	113
Section C3.5.1.1: General.....	113
Section C3.5.1.2: Submission of Programme.....	113
Section C3.5.1.3: Default in Submission of Programs.....	114
SECTION C3.5.2: HEALTH AND SAFETY	114
Section C3.5.2.1: Health and Safety Specification	114
PART C4: SITE INFORMATION	115

PART T: TENDERING PROCEDURES

PART T1: TENDERING PROCEDURES

SECTION T1.1:TENDERING NOTICE AND INVITATION TO TENDER

TENDER NOTICE

YOU ARE HEREBY INVITED TO BID FOR REQUIREMENTS OF THE "APPOINTMENT OF A CONTRACTOR FOR INSTALLATION OF ALTERNATIVE ENERGY SOLUTION AT ORBIT TVET COLLEGE BRITS".

TENDER NUMBER : B02/2023

DESCRIPTION : **APPOINTMENT OF A CONTRACTOR FOR INSTALLATION OF ALTERNATIVE ENERGY SOLUTION AT ORBIT TVET COLLEGE BRITS**

CLOSING DATE : 21 August 2023

CLOSING TIME : 09:00 am

THE SUCCESSFUL BIDDER WILL BE REQUIRED TO FILL IN AND SIGN A WRITTEN CONTRACT FORM.

INVITATION AND SCOPE OF WORK

ORBIT TVET College is inviting capable and competent Contractors to submit bids for "APPOINTMENT OF A CONTRACTOR FOR INSTALLATION OF ALTERNATIVE ENERGY SOLUTION AT ORBIT TVET COLLEGE BRITS, which is situated at ORBIT TVET COLLEGE, REITZ STREET, NORTH BRITS, NORTH WEST PROVINCE.

Bid documents shall be downloaded from the ORBIT TVET College website and on e-tenders, **NO** documents will be available or issued at the Briefing Session

A Non-Compulsory Tender Briefing/Site Inspection meeting will be conducted on the **21 August 2023 at 09:00 am** Prospective tenderers shall meet at the **ORBIT TVET COLLEGE**, Administration Building Entrance, Brits Campus, Reitz Street, North, Brits

One original of the completed bid document shall be placed in a sealed envelope clearly marked:

Tender Title & Reference No.:

**APPOINTMENT OF A CONTRACTOR FOR INSTALLATION OF ALTERNATIVE
ENERGY SOLUTION AT ORBIT TVET COLLEGE BRITS
TENDER NO.: B02/2023**

Bid Documents Must Be Deposited In The Bid Box Situated At Security Gate Office of:

ORBIT TVET COLLEGE, Corporate Centre, Security Gate (Office), c/o Fatima Bhayat and
Bosch Streets, RUSTENBURG, 0300

Bids will be opened in public.

Bidders should ensure that bids are delivered timeously to the correct address. **NO** late submissions will be considered. The bid box is generally open 24 hours a day, 7 days a week. Telegraphic, telexed, facsimiled or e-mail submissions will **NOT** be accepted.

Failure to provide **mandatory requirements** required in this Bid will result in the submissions being deemed null and void and shall be considered non-responsive. Respondents must include a **valid SARS Tax Compliance Certificate with Pin** in their submissions in order to be considered. When Joint Venture Bids are submitted, each JV member must submit its own original and valid SARS Tax Compliance Certificate with Pin in order for their bids to be responsive.

ALL BIDS MUST BE SUBMITTED ON THE OFFICIAL FORMS Issued by the College– The bound Tender Document, as issued, must not be “dismantled”, it must be submitted as such. A dismantled Tender Document will be an automatic disqualification. The Tender Document must not be retyped.

THIS BID IS SUBJECT TO THE JOINT BUILDING CONTRACTS COMMITTEE (JBCC) AND, IF APPLICABLE, ANY OTHER SPECIAL CONDITIONS OF CONTRACT.

The Client/Employer reserves the right not to accept the lowest proposal in part or in whole or any proposal.

THE FOLLOWING PARTICULARS MUST BE FURNISHED. FAILURE TO DO SO MAY RESULT IN YOUR BID BEING DISQUALIFIED.

NAME OF BIDDER :

POSTAL ADDRESS :

STREET ADDRESS :

.....

CELLPHONE NUMBER : FACSIMILE:

TELEPHONE NUMBER.....: VAT REGISTRATION NUMBER:

Has a tax clearance certificate been submitted (MBD

2)? **YES/NO**

Are you the accredited representative in South Africa for the goods/services offered by you?
..... YES/NO
(IF YES ENCLOSE PROOF)

SIGNATURE OF BIDDER: DATE:

CAPACITY UNDER WHICH THIS BID IS SIGNED:

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

TENDER NAME AND DESCRIPTION	AMOUNT
APPOINTMENT OF A CONTRACTOR FOR INSTALLATION OF ALTERNATIVE ENERGY SOLUTION AT ORBIT TVET COLLEGE BRITS <i>(Carried forward from Page 5 of the BOQ</i> (Amount in words) (Rand)	R.....
TOTAL (VAT Incl.)	R.....

TOTAL NUMBER OF ITEMS OFFERED:

1. CONDITIONS OF BIDDING

1.1 Proprietary Information:

- 1.1.1 ORBIT TVET Colleges consider this tender and all related information, either written or verbal, which is provided to the respondent, to be proprietary to ORBIT TVET Colleges. It shall be kept confidential by the respondent and its officers, employees, agents and representatives. The respondent shall not disclose, publish, or advertise this specification or related information to any third party without the prior written consent of ORBIT TVET Colleges.

1.2 Enquiries:

- 1.2.1 No telephonic or any other form of communication relating to this bid will be permitted with any other staff by bidders other than with the named individuals stated below. All communication and attempts to solicit information of any kind relative to this tender should be IN WRITING and channeled to:

Procurement Enq : **ORBIT TVET Colleges**
Contact Person : **Mr. C. Chaaue** – Senior Supply Chain Officer
E-mail address : **cchaaue@orbitcollege.co.za**
Or
Technical Enq. : **ORBIT TVET Colleges**
Contact Person : **Mr. A. Merementsi**
E-mail address : **amerementsi@orbitcollege.co.za**

- 1.2.2 All the documentation submitted in response to this tender must be in English.
- 1.2.3 The Bidder should check the numbers of the pages to satisfy themselves that none are missing or duplicated. No liability will be accepted by ORBIT TVET Colleges in regard to anything arising from the fact that pages are missing or duplicated.

1.3 Validity Period:

- 1.3.1 Responses to this tender received from suppliers will be valid for a period of **90** days counted from the closing date of the Tender.

1.4 CIDB Registration/Qualification:

- 1.4.1 Bidders shall be registered with the Construction Industry Development Board (CIDB) and should have a minimum CIDB Contractor grading of **2EBPE** or higher. Entities who intend submitting a bid as a Joint Venture must ensure that their combined grading meets the required CIDB Grading.

1.5 Submission of Tenders:

- 1.5.1 Tenders should be submitted all bound in a sealed envelope endorsed, **“BID: APPOINTMENT OF A CONTRACTOR FOR INSTALLATION OF ALTERNATIVE ENERGY SOLUTION AT ORBIT TVET COLLEGE BRITS.** The sealed envelope must be placed in the tender box at the **ORBIT COLLEGE Corporate Centre, Security Gate (Office), corner of Fatima Bhayat and Bosch Street, Rustenburg, 0300** **by no later than 09H00 on 21 August 2023.**
- 1.5.2 The closing date, company name and the return address must also be endorsed on the envelope. If a courier service company is being used for delivery of the bid document, the bid description must be endorsed on the delivery note/courier packaging to ensure that documents are delivered into the BID BOX.
- 1.5.3 Amended bids may be sent, together with the original bid, in an envelope marked “Amendment to bid”, should be clearly marked to represent the original document and should be placed in the bid box before the closing date and time. An amendment bid, without original bid documents will not be considered.
- 1.5.4 The bidder is responsible for all the cost that they shall incur related to the preparation and submission of the bid document.
- 1.5.5 Kindly note that ORBIT TVET Colleges is entitled to amend any bid conditions, validity period, specifications, or extend the closing date of bids before the closing date. All bidders, to whom the bid documents have been issued, will be advised in writing of such amendments in good time.
- 1.5.6 ORBIT TVET Colleges reserves the right not to accept the lowest bid price of any tender in part or in whole. It normally awards the contract to the bidder who proves to be fully capable of handling the contract, in terms of outputs and services and who is financially advantageous to ORBIT TVET Colleges.
- 1.5.7 ORBIT TVET Colleges also reserves the right to award this bid to a purely empowerment company or may award this bid on conditions that a joint venture with an empowerment company is formed. This may be added to the criteria when evaluating the bids.
- 1.5.8 ORBIT TVET Colleges also reserves the right to award this bid as a whole, or in part without furnishing reasons.
- 1.5.9 ORBIT TVET Colleges reserve the right to, amongst other things, conduct unscheduled or scheduled site visits to satisfy itself, as to the validity of the information provided on this bid documents.
- 1.5.10 An incomplete price list (Priced bill of quantity) shall render the bid non-responsive.

1.6 Evaluation Criteria:

- 1.6.1** Preferential points claim form in terms of the Preferential Procurement Regulations 2017 and its associated Regulations and principles shall apply whereby submissions will be evaluated according to the provisions of that Act and the Public Finance Management Act (PFMA) Sections 36 and 49. The bid will be evaluated in accordance with the bid document, which is based on the Preferential Procurement **of 80/20 principle**, applicable where 80 points will be allocated to price and 20 points to B-BBEE in the manner listed in SBD 6.1. **ONLY FIRM PRICES WILL BE CONSIDERED.**

1.7 Price Evaluation:

Please note that you will be evaluated according to the list below and 10 points and 10 points on specific goals will be awarded to B-BBEE in the below listed manner.

B-BBEE Status Level of Contributor	Number of Points
1	10
2	9
3	6
4	5
5	4
6	3
7	2
8	1
Non-compliant contributor	0

Specific goals for the tender and points claimed are indicated per the table below.

The specific goals allocated points in terms of this tender	Number of points allocated (90/10 system) (To be completed by the organ of state)	Number of points allocated (80/20 system) (To be completed by the organ of state)	Number of points claimed (90/10 system) (To be completed by the tenderer)	Number of points claimed (80/20 system) (To be completed by the tenderer)

a) Historically Disadvantaged Individuals (Means a South African citizen who, due to the apartheid policy that had been in place, had no franchise in national elections prior to the introduction of the Constitution of the Republic of South Africa, 1983 (Act No. 110 of 1983) or the Constitution of the Republic of South Africa, 1993 (Act No. 200 of 1993) ("The Interim Constitution").	10			
Women	2			
Disabled	1			
Youth	2			
Locality North West Province=	5			
b) Other Specific Goals (Programmes of the RDP & Local Manufacturing.				
The promotion of enterprises located in a specific province for work to be done or services to be rendered in that province Gauteng Substantiation: Please provide municipal account/statement or lease agreement.				

The promotion of enterprises located in a specific region for work to be done or services to be rendered in that region Substantiation: Please provide municipal account/statement or lease agreement				
The promotion of enterprises located in a specific municipal area of work to be done or services to be rendered in that municipal area (e.g. City of Johannesburg) Substantiation: Please provide municipal account/statement or lease agreement				
Total Points	20			

Table 1: Quality criteria and sub-criteria

Functional Factor	Criteria Description	Scoring Methodology	Weighting (%)
Project Management	Project Manager - Minimum of five (5) years' experience in 100kVA Grid-Tie Hybrid Solar Project (Attach CV with references). - PV Green card (attach PV card Certificate) - Relevant Accreditation (SAPVIA) South African Photovoltaic Industry Association	- CV attached = 5 points - Certified PV Green Card Certificate attached = 10 points - Certified SAPVIA Certificate = 10 points NB: Failure to attach all required documents will lead to disqualification	25
Electrician	The bidder must provide a wireman's license certificate of the Electrician in your organisation or issue an electrical COC (certificate of compliance)	Certified Wireman's License attached = 15 Points NB: Proof not attached will lead to disqualification	15
Safety, health and Environment	Health & Safety Officer - Minimum of four (4) years' experience in construction project's health & safety (Attach CV with references). - National Diploma Qualification in Health & Safety in the built Environment (attach certificate) - Health & Safety's Practitioners relevant accreditation (SACPCMP) (attach proof)	- CV attached = 5 points - Certified Certificate attached = 5 points - Certified SACPCMP Certificate = 10 points NB: Failure to attach all required documents will lead to disqualification	20
Project Plan	Service provider to submit a detailed project plan with critical paths	Project Completion Duration in: 24 Weeks = 15 points 26-28 Weeks = 10 Points 30-32 Weeks = 5 points	15
Relevant previous experience	Bidders must provide at least three (3) references for a similar project (project value should be at least R2,00,000.00 or above) Submit project completion certificates and Reference Letters (Confirming completion of the project) (in details of the company letterhead, physical address, contactable person name, company contact	3 Completed Projects = 5 points 4 Completed Projects = 15 points 5 Completed Projects or more = 25 points NB: failure to attach at least 3project will lead to disqualification	25
TOTAL			100%
Bidders who Fail to Reach the Minimum Threshold of 70% will automatically be disqualified			

SECTION T1.2:TENDER DATA

The conditions of tender are the Standard Conditions of Tender as contained in Annexure F of Board Notice 86 of 2010 in Government Gazette No. 33239 of 28 May 2010, Construction Industry Development Board (CIDB) Standard for Uniformity in Construction Procurement (see www.cidb.org.za) which are reproduced without amendment or alteration for the convenience of Tenderers as an Annex to this Tender Data.

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

The clause numbers in the Tender Data refer to the corresponding clause numbers in the Conditions of Tender (**REFER TO ANNEXURE A: CIDB STANDARD CONDITIONS OF TENDER**).

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

The additional Conditions of Tender are:

Item	Data
F.1 General	
F.1.1 Actions	No change from Standard Conditions of Tender
F.1.2 Tender Documents	
	The tender documents issued by the <i>Employer</i> may be printed on White (W), Yellow (Y), Green (G) & Blue (B) paper and comprise:
	PART T: The Tender
Part T1: Tendering procedures (W)	Section T1.1 Tender notice and invitation to tender Section T1.2 Tender data (P)
Part T2: Returnable documents (Y)	Section T2.1 List of Returnable Documents Section T2.2 Returnable Schedules
	PART C: The Contract
Part C1: Agreements and contract data	Section C1.1 Form of Offer and Acceptance (Y) Section C1.2 Contract Data (Y) Section C1.3 Construction Guarantee (Pro-Forma) (W) Section C1.4 Occupational Health and Safety Agreement between Employer and Contractor (W)

Item	Data
Part C2: Pricing data	Section C2.1 Pricing Instructions (Y) Section C2.2 Provisional Bills of Quantities (Y) Section C2.3 Final Summaries (Y)
Part C3: Scope of Work	Section C3.1 Description of Works (B) Section C3.2 Engineering (B) Section C3.3 Construction (B) Section C3.4 Management (B)
Part C4: Site Information (G)	
Annexure A: CIDB Standard Conditions of Tender Annexure B: Health and Safety Specification Annexure C: Civil Specifications Annexure D: Electrical Installation Specifications	
F.1.3	Interpretation No change from Standard Conditions of Tender

F.1.4 Communication and Employer's Agent:

The Employer is:

Company : ORBIT TVET College
Contact : Mr A, Merementsi
Address : Private bag X82096
Rustenburg
0300
South Africa
Tel No. : +27 (014) 597 5524
Fax No. : +27 (014) 592 4538
E-mail : amerementsi@orbitcollege.co.za

The Employer's Agent is:

Company : Nkhululeko Project Management and Construction
Contact : Ziphazonke Ngobeni
Address : 128 7th Road Carlswald Close Office Park , C3, Midrand 1686
Tel No. : 010 010 0226
Fax No. : 086 525 2296
E-mail : building@nkhululeko.co.za

F.1.5	The Employer's right to accept or reject any tender offer:	No change from Standard Conditions of Tender
F.1.6	Procurement procedures:	No change from Standard Conditions of Tender

F.2 Tenderer's Obligations

F.2.1	Eligibility:	CIDB registration and grading:
		1) Only 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 for a 4GB or higher, are eligible to submit tenders. 2) Joint ventures are eligible to submit tenders provided that: i) every member of the joint venture is registered with the CIDB; ii) the lead partner has a Contractor grading designation in the 4GB and iii) the combined Contractor grading designation calculated in accordance with the CIDB Regulations is equal to or higher than a Contractor grading designation determined in accordance with the sum tendered for a 4GB
F.2.2	Cost of Tendering:	No change from Standard Conditions of Tender
F.2.3	Check documents:	No change from Standard Conditions of Tender
F.2.4	Confidentiality and copyright of documents:	No change from Standard Conditions of Tender
F.2.5	Reference documents:	No change from Standard Conditions of Tender
F.2.6	Acknowledge addenda:	No change from Standard Conditions of Tender
F.2.7	Clarification meeting:	The arrangements for a non-compulsory clarification meeting are as stated in the Tender Notice and Invitation to Tender. Tenderers must sign the attendance list in the name of the tendering entity. Addenda will be issued to and tenders will be received only from those tendering entities appearing on the attendance list.
F.2.8	Seek clarification:	No change from Standard Conditions of Tender
F.2.9	Insurance:	No change from Standard Conditions of Tender
F.2.10	Pricing the tender offer:	No change from Standard Conditions of Tender
F.2.11	Alterations to documents:	No change from Standard Conditions of Tender

F.2.12 Alternative tender offers:

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

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

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

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

F.2.13 Submitting a tender offer

F.2.13.1	Submit one tender offer only, either as a single tendering entity or as a member in a joint venture to provide the whole of the works, services or supply identified in the contract data and described in the scope of works.
F.2.13.2	No change from Standard Conditions of Tender
F.2.13.3	Each tender offer shall be submitted as original
F.2.13.4	No change from Standard Conditions of Tender

F.2.13.5		The Employer's address for delivery of tender offers and identification details to be shown on the Tenderer's offer package are: <u>Location of Bid Box:</u> Physical Address: ORBIT FET College- Corporate Centre Security Gate (Office) C/o Fatima Bhayat and Bosch Streets Rustenburg <u>Identification Details:</u> Tender Reference No.: B02/2023 Title of Tender: APPOINTMENT OF A CONTRACTOR FOR INSTALLATION OF ALTERNATIVE ENERGY SOLUTION AT ORBIT TVET COLLEGE BRITS" Closing date of Tender: 21 August 2023 Closing time: 09:00
F.2.13.6		A two-envelope procedure will not be followed
F.2.13.7		No change from Standard Conditions of Tender
F.2.13.8		No change from Standard Conditions of Tender
F.2.13.9		Telephonic, telegraphic, telex, facsimile or e-mailed tender offers will not be accepted
F.2.15	Closing time:	The closing time for submission of tender offers is as stated in the Tender Notice and Invitation to Tender
F.2.16	Tender offer validity:	The tender offer validity period is 90 days
F.2.17	Clarification of tender offer after submission:	No change from Standard Conditions of Tender
F.2.18	Provide other material:	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.2.19	Inspections, tests and analysis:	Access shall be provided for the following inspections, tests and analysis: (1) All guarantees; (2) Electrical CoC; and (3) Any other inspection as required by the Employer's Agent.
F.2.20	Submit securities, bonds, policies etc.:	The Tenderer is required to submit with his tender a letter of intent from an approved insurer undertaking to provide the Performance Bond to the format included in Part T2.2.21 of this procurement document.

F.2.21	Check final draft:	No change from Standard Conditions of Tender
F.2.22	Return of other tender documents:	No change from Standard Conditions of Tender
F.2.23	Certificates:	The Tenderer is required to submit with his tender a letter of intent from an approved insurer undertaking to provide the Performance Guarantee to the format included in Part T2.2.21 of this procurement document. The Tenderer is required to submit with his tender: 1) A valid Tax Clearance Certificate with Pin issued by the South African Revenue Services. 2) A Certificate of Contractor Registration issued by the CIDB. 3) where the tendered amount inclusive of VAT exceeds R10 million: i. audited annual financial statement for 3 years, or for the period since establishment if established during the last 3 years, if required by law to prepare annual financial statements for auditing; ii. a certificate certifying that the tenderer has no undisputed commitments for municipal services towards a municipality or other service provider in respect of which payment is overdue for more than 30 days; iii. particulars of any contracts awarded to the tenderer by an organ of state during the past five years, including particulars of any material non-compliance or dispute concerning the execution of such contract; iv. a statement indicating whether any portion of the goods or services are expected to be sourced from outside the Republic, and, if so, what portion and whether any portion of payment from the municipality or municipal entity is expected to be transferred out of the Republic. Where a Tenderer satisfies CIDB Contractor grading designation requirements through joint venture formation, such Tenderers must submit the Certificates of Contractor Registration in respect of each partner.

F.3 The Employer's Undertakings

F.3.1	Respond to requests from the Tenderer:	No change from Standard Conditions of Tender
F.3.2	Issue Addenda:	No change from Standard Conditions of Tender
F.3.3	Return late tender offers:	No change from Standard Conditions of Tender
F.3.4	Opening of tender submissions:	Tenders will not be opened in public.
F.3.5	Two-envelope system:	No change from Standard Conditions of Tender
F.3.6	Non-disclosure:	No change from Standard Conditions of Tender
F.3.7	Grounds for rejection and disqualification:	No change from Standard Conditions of Tender
F.3.8	Test for responsiveness:	No change from Standard Conditions of Tender
F.3.9	Arithmetical errors, omissions and discrepancies:	No change from Standard Conditions of Tender
F.3.10	Clarification of a tender offer:	No change from Standard Conditions of Tender
F.3.11	Evaluation of tender offers:	The procedure for the evaluation of responsive tenders is Method 2 (Financial Offer and Preferences):
	F.3.11.1	No change from Standard Conditions of Tender
	F.3.11.2	No change from Standard Conditions of Tender
	F.3.11.3	No change from Standard Conditions of Tender
	F.3.11.4	No change from Standard Conditions of Tender
	F.3.11.6	No change from Standard Conditions of Tender
	F.3.11.7	No change from Standard Conditions of Tender
	F.3.11.8	No change from Standard Conditions of Tender
	F.3.11.9	No change from Standard Conditions of Tender
F.3.12	Insurance provided by the Employer:	No change from Standard Conditions of Tender

F.3.13 **Acceptance of tender offer:**

Tender offers will only be accepted if:

- a) the Tenderer submits a **valid** Tax Clearance Certificate with Pin issued by the South African Revenue Services or has made arrangements to meet outstanding tax obligations;
- b) the Tenderer submits a letter of intent from an approved insurer undertaking to provide the Performance Guarantee to the format included in Part T2.2.21 of this procurement document;
- c) the Tenderer is registered with the Construction Industry Development Board in an appropriate Contractor grading designation and is the main JV partner to carry out the highest percentage of the work, to have the highest CIDB grading and to lead the contract (where applicable). The combined CIDB grading to meet required CIDB grade;
- d) 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;
- e) attended the Mandatory Tender Briefing / Site Inspection Meeting (Signed Attendance Register);
- f) completed and signed the Form of Offer;
- g) completed and signed the Declaration of Interest Register;
- h) signed a Letter of Intent to enter into a Joint Venture, Consortium or to sub-contract (where applicable) (Letter from the JV confirming that they have intentions of entering into a JV/Consortium Agreement);
- i) has authority form lead partner to sign the documents (Letter signed by all members of JV where they occur, confirming the lead partner);
- j) the Tenderer has not:
 - i) abused the Employer's Supply Chain Management System; or
 - ii) failed to perform on any previous contract and has been given a written notice to this effect;

- k) the Tenderer has completed the Compulsory Enterprise Questionnaire and there are no conflicts of interest which may impact on the Tenderer's ability to perform the contract in the best interests of the Employer or potentially compromise the tender process. Persons in the employ of the state are permitted to submit tenders or participate in the contract;
- l) the Tenderer is registered and in good standing with the compensation fund or with a licensed compensation insurer;
- m) 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, and
- n) the Tenderer submits a complete Bill of Quantities filled in clearly and legible and in permanent ink;
- o) the Tenderer has a valid B-BBEE Certificate or for exemption a Letter from an Accountant confirming most recent turnover (a score of zero for preference points will be allocated if no certificate is submitted);
- p) the Tenderer completed and signed Goal Declaration Form for Contractor s;
- q) The Tenderer:
 - i) has sufficiently substantiated his experience in this type work;
 - ii) gives a record of previous projects which may be relevant in the evaluation of the bid and contract persons;
 - iii) has the required and experienced key personnel; and
 - iv) owns the primary equipment to effectively and efficiently execute the work.
- r) the Tenderer submits additional required information (if not included with submission) within the given timeframes.

F.3.14	Prepare contract documents:	No change from Standard Conditions of Tender
F.3.15	Complete adjudicator's contract:	No change from Standard Conditions of Tender
F.3.16	Notice to unsuccessful tenderers:	No change from Standard Conditions of Tender
F.3.17	Provide copies of the contracts:	The number of paper copies of the signed contract to be provided by the Employer is one .
F.3.18	Provide written reasons for actions taken:	No change from Standard Conditions of Tender

F.4 Additional Conditions Of Tender

The additional conditions of tender are:

F.4.1 Compliance with Occupational Health and Safety Act 1993

Tenderers are to note the requirements of the Occupational Health and Safety Act No. 85 of 1993 and the Construction Regulations 2014 issued in terms of Section 43 of the Act. The Tenderer shall be deemed to have read and fully understood the requirements of the above Act and Regulations and to have allowed for all costs in compliance therewith.

In this regard the Tenderer shall submit with his tender, appended to T2.2.10 Health and Safety Plan - Returnable Schedules, a detailed Health and Safety Plan in respect of the Works in order to demonstrate the necessary competencies and resources to perform the construction work all in accordance with the Act and Regulations. Such Health and Safety Plan shall cover inter-alia the following details:

- (1) Management Structure, Site Supervision and Responsible Persons including a succession plan.
- (2) Contractor's induction training programme for employees, sub-Contractors and visitors to the Site.
- (3) Health and safety precautions and procedures to be adhered to in order to ensure compliance with the Act, Regulations and Safety Specifications.
- (4) Regular monitoring procedures to be performed.
- (5) Regular liaison, consultation and review meetings with all parties.
- (6) Site security, welfare facilities and first aid.
- (7) Site rules and fire and emergency procedures.

Tenderers are to note that the Contractor is required to ensure that all sub-Contractors or others engaged in the performance of the contract also comply with the above requirements.

The Contractor shall prepare and maintain a Health and Safety File in respect of the project, which shall be available for inspection on Site at all times and handed over to the Employer on Final Completion of the project.

The Contractor is required to submit to the Employer the Occupational Health and Safety Agreement (included in Part C1.4 of the Contract Document) and a letter of good standing from the Compensation Commissioner, or a licensed compensation insurer, within 14 days after the Commencement Date of the Contract.

F.4.6 Community Liaison Officer

It is a requirement of the Contract that a Community Liaison Officer (CLO) shall be appointed by the Contractor. The primary functions of the CLO shall be to assist the Contractor with the selection and recruitment of targeted labour, to represent the local community in matters concerning the use of targeted labour (and/or enterprises) on the works, and to assist with and facilitate communication between the Contractor, the Principal Agent and the local communities.

The method of identifying suitable candidates for the position of CLO, as well as requirements in respect of the employment of the selected candidate, are described in Part C3: Scope of Work.

PART T2: RETURNABLE DOCUMENTS

SECTION T2.1: LIST OF RETURNABLE DOCUMENTS

The Tender must complete the following Returnable Documents in **BLACK INK**.

RETURNABLE SCHEDULES REQUIRED FOR TENDER EVALUATION PURPOSES

FORM T2.2.1:	<u>RESPONDENT'S INFORMATION SHEET</u>	<u>31</u>
FORM T2.2.2:	<u>SCHEDULE OF WORK CARRIED OUT BY TENDERER</u>	<u>32</u>
FORM T2.2.3:	<u>SCHEDULE OF CURRENT CONTRACTS.....</u>	<u>33</u>
	<u>DECLARATION OF INTEREST (SBD 4).....</u>	<u>35</u>
FORM T2.2.4:	<u>SIGNATORIES AUTHORITY (POWER OF ATTORNEY).....</u>	<u>39</u>
FORM T2.2.5:	<u>CURRENT CERTIFICATE OF GOOD STANDING FROM COMPENSATION COMMISSIONER</u>	<u>41</u>
FORM T2.2.6:	<u>PROPOSED KEY PERSONNEL</u>	<u>42</u>
FORM T2.2.7:	<u>SCHEDULE OF CONSTRUCTION PLANT AND EQUIPMENT</u>	<u>43</u>
FORM T2.2.8:	<u>SITE INSPECTION CERTIFICATE.....</u>	<u>44</u>
FORM T2.2.9:	<u>HEALTH AND SAFETY PLAN</u>	<u>45</u>
FORM T2.2.10:	<u>FINANCIAL REFERENCES</u>	<u>46</u>
FORM T2.2.11:	<u>RECORD OF ADDENDA TO TENDER DOCUMENTS.....</u>	<u>47</u>
FORM T2.2.12:	<u>AMENDMENTS AND QUALIFICATIONS BY TENDERER</u>	<u>48</u>
FORM T2.2.13:	<u>B-BBEE STATUS LEVEL CERTIFICATE</u>	<u>50</u>
FORM T2.2.14:	<u>PREFERENCE POINTS CLAIM FORM IN TERMS OF THE PREFERENTIAL PROCUREMENT REGULATIONS 2017 (SBD 6.1).....</u>	<u>51</u>
FORM T2.2.15:	<u>TAX CLEARANCE REQUIREMENTS.....</u>	<u>57</u>
FORM T2.2.16:	<u>PROOF OF REGISTRATION WITH CONSTRUCTION INDUSTRY DEVELOPMENT BOARD.....</u>	<u>58</u>
FORM T2.2.17:	<u>COMPULSORY DECLARATION FORM</u>	<u>59</u>
FORM T2.2.18:	<u>LETTER OF INTENT</u>	<u>61</u>

**SECTION T2.2:RETURNABLE SCHEDULES REQUIRED FOR TENDER
EVALUATION PURPOSES****FORM T2.2.1: RESPONDENT'S INFORMATION SHEET**

*This form and the one on the following page **MUST** be filled in by all respondents to this tender and included as the second page, i.e. after the cover page.*

Contract No.	
Description of Contract	
Name of Organisation / Joint Venture / Consortium	
Physical Address	
Postal Address	
Contact Name	
E-mail Address	
Telephone Number	
Fax Number	
Cell Number	

FORM T2.2.2: SCHEDULE OF WORK CARRIED OUT BY TENDERER

The Tenderer shall list below the building contracts of a similar nature awarded to him or her. This information is material to the award of the Contract. Only projects completed in the past 10 years by the lead partner and contact persons to be indicated below:

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:

DATE:

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

FORM T2.2.3: SCHEDULE OF CURRENT CONTRACTS

The following is a statement of contracts that are being executed by myself / ourselves which will only be completed after the closing date for tenders:

EMPLOYER (Name, Tel No and Fax No)	PRINCIPAL AGENT (Name, Tel No and Fax No)	Description of contract	Value of work inclusive of VAT (Rand)	Date		
				Start	Contractual Completion	Anticipated completion

SIGNED:

DATE:

NAME:

CAPACITY:

TENDERER:

DECLARATION OF INTEREST (SBD 4)**1.PURPOSE OF THE FORM**

Any person (natural or juristic) may make an offer or offers in terms of this invitation to bid. In line with the principles of transparency, accountability, impartiality, and ethics as enshrined in the Constitution of the Republic of South Africa and further expressed in various pieces of legislation, it is required for the bidder to make this declaration in respect of the details required hereunder.

Where a person/s are listed in the Register for Tender Defaulters and / or the List of Restricted Suppliers, that person will automatically be disqualified from the bid process.

Bidder's declaration

Is the bidder, or any of its directors / trustees / shareholders / members / partners or any person having a controlling interest¹ in the enterprise, employed by the state?

YES/NO

- 2.2.1. If so, furnish particulars of the names, individual identity numbers, and, if applicable, state employee numbers of sole proprietor/ directors / trustees / shareholders members/ partners or any person having a controlling interest in the enterprise, in table below.

Full Name	Identity Number	Name of institution	State

Do you, or any person connected with the bidder, have a relationship

¹ the power, by one person or a group of persons holding the

majority of the equity of an enterprise, alternatively, the person/s having the deciding vote or power to influence or to direct the course and decisions of the enterprise.

with any person who is employed by the procuring institution? YES/NO

2.2.1 If so, furnish particulars:

.....
.....

2.3 Does the bidder or any of its directors / trustees / shareholders / members / partners or any person having a controlling interest in the enterprise have any interest in any other related enterprise whether or not they are bidding for this contract? **YES/NO**

2.3.1 If so, furnish particulars:

.....
.....

DECLARATION

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

I have read and I understand the contents of this disclosure;

I understand that the accompanying bid will be disqualified if this disclosure is found not to be true and complete in every respect;

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 consortium² will not be construed as collusive bidding.

In addition, there have been no consultations, communications, agreements or arrangements with any competitor regarding the quality, quantity, specifications, prices, including methods, factors or formulas used to calculate prices, market allocation, the intention or decision to submit or not to submit the bid, bidding with the intention not to win the bid and conditions or delivery particulars of the products or services to which this bid invitation relates.

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.

There have been no consultations, communications, agreements or arrangements made by the bidder with any official of the procuring

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

I CERTIFY THAT THE INFORMATION FURNISHED IN PARAGRAPHS 1, 2 and 3 ABOVE IS CORRECT. I ACCEPT THAT THE STATE MAY REJECT THE BID OR ACT AGAINST ME IN TERMS OF PARAGRAPH 6 OF PFMA SCM INSTRUCTION 03 OF 2021/22 ON PREVENTING AND COMBATING ABUSE IN THE SUPPLY CHAIN MANAGEMENT SYSTEM SHOULD THIS DECLARATION PROVE TO BE FALSE.

[illegible]

FORM T2.2.4: SIGNATORIES AUTHORITY (POWER OF ATTORNEY)

1. INFORMATION TO BE PROVIDED

1.1 If the Bidder is a COMPANY

- (a) Affix a certificate copy of the Certificate of Incorporation to this page.
- (b) Affix a copy of the relevant resolution of the Board of Directors, duly signed and dated.
- (c) List the Directors.

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

1.2 If the Bidder is a CLOSE CORPORATION

- (a) Affix a certificate copy of the Founding Statement to this page.
- (b) Affix a copy of the relevant resolution of the Members, duly signed and dated.
- (c) List the Members.

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

1.3 If the Bidder is a PARTNERSHIP

- (a) Affix a copy of the relevant resolution on the Partners, duly signed and dated.
- (b) List the Partners.

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

1.4 If the Bidder is a ONE-MAN-CONCERN

Provide the full name, identity number and qualifications of the person.

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

1.5 If the Bidder is a JOINT VENTURE

- (a) Affix a copy of the original document of information defining the conditions under which the joint venture will function, its period of duration and the participating persons, companies and/or firms.
- (b) Affix a certificate signed for or on behalf of each participating person, company and/or firm authorising the person who signed the Bid to do so.
- (c) Affix a certified copy of the Joint Venture Agreement.

1.6 If the Bidder is a CONCERN OTHER than these listed above

Provide full details of the CONCERN submitting the Bid:

.....

.....

FORM T2.2.5: CURRENT CERTIFICATE OF GOOD STANDING FROM COMPENSATION COMMISSIONER
--

The tenderer shall affix to this page:

A current Certificate of Good Standing from the Compensation Commissioner.

Note:

Failure to affix the documentation as prescribed to this page shall result in this tender offer being regarded as non-responsive.

FORM T2.2.6: PROPOSED KEY PERSONNEL

The Tenderer shall list below the key personnel (including first nominee and the second-choice alternate), whom he proposes to employ on the contract should his offer be accepted, both at his headquarters and on the Site, to direct and execute the work, together with their qualifications, experience, positions held and nationalities.

Curriculum Vitae of Key Personnel to be attached to this Bid Document.

DESIGNATION	NAME AND NATIONALITY OF: NOMINEE	SUMMARY OF QUALIFICATIONS, EXPERIENCE AND PRESENT OCCUPATION
<u>HEAD OFFICE</u> Partner/director		
Project manager		
Other key staff (Give designation)		
<u>SITE OFFICE</u> Site Agent		
Construction supervisor (Give designation)		
Health and Safety Officer		
Other key staff (Give designation)		

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

DATE:

FORM T2.2.7: SCHEDULE OF CONSTRUCTION PLANT AND EQUIPMENT

The Tenderer shall state below what Construction Plant will be available for the work should he be awarded the Contract.

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

Details of major equipment that is owned by me / us and immediately available for this contract:

DESCRIPTION (type, size, capacity etc.)	QUANTITY	YEAR OF MANUFACTURE

Attach additional pages if more space is required

Details of major Plant & Equipment that will be hired, or acquired for this contract should my / our tender be accepted:

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

Attach additional pages if more space is required

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

DATE:

FORM T2.2.8: SITE INSPECTION CERTIFICATE

This is to certify that I,
representing and duly authorised by (Bidder)

.....
.....

attended the site inspection on

Having prior to this site visit carefully examined the Bid document, technical information and drawings supplied, I confirm that I was given unrestricted access to inspect those sections of the Site necessary for the execution of the Works.

I further confirm that I am completely satisfied with the scope of work as explained by the Engineer, and am fully aware of all Site conditions and regulations of whatsoever nature that could influence the preparation of our Bid.

I therefore append my signature below in agreement that we will not institute any claim against the Employer after submission of our Bid based on lack of knowledge of site conditions or regulations pertaining to the execution of this Contract.

.....
SIGNATURE OF BIDDER'S REPRESENTATIVE

.....
DATE

.....
SIGNATURE OF REPRESENTATIVE OF THE ENGINEER DATE

FORM T2.2.9: HEALTH AND SAFETY PLAN

Tenderers are to note the requirements of the Occupational Health and Safety Act No. 85 of 1993 and the Construction Regulations 2014 issued in terms of Section 43 of the Act. The tenderer shall be deemed to have read and fully understood the requirements of the above Act and Regulations and to have allowed for all costs in compliance therewith.

In this regard the Tenderer shall prepare and attach a Health and Safety Plan in respect of the Works in order to demonstrate the necessary competencies and resources to perform the construction work all in accordance with the Act and Regulations. Such Health and Safety Plan shall cover inter-alia the following details:

- (1) Management Structure, Site Supervision and Responsible Persons including a succession plan.
- (2) Contractor's induction training programme for employees, sub-Contractors and visitors to the Site.
- (3) Health and safety precautions and procedures to be adhered to in order to ensure compliance with the Act, Regulations and Safety Specifications.
- (4) Regular monitoring procedures to be performed.
- (5) Regular liaison, consultation and review meetings with all parties.
- (6) Site security, welfare facilities and first aid.
- (7) Site rules and fire and emergency procedures.

Tenderers are to note that the Contractor is required to ensure that all sub-Contractors or others engaged in the performance of the contract also comply with the above requirements.

The Tenderer shall also take into account the additional requirements stated in the Scope of Work when drawing up the Health and Safety Plan for the contract.

Details of the Health and Safety Plan shall be appended to this Schedule.

Number of sheets, appended by the Tenderer to this Schedule(If nil, enter NIL).

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

DATE:

FORM T2.2.10: FINANCIAL REFERENCES

Financial Statements

I / We agree, to furnish an audited copy of the latest set of financial statements together with my / our Directors' and Auditors' report for consideration by the Employer.

Bank Details

I / We hereby authorise the Employer / Engineer to approach all or any of the following banks 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:

FORM T2.2.11: RECORD OF ADDENDA TO TENDER DOCUMENTS

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

No	Date	Title or Details
1		
2		
3		
4		
5		
6		
7		
8		
9		
10		

Attach additional pages if more space is required

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

DATE:

FORM T2.2.12: AMENDMENTS AND QUALIFICATIONS BY TENDERER

AMENDMENTS AND QUALIFICATIONS

I / We herewith propose the amendments and discounts as set out in the tables below:

AMENDMENTS

PAGE, CLAUSE OR ITEM NO	PROPOSED AMENDMENT

Notes:

- (1) Amendments to the Contract Data are not acceptable.
- (2) The Tenderer must give full details of all the financial implications of the amendments and qualifications in a covering letter attached to his tender.

ALTERNATIVES

PROPOSED ALTERNATIVE	DESCRIPTION OF ALTERNATIVE

Notes:

- (1) Individual alternative items that do not justify an alternative tender and an alternative offer for time for completion should be listed here.

- (2) *In the case of a major alternative to any part of the work, a separate Bill of Quantities, programme, etc., and a detailed statement setting out the salient features of the proposed alternatives must accompany the tender.*

DISCOUNTS

ITEM ON WHICH DISCOUNT IS OFFERED	DESCRIPTION OF DISCOUNT OFFERED

Note:

The Tenderer must give full details of the discounts offered in a covering letter attached to his tender, failing which; the alternative offer will be prejudiced.

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

DATE:

FORM T2.2.13: B-BBEE STATUS LEVEL CERTIFICATE**IT IS A CONDITION OF TENDERS THAT:**

Where two or more bidders have scored the same number of points, the winner must be the bidder that scores the highest number of B-BBEE points; however,

If Functionality is being assessed in the tender, the winning bid must be the one with the highest score on Functionality which would have been assessed at the responsiveness stage.

All Trusts, JVs or Consortia will only qualify for B-BBEE points if they submit B-BBEE certificates or they can submit a consolidated B-BBEE certificate as if they were a group structure.

The Valid B-BBEE Certificate must be submitted in the original together with the bid and attached to this page.

FORM T2.2.14: PREFERENCE POINTS CLAIM FORM IN TERMS OF THE PREFERENTIAL PROCUREMENT REGULATIONS 2017 (SBD 6.1)

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

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

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

1. GENERAL CONDITIONS

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

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

1.2 To be completed by the organ of state

(delete whichever is not applicable for this tender).

- a) The applicable preference point system for this tender is the 80/20 or 90/10 preference point system.

DC

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

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

1.4 To be completed by the organ of state:

The maximum points for this tender are allocated as follows:

	POINTS
PRICE	80/90
SPECIFIC GOALS	20/10
Total points for Price and SPECIFIC GOALS	100

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

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

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

2. DEFINITIONS

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

3. FORMULAE FOR PROCUREMENT OF GOODS AND SERVICES

3.1. POINTS AWARDED FOR PRICE

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

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

80/20 or 90/10

$$Ps = 80 \left(1 - \frac{Pt - P_{min}}{P_{min}} \right) \text{ Or } Ps = 90 \left(1 - \frac{Pt - P_{min}}{P_{min}} \right)$$

Where

Ps = Points scored for price of tender under consideration

Pt = Price of tender under consideration

Pmin = Price of lowest acceptable tender

4. POINTS AWARDED FOR SPECIFIC GOALS

- 4.1. In terms of Regulation 4(2); 5(2); 6(2) and 7(2) of the Preferential Procurement Regulations, preference points must be awarded for specific goals stated in the tender. For the purposes of this tender the tenderer will be allocated points based on the goals stated in table 1 below as may be supported by proof/ documentation stated in the conditions of this tender:
- 4.2. In cases where organs of state intend to use Regulation 3(2) of the Regulations, which states that, if it is unclear whether the 80/20 or 90/10 preference point

system applies, an organ of state must, in the tender documents, stipulate in the case of—

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

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

Table 1: Specific goals for the tender and points claimed are indicated per the table below.

(Note to organs of state: Where either the 90/10 or 80/20 preference point system is applicable, corresponding points must also be indicated as such.

Note to tenderers: The tenderer must indicate how they claim points for each preference point system.)

Table 1: Specific goals for the tender and points claimed are indicated per the table below.

(Note to organs of state: Where either the 90/10 or 80/20 preference point system is applicable, corresponding points must also be indicated as such.

The specific goals allocated points in terms of this tender	Number of points allocated (90/10 system) (To be completed by the organ of state)	Number of points allocated (80/20 system) (To be completed by the organ of state)	Number of points claimed (90/10 system) (To be completed by the tenderer)	Number of points claimed (80/20 system) (To be completed by the tenderer)
c)Historically Disadvantaged Individuals (Means a South African citizen who, due to the apartheid policy that had been in place, had no franchise in national elections prior to the introduction of the Constitution of the Republic of South Africa, 1983 (Act No. 110 of 1983) or the Constitution of the Republic of South Africa, 1993 (Act No. 200 of 1993) ("The	3	6		

Interim Constitution”).				
Women	2	4		
Disabled	2	4		
Youth	2	4		
Locality • Gauteng Province=	1	2		
d) Other Specific Goals (Programmes of the RDP & Local Manufacturing.				
The promotion of enterprises located in a specific province for work to be done or services to be rendered in that province Gauteng Substantiation: Please provide municipal account/statement or lease agreement.				
The promotion of enterprises located in a specific region for work to be done or services to be rendered in that region Substantiation: Please provide municipal account/statement or lease agreement				

The promotion of enterprises located in a specific municipal area of work to be done or services to be rendered in that municipal area (e.g., City of Johannesburg) Substantiation: Please provide municipal account/statement or lease agreement				
Total Points	10	20		

DECLARATION WITH REGARD TO COMPANY/FIRM

4.3. Name of company/firm.....

4.4. Company registration number:

4.5. TYPE OF COMPANY/ FIRM

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

[Tick applicable box]

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

- i) The information furnished is true and correct;
- ii) The preference points claimed are in accordance with the General Conditions as indicated in paragraph 1 of this form;
- iii) In the event of a contract being awarded as a result of points claimed as shown in paragraphs 1.4 and 4.2, the contractor may be required to furnish documentary proof to the satisfaction of the organ of state that the claims are correct;
- iv) If the specific goals have been claimed or obtained on a fraudulent basis or any of the conditions of contract have not been fulfilled, the organ of state may, in addition to

any other remedy it may have –

- (a) disqualify the person from the tendering process;
- (b) recover costs, losses or damages it has incurred or suffered as a result of that person's conduct;
- (c) cancel the contract and claim any damages which it has suffered as a result of having to make less favourable arrangements due to such cancellation;
- (d) recommend that the tenderer or contractor, its shareholders and directors, or only the shareholders and directors who acted on a fraudulent basis, be restricted from obtaining business from any organ of state for a period not exceeding 10 years, after the audi alteram partem (hear the other side) rule has been applied; and
- (e) forward the matter for criminal prosecution, if deemed necessary.

.....
SIGNATURE(S) OF TENDERER(S)

SURNAME AND NAME:

DATE:

ADDRESS:

.....

.....

FORM T2.2.15: TAX CLEARANCE REQUIREMENTS

IT IS A CONDITION OF TENDERS THAT:

The taxes of the successful bidder **must** be in order, or that satisfactory arrangements have been made with the Receiver of Revenue to meet his / her tax obligations.

The Valid Tax Clearance Certificate with Pin must be submitted together with the bid and **attached to this page.** Failure to submit the valid Tax Clearance Certificate with Pin **shall** invalidate the bid.

In bids where Consortia / Joint Ventures / Sub-Contractors are involved, each party must submit a separate Tax Clearance Certificate with Pin

Note:

Failure to affix the documentation as prescribed to this page shall result in this tender offer being regarded as non-responsive.

FORM T2.2.16: PROOF OF REGISTRATION WITH CONSTRUCTION INDUSTRY DEVELOPMENT BOARD

The Tenderer shall affix to this page:

Written proof of registration with the CIDB in the required categories.

The classification of the Joint Venture, where and if applicable, shall be stated with all relevant information required. Refer to clause F.2.1 of the Tender Data.

Note:

Failure to affix the documentation as prescribed to this page shall result in this tender offer being regarded as non-responsive.

FORM T2.2.17: COMPULSORY DECLARATION FORM

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

Section 1: Name of enterprise :

Section 2: VAT registration number, if any :

Section 3: CIDB registration number, if any:

Section 4: Particulars of sole proprietors and partners in partnerships

Name*	Identity number*	Personal income tax number*

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

Section 5: Particulars of companies and close corporations

Company registration:

Close corporation number:

Tax reference number:

Section 6: Record of association with ORBIT TVET Colleges member of Staff / Board

Indicate by marking the relevant boxes with a cross, if any sole proprietor, partner in a partnership or director, manager, principal shareholder or stakeholder in a company or close corporation has an association with an ORBIT TVET Colleges member of staff or member of Board, a relative of an ORBIT TVET Colleges member of staff or member of Board: **An Association is defined as:** a business or personal relationship between a group of people or organisations joined together for a purpose.

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

Name of sole proprietor, partner, director, manager, principal shareholder or stakeholder	Name of the ORBIT TVET Colleges member of staff or Board	Type of relationship (tick appropriate column)	
		Family	Friend

*insert separate page if necessary

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

- i) confirms that neither the name of the enterprise or the name of any partner, manager, director or other person, who wholly or partly exercises, or may exercise, control over the enterprise appears on the Register of Tender Defaulters established in terms of the Prevention and Combating of Corrupt Activities Act of 2004;
- ii) confirms that no partner, member, director or other person, who wholly or partly exercises, or may exercise, control over the enterprise, has within the last five years been convicted of fraud or corruption;
- iii) confirms that I / we are not associated, linked or involved with any other tendering entities submitting tender offers and have no other relationship with any of the tenderers or those responsible for compiling the scope of work that could cause or be interpreted as a conflict of interest; and
- iv) confirms that the contents of this questionnaire are within my personal knowledge and are to the best of my belief both true and correct.

SIGNED:

DATE:

NAME:

CAPACITY:

ENTERPRISE NAME:

FORM T2.2.18: LETTER OF INTENT

The tenderer shall affix to this page:

A Letter of Intent from an approved insurer undertaking to provide the Performance Guarantee to the format included in Part C1.3 of this Procurement Document.

Refer to Part C1.3 for Construction Guarantee (Pro-Forma).

PART C: THE CONTRACT

PART C1: AGREEMENT AND CONTRACT DATA

SECTION C1.1: FORM OF OFFER AND ACCEPTANCE

SECTION C1.1.1: FORM OF OFFER

THE TENDERER IS TO COMPLETE AND SIGN THE FORM OF OFFER

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

APPOINTMENT OF A CONTRACTOR FOR INSTALLATION OF ALTERNATIVE ENERGY SOLUTION AT ORBIT TVET COLLEGE BRITS TENDER NO. B02/2023

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 for each of the two Tenders are:

TENDER NAME AND DESCRIPTION	AMOUNT
A. APPOINTMENT OF A CONTRACTOR FOR INSTALLATION OF ALTERNATIVE ENERGY SOLUTION AT ORBIT TVET COLLEGE BRITS <i>(Carried forward from Page 5 of the BOQ:</i> (Amount in words) (Rand)	R.....
TOTAL (VAT Incl.)	R.....

NB: Should there be a discrepancy between the amounts in figures and words, the amount in words shall govern.

This Offer may be accepted by the Employer by signing the Acceptance part of this Form of Offer and Acceptance and returning one copy of this document to the Tenderer before the end of the period of validity stated in the Tender Data, whereupon the Tenderer becomes the party named as the Contractor in the Conditions of Contract identified in the Contract Data.

Signature (of Person authorised to sign the Tender):

Name (of Signatory in capitals):

Capacity (of Signatory):.....

Name of Tenderer (Organisation):

Address of Tenderer:

.....

Telephone number: Fax number:

E-mail address: Date:

[Failure of a Tenderer to complete and sign this form will invalidate the tender]

SECTION C1.1.2: FORM OF 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 Form of Offer and Acceptance);
Part C2	Pricing Data;
Part C3	Scope of Work: Works Information;
Part C4	Site Information;

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

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 Form of Offer and Acceptance. No amendments to or deviations from said documents are valid unless contained in this Schedule.

Deviations from and amendments to the draft contract 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 Form of Offer and Acceptance. No amendments to or deviations from said documents are valid unless contained in this Schedule.

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. Failure to fulfil any of these obligations in accordance with those terms shall constitute a repudiation of this agreement.

Notwithstanding anything contained herein, this agreement comes into effect on the date when the Tenderer receives one fully completed original copy of this document, including the Schedule of Deviations (if any). Unless the Tenderer (now Contractor) within five 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.

Name: Name:

Signature: Signature:
.....

Capacity: Capacity:

For the Employer:

.....

(Insert the name and address of organisation)

Name of Witness: Signature:

SECTION C1.1.3: SCHEDULE OF DEVIATIONS

1. Subject:
Details:
2. Subject:
Details:
3. Subject:
Details:
4. Subject:
Details:
5. Subject:
Details:
6. Subject:
Details:

By the duly authorised representatives signing this agreement, the Employer and the Tenderer agree to and accept the foregoing schedule of deviations as the only deviations from and amendments to the documents listed in the Tender Data and addenda thereto as listed in the returnable 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.

By the duly authorised representatives signing this agreement, the Employer and the Tenderer agree to and accept the foregoing schedule of deviations as the only deviations from the draft contract, 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.

Name: Name:

Signature: Signature:
.....

Capacity: Capacity:

For the Employer:

.....

(Insert the name and address of organisation)

Name of Witness: Signature:

Name: Name:

Signature: Signature:
.....

Capacity: Capacity:

For the Contractor :

.....

(Insert the name and address of organisation)

Name of Witness: Signature:

SECTION C1.2: CONTRACT DATA

The Conditions of Contract are the **JBCC Series 2000 Principal Building Agreement (March 2014 – Edition 6.1)** published by the Joint Building Contract Committee. Copies of these documents may be obtained from the **Association of South African Quantity Surveyors** (011-315 4140), the **Master Builders Association** (011-205 9000), the **South African Association of Consulting Engineers** (011-463 2022) or the **South African Institute of Architects** (011-486 0684).

The JBCC Principal Building Agreement Contract Data EC and the JBCC Principal Building Agreement Contract Data CE form an integral part of this agreement.

The **ASAQS Preliminaries (March 2014 Edition 6.1)** published by the Association of South African Quantity Surveyors for use with the said JBCC Principal Building Agreement shall be deemed to be incorporated in the bills of quantities.

The **Model Preambles for Trades (2014 Edition 6.1)** as published by the Association of South African Quantity Surveyors shall be deemed to be incorporated in the bills of quantities and no claims arising from brevity of description of items fully described in the said Model Preambles will be entertained.

The **SANS 1200 Standardized Specification for Civil Engineering Construction**, and specific amendments and additions shall be deemed to be incorporated in the Civil bill of Quantities.

Delta BEC Electrical specification shall be deemed to be incorporated in the Electrical Bill of Quantities.

SECTION C1.2.1: CONTRACT DATA EC (Employer to Contractor)

Employer Addendum Code 2101-EC

FOR INFORMATION PURPOSES ONLY. TO BE SIGNED ON APPOINTMENT.

Introduction

This addendum contains all variables referred to in the **Principal Building Agreement** that are the responsibility of the Contractor to provide the appropriate information that is necessary for the Contractor to complete his tender. The Addendum must be completed in full and included in the tender documents. The Addendums "Contract Data – EC", "Contract Data – CE", "Contract Data – ES" and "Contract Data – SE" form part of the contract between the parties.

Definitions

The definitions used in this document and the interpretation thereof are as listed in the Principal Building Agreement. The work or phrase of a definition is in bold text and shall bear the meaning assigned to it in the Principal Building Agreement. Where such word or phrase is not highlighted, it shall bear the meaning consistent with the context of its use. The listed defined word or phrase does not qualify as a definition where information required to be stated in the contract data has not been provided.

Provision of Contract Data

Spaces requiring information must be filled in, shown as "not applicable" or deleted and not left blank. Where choices are offered, the non-applicable items are to be clearly struck out. Where insufficient space is provided the additional information should be annexed hereto and cross referenced to the applicable clause of the contract data.

Reference Clauses

Where relevant the Principal Building Agreement clause applicable to the required information is printed in italics under the Contract Data clause number i.e. [27.4.2]

TABLE OF CONTENTS

Section No.	Description
1.0	CONTRACTING AND OTHER PARTIES
2.0	CONTRACT AND SITE INFORMATION
3.0	INSURANCES AND SECURITIES
4.0	PRACTICAL COMPLETION DATES AND PENALTIES
5.0	DOCUMENTS AND GENERAL
6.0	CHANGES MADE TO THE STANDARD JBCC
7.0	DOCUMENT
	DECLARATION BY THE PRINCIPAL AGENT

CONTRACT DATA: EMPLOYER

1.0 CONTRACTING AND OTHER PARTIES

1.1 [1.2]	Employer:	ORBIT TVET Colleges	
	Postal Address:	Private bag X82096; RUSTENBURG, South Africa	Code: 0300
	Physical Address:	Corner of Fatima Bhayat and Bosch street, RUSTENBURG	Code: 0300
	Tel no.:	+27 (014) 592 5524	Fax no.: +27 (014) 592 4538
	VAT no.	4750102586	
	E-mail:	amerementsi@orbitcollege.co.za	

1.2 [5.1]	Principal Agent:	Nkhululeko Project Management and Construction	Person: Zipho Ngobeni
	Postal Address:	128 7 th Road Carlswald Close Office Park , C3, Midrand	Code: 1686
	Tel no.:	+27 10 010 0226	Fax no.: +27 86 525 2296
	E-mail:	building@nkhululeko.co.za	

1.10 [5.5]	Interest of principal agent or other agent in the project.	(Yes / No)	No
	Details where "yes":	N/A	

1.10 The **principal agent** named in 1.2 above is responsible for the preparation of the **contract data** schedule and must be contacted should the **Contractor** 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.

2.0 CONTRACT AND SITE INFORMATION

2.1 [1.7]	The law applicable to this agreement :	(Country / State)	RSA
--------------	--	-------------------	-----

2.2 [1.1]	Works identification:	Refer to Part C3. Scope of Works
--------------	------------------------------	----------------------------------

2.3 [1.1]	Site description:	Alterations and extension of Electrical Workshop. Works includes Roof coverings, Brickwork, Electrical installation, Tiling, Steel roof trusses, Windows and doors, etc.
--------------	--------------------------	--

2.4 [15.2.1]	Possession of the site is to be given on:	(Date)	Within five (5) working days after receipt of documentary evidence that: - Insurances have been effected [12.2]; - Security has been provided to the Employer [14.1]; - Contractor 's Lien has been signed; - Safety Plan has been approved by the Employer.
-----------------	--	--------	---

2.5 [15.3]	Period for the commencement of the works after the Contractor takes possession of the site :	(Working days)	5 (Five)
---------------	--	----------------	----------

2.6 [15.4], [28.0]	Completion of the works in sections is required.	(Yes / No)	NO	(No. of sections)	N/A
--------------------------	---	------------	----	-------------------	-----

2.7 [3.3], [31.16.2]	Waiver of the Contractor 's lien or right of continuing possession is required.	(Yes / No)	Yes
2.8 [16.1]	Defined restrictions to the site area. Where "yes" the specific requirements are described below or detailed in the contract documents .	(Yes / No)	No
2.9 [16.4]	Geotechnical investigation of the site has been undertaken. Where "yes" the results are included in the contract documents .	(Yes / No)	Yes
2.10 [16.6]	Existing premises will be occupied. Where "yes" the specific requirements are described below or detailed in the contract documents .	(Yes / No)	Yes
<i>The campus will be occupied with students on a daily basis. The execution of the works must be planned and executed not to impact on the normal operations of the campus, Refer to detail requirements described in Scope of Works Part C3.1.</i>			
2.11 [16.7]	Provision of temporary services is required. Where "yes" the specific requirements are described below or detailed in the contract documents .	(Yes / No)	Yes
2.11.1	Water	Option A Contractor – his cost Option B Employer – free of charge Option C Contractor – metered (Contractor cost)	(A, B or C) B
2.11.2	Electricity	Option A Contractor – his cost Option B Employer – free of charge Option C Contractor – metered (Contractor cost)	(A, B or C) B
2.11.3	Telecom	Option A Contractor – his cost Option B Employer – free of charge Option C Contractor – metered (Contractor cost)	(A, B or C) A
2.11.4	Ablutions	Option A Contractor – his cost Option B Employer – free of charge Option C Contractor – metered (Contractor cost)	(A, B or C) A
2.12 [16.8]	Protection of existing trees and shrubs is required. Where "yes" the specific requirements are described below or detailed in the contract documents .	(Yes / No)	No

3.0 INSURANCE AND SECURITIES

3.1 [10.1.1], [12.6]	Contract works insurance to be effected by:	(Employer / Contractor)	Contractor
	For the sum of:	(Amount)	Contract Sum Plus 20%
	With a deductible of:	(Amount)	R20 000
3.2 [10.1.2], [11.1-3], [12.6]	Supplementary / Special insurance to be effected by:	(Employer / Contractor)	N/A
	For the sum of:	(Amount)	R -
	With a deductible of:	(Amount)	R -
3.3 [10.1.3], [12.6]	Public liability insurance to be effected by:	(Employer / Contractor)	Contractor
	For the sum of:	(Amount)	R 5 000 000 per claim
	With a deductible of:	(Amount)	R20 000
3.4 [11.1.1]	Support insurance to be effected by:	(Employer / Contractor)	N/A
	For the sum of:	(Amount)	R -
	With a deductible of:	(Amount)	R -
3.5 [11.1.2-3], [12.1]	Special insurance to be effected by:	(Employer / Contractor)	N/A
	Type:	N/A	
	For the sum of:	(Amount)	N/A
	With a deductible of:	(Amount)	N/A

4.0 PRACTICAL COMPLETION DATES AND PENALTIES

		Date	Penalty Amount
4.1 [24.3.1], [30.1-36]	For the works as a whole: The date for practical completion and the penalty per calendar day is:	4 Months from date of possession of site	R 500-00
	Or		
4.2 [24.3.1], [28.1]	For the works in sections : The date for practical completion and the penalty per calendar day is:		
		Date	Penalty Amount
	Section 1	N/A	N/A

Section 2

N/A

N/A

5.0 DOCUMENTS AND GENERAL

5.1 Construction document copies to be supplied to the **Contractor** (No. of copies) **3**
[3.7] free of charge.

5.2 The **priced document** may be used as a specification of (Yes / No) **No**
[3.9] **materials and goods** and work methods.

5.3 The **Contractor** shall provide a (Yes / No) **No** (Addendum No.) **Refer to Bill of**
[3.10] schedule of rates. Quantities

5.4 Changes made to **JBCC** standard (Yes / No) **Yes** (Addendum No.) **Refer to Section C**
[3.11] documents. 1.2.2

5.5 On acceptance of the tender the **priced** (No. of days) **Priced document to be**
[15.1.1] **document** is to be submitted within the stated working days. submitted with Tender

5.6 Work to be undertaken by **direct** (Yes / No) **No** (Addendum No.) **N/A**
[22.2] **Contractor s.**

5.7 On achievement of practical completion the **Contractor** is to hand over certificates and manuals
[24.9] etc. related to the works as listed below:

- | | |
|--|--|
| (1) Electrical Certificate of Compliance | (2) Plumbing and drainage Certificate of Compliance |
| (3) Roof Structure CoC: Declaration by competent person as per NBR | (4) Glazing certificate of conformance (SANS 10400 Part N) |
| (5) Soil poisoning Certificate (SANS 10400 Part F) | (6) Roof sheeting warranty |
| (7) All documentation to comply with Statutory and Legislative requirements. | (8) Health and Safety File |
| (9) | (10) |

5.8 Interim **payment certificate** to be issued by: (Date of Month) **25th**
[31.1]

5.8 The following items of works shall be designed by the Contractor :
[4.1]

- | | |
|----------------------------------|-----|
| (1) Steel Roof Structure & Beams | (2) |
|----------------------------------|-----|

6.0 CHANGES MADE TO THE STANDARD JBCC PBA DOCUMENT

Note: All changes must be listed in detail below or provided **Addendum**
in: **No.:**

SECTION C1.2.2: CHANGES TO JBCC PRINCIPAL BUILDING AGREEMENT (PBA)

DEFINITIONS

CLAUSE 1.0: DEFINITIONS AND INTERPRETATION

	Replace CONSTRUCTION PERIOD with the following: The period commencing on the date on which the possession of the site was handed over to the Contractor as recorded on the site possession certificate and ending on the date for practical completion and excluding all statutory holidays and recognized annual building holiday periods. Add CONTRACT MINUTES: A comprehensive set of minutes prepared by the principal agent in which all pertinent contractual information that arises at meetings is progressively recorded. Add CONTRACT PERIOD: The period commencing on the date of acceptance in terms of Form of Acceptance and ending on the date of Certificate of Final completion. Replace CONTRACT SUM with the following: The accepted amount provided for in the agreement made in terms of the Form of Offer and Acceptance. Add DATE FOR PRACTICAL COMPLETION: The contractual completion date or dates stated in the contract data or revision thereof [29.0] on or before which the Contractor agrees to bring the works or sections thereof to practical completion. The Contractor will be liable for the determined penalty in failure of such. Replace PROGRAMME with the following: A diagrammatic representation, made available electronically and in hard copy, of the planned execution sequence of the works indicating the dates for commencement and completion thereof and accepted by the Principal Agent, and shall be used by the Contractor to plan and execute the works and by the Principal Agent to monitor progress and shall be the sole basis for the assessment of any claims [29.0].
--	--

OBJECTIVE AND PREPARATION

CLAUSE 2.0: OFFER, ACCEPTANCE AND PERFORMANCE OBLIGATIONS

	No change from Principal Building Agreement
--	---

CLAUSE 3.0: DOCUMENTS

Clause	Data
3.6	The original signed set of contract documents is to be held by the Employer

CLAUSE 4.0: DESIGN RESPONSIBILITY

	No change from Principal Building Agreement
--	---

CLAUSE 5.0: EMPLOYER'S AGENTS

	No change from Principal Building Agreement
--	---

CLAUSE 6.0: CONTRACTOR 'S SITE REPRESENTATIVE

	No change from Principal Building Agreement
--	---

CLAUSE 7.0: COMPLIANCE WITH LAWS AND REGULATIONS

	No change from Principal Building Agreement
--	---

CLAUSE 8.0: WORKS RISK

	No change from Principal Building Agreement
--	---

CLAUSE 9.0: INDEMNITIES

	No change from Principal Building Agreement
--	---

CLAUSE 10.0: GENERAL INSURANCES

	No change from Principal Building Agreement
--	---

CLAUSE 11.0: SPECIAL INSURANCES

	No change from Principal Building Agreement
--	---

CLAUSE 12.0: EFFECTING INSURANCES

	No change from Principal Building Agreement
--	---

CLAUSE 13.0: ASSIGNMENT

	No change from Principal Building Agreement
--	---

CLAUSE 14.0: SECURITY

	No change from Principal Building Agreement
--	---

EXECUTION

CLAUSE 15.0: PREPARATION FOR AND EXECUTION OF THE WORKS

	No change from Principal Building Agreement
--	---

CLAUSE 16.0: SITE AND ACCESS

	No change from Principal Building Agreement
--	---

CLAUSE 17.0: CONTRACT INSTRUCTIONS

	No change from Principal Building Agreement
--	---

CLAUSE 18.0: SETTING OUT OF THE WORKS

	No change from Principal Building Agreement
--	---

CLAUSE 19.0: TEMPORARY WORKS AND PLANT

	No change from Principal Building Agreement
--	---

CLAUSE 20.0: NOMINATED SUB-CONTRACTOR S

	No change from Principal Building Agreement
--	---

CLAUSE 21.0: SELECTED SUB-CONTRACTOR S

	No change from Principal Building Agreement
--	---

CLAUSE 22.0: EMPLOYER'S DIRECT CONTRACTOR S

	No change from Principal Building Agreement
--	---

CLAUSE 23.0: CONTRACTOR 'S DOMESTIC SUB-CONTRACTOR S

	No change from Principal Building Agreement
--	---

COMPLETION

CLAUSE 24.0: PRACTICAL COMPLETION

	No change from Principal Building Agreement
--	---

CLAUSE 25.0: WORKS COMPLETION

	No change from Principal Building Agreement
--	---

CLAUSE 26.0: FINAL COMPLETION

	No change from Principal Building Agreement
--	---

CLAUSE 27.0: LATENT DEFECTS LIABILITY PERIOD

	No change from Principal Building Agreement
--	---

CLAUSE 28.0: SECTIONAL COMPLETION

	No change from Principal Building Agreement
--	---

CLAUSE 29.0: REVISION OF DATE FOR PRACTICAL COMPLETION

	No change from Principal Building Agreement
--	---

CLAUSE 30.0: PENALTY FOR LATE OR NON-COMPLETION

	No change from Principal Building Agreement:
--	--

PAYMENT

CLAUSE 31.0: INTERIM PAYMENT

Clause	Data
31.9	Replace Sub-clause 31.9 with the following: The Employer shall pay the Contractor the amount certified within 30 (thirty) calendar days from the date of receipt of the Contractor's original VAT Invoice in support of payment certificate at the Physical address of the Employer stated in the EC

CLAUSE 32.0: ADJUSTMENT TO THE CONTRACT VALUE

	<i>No change from Principal Building Agreement</i>
--	--

CLAUSE 33.0: RECOVERY OF EXPENSE AND LOSS

	<i>No change from Principal Building Agreement</i>
--	--

CLAUSE 34.0: FINAL ACCOUNT AND FINAL PAYMENT

	<i>No change from Principal Building Agreement</i>
--	--

CLAUSE 35.0: PAYMENT TO OTHER PARTIES

	<i>No change from Principal Building Agreement</i>
--	--

TERMINATION

CLAUSE 36.0: TERMINATION BY EMPLOYER – CONTRACTOR'S DEFAULT

	<i>No change from Principal Building Agreement</i>
--	--

CLAUSE 37.0: TERMINATION BY EMPLOYER – LOSS AND DAMAGE

	<i>No change from Principal Building Agreement</i>
--	--

CLAUSE 38.0: TERMINATION BY CONTRACTOR – EMPLOYER'S DEFAULT

	<i>No change from Principal Building Agreement</i>
--	--

CLAUSE 39.0: TERMINATION – CESSATION OF THE WORKS

	<i>No change from Principal building Agreement</i>
--	--

DISPUTE

CLAUSE 4.0: SETTLEMENT OF DISPUTES

	<i>No change from Principal Building Agreement</i>
--	--

CONTRACT AGREEMENT

CLAUSE 41.0: POST TENDER PROVISIONS

41.3	The dispute resolution body [40.2.2] selected by the parties is	N/A
41.4	The employer shall provide a Payment Guarantee (Amount)	N/A
41.5	An annual building industry holiday period is applicable (Yes / No)	N/A
41.6	Further provisions and information agreed by the parties. None	

CLAUSE 42.0: CONTRACTUAL AGREEMENT

42.1 This **Agreement** is the entire contract between the **parties** regarding the matters addressed herein. NO representations, terms, conditions or warranties not contained in this **agreement** shall be binding on the **parties**. No **agreement** or addendum varying, adding to, deleting or terminating this **agreement** including this clause shall be effective unless reduced to writing and signed by the **parties**.

42.2 **Contracting Parties** (*To be completed on signing of the Contract*)

(1) **Employer:**

Physical Address:

Tel No: Fax No:

E-mail:

Tax/VAT No.:

(2) **Contractor :**

Physical Address:

Tel No: Fax No:

E-mail:

Tax/VAT No.:

42.3 The accepted **contact sum** (inclusive of **tax**) (Amount) R.....

In words:

.....

43.4 Signature of the contracting **parties**:

FOR THE EMPLOYER:

THUS DONE AND SIGNED AT ON THIS DAY OF.....2014

.....
Name of signatory for and on behalf of the **employer** who by signature
hereof warrants authorization hereto

.....
Capacity of signatory as Witness (1)

Details of Witness (1)

Name:

Address:

.....

FOR THE CONTRACTOR :

THUS DONE AND SIGNED AT ON THIS DAY OF.....2014

.....
Name of signatory

.....
for and on behalf of the Contractor who by
signature hereof warrants authorization hereto

.....
Capacity of signatory

.....
as Witness (2)

Details of Witness (2)

Name:

Address:

.....

7.0 DECLARATION BY THE PRINCIPAL AGENT

I, the principal agent named in 1.2 above, declare that the information provided above is complete and accurate at the time of calling for tenders. Where necessary, should any of the above information need to be varied, tenderers will be informed thereof in writing

Principal Agent:

Date:

SECTION C1.2.3: CONTRACT DATA: CONTRACTOR TO EMPLOYER (CE)

Contractor Addendum Code 2101-CE

Introduction

This addendum contains all variables referred to in the Principal Building Agreement that are the responsibility of the Contractor to provide the appropriate information that is necessary for the Contractor to complete his tender. The Addendum must be completed in full and included in the tender documents. The Addendums "Contract Data – EC", "Contract Data – CE", "Contract Data – ES" and "Contract Data – SE" form part of the contract between the parties.

Definitions

The definitions used in this document and the interpretation thereof are as listed in the Principal Building Agreement. The work or phrase of a definition is in **bold text** and shall bear the meaning assigned to it in the Principal Building Agreement. Where such word or phrase is not highlighted it shall bear the meaning consistent with the context of its use. The listed defined word or phrase does not qualify as a definition where information required to be stated in the **contract data** has not been provided.

Provision of Contract Data

Spaces requiring information must be filled in, shown as "not applicable" or deleted and not left blank. Where choices are offered, the non-applicable items are to be clearly struck out. Where insufficient space is provided the additional information should be annexed hereto and cross referenced to the applicable clause of the **contract data**.

Reference Clauses

Where relevant the Principal Building Agreement clause applicable to the required information is printed in italics under the Contract Data clause number i.e. [27.4.2]

TABLE OF CONTENTS

Section No.	Description
1.0	CONTRACTING PARTY
2.0	SECURITIES
3.0	PAYMENT AND ADJUSTMENT OF
4.0	PRELIMINARIES
5.0	EMPLOYER CHANGES TO JBCC STANDARD
	DOCUMENTS
	THE TENDER

CONTRACT DATA – CONTRACTOR

1.0 CONTRACTING PARTY

1.1
[1.2]

Contractor :

Postal Address:

Code:

Physical Address:

Code:

E-mail:

Tel no.:

Fax no.:

VAT no.:

2.0 SECURITIES

2.1 The security provisions selected are:

2.1.1
[14.3]

Variable Construction Guarantee

(Yes / No)

2.1.2
[14.4]

Fixed Construction Guarantee and Payment Reduction

(Yes / No)

2.1.3
[14.5]

Advanced Payment is required. Where "Yes"

Amount

N/A

2.1.4
[14.5]

An Advance Payment Guarantee to be provided

(Yes / No)

No

3.0 PAYMENT AND ADJUSTMENT OF PRELIMINARIES

3.1 Payment of preliminaries

The payment of preliminaries shall be according to the option selected by the **Contractor**. The amount included in each monthly **payment certificate** in respect of preliminaries as stated in the **contract data** shall be:

3.1.1 Option A

Assessed by the **principal agent** as an amount prorated to the value of the work duly executed in the same ratio as the preliminaries bears to the **contract sum** excluding:

- The amount for preliminaries
- Any contingency sum
- Any amount in respect of **CPAP**

All inclusive of **tax**

3.1.2 Option B

Calculated from the priced items in the **bills of quantities / lump sum document**. The **Contractor** and the **principal agent** shall agree on a division of the priced preliminaries items into:

- An initial or establishment charge
- A monthly charge
- A final or disestablishment charge

All inclusive of **tax**

In arriving at such a division cognizance shall be taken of such factors as:

- Premiums for annually renewable insurance policies
- Plant, scaffolding and the like remaining the property of the **Contractor** or the hiring company and the capital costs thereof not treated as part of the initial charge

Where the initial **construction period** is extended the monthly charge shall be recalculated on the same basis as was originally applied but taking into account the revised **construction period** and the amounts already paid to the **Contractor**.

Should the **Contractor** and the **principal agent** be unable to agree such division then the **principal agent** shall make a division of the amount of preliminaries to be incorporated in the valuations of each monthly **payment certificate**.

3.2 Adjustment of preliminaries

The amount of items of preliminaries shall be adjusted to take account of the theoretical financial effect which changes in time and/or value have on preliminaries. Such an adjustment shall be based on the particulars provided by the **Contractor** for this purpose in terms of Option A or B and shall preclude any further adjustment of preliminaries.

Adjustment of preliminaries in terms of Options A or B shall apply notwithstanding the actual employment of resources by the **Contractor** in the execution of the **works**. The adjustment of preliminaries shall be based on the options as selected in the **Contractor's tender**.

For the adjustment of the preliminaries both the **contract sum** and the **contract value** shall exclude:

- The amount of preliminaries
- Any contingency sum
- Any amount in respect of **CPAP**

All inclusive of **tax**

3.2.1 Option A

The amount of preliminaries shall be adjusted in the following categories:

- An amount which shall not be varied
- An amount which shall be varied in proportion to the **contract value** as compared with the **contract sum**
- An amount which shall be varied in proportion to the **construction period** as compared to the initial **construction period** excluding revisions to the **construction period** for which the **Contractor** is not entitled to adjustment of the **contract value** in terms of the **agreement**

The **Contractor** shall, within fifteen (15) working days of taking possession of the **site**, give the **principal agent** a breakdown, subdivided into the above categories, of the amount for preliminaries in tabulated form, all to the satisfaction of the **principal agent**.

Should the **Contractor** fail to provide such information within the period stipulated then the amount for preliminaries shall be deemed to be subdivided into the following proportions:

- 10% (ten percent) which amount shall not be varied
- 15% (fifteen percent) which amount shall be varied in proportion to the **contract value** as compared with the **contract sum**
- 75% (seventy-five percent) which amount shall be varied in proportion to the **construction period** as compared with the initial **construction period**

For a lump sum document, should the Contractor fail to identify the amount for preliminaries, then such an amount shall be deemed to be 7,5% (seven and a half percent) of the contract sum excluding:

- Any contingency sum
- Any amount in respect of **CPAP**

All inclusive of **tax**

Where sectional completion is required in terms of the agreement, the Contractor shall provide the **principal agent** with the division of the above categorized amounts into sections. Should the **Contractor** fail to provide such information within the period stipulated, the categorized amounts shall be prorated to the value of each section.

3.2.2 Option B

The **Contractor** shall, within fifteen (15) **working days** of taking possession of the site, provide the **principal agent** with a detailed breakdown of the amount for preliminaries. This breakdown shall set out, among others, full particulars of administrative, supervisory and other personnel, plant, transport and other resources and charges included in the amount for preliminaries. The **Contractor** shall show the periods to which the individual items related with the charge rate for such items by means of a **programme** all to the satisfaction of the **principal agent**.

Where sectional completion is required in terms of the **agreement**, the **Contractor** shall provide the **principal agent** with details of the resources required for each section and those that are common to sections. Should the **Contractor** fail to provide such information within the period stipulated, Option A shall apply.

3.2.3 Payment certificate cash flow

The **Contractor** shall provide all reasonable assistance to the **principal agent** in the preparation of cash flow projections of claims for **payment certificates** where required by the **employer**. The projections shall be based on the **Programme** and shall be updated as and when the **Programme** requires updating. The cooperation of the **Contractor** in terms of this item shall not prejudice his right to receive payment in terms of the **agreement**.

3.2.4	The contract value shall be adjusted according CPAP [3.1]	(Yes / No)	No
3.2.5	Payment of preliminaries [3.1.1-2]	(A or B)	
3.2.6	Adjustment of preliminaries [3.2.1-2]	(A or B)	
4.0	EMPLOYER CHANGES TO JBCC STANDARD DOCUMENTS		
4.1	Changes (if any) in terms of the Employer's Contract Data are accepted [3.11]. Where "no" an addendum referenced to this clause is to be attached	(Yes / No)	Yes

5.0 THE TENDER

- 5.1 This tender is to be submitted to the principal agent at the street address provided in the invitation to tender before the tender closing date and time stated herein.
- 5.2 By the submission of this tender to the **employer** the tenderer offers and agrees to contract for, execute and complete the **works** for the tender sum as stated below.
- 5.3 Tenders will be opened in public directly after the stated closing time. Only the total tender sum as stated in each tender will be announced.
- 5.4 The lowest or any tender will not necessarily be accepted.
- 5.5 This tender shall remain in full legal force for **ninety (90) calendar days**. The tenderer accepts liability for damages as may be suffered by the **employer** should the tender validity period not be honored.
- 5.6 This tender takes into account all listed items [4.0] for the purpose of preparing and submitting this tender.
- 5.7 The successful tenderer will be appointed in terms of the JBCC Principal Building Agreement.

5.8 TENDER SUM COMPILATION**Amount**5.8.1 Tenderer's work including **prime cost amounts**

R

5.8.2 **Employer allowances** stated by the **principal agent**

R

5.8.3 **SUB TOTAL**

R

5.8.4 *Add tax* on 5.8.3

R

5.8.5 **TOTAL TENDER SUM inclusive of tax**

R

5.8.6 Tender Sum in words

Thus done and signed at on

.....
Name of Signatory.....
Capacity of Authorized Signatory.....
As witness.....
for and on behalf of the Tenderer who
warrants authorization hereto

SECTION C1.3: CONSTRUCTION GUARANTEE (PRO-FORMA)

A letter of Intent from an approved Insurer undertaking to provide the Construction Guarantee to the format included in Part C1.3 of this document.

NB:

- It should be noted that Guarantors must be registered with the Financial Services Board (FSB).
- No alterations or amendments of the wording of the pro-forma Construction Guarantee included in **Part C1.3** will be accepted.
- Guarantees submitted must be issued by either an insurance company duly registered in terms of the Short-Term Insurance Act, 1998 (Act 35 of 1998) or by a bank duly registered in terms of the Banks Act, 1990 (Act 94 of 1990) on the pro-forma referred to above. No alterations or amendments of the wording of the pro-forma will be accepted.

CONSTRUCTION GUARANTEE (PRO-FORMA)

GUARANTOR DETAILS AND DEFINITIONS

Guarantor means

Physical address

Guarantor's registration number with the Financial Services Board (FSB)

Guarantor's signatory 1.....
Capacity

Guarantor's signatory 1.....
Capacity

Employer means

Contractor means

Agent means **N/A**

Works means

Site means

Agreement means **JBCC Series 2000 Principal Building Agreement (March 2014) Edition 6.1**

Contract Sum means the accepted amount inclusive of tax of R

Amount in words

Guaranteed Sum means the maximum aggregate amount of R

Amount in words

Construction Guarantee (Fixed or Variable) (insert expiry date) Construction Guarantee will expire on the date of issue of Final Payment Certificate.

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.

.....

1.0 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 10.0% 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 interim payment certificate certifying in excess of 50% of the contract sum:

Amount in words:

GUARANTOR'S LIABILITY

- 1.1.2 Reducing to the Guaranteed Sum (not exceeding 6.0% of the contract sum) in the amount of:

.....

Period of Liability

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:

Amount in words:

GUARANTOR'S LIABILITY

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

.....

Period of Liability

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:

Amount in words:

GUARANTOR'S LIABILITY

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

.....

Period of Liability

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:

Amount in words:

- 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.

2.0 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

- 2.1.1 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.

Amount in words:

3.0 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.

4.0 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.
- 5.0 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
- 6.0 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.
- 7.0 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.
- 8.0 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.
- 9.0 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.
- 10.0 The Guarantor chooses the physical address as stated above for all purposes in connection herewith.
- 11.0 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 earliest, 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.

- 12.0 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.
- 13.0 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

DATE:

DATE:

GUARANTOR'S SEAL OR STAMP

SECTION C1.4: OCCUPATIONAL HEALTH AND SAFETY AGREEMENT BETWEEN EMPLOYER AND CONTRACTOR

AGREEMENT MADE AND ENTERED INTO BETWEEN ORBIT TVET COLLEGES

(Hereinafter called the “EMPLOYER”)

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

IN TERMS OF SECTION 37(2) OF THE OCCUPATIONAL HEALTH AND SAFETY ACT, ACT NO. 85 OF 1993 AS AMENDED

I,, representing

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

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

COID ACT Registration Number:

Or Compensation Insurer: Policy No.:

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

I further undertake to ensure that any Sub-Contractor s employed by me will enter into an
Occupational Health and Safety Agreement separately, and that such Sub-Contractor s comply
with the conditions set.

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

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

Signed at this day of.....20.....

.....
WITNESS

.....
MANDATARY

Signed at this day of.....20.....

.....
WITNESS

.....
FOR AND ON BEHALF OF THE EMPLOYER

OCCUPATIONAL HEALTH AND SAFETY CONDITIONS

1. The Chief Executive Officer of the Contractor shall assume the responsibility in terms of Section 16(1) of the Occupational Health and Safety Act (as amended). Should the Contractor assign any duty in terms of Section 16(2), a copy of such assignment shall immediately be provided to the representative of the Employer as defined in the Contract.
2. All work performed on the Employer's premises shall be performed under the supervision of the construction supervisor who understand the hazards associated with any work that the Contractor performs on the site in terms of Construction Regulations 2003.
3. The Contractor shall appoint a Competent Person who shall be trained on any occupational health and safety aspect pertaining to them or to the work that is to be performed.
4. The Contractor shall ensure that he familiarises himself with the requirements of the Occupational Health and Safety Act and that he, his employees, and any sub-Contractors, comply with them.
5. Discipline in the interests of occupational health and safety shall be strictly enforced.
6. Personal protective equipment shall be issued by the Contractor as required and shall be worn at all times where necessary.
7. Written safe work procedures and appropriate precautionary measures shall be available and enforced, and all employees shall be made conversant with the contents of these practices.
8. No substandard equipment/machinery/articles or substances shall be used on the site.
9. All incidents referred to in terms of Section 24 of the Occupational Health and Safety Act shall be reported by the Contractor to the Department of Labour and the Employer.
10. The Employer hereby obtains an interest in the issue of any formal inquiry conducted in terms of Section 32 of the Occupational Health and Safety Act and into any incident involving a Contractor and/or his employees and/or his Sub-Contractors.
11. No use shall be made of any of the Employer's machinery / plant / equipment / substance / personal protective equipment or any other article without prior arrangement and written approval.

PART C2: PRICING DATA

SECTION C2.1: PRICING INSTRUCTIONS

1. TENDER DOCUMENTS

This Tender Document is divided and bound into two parts, namely:

- VOLUME 1 The Tender (Returnable Schedules) *combined with*;
- VOLUME 1 The Contract (Bills of Quantities)

2. BILLS OF QUANTITIES

No alterations, erasure, omission or addition is to be made in the text and conditions of these Bills of Quantities and should any such alterations, amendments, note or addition be made, the same will not be recognised, but the reading of these Bill of Quantities as prepared by the Quantity Surveyor will be adhered to.

The Contractor is warned that should he use any quantities appearing in these Bills of Quantities for the purpose of ordering material, he does so at his own risk and no liability whatsoever will be admitted by the Employer or Quantity Surveyor for the correctness of such Quantities.

3. STANDARD SYSTEM OF MEASURING BUILDING WORK

These Bills of Quantities have been compiled in accordance with the 6th Edition of the Standard System of measuring Building Work, including the latest amendments. Tenderer's attention is specifically drawn to the "shall be deemed to include" clauses that have to be read in conjunction with the applicable items.

4. PRIME COST AMOUNTS AND PROVISIONAL SUMS

All Prime Cost Amounts and Budgeting included in these Bills of Quantities are NET, i.e. no cash discount to the Contractor is included.

5. TRADE NAMES

Tenderers are advised that their prices for articles described by trade names or catalogue references must be based upon the type and manufacture specified in these Bills of Quantities.

Where articles other than the manufacture specified are to be used, an adjustment of the prices will be made and Contract Instructions issued to cover these adjustments.

Substitution will be strictly subject to the Principal Agent approval.

6. SABS SPECIFICATIONS

All references in these Bills of Quantities to Specifications of the Bureau of Standards shall be deemed to be reference to the latest issues of such Specifications, and any subsequent amendments thereto. All articles, materials or items described as to conform to the SABS Specifications must bear the SABS mark.

7. TRADE PREAMBLES

The document "Model Preambles 2008" are obtainable from the office of the Principal Agent and shall be read in conjunction with the Bill of Quantities and shall be referred to for full description of work to be done and materials to be used.

8. CONTRACT PRICE ADJUSTMENT PROVISIONS (CPAP)

The contract price is **NOT** to be adjusted using CPAP Indices.

9. VALUE ADDED TAX

The Tender price must include for Value Added Tax (VAT). All rates in these bills of quantities must, however, be net with VAT calculated and added to the total value thereof in the Final Summary.

10. PRICED BILLS OF QUANTITIES

Completed Bills of Quantities are to be included as part of Pricing Data and must be duly completed and returned with the Tender form. Please note that failure to complete and return the Priced Bills of Quantities shall invalidate the Tender.

11. TRAINING OF LABOUR

Not Applicable.

SECTION C2.2: PROVISIONAL BILLS OF QUANTITIES

This Schedule of Quantities forms part of the Tender Document and must be read and used in conjunction with the Conditions of Tender, Conditions of Contract, Specifications and Drawings.

A price and a unit rate must be filled in against each item in the Schedule of Quantities. Items, which are not priced, will be accepted as being covered by the Tender by other prices and unit rates in the Schedule of Quantities.

The unit rates and prices as tendered in the Schedule of Quantities must cover all the Contractor's obligations under this Contract and must include full compensation for all provisional costs, temporary work, transport, labour, material, plant, equipment, housing and all matters and obligations of any nature necessary for the construction, completion and maintenance of the Works as well as for any loss or damage resulting from the nature of the work, weather conditions, floods, etc.

Tenders will be evaluated on the unit rates tendered for each item and not on the Tender price. In the case of arithmetic mistakes in the Contractor's tender the unit rates will be taken as correct and the Tender amount adjusted accordingly.

The general description of the work and material, which appears in the Specification, will not be repeated in the Schedule of Quantities. Reference will be made to the General Conditions of Contract, Special Conditions of Contract and the Specification where necessary.

Where a unit rate is required for an item in the Schedule of Quantities and the Contractor fails to fill in the unit rate under the unit rate column but simply fills in a total amount under the amount column, this amount will not be valid and will not be included in the calculations for the corrected Tender amount.

The quantities in this Schedule are approximate and the Employer does not undertake, explicitly or by implication that the actual quantity of work corresponds with the afore-mentioned quantities. The Employer reserves the right to alter or omit any quantity or class of any section of the work.

The Contract amount for the completed Contract will be calculated from the actual quantities of works done and will be valued by applying the unit rates tendered opposite every item in the Schedule of Quantities.

Please note that it is mandatory to submit the complete Priced Bills of Quantities with the Returnable Documents in the following acceptable formats:

Filled in, in clearly legible and **PERMANENT BLACK INK**.

Over of the bill of quanties
Orbit TVET Collage

Item no.:	Description	UNIT	QUANTITY	PRICE	TOTAL
1	Preliminary and General				R -
1.1	Site Personnel (costed as part of installation costs)				R -
1.1.1	Site supervisor (Master electrician)	each	1	NA	R -
1.1.2	Engineers (PV GreenCard certified)	each	2	NA	R -
1.1.3	Electricians	each	4	NA	R -
1.1.4	Labourer	each	4	NA	R -
1.1.5	Transport	each	1		R -
1.1.6	Running cost eg. Telephone/ data, cleaning,	each	1		R -
1.1.7	Registration of personnel	each	15		R -
1.1.8	Security (6 weeks)	each	1		R -
1.2	Site Establishment				R -
1.2.1	Installation & Testing Equipment & tools	each	1		R -
1.2.2	Fork lift	each	2		R -
1.2.3	Insurance	each	1		R -
1.2.4	Site preparation	each	1		R -
2	Occupational Health and Safety				R -
2.1	Safety file	each	1		R -
2.2	Provision of a medical aid kit on site	each	1		R -
2.3	Accredited safety representative	each	1		R -
2.4	Safety clothing	each	15		R -
2.5	Adherence to and Compliance with the OSH Act	each	1		R -
2.6	Compliance to working at height	each	1		R -
3	Material				R -
3.1	Photovoltaic Panels				R -
3.1.1	Canadian Solar 545W Super High Power Mono PERC HiKU6 with T6 and F30 Frame	each	100		R -
3.2	Combiner box				R -
3.2.1	1000V 1-MPPT Combiner Box 12-In 1-Out 250A Isolator Type I_II SPD	each	1		R -
3.3	PV Mounting System				R -
3.3.1	4.7m mounting rail	each	72		R -
3.3.2	Solar hangerbolt bracket with push-clip for long-rail	each	432		R -
3.3.3	Solar hanger bolt for a wood substructure	each	432		R -
3.3.4	Solar stainless steel self bonding adjustable end-clamp with 40mm Alancap	each	49		R -
3.3.5	Solar stainless steel self-bonding mid-clamp with push-clip	each	265		R -
3.4	Cables and switches				R -
3.4.1	PV DC cables (Red) 6mm2	Meter	500		R -
3.4.2	PV DC cables (black) 6mm2	Meter	500		R -

3.4.3	Cables earthing 6mm2	Meter	500		R	-
3.4.4	Single String DC Switch Disconnecter 25A 450V - 18A 800V	Each	10		R	-
3.4.5	6mm2 single-core DC cable 50m - Pair	Meter	1		R	-
3.4.6	AC cable Live 120mm2	Meter	10		R	-
3.4.7	AC cables Neutral 120 mm2	Meter	10		R	-
3.4.8	Cable markers	SET	1		R	-
3.4.9	Battery cable red	Meter	6		R	-
3.4.10	Battery cable black	Meter	6		R	-
3.4.11	Flexible duct or conduit for underground installations 160mm dia	Meter	200		R	-
3.4.12	Flexible duct or conduit for underground installations 110mm dia	Meter	200		R	-
3.5	Isolators				R	-
3.5.1	Three Phase AC Switch Disconnecter 100A	each	2		R	-
	Single String DC Switch Disconnecter 25A 450V - 18A 800V	each	9		R	-
3.6	Labels				R	-
3.6.1	PV on Roof and Hazard Labels Pack	each	9		R	-
3.7.	Lithium Ion Battery				R	-
3.7.1	High voltage battery (80 kW)	each	1		R	-
3.8	Inverter				R	-
3.8.1	3 phase 50kW hybrid inveter	each	1		R	-
3.8.2	200A Current Transformer	each	1		R	-
3.8.3	Smart energy meter for HPS range of hybrid inverters.	each	1		R	-
3.9	Inverter communication				R	-
3.9.1	Data monitoring, reporting, error, warning, etc system	each	1		R	-
3.10	Power Management				R	-
3.10.1	Circuit breaker for phase 2 buildings	each	21		R	-
3.10.2	Circuit breaker for phase 1 buildings (non-critical loads)	each	24		R	-
3.10.3	Power Management System Control Unit	each	13		R	-
3.10.4	Router - Internet Gateway	each	1		R	-
3.10.5	Switch	each	1		R	-
4	Cabling, trenches, sleeves and markers				R	-
4.1	Trenching (1m deep 0,6 mwide)	meter	50		R	-
4.2	Traying	meter	200		R	-
4.3	Cable routing	meter	400		R	-
4.5	Drilling for and installation of cable sleeves and fasterning	each	250		R	-
5	PV Panel Installation				R	-
5.1	Mounting installation 54 kW (IBR roof)	each	72		R	-
5.2	Panel Installation 54 kW	each	100		R	-
5.3	Earthing 54kW	each	100		R	-
6	Combiner box string installation				R	-

6.1	Cable routing and connection (10 strings)	each	10		R	-
6.2	Combiner box string connection (10 in 2 out)	each	1		R	-
6.3	Inveter connection (2 strings)	each	1		R	-
7	Inverter Installation				R	-
7.1	Inverter Installation (moving and pisitioning)	Each	1		R	-
7.2	Installation (connection to grid)	Each	1		R	-
7.3	Trunking	Each	1		R	-
7.4	Inverter programming and configuration	Each	1		R	-
7.5	Earthing	Each	1		R	-
8	Battery installation				R	-
8.1	Inverter Installation (moving and pisitioning)	Each	1		R	-
8.2	Installation (connection to inverter)	Each	1		R	-
8.3	Configuration	Each	1		R	-
8.4	Trunking	Each	1		R	-
8.5	Earthing	Each	1		R	-
9	Inverter to AC connections				R	-
9.1	Inverter to load (main supply)	Each	1		R	-
9.2	Load ballancing	Each	1		R	-
10	Power Management Installation				R	-
10.1	Circuit breaker installation for phase 2 buildings	each	21		R	-
10.2	Circuit breaker installation for phase 1 buildings (non-critical loads)	each	24		R	-
10.3	Power Management System Control Unit installation	each	13		R	-
10.4	Router - Internet Gateway installation	each	1		R	-
10.5	Switch installation	each	1		R	-
10.6	System configuration	Each	1		R	-
11	Grid Meter Connection				R	-
11.1	Installation and configuration of smart grid meter	Each	1		R	-
11.2	Calibration	Each	1		R	-
12	Accessories				R	-
12.1	Metal trunking (approx. 200m)	Each	50		R	-
12.2	Ferrules (Varies sizes and quantity)	kg	5		R	-
12.3	Mounting systems (overall)	Each	1		R	-
12.4	Steel cable trays (>= 150 x 50 mm)	Each	50		R	-
13	Miscellaneous				R	-
13.1	Contingancy	each	1		R	-
13.2	Repair and compliance adjustments (to repair non-compliant electrical works)	each	1		R	-
14	Testing and Commissioning				R	-
14.1	End-to-end testing	each	1		R	-
14.2	Commissining	each	1		R	-
14.3	Documentation	each	1		R	-
14.4	PV GreenCard certification	each	1		R	-
15	Training and support				R	-
15.1	Training	each	1		R	-
15.2	Post installation support (physical 1 day)	each	1		R	-

15.3	Post installation support (remote 1 month)	each	1		R -
16	Contract Contingencies				R -
16.1	Allow the sum of 5% (Five percent) of the above sub total for Contingencies to be spent as the Principal Agent may direct and to be deducted in whole or in part if not required	Item	5%		R -
Total (excl. VAT)					R -
Add 15% VAT					R -
Total (incl. VAT)					R -

PART C3: SCOPE OF WORKS

SECTION C3.1: DESCRIPTION OF WORKS

ORBIT TVET College (ORBIT) aims to develop and enhance their current facilities and educational tools through the construction of new educational facilities and upgrading of the existing facilities. The project entails the **APPOINTMENT OF A CONTRACTOR FOR INSTALLTION OF ALTERNATIVE ENERGY SOLUTION AT ORBIT TVET COLLEGE BRITS.**

SECTION C3.1.1: LOCATION OF THE WORKS

The project will be located at ORBIT TVET's Brits Campus in Reitz Street, North Brits, BRITS, North-West Province, 0250.

SECTION C3.1.2: OVERVIEW AND EXTENT OF THE WORKS

SCOPE

The Orbit TVET College (Brits Campus) would like to appoint a suitable service provider for the installation of 50kW inverter, battery and a 54kW solar array. The purpose of this installation is to supplement the main power distribution board, which is powering the entire facility. The priority of the supplementary power is to loads in line with the school priority. Powering of critical loads and allocating power to priorities building shall be done using smart controllers. The system's inverter and battery will be housed next to the main DB, while available roof may be used (taking into consideration the north) to fit the Photovoltaic (PV) array. The system should be scalable, such that more PV panels, batteries or inverter can be added to make the system bigger.

PROJECT DURATION: 4 MONTHS

SECTION C3.2: ENGINEERING

SECTION C3.2.1: DESIGN RESPONSIBILITY

The Employer shall be responsible for the design of the works.

The Contractor shall be responsible for the timeous preparation of all documentation required for acceptance by the Employer's Agents.

Before the commencement of any construction or installation activities the Contractor shall be responsible for the submission to the Principal Agent of the "Declaration by a competent person appointed to design a component or element of the works" to accept full design responsibility all in terms of the National Building Regulations.

SECTION C3.2.2: DRAWINGS

Please refer to **ANNEXURE C FOR THE DRAWINGS** used for setting up the bills of quantities.

SECTION C3.3: PROCUREMENT

SECTION C3.3.1: PREFERENTIAL PROCUREMENT PROCEDURES

Refer to the Tender Data.

SECTION C3.3.2: PARTICIPATION OF TARGETED GENERAL LABOUR (UNSKILLED and SEMI-SKILLED)**Minimum Targeted General Labour(Unskilled and Semi-Skilled) Contract Participation Goal**

In support of the National Department of Public Works' Expanded Public Works Programme which is aimed at the alleviation of poverty through the creation of employment opportunities, the Employer is seeking to increase the intensity of labour, as appropriate, in all of its infrastructure sector projects.

It is a requirement of this contract, therefore, that the work be executed in such a manner so as to maximise the use of labour intensive construction methods in order to provide low and semi-skilled employment opportunities.

To this end, a minimum targeted of 10% of the total contract value for procurement of material, local labour and Contractor investment is required, which shall be achieved by the Contractor in the performance of the contract, failing which, penalties will be applied.

The CPG_L is such that the Contractor will have to carry out some of the work that would normally have been undertaken using mechanised construction methods, by using labour intensive construction methods instead. It is left to the discretion of the Contractor to identify suitable work activities for the intensification of labour. The Contractor shall, within 5 working days of being requested in writing by the Principal Agent to do so, submit details of his/her plan to achieve the CPG_L.

A. DEFINITIONS

For the purposes of the requirements in respect of the participation of targeted labour, the following definitions shall apply:

"Target area" means the geographical area shown on plan in Part C4: Site Information

"Targeted General labour (Unskilled and Semi-Skilled) contract participation goal (CPG_L)" means the sum of the wages (excluding any benefits), for which the Contractor, or any of his/her sub-Contractor's contracts targeted labour in the performance of the contract, expressed as a percentage of the value of the contract.

"Targeted General labour" means low and semi-skilled individuals, whose wages (excluding any benefits) do not exceed the threshold value, who reside in the target area, that are employed by the Contractor, or any of his/her sub-Contractor's, in the performance of the contract.

"Threshold value" is R208.00 per day. The threshold value is not to be confused with any industry sector minimum wage determined in accordance with the Basic Conditions of Employment Act, No. 75 of 1977.

"Value of the contract" means the contract sum (accepted contract amount) less provisional sums, contingencies and VAT.

THE SELECTION AND RECRUITMENT OF TARGETED GENERAL LABOUR (UNSKILLED AND SEMI-SKILLED)

Where targeted General labour (Unskilled and Semi-Skilled) is to be drawn from specific local communities (defined in terms of the target area), such labour shall be identified using the relevant Sub-Council Job-Seekers Database. The Contractor shall request, via a Community Liaison Officer (if required in terms of the contract), a list of suitable candidates from the database, from which the Contractor shall make his/her final selection. The Contractor shall enter into written contracts of temporary employment with all targeted labour.

Any difficulty experienced by the Contractor in identifying candidates through the Job-Seekers Database, or as regards any matter relating to the employment of targeted labour, shall be immediately referred to the Principal Agent.

B.1 Labour and Remuneration

As far as practically possible, the Contractor shall employ all labour from the adjoining communities and provide the labour with practical on the job training.

It is noted that this contract is the first of a number in the area over the next few years, and that it provides the opportunity for skilled training on continuing use thereafter.

The Contractor is to ensure that the minimum gazetted wage rates payable to labourers in the Civil Engineering Industry applicable to the area under construction are adhered to for labour employed directly by the Contractor or by his subcontractors.

B.2 Local subcontracting

All tenderers submitting a bid are requested to agree rates and scope of works with subcontractors registered with the CIDB in building Category and based within the Madibeng Local Municipality area. This agreement must be signed by both parties and in the presence of a Commissioner of Oaths.

Should the successful tenderer not comply with this condition, the employer is entitled to recover the full costs for the complete retendering process.

B. CONTRACT PARTICIPATION GOAL CREDITS

Credits towards the achieving the minimum CPG_L shall be granted by converting the total monetary value of wages paid to targeted labour to a percentage of the value of the contract. No credits shall be accorded should the Contractor fail to enter into written contracts with the targeted labour. Furthermore, no credits shall be accorded in respect of targeted labour employed on work in respect of provisional sums or prime cost items. Such labour shall nevertheless be recorded on the Project Labour Report which is required to be furnished by the Contractor .

In addition to the forms required for contract administration (the Project Labour Report and Targeted Labour Contract Participation Expenditure Report, in particular), the Contractor shall furnish the Principal Agent with copies of the employment contracts entered into with targeted labour, as well as evidence of payments to the such labour in the form of copies of payslips or payroll runs.

C. TRAINING OF TARGETED GENERAL LABOUR (SKILLED AND UNSKILLED)

The Contractor is required to provide all informal (on-the-job) skills training so as to ensure that a minimum level of competence is achieved and maintained, such that the various activities are carried out safely and to the required standard. The cost of informal training shall be included in the rates for the various work activities.

D. PENALTIES

The financial penalty to be applied for failing to meet the specified minimum targeted labour contract participation goal in the performance of the contract (unless proven to be beyond the control of the Contractor), is as follows:

$$\text{Penalty} = (\text{CPG}_L^S - \text{CPG}_L^A) \times P^*$$

Where

CPG_L^S = the specified minimum targeted labour contract participation goal (expressed as a percentage).

CPG_L^A = the targeted labour contract participation goal achieved (expressed as a percentage).

P^* = the value of the contract.

To be calculated as above, however should there be any disputes regarding this, an example below would take precedence on determining the penalty calculations.

D.1 Penalty per day rounded off as follows"

R 0 - R 500	Nearest R 5
R 501 - R 1 000	Nearest R 10
R 1 0001 - R 5 000	Nearest R 50
R 5 0001 - and above	Nearest R 100

EXAMPLE

Estimated contract value	=	R 2 500 000 (excluding VAT)
Contract period	=	12 months
	=	$R\ 2\ 500\ 000 \times \frac{0.275}{100}$
	=	R 687.50/day
Therefore, rounded off to the nearest R 10.00	=	R 690.00/day

NB: PENALTIES ON CONTRACTS IN PHASES

Penalties must be calculated proportionally on the estimated contract value of each phase.

SECTION C3.3.3: COMMUNITY LIAISON OFFICER

It is a requirement of this Contract that a Community Liaison Officer (CLO) shall be appointed by the Contractor. The Community Liaison Officer (CLO) will be appointed by the Contractor through the interview processes carried by Madibeng Local Municipality as per the EPWP Policy and LIC Recruitment Policy. The primary functions of the CLO shall be to assist the Contractor with the selection and recruitment of targeted labour, to represent the local community in matters concerning the use of targeted labour (and/or enterprises) on the works, and to assist with and facilitate communication between the Contractor, the Principal Agent and the local communities.

The identification of suitable candidates (maximum 5; minimum 3) for the CLO position shall be resolved by the relevant Ward Councillor/s. Should suitable candidates not be identified within two weeks of the date of request, the Contractor shall be allowed to seek candidates from the relevant Sub-Council Job-Seekers Database. The final selection and appointment of the CLO in terms of the contract shall be the responsibility of the Contractor.

The period of appointment of the CLO shall be as stated in the Contract for Temporary Employment as a Community Liaison Officer referred to below. The date of commencement of temporary employment of the CLO shall be as agreed with the Principal Agent.

It is required, therefore, that the Contractor enters into a contract of temporary employment with the selected CLO, the contracting parties being the Contractor and the CLO. To this end, a specimen Form of Contract of Temporary Employment as Community Liaison Officer is included in this document (Part C1.5: Agreement and Contract Data). This Form of Contract sets out, inter alia, the agreement between the parties, the duties and conditions of employment of the CLO (including the rate of remuneration to be paid). As said contract will be between the Contractor and the CLO, all costs involved shall be borne by the Contractor and the tender shall be deemed to include for this.

SECTION C3.3.4: PARTICIPATION OF TARGETED ENTERPRISES

Minimum Targeted Enterprises Contract Participation Goal

It is a requirement of this contract that enterprises located within the target area, as defined, be engaged by the Contractor for the provision of supplies, services or works necessary for the performance of this contract.

The Contractor shall engage targeted enterprises directly or indirectly in the performance of the contract.

A. DEFINITIONS

For the purposes of the requirements in respect of the participation of targeted enterprises, the following definitions shall apply:

“Target area” means the geographical area shown on plan in Part C4: Site Information

“Targeted enterprises contract participation goal (CPG_E)” means the value of supplies, services or works (exclusive of VAT), for which the Contractor contracts targeted enterprises, either directly

or indirectly, in the performance of the contract, expressed as a percentage of the value of the contract.

“Targeted enterprises” means any sole trader, partnership or legal entity that acts as a supplier, manufacturer, service provider or sub-Contractor , and which has its base of operations in the target area.

“Value of the contract” means the contract sum (accepted contract amount) less provisional sums, contingencies and VAT.

B. ACHIEVING THE CONTRACT PARTICIPATION GOAL

The Contractor may achieve the specified minimum CPG_E as follows:

- a) by engaging one or more targeted enterprises to perform commercially useful functions in the performance of the contract;
- b) by engaging non-targeted enterprises, who in turn engage one or more targeted enterprises to perform commercially useful functions in the performance of the contract;
- c) by a combination of the above.

The Contractor shall, within 5 working days of being requested by the Principal Agent to do so, submit details of his/her plan to achieve the minimum CPG_E.

C. CONTRACT PARTICIPATION GOAL CREDITS

Credits towards achieving the minimum CPG_E shall be granted by converting the total monetary value (exclusive of VAT) of the agreements between the Contractor, or Contractor's sub-Contractors, and targeted enterprises, to a percentage of the value of the contract.

No credits shall be accorded should the Contractor (or sub-Contractors):

- a) make direct payment to third parties in connection with the contract on behalf of targeted enterprises, when such payment is recovered by making deductions from payments due to the targeted enterprise;
- b) fail to enter into written contractual agreements with the relevant targeted enterprises.

Credits claimed towards the contract participation goal shall be denied where such written contractual agreements contain any of the following:

- i) conditions which are more onerous than those that exist in the prime contract (this contract);
- ii) payment procedures based on a pay when paid system;
- iii) authoritarian rights given to the employing Contractor, with no recourse to independent adjudication in the event of a dispute arising.

No credits may be claimed in respect of targeted enterprises that do not adhere to statutory labour practices.

No credits shall be accorded in respect of targeted enterprises engaged on work in respect of provisional sums or prime cost items.

In the event that a targeted enterprise sub-contracts to another targeted enterprise, only the value of the higher level sub-contract shall be granted as credit towards achieving the specified minimum CPG_E .

In addition to the form required for contract administration (the Targeted Enterprises Contract Participation Expenditure Report), the Contractor shall furnish the Principal Agent, upon written request, with documentary evidence that the targeted enterprises have their base of operations in the target area, copies of the contractual agreements with the various targeted enterprises, as well as documentary proof of payments made to the various targeted enterprises.

D. PENALTIES

The financial penalty to be applied for failing to meet the specified minimum targeted enterprises contract participation goal in the performance of the contract (unless proven to be beyond the control of the Contractor), is as follows:

$$\text{Penalty} = (CPG_E^S - CPG_E^A) \times P^*$$

Where CPG_E^S = the specified minimum targeted enterprises contract participation goal (expressed as a percentage).

CPG_E^A = the targeted enterprises contract participation goal achieved (expressed as a percentage).

P^* = the value of the contract

SECTION C3.4: CONSTRUCTION

SECTION C3.4.1: WAY LEAVES, PERMISSIONS AND PERMITS

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

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

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

The Contractor shall also ensure that any way leaves in respect of electricity services are renewed timeously.

SECTION C3.4.2: CONSTRUCTION STANDARDS

The “Model Preambles for Trades (2008 Edition)” recommended and published by the Association of South African Quantity Surveyors shall be deemed to be incorporated in the Bills of Quantities, with amendments as follows: References to “Architect” in the Model Preambles are to be read as “Principal Agent” shall apply to this contract.

This publication is available from The Association of South African Quantity Surveyors, P.O. Box 3527, Halfway House, 1685 - telephone (011) 315-4140, before a Tender is submitted.

The SANS 1200 Standardised Specification for Civil Engineering Construction prepared by Standards South Africa and specific amendments and additions to the SANS 1200 Standardized Specifications shall apply to this contract. **REFER TO** Error! Reference source not found..

The SANS 1200 Standardised Specification publications are available from Standard south Africa, Private Bag X 191,Pretoria, 0001.

SECTION C3.4.3: GENERAL CONDITIONS OF CONTRACT

Annexure A

GOVERNMENT PROCUREMENT GENERAL CONDITIONS OF CONTRACT

NOTES

The purpose of this document is to:

- (i) Draw special attention to certain general conditions applicable to government bids, contracts and orders; and
- (ii) To ensure that clients be familiar with regard to the rights and obligations of all parties involved in doing business with government.

In this document words in the singular also mean in the plural and vice versa and words in the masculine also mean in the feminine and neuter.

- The General Conditions of Contract will form part of all bid documents and may not be amended.
- Special Conditions of Contract (SCC) relevant to a specific bid, should be compiled separately for every bid (if applicable) and will supplement the General Conditions of Contract. Whenever there is a conflict, the provisions in the SCC shall prevail.

TABLE OF CLAUSES

1. Definitions
2. Application
3. General
4. Standards
5. Use of contract documents and information; inspection
6. Patent rights
7. Performance security
8. Inspections, tests and analysis
9. Packing
10. Delivery and documents
11. Insurance
12. Transportation
13. Incidental services
14. Spare parts
15. Warranty
16. Payment
17. Prices
18. Contract amendments
19. Assignment
20. Subcontracts
21. Delays in the supplier's performance
22. Penalties
23. Termination for default
24. Dumping and countervailing duties
25. Force Majeure
26. Termination for insolvency
27. Settlement of disputes
28. Limitation of liability
29. Governing language
30. Applicable law
31. Notices
32. Taxes and duties
33. National Industrial Participation Programme (NIPP)

General Conditions of Contract

1. Definitions

1. The following terms shall be interpreted as indicated:
 - 1.1 “Closing time” means the date and hour specified in the bidding documents for the receipt of bids.
 - 1.2 “Contract” means the written agreement entered into between the purchaser and the supplier, as recorded in the contract form signed by the parties, including all attachments and appendices thereto and all documents incorporated by reference therein.
 - 1.3 “Contract price” means the price payable to the supplier under the contract for the full and proper performance of his contractual obligations.
 - 1.4 “Corrupt practice” means the offering, giving, receiving, or soliciting of any thing of value to influence the action of a public official in the procurement process or in contract execution.
 - 1.5 "Countervailing duties" are imposed in cases where an enterprise abroad is subsidized by its government and encouraged to market its products internationally.
 - 1.6 “Country of origin” means the place where the goods were mined, grown or produced or from which the services are supplied. Goods are produced when, through manufacturing, processing or substantial and major assembly of components, a commercially recognized new product results that is substantially different in basic characteristics or in purpose or utility from its components.
 - 1.7 “Day” means calendar day.
 - 1.8 “Delivery” means delivery in compliance of the conditions of the contract or order.
 - 1.9 “Delivery ex stock” means immediate delivery directly from stock actually on hand.
 - 1.10 “Delivery into consignees store or to his site” means delivered and unloaded in the specified store or depot or on the specified site in compliance with the conditions of the contract or order, the supplier bearing all risks and charges involved until the supplies are so delivered and a valid receipt is obtained.
 - 1.11 "Dumping" occurs when a private enterprise abroad market its goods on own initiative in the RSA at lower prices than that of the country of origin and which have the potential to harm the local industries in the RSA.
 - 1.12 "Force majeure" means an event beyond the control of the supplier and not involving the supplier's fault or negligence and not foreseeable.

Such events may include, but is not restricted to, acts of the purchaser in its sovereign capacity, wars or revolutions, fires, floods, epidemics, quarantine restrictions and freight embargoes.

- 1.13 “Fraudulent practice” means a misrepresentation of facts in order to influence a procurement process or the execution of a contract to the detriment of any bidder, and includes collusive practice among bidders (prior to or after bid submission) designed to establish bid prices at artificial non-competitive levels and to deprive the bidder of the benefits of free and open competition.
- 1.14 “GCC” means the General Conditions of Contract.
- 1.15 “Goods” means all of the equipment, machinery, and/or other materials that the supplier is required to supply to the purchaser under the contract.
- 1.16 “Imported content” means that portion of the bidding price represented by the cost of components, parts or materials which have been or are still to be imported (whether by the supplier or his subcontractors) and which costs are inclusive of the costs abroad, plus freight and other direct importation costs such as landing costs, dock dues, import duty, sales duty or other similar tax or duty at the South African place of entry as well as transportation and handling charges to the factory in the Republic where the supplies covered by the bid will be manufactured.
- 1.17 “Local content” means that portion of the bidding price which is not included in the imported content provided that local manufacture does take place.
- 1.18 “Manufacture” means the production of products in a factory using labour, materials, components and machinery and includes other related value-adding activities.
- 1.19 “Order” means an official written order issued for the supply of goods or works or the rendering of a service.
- 1.20 “Project site,” where applicable, means the place indicated in bidding documents.
- 1.21 “Purchaser” means the organization purchasing the goods.
- 1.22 “Republic” means the Republic of South Africa.
- 1.23 “SCC” means the Special Conditions of Contract.
- 1.24 “Services” means those functional services ancillary to the supply of the goods, such as transportation and any other incidental services, such as installation, commissioning, provision of technical assistance, training, catering, gardening, security, maintenance and other such obligations of the supplier covered under the contract.
- 1.25 “Written” or “in writing” means handwritten in ink or any form of electronic or mechanical writing.

- | | |
|--|--|
| 2. Application | <p>2.1 These general conditions are applicable to all bids, contracts and orders including bids for functional and professional services, sales, hiring, letting and the granting or acquiring of rights, but excluding immovable property, unless otherwise indicated in the bidding documents.</p> <p>2.2 Where applicable, special conditions of contract are also laid down to cover specific supplies, services or works.</p> <p>2.3 Where such special conditions of contract are in conflict with these general conditions, the special conditions shall apply.</p> |
| 3. General | <p>3.1 Unless otherwise indicated in the bidding documents, the purchaser shall not be liable for any expense incurred in the preparation and submission of a bid. Where applicable a non-refundable fee for documents may be charged.</p> <p>3.2 With certain exceptions, invitations to bid are only published in the Government Tender Bulletin. The Government Tender Bulletin may be obtained directly from the Government Printer, Private Bag X85, Pretoria 0001, or accessed electronically from www.treasury.gov.za</p> |
| 4. Standards | <p>4.1 The goods supplied shall conform to the standards mentioned in the bidding documents and specifications.</p> |
| 5. Use of contract documents and information; inspection. | <p>5.1 The supplier shall not, without the purchaser's prior written consent, disclose the contract, or any provision thereof, or any specification, plan, drawing, pattern, sample, or information furnished by or on behalf of the purchaser in connection therewith, to any person other than a person employed by the supplier in the performance of the contract. Disclosure to any such employed person shall be made in confidence and shall extend only so far as may be necessary for purposes of such performance.</p> <p>5.2 The supplier shall not, without the purchaser's prior written consent, make use of any document or information mentioned in GCC clause 5.1 except for purposes of performing the contract.</p> <p>5.3 Any document, other than the contract itself mentioned in GCC clause 5.1 shall remain the property of the purchaser and shall be returned (all copies) to the purchaser on completion of the supplier's performance under the contract if so required by the purchaser.</p> <p>5.4 The supplier shall permit the purchaser to inspect the supplier's records relating to the performance of the supplier and to have them audited by auditors appointed by the purchaser, if so required by the purchaser.</p> |
| 6. Patent rights | <p>6.1 The supplier shall indemnify the purchaser against all third-party claims of infringement of patent, trademark, or industrial design rights arising from use of the goods or any part thereof by the purchaser.</p> |
| 7. Performance security | <p>7.1 Within thirty (30) days of receipt of the notification of contract award, the successful bidder shall furnish to the purchaser the performance security of the amount specified in SCC.</p> |

- 7.2 The proceeds of the performance security shall be payable to the purchaser as compensation for any loss resulting from the supplier's failure to complete his obligations under the contract.
- 7.3 The performance security shall be denominated in the currency of the contract, or in a freely convertible currency acceptable to the purchaser and shall be in one of the following forms:
- (a) a bank guarantee or an irrevocable letter of credit issued by a reputable bank located in the purchaser's country or abroad, acceptable to the purchaser, in the form provided in the bidding documents or another form acceptable to the purchaser; or
 - (b) a cashier's or certified cheque
- 7.4 The performance security will be discharged by the purchaser and returned to the supplier not later than thirty (30) days following the date of completion of the supplier's performance obligations under the contract, including any warranty obligations, unless otherwise specified in SCC.

**8. Inspections,
tests and
analyses**

- 8.1 All pre-bidding testing will be for the account of the bidder.
- 8.2 If it is a bid condition that supplies to be produced or services to be rendered should at any stage during production or execution or on completion be subject to inspection, the premises of the bidder or contractor shall be open, at all reasonable hours, for inspection by a representative of the Department or an organization acting on behalf of the Department.
- 8.3 If there are no inspection requirements indicated in the bidding documents and no mention is made in the contract, but during the contract period it is decided that inspections shall be carried out, the purchaser shall itself make the necessary arrangements, including payment arrangements with the testing authority concerned.
- 8.4 If the inspections, tests and analyses referred to in clauses 8.2 and 8.3 show the supplies to be in accordance with the contract requirements, the cost of the inspections, tests and analyses shall be defrayed by the purchaser.
- 8.5 Where the supplies or services referred to in clauses 8.2 and 8.3 do not comply with the contract requirements, irrespective of whether such supplies or services are accepted or not, the cost in connection with these inspections, tests or analyses shall be defrayed by the supplier.
- 8.6 Supplies and services which are referred to in clauses 8.2 and 8.3 and which do not comply with the contract requirements may be rejected.
- 8.7 Any contract supplies may on or after delivery be inspected, tested or analyzed and may be rejected if found not to comply with the requirements of the contract. Such rejected supplies shall be held at the cost and risk of the supplier who shall, when called upon, remove them immediately at his own cost and forthwith substitute them with

supplies which do comply with the requirements of the contract. Failing such removal the rejected supplies shall be returned at the suppliers cost and risk. Should the supplier fail to provide the substitute supplies forthwith, the purchaser may, without giving the supplier further opportunity to substitute the rejected supplies, purchase such supplies as may be necessary at the expense of the supplier.

- 8.8 The provisions of clauses 8.4 to 8.7 shall not prejudice the right of the purchaser to cancel the contract on account of a breach of the conditions thereof, or to act in terms of Clause 23 of GCC.

9. Packing

- 9.1 The supplier shall provide such packing of the goods as is required to prevent their damage or deterioration during transit to their final destination, as indicated in the contract. The packing shall be sufficient to withstand, without limitation, rough handling during transit and exposure to extreme temperatures, salt and precipitation during transit, and open storage. Packing, case size and weights shall take into consideration, where appropriate, the remoteness of the goods' final destination and the absence of heavy handling facilities at all points in transit.
- 9.2 The packing, marking, and documentation within and outside the packages shall comply strictly with such special requirements as shall be expressly provided for in the contract, including additional requirements, if any, specified in SCC, and in any subsequent instructions ordered by the purchaser.

10. Delivery and documents

- 10.1 Delivery of the goods shall be made by the supplier in accordance with the terms specified in the contract. The details of shipping and/or other documents to be furnished by the supplier are specified in SCC.
- 10.2 Documents to be submitted by the supplier are specified in SCC.

11. Insurance

- 11.1 The goods supplied under the contract shall be fully insured in a freely convertible currency against loss or damage incidental to manufacture or acquisition, transportation, storage and delivery in the manner specified in the SCC.

12. Transportation

- 12.1 Should a price other than an all-inclusive delivered price be required, this shall be specified in the SCC.

13. Incidental services

- 13.1 The supplier may be required to provide any or all of the following services, including additional services, if any, specified in SCC:
- (a) performance or supervision of on-site assembly and/or commissioning of the supplied goods;
 - (b) furnishing of tools required for assembly and/or maintenance of the supplied goods;
 - (c) furnishing of a detailed operations and maintenance manual for each appropriate unit of the supplied goods;
 - (d) performance or supervision or maintenance and/or repair of the supplied goods, for a period of time agreed by the parties, provided that this service shall not relieve the supplier of any warranty obligations under this contract; and

- (e) training of the purchaser's personnel, at the supplier's plant and/or on-site, in assembly, start-up, operation, maintenance, and/or repair of the supplied goods.

13.2 Prices charged by the supplier for incidental services, if not included in the contract price for the goods, shall be agreed upon in advance by the parties and shall not exceed the prevailing rates charged to other parties by the supplier for similar services.

14. Spare parts

14.1 As specified in SCC, the supplier may be required to provide any or all of the following materials, notifications, and information pertaining to spare parts manufactured or distributed by the supplier:

- (a) such spare parts as the purchaser may elect to purchase from the supplier, provided that this election shall not relieve the supplier of any warranty obligations under the contract; and
- (b) in the event of termination of production of the spare parts:
 - (i) Advance notification to the purchaser of the pending termination, in sufficient time to permit the purchaser to procure needed requirements; and
 - (ii) following such termination, furnishing at no cost to the purchaser, the blueprints, drawings, and specifications of the spare parts, if requested.

15. Warranty

15.1 The supplier warrants that the goods supplied under the contract are new, unused, of the most recent or current models, and that they incorporate all recent improvements in design and materials unless provided otherwise in the contract. The supplier further warrants that all goods supplied under this contract shall have no defect, arising from design, materials, or workmanship (except when the design and/or material is required by the purchaser's specifications) or from any act or omission of the supplier, that may develop under normal use of the supplied goods in the conditions prevailing in the country of final destination.

15.2 This warranty shall remain valid for twelve (12) months after the goods, or any portion thereof as the case may be, have been delivered to and accepted at the final destination indicated in the contract, or for eighteen (18) months after the date of shipment from the port or place of loading in the source country, whichever period concludes earlier, unless specified otherwise in SCC.

15.3 The purchaser shall promptly notify the supplier in writing of any claims arising under this warranty.

15.4 Upon receipt of such notice, the supplier shall, within the period specified in SCC and with all reasonable speed, repair or replace the defective goods or parts thereof, without costs to the purchaser.

15.5 If the supplier, having been notified, fails to remedy the defect(s) within the period specified in SCC, the purchaser may proceed to take such remedial action as may be necessary, at the supplier's risk and expense and without prejudice to any other rights which the purchaser may have against the supplier under the contract.

16. Payment	16.1 The method and conditions of payment to be made to the supplier under this contract shall be specified in SCC. 16.2 The supplier shall furnish the purchaser with an invoice accompanied by a copy of the delivery note and upon fulfillment of other obligations stipulated in the contract. 16.3 Payments shall be made promptly by the purchaser, but in no case later than thirty (30) days after submission of an invoice or claim by the supplier. 16.4 Payment will be made in Rand unless otherwise stipulated in SCC.
17. Prices	17.1 Prices charged by the supplier for goods delivered and services performed under the contract shall not vary from the prices quoted by the supplier in his bid, with the exception of any price adjustments authorized in SCC or in the purchaser's request for bid validity extension, as the case may be.
18. Contract amendments	18.1 No variation in or modification of the terms of the contract shall be made except by written amendment signed by the parties concerned.
19. Assignment	19.1 The supplier shall not assign, in whole or in part, its obligations to perform under the contract, except with the purchaser's prior written consent.
20. Subcontracts	20.1 The supplier shall notify the purchaser in writing of all subcontracts awarded under this contracts if not already specified in the bid. Such notification, in the original bid or later, shall not relieve the supplier from any liability or obligation under the contract.
21. Delays in the supplier's performance	21.1 Delivery of the goods and performance of services shall be made by the supplier in accordance with the time schedule prescribed by the purchaser in the contract. 21.2 If at any time during performance of the contract, the supplier or its subcontractor(s) should encounter conditions impeding timely delivery of the goods and performance of services, the supplier shall promptly notify the purchaser in writing of the fact of the delay, its likely duration and its cause(s). As soon as practicable after receipt of the supplier's notice, the purchaser shall evaluate the situation and may at his discretion extend the supplier's time for performance, with or without the imposition of penalties, in which case the extension shall be ratified by the parties by amendment of contract. 21.3 No provision in a contract shall be deemed to prohibit the obtaining of supplies or services from a national department, provincial department, or a local authority. 21.4 The right is reserved to procure outside of the contract small quantities or to have minor essential services executed if an emergency arises, the supplier's point of supply is not situated at or near the place where the supplies are required, or the supplier's services are not readily available.

21.5 Except as provided under GCC Clause 25, a delay by the supplier in the performance of its delivery obligations shall render the supplier liable to the imposition of penalties, pursuant to GCC Clause 22, unless an extension of time is agreed upon pursuant to GCC Clause 21.2 without the application of penalties.

21.6 Upon any delay beyond the delivery period in the case of a supplies contract, the purchaser shall, without canceling the contract, be entitled to purchase supplies of a similar quality and up to the same quantity in substitution of the goods not supplied in conformity with the contract and to return any goods delivered later at the supplier's expense and risk, or to cancel the contract and buy such goods as may be required to complete the contract and without prejudice to his other rights, be entitled to claim damages from the supplier.

22. Penalties

22.1 Subject to GCC Clause 25, if the supplier fails to deliver any or all of the goods or to perform the services within the period(s) specified in the contract, the purchaser shall, without prejudice to its other remedies under the contract, deduct from the contract price, as a penalty, a sum calculated on the delivered price of the delayed goods or unperformed services using the current prime interest rate calculated for each day of the delay until actual delivery or performance. The purchaser may also consider termination of the contract pursuant to GCC Clause 23.

23. Termination for default

23.1 The purchaser, without prejudice to any other remedy for breach of contract, by written notice of default sent to the supplier, may terminate this contract in whole or in part:

- (a) if the supplier fails to deliver any or all of the goods within the period(s) specified in the contract, or within any extension thereof granted by the purchaser pursuant to GCC Clause 21.2;
- (b) if the Supplier fails to perform any other obligation(s) under the contract; or
- (c) if the supplier, in the judgment of the purchaser, has engaged in corrupt or fraudulent practices in competing for or in executing the contract.

23.2 In the event the purchaser terminates the contract in whole or in part, the purchaser may procure, upon such terms and in such manner as it deems appropriate, goods, works or services similar to those undelivered, and the supplier shall be liable to the purchaser for any excess costs for such similar goods, works or services. However, the supplier shall continue performance of the contract to the extent not terminated.

23.3 Where the purchaser terminates the contract in whole or in part, the purchaser may decide to impose a restriction penalty on the supplier by prohibiting such supplier from doing business with the public sector for a period not exceeding 10 years.

23.4 If a purchaser intends imposing a restriction on a supplier or any person associated with the supplier, the supplier will be allowed a time period of not more than fourteen (14) days to provide reasons why the envisaged restriction should not be imposed. Should the supplier fail to respond within the stipulated fourteen (14) days the purchaser may regard

the intended penalty as not objected against and may impose it on the supplier.

23.5 Any restriction imposed on any person by the Accounting Officer / Authority will, at the discretion of the Accounting Officer / Authority, also be applicable to any other enterprise or any partner, manager, director or other person who wholly or partly exercises or exercised or may exercise control over the enterprise of the first-mentioned person, and with which enterprise or person the first-mentioned person, is or was in the opinion of the Accounting Officer / Authority actively associated.

23.6 If a restriction is imposed, the purchaser must, within five (5) working days of such imposition, furnish the National Treasury, with the following information:

- (i) the name and address of the supplier and / or person restricted by the purchaser;
- (ii) the date of commencement of the restriction
- (iii) the period of restriction; and
- (iv) the reasons for the restriction.

These details will be loaded in the National Treasury's central database of suppliers or persons prohibited from doing business with the public sector.

23.7 If a court of law convicts a person of an offence as contemplated in sections 12 or 13 of the Prevention and Combating of Corrupt Activities Act, No. 12 of 2004, the court may also rule that such person's name be endorsed on the Register for Tender Defaulters. When a person's name has been endorsed on the Register, the person will be prohibited from doing business with the public sector for a period not less than five years and not more than 10 years. The National Treasury is empowered to determine the period of restriction and each case will be dealt with on its own merits. According to section 32 of the Act the Register must be open to the public. The Register can be perused on the National Treasury website.

24. Anti-dumping and countervailing duties and rights

24.1 When, after the date of bid, provisional payments are required, or anti-dumping or countervailing duties are imposed, or the amount of a provisional payment or anti-dumping or countervailing right is increased in respect of any dumped or subsidized import, the State is not liable for any amount so required or imposed, or for the amount of any such increase. When, after the said date, such a provisional payment is no longer required or any such anti-dumping or countervailing right is abolished, or where the amount of such provisional payment or any such right is reduced, any such favourable difference shall on demand be paid forthwith by the contractor to the State or the State may deduct such amounts from moneys (if any) which may otherwise be due to the contractor in regard to supplies or services which he delivered or rendered, or is to deliver or render in terms of the contract or any other contract or any other amount which may be due to him

25. Force Majeure

25.1 Notwithstanding the provisions of GCC Clauses 22 and 23, the supplier shall not be liable for forfeiture of its performance security,

damages, or termination for default if and to the extent that his delay in performance or other failure to perform his obligations under the contract is the result of an event of force majeure.

- 25.2 If a force majeure situation arises, the supplier shall promptly notify the purchaser in writing of such condition and the cause thereof. Unless otherwise directed by the purchaser in writing, the supplier shall continue to perform its obligations under the contract as far as is reasonably practical, and shall seek all reasonable alternative means for performance not prevented by the force majeure event.

**26. Termination
for insolvency**

- 26.1 The purchaser may at any time terminate the contract by giving written notice to the supplier if the supplier becomes bankrupt or otherwise insolvent. In this event, termination will be without compensation to the supplier, provided that such termination will not prejudice or affect any right of action or remedy which has accrued or will accrue thereafter to the purchaser.

**27. Settlement of
Disputes**

- 27.1 If any dispute or difference of any kind whatsoever arises between the purchaser and the supplier in connection with or arising out of the contract, the parties shall make every effort to resolve amicably such dispute or difference by mutual consultation.
- 27.2 If, after thirty (30) days, the parties have failed to resolve their dispute or difference by such mutual consultation, then either the purchaser or the supplier may give notice to the other party of his intention to commence with mediation. No mediation in respect of this matter may be commenced unless such notice is given to the other party.
- 27.3 Should it not be possible to settle a dispute by means of mediation, it may be settled in a South African court of law.
- 27.4 Mediation proceedings shall be conducted in accordance with the rules of procedure specified in the SCC.
- 27.5 Notwithstanding any reference to mediation and/or court proceedings herein,
- (a) the parties shall continue to perform their respective obligations under the contract unless they otherwise agree; and
 - (b) the purchaser shall pay the supplier any monies due the supplier.

**28. Limitation of
liability**

- 28.1 Except in cases of criminal negligence or willful misconduct, and in the case of infringement pursuant to Clause 6;
- (a) the supplier shall not be liable to the purchaser, whether in contract, tort, or otherwise, for any indirect or consequential loss or damage, loss of use, loss of production, or loss of profits or interest costs, provided that this exclusion shall not apply to any obligation of the supplier to pay penalties and/or damages to the purchaser; and

		(b) the aggregate liability of the supplier to the purchaser, whether under the contract, in tort or otherwise, shall not exceed the total contract price, provided that this limitation shall not apply to the cost of repairing or replacing defective equipment.
29. Governing language	29.1	The contract shall be written in English. All correspondence and other documents pertaining to the contract that is exchanged by the parties shall also be written in English.
30. Applicable law	30.1	The contract shall be interpreted in accordance with South African laws, unless otherwise specified in SCC.
31. Notices	31.1	Every written acceptance of a bid shall be posted to the supplier concerned by registered or certified mail and any other notice to him shall be posted by ordinary mail to the address furnished in his bid or to the address notified later by him in writing and such posting shall be deemed to be proper service of such notice
	31.2	The time mentioned in the contract documents for performing any act after such aforesaid notice has been given, shall be reckoned from the date of posting of such notice.
32. Taxes and duties	32.1	A foreign supplier shall be entirely responsible for all taxes, stamp duties, license fees, and other such levies imposed outside the purchaser's country.
	32.2	A local supplier shall be entirely responsible for all taxes, duties, license fees, etc., incurred until delivery of the contracted goods to the purchaser.
	32.3	No contract shall be concluded with any bidder whose tax matters are not in order. Prior to the award of a bid the Department must be in possession of a tax clearance certificate, submitted by the bidder. This certificate must be an original issued by the South African Revenue Services.
33. National Industrial Participation Programme (NIP)	33.1	The NIP Programme administered by the Department of Trade and Industry shall be applicable to all contracts that are subject to the NIP obligation.

SECTION C3.5: MANAGEMENT

SECTION C3.5.1: PLANNING AND PROGRAMMING

Section C3.5.1.1: General

Contractor is required to submit a meaningful programme.

This clause describes the requirements for the preparation, submission, updating and revision of the programme for the works. The requirements are in addition to or in expansion of the JBCC PBA clause [15.6]. The programme shall be used by the Contractor to plan and execute the works. The programme shall also be used by the Principal Agent to monitor progress and be the sole basis for the assessment of revisions of the date for Practical Completion.

The programme shall be produced by the Contractor as follows:

- a) A programme for the totality of the works shall be submitted to the principal agent for acceptance. If the principal does not accept such programme, it shall be revised and amended until it is accepted by the principal agent. This programme will then be regarded as the baseline programme.
- b) This baseline programme shall be updated with actual progress on a monthly basis, or any more frequent basis as necessitated by construction events. The Contractor may submit to the principal for acceptance revisions to the baseline programme.
- c) Acceptance by the Principal Agent of any programme submitted by the Contractor does not make such programme a contract document, nor does it mandate that the works shall be constructed strictly in accordance therewith. The Contractor at all times remains responsible for the construction of the works.

Section C3.5.1.2: Submission of Programme

Within 10 (Ten) working days of been given possession of the site the Contractor shall submit to the Principal Agent for his review and acceptance a programme for the whole of the works showing the order in which the Contractor proposes to execute the works. This programme becomes the baseline programme upon acceptance by the Principal Agent. The baseline programme shall have regard to the contract completion dates, any other milestones and any restraints set out in the contract. Thereafter, if the actual progress does not conform with the baseline programme, the Principal Agent is entitle to require the Contractor to submit a revised programme showing the order of activities necessary to ensure completion of the works by the contract completion dates.

The Contractor shall supply the Principal Agent with an electronic copy of each programme, together with a print-out bar chart or tabular report in a pre-agreed format. All programmes shall be prepared and submitted using Microsoft Project software.

Within 10 (Ten) working days of the Contractor submitting a programme complete with all the information required by this clause to the principal agent for acceptance, the principal agent will accept the programme or state reasons for not accepting the programme. If such reasons are given, the Contractor shall take account of the reasons and resubmit the programme within 5 (five) working days.

If the Principal Agent fails to act the programme is deemed to be rejected.

Section C3.5.1.3: Default in Submission of Programs

Should the Contractor fail to submit a programme for acceptance as the baseline programme or not update the programme as described above, the principal agent shall be entitled to withhold 25% of the amount due to the Contractor in interim payment certificates until the Contractor has complied with its obligations in this regard.

SECTION C3.5.2: HEALTH AND SAFETY

Section C3.5.2.1: Health and Safety Specification

In terms of the Occupational Health and Safety Act (Act 85 of 1993) (OHSA) and the Construction Regulation 2014, the Client must provide the Contractor with a Health and Safety Specification to which the Contractor must respond with a Health and Safety Plan for approval by the Client.

The purpose of this Specification is to ensure that Principal Contractor s entering into a contract with the Employer maintain an acceptable level of performance with regard to health and safety issues during the performance of the contract. In this regard the OHSA Specification form an integral part of the Contract and the Principal Contractor shall ensure that their Contractor s and/or suppliers comply with the requirements of this Specification.

REFER TO ANNEXURE B: HEALTH AND SAFETY SPECIFICATION.

PART C4: SITE INFORMATION

The project will be located at ORBIT TVET's Brits Campus in Reitz Street, North Street, BRITS, North-West Province, 0250.

Brits Campus of Orbit TVET College falls within the Madibeng area of jurisdiction. The total property is approximate 2.62ha.

THE SITE

The Contractor shall be deemed to have inspected the site and any existing structures thereon and thoroughly acquainted himself with the conditions under which the works are to be executed including the means of access to the works, the conditions of the roads and generally of all matters which may influence the execution of the works.

WORK AREA

The Contractor must restrict his activities inside the boundaries of the site as well as the hoarded areas and may not extend his operations beyond these boundaries.

ACCESS

Easy access can be attained from the municipal roads.

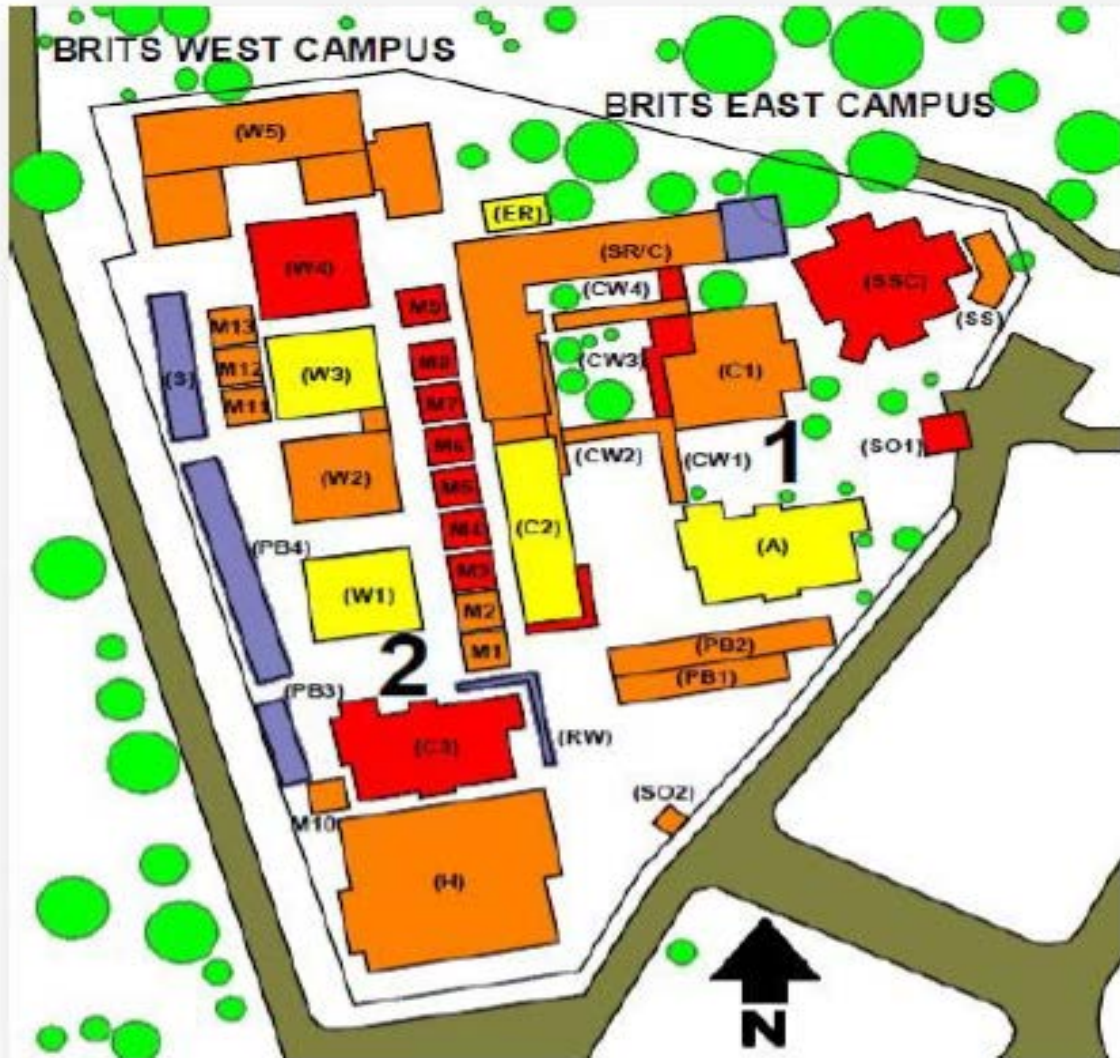
SITE SERVICES

The Contractor is to take care during excavation and other construction activities not to damage existing underground services.

RESTRICTION TO OCCUPIED AREAS

Not applicable to this contract

ORBIT TVET COLLEGE BRITS CAMPUS MAP



ANNEXURES

ANNEXURE A: CIDB STANDARD CONDITIONS OF TENDER

January 2009 edition as published in Annex F of the CIDB Standard for Uniformity in Construction Procurement in Board Notice 12 of 2009 in Government Gazette No 31823 of 30 January 2009.

F.1 General

F.1.1 Actions

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

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

Note:

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

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

F.1.2 Tender Documents

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

F.1.3 Interpretation

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

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

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

- a) **Conflict of interest** means any situation in which:
 - i) Someone in a position of trust has competing professional or personal interests which make it difficult to fulfil his or her duties impartially;
 - ii) An individual or organisation is in a position to exploit a professional or official capacity in some way for their personal or corporate benefit; or
 - iii) Incompatibility or contradictory interests exist between an employee and the organisation which employs that employee.
- b) **Comparative** offer means the tenderer's financial offer after all tendered parameters that will affect the value of the financial offer have been taken into consideration in order to enable comparisons to be made between offers on a comparative basis
- c) **Corrupt practice** means the offering, giving, receiving or soliciting of anything of value to influence the action of the employer or his staff or agents in the tender process; and
- d) **Fraudulent practice** means the misrepresentation of the facts in order to influence the tender process or the award of a contract arising from a tender offer to the detriment of the employer, including collusive practices intended to establish prices at artificial levels
- e) **Organisation** means a company, firm, enterprise, association or other legal entity, whether incorporated or not, or a public body
- f) **Quality (functionality)** means the totality of features and characteristics of a product or service that bear on its ability to satisfy stated or implied needs.

F.1.4 Communication and employer's agent

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

F.1.5 The employer's right to accept or reject any tender offer

F.1.5.1 The employer may accept or reject any variation, deviation, tender offer, or alternative tender offer, and may cancel the tender process and reject all tender offers at any time before the formation of a contract. The employer shall not accept or incur any liability to a tenderer for such cancellation and rejection, but will give written reasons for such action upon written request to do so.

F.1.5.2 The employer may not subsequent to the cancellation or abandonment of a tender process or the rejection of all responsive tender offers re-issue a tender covering substantially the same scope of work within a period of six months unless only one tender was received and such tender was returned unopened to the tenderer.

F.1.6 Procurement procedures**F.1.6.1 General**

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

F.1.6.2 Competitive negotiation procedure

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

F.1.6.2.2 All responsive tenderers, or not less than three responsive tenderers that are highest ranked in terms of the evaluation method and evaluation criteria stated in the tender data, shall be invited in each round to enter into competitive negotiations, based on the principle of equal treatment and keeping confidential the proposed solutions and associated information. Notwithstanding the provisions of F.2.17, the employer may request that tenders be clarified, specified and fine-tuned in order to improve a tenderer's competitive position provided that such clarification, specification, fine-tuning or additional information does not alter any fundamental aspects of the offers or impose substantial new requirements which restrict or distort competition or have a discriminatory effect.

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

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

F.1.6.3 Proposal procedure using the two stage-system**F.1.6.3.1 Option 1**

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

F.1.6.3.2 Option 2

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

- F.1.6.3.2.2** The employer shall evaluate tenders received during the second stage in terms of the method of evaluation stated in the tender data, and award the contract in terms of these conditions of tender.
- F.2 Tenderer's obligations**
- F.2.1 Eligibility**
- F.2.1.1** Submit a tender offer only if the tenderer satisfies the criteria stated in the tender data and the tenderer, or any of his principals, is not under any restriction to do business with employer.
- F.2.1.2** Notify the employer of any proposed material change in the capabilities or formation of the tendering entity (or both) or any other criteria which formed part of the qualifying requirements used by the employer as the basis in a prior process to invite the tenderer to submit a tender offer and obtain the employer's written approval to do so prior to the closing time for tenders.
- F.2.2 Cost of tendering**
- Accept that, unless otherwise stated in the tender data, the employer will not compensate the tenderer for any costs incurred in the preparation and submission of a tender offer, including the costs of any testing necessary to demonstrate that aspects of the offer complies with requirements.
- F.2.3 Check documents**
- Check the tender documents on receipt for completeness and notify the employer of any discrepancy or omission.
- F.2.4 Confidentiality and copyright of documents**
- Treat as confidential all matters arising in connection with the tender. Use and copy the documents issued by the employer only for the purpose of preparing and submitting a tender offer in response to the invitation.
- F.2.5 Reference documents**
- Obtain, as necessary for submitting a tender offer, copies of the latest versions of standards, specifications, conditions of contract and other publications, which are not attached but which are incorporated into the tender documents by reference.
- F.2.6 Acknowledge addenda**
- Acknowledge receipt of addenda to the tender documents, which the employer may issue, and if necessary apply for an extension to the closing time stated in the tender data, in order to take the addenda into account.
- F.2.7 Clarification meeting**
- Attend, where required, a clarification meeting at which tenderers may familiarize themselves with aspects of the proposed work, services or supply and raise questions. Details of the meeting(s) are stated in the tender data.
- F.2.8 Seek clarification**
- Request clarification of the tender documents, if necessary, by notifying the employer at least five working days before the closing time stated in the tender data.

F.2.9 Insurance

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

F.2.10 Pricing the tender offer

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

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

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

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

F.2.11 Alterations to documents

Do not make any alterations or additions to the tender documents, except to comply with instructions issued by the employer, or necessary to correct errors made by the tenderer. All signatories to the tender offer shall initial all such alterations. Erasures and the use of masking fluid are prohibited.

F.2.12 Alternative tender offers

F.2.12.1 Unless otherwise stated in the tender data submit alternative tender offers only if a main tender offer, strictly in accordance with all the requirements of the tender documents, is also submitted. The alternative tender offer is to be submitted with the main tender offer together with a schedule that compares the requirements of the tender documents with the alternative requirements the tenderer proposes.

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

F.2.13 Submitting a tender offer

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

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

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

- F.2.13.4** Sign the original and all copies of the tender offer where required in terms of the tender data. The employer will hold all authorised signatories liable on behalf of the tenderer. Signatories for tenderers proposing to contract as joint ventures shall state which of the signatories is the lead partner whom the employer shall hold liable for the purpose of the tender offer.
- F.2.13.5** Seal the original and each copy of the tender offer as separate packages marking the packages as "ORIGINAL" and "COPY". Each package shall state on the outside the employer's address and identification details stated in the tender data, as well as the tenderer's name and contact address.
- F.2.13.6** Where a two-envelope system is required in terms of the tender data, place and seal the returnable documents listed in the tender data in an envelope marked "financial proposal" and place the remaining returnable documents in an envelope marked "technical proposal". Each envelope shall state on the outside the employer's address and identification details stated in the tender data, as well as the tenderer's name and contact address.
- F.2.13.7** Seal the original tender offer and copy packages together in an outer package that states on the outside only the employer's address and identification details as stated in the tender data.
- F.2.13.8** Accept that the employer shall not assume any responsibility for the misplacement or premature opening of the tender offer if the outer package is not sealed and marked as stated.
- F.2.13.9** Accept that tender offers submitted by facsimile or e-mail will be rejected by the employer, unless stated otherwise in the tender data.
- F.2.14** **Information and data to be completed in all respects**
Accept that tender offers, which do not provide all the data or information requested completely and in the form required, may be regarded by the employer as non-responsive.
- F.2.15** **Closing time**
- F.2.15.1** Ensure that the employer receives the tender offer at the address specified in the tender data not later than the closing time stated in the tender data. Accept that proof of posting shall not be accepted as proof of delivery.
- F.2.15.2** Accept that, if the employer extends the closing time stated in the tender data for any reason, the requirements of these conditions of tender apply equally to the extended deadline.
- F.2.16** **Tender offer validity**
- F.2.16.1** Hold the tender offer(s) valid for acceptance by the employer at any time during the validity period stated in the tender data after the closing time stated in the tender data.
- F.2.16.2** If requested by the employer, consider extending the validity period stated in the tender data for an agreed additional period with or without any conditions attached to such extension.

- F.2.16.3** Accept that a tender submission that has been submitted to the employer may only be withdrawn or substituted by giving the employer's agent written notice before the closing time for tenders that a tender is to be withdrawn or substituted.
- F.2.16.4** Where a tender submission is to be substituted, submit a substitute tender in accordance with the requirements of F.2.13 with the packages clearly marked as "SUBSTITUTE".
- F.2.17** **Clarification of tender offer after submission**
Provide clarification of a tender offer in response to a request to do so from the employer during the evaluation of tender offers. This may include providing a breakdown of rates or prices and correction of arithmetical errors by the adjustment of certain rates or item prices (or both). No change in the competitive position of tenderers or substance of the tender offer is sought, offered, or permitted.
Note: Sub-clause F.2.17 does not preclude the negotiation of the final terms of the contract with a preferred tenderer following a competitive selection process, should the Employer elect to do so.
- F.2.18** **Provide other material**
- F.2.18.1** Provide, on request by the employer, any other material that has a bearing on the tender offer, the tenderer's commercial position (including notarized joint venture agreements), preferencing arrangements, or samples of materials, considered necessary by the employer for the purpose of a full and fair risk assessment. Should the tenderer not provide the material, or a satisfactory reason as to why it cannot be provided, by the time for submission stated in the employer's request, the employer may regard the tender offer as non-responsive.
- F.2.18.2** Dispose of samples of materials provided for evaluation by the employer, where required.
- F.2.19** **Inspections, tests and analysis**
Provide access during working hours to premises for inspections, tests and analysis as provided for in the tender data.
- F.2.20** **Submit securities, bonds, policies, etc.**
If requested, submit for the employer's acceptance before formation of the contract, all securities, bonds, guarantees, policies and certificates of insurance required in terms of the conditions of contract identified in the contract data.
- F.2.21** **Check final draft**
Check the final draft of the contract provided by the employer within the time available for the employer to issue the contract.
- F.2.22** **Return of other tender documents**
If so instructed by the employer, return all retained tender documents within 28 days after the expiry of the validity period stated in the tender data.
- F.2.23** **Certificates**
Include in the tender submission or provide the employer with any certificates as stated in the tender data.

F.3 The Employer's undertakings**F.3.1 Respond to requests from the tenderer**

F.3.1.1 Unless otherwise stated in the Tender Data, respond to a request for clarification received up to five working days before the tender closing time stated in the Tender Data and notify all tenderers who drew procurement documents.

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

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

F.3.2 Issue Addenda

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

F.3.3 Return late tender offers

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

F.3.4 Opening of tender submissions

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

F.3.4.2 Announce at the meeting held immediately after the opening of tender submissions, at a venue indicated in the tender data, the name of each tenderer whose tender offer is opened and, where applicable, the total of his prices, preferences claimed and time for completion for the main tender offer only.

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

F.3.5 Two-envelope system

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

- F.3.5.2** Evaluate the quality of the technical proposals offered by tenderers, then advise tenderers who remain in contention for the award of the contract of the time and place when the financial proposals will be opened. Open only the financial proposals of tenderers, who score in the quality evaluation more than the minimum number of points for quality stated in the tender data, and announce the score obtained for the technical proposals and the total price and any preferences claimed. Return unopened financial proposals to tenderers whose technical proposals failed to achieve the minimum number of points for quality.
- F.3.6 Non-disclosure**
Not disclose to tenderers, or to any other person not officially concerned with such processes, information relating to the evaluation and comparison of tender offers, the final evaluation price and recommendations for the award of a contract, until after the award of the contract to the successful tenderer.
- F.3.7 Grounds for rejection and disqualification**
Determine whether there has been any effort by a tenderer to influence the processing of tender offers and instantly disqualify a tenderer (and his tender offer) if it is established that he engaged in corrupt or fraudulent practices.
- F.3.8 Test for responsiveness**
- F.3.8.1** Determine, after opening and before detailed evaluation, whether each tender offer properly received:
- Complies with the requirements of these Conditions of Tender,
 - Has been properly and fully completed and signed, and
 - Is responsive to the other requirements of the tender documents.
- F.3.8.2** A responsive tender is one that conforms to all the terms, conditions, and specifications of the tender documents without material deviation or qualification. A material deviation or qualification is one which, in the Employer's opinion, would:
- Detrimentially affect the scope, quality, or performance of the works, services or supply identified in the Scope of Work,
 - Significantly change the Employer's or the tenderer's risks and responsibilities under the contract, or
 - Affect the competitive position of other tenderers presenting responsive tenders, if it were to be rectified.
- Reject a non-responsive tender offer, and not allow it to be subsequently made responsive by correction or withdrawal of the non-conforming deviation or reservation.
- F.3.9 Arithmetical errors, omissions and discrepancies**
- F.3.9.1** Check responsive tenders for discrepancies between amounts in words and amounts in figures. Where there is a discrepancy between the amounts in figures and the amount in words, the amount in words shall govern.

- F.3.9.2** Check the highest ranked tender or tenderer with the highest number of tender evaluation points after the evaluation of tender offers in accordance with F.3.11 for:
- a) The gross misplacement of the decimal point in any unit rate;
 - b) Omissions made in completing the pricing schedule or bills of quantities; or
 - c) Arithmetic errors in:
 - i) Line item totals resulting from the product of a unit rate and a quantity in bills of quantities or schedules of prices; or
 - ii) The summation of the prices.
- F.3.9.3** Notify the tenderer of all errors or omissions that are identified in the tender offer and either confirm the tender offer as tendered or accept the corrected total of prices.
- F.3.9.4** Where the tenderer elects to confirm the tender offer as tendered, correct the errors as follows:
- a) If bills of quantities or pricing schedules apply and there is an error in the line item total resulting from the product of the unit rate and the quantity, the line item total shall govern and the rate shall be corrected. Where there is an obviously gross misplacement of the decimal point in the unit rate, the line item total as quoted shall govern, and the unit rate shall be corrected.
 - b) Where there is an error in the total of the prices either as a result of other corrections required by this checking process or in the tenderer's addition of prices, the total of the prices shall govern and the tenderer will be asked to revise selected item prices (and their rates if bills of quantities apply) to achieve the tendered total of the prices.
- F.3.10 Clarification of a tender offer**
- Obtain clarification from a tenderer on any matter that could give rise to ambiguity in a contract arising from the tender offer.
- F.3.11 Evaluation of tender offers**
- F.3.11.1 General**
- Appoint an evaluation panel of not less than three persons. Reduce each responsive tender offer to a comparative offer and evaluate them using the tender evaluation methods and associated evaluation criteria and weightings that are specified in the tender data.
- F.3.11.2 Method 1: Financial offer**
- In the case of a financial offer:
- a) Rank tender offers from the most favourable to the least favourable comparative offer.
 - b) Recommend the highest ranked tenderer for the award of the contract, unless there are compelling and justifiable reasons not to do so.
 - c) Re-rank all tenderers should there be compelling and justifiable reasons not to recommend the highest ranked tenderer and recommend the highest

ranked tenderer, unless there are compelling and justifiable reasons not to do so and the process set out in this sub clause is repeated.

F.3.11.3 Method 2: Financial offer and preference

In the case of a financial offer and preferences:

- a) Score each tender in respect of the financial offer made and preferences claimed, if any, in accordance with the provisions of F.3.11.7 and F.3.11.8.
- b) Calculate the total number of tender evaluation points (TEV) in accordance with the following formula:

$$TEV = NFO + NP$$

where: *NFO* is the number of tender evaluation points awarded for the financial offer made in accordance with F.3.11.7;

NP is the number of tender evaluation points awarded for preferences claimed in accordance with F.3.11.8.

- c) Rank tender offers from the highest number of tender evaluation points to the lowest.
- d) Recommend the tenderer with the highest number of tender evaluation points for the award of the contract, unless there are compelling and justifiable reasons not to do so.
- e) Rescore and re-rank all tenderers should there be compelling and justifiable reasons not to recommend the tenderer with the highest number of tender evaluation points, and recommend the tenderer with the highest number of tender evaluation points, unless there are compelling and justifiable reasons not to do so and the process set out in this sub clause is repeated.

F.3.11.4 Method 3: Financial offer and quality

In the case of a financial offer and quality:

- a) Score each tender in respect of the financial offer made and the quality offered in accordance with the provisions of F.3.11.7 and F.3.11.9, rejecting all tender offers that fail to score the minimum number of points for quality stated in the tender data, if any.
- b) Calculate the total number of tender evaluation points (TEV) in accordance with the following formula:

$$TEV = NFO + NQ$$

where: *NFO* is the number of tender evaluation points awarded for the financial offer made in accordance with F.3.11.7;

NQ is the number of tender evaluation points awarded for quality offered in accordance with F.3.11.9.

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

- e) Rescore and re-rank all tenderers should there be compelling and justifiable reasons not to recommend the tenderer with the highest number of tender evaluation points and recommend the tenderer with the highest number of tender evaluation points, unless there are compelling and justifiable reasons not to do so and the process set out in this sub-clause is repeated.

F.3.11.5 Method 4: Financial offer, quality and preferences

In the case of a financial offer, quality and preferences:

- a) Score each tender in respect of the financial offer made, preference claimed, if any, and the quality offered in accordance with the provisions of F.3.11.7 to F.3.11.9, rejecting all tender offers that fail to score the minimum number of points for quality stated in the tender data, if any.
- b) Calculate the total number of tender evaluation points (TEv) in accordance with the following formula, unless otherwise stated in the Tender Data:

$$TEV = NFO + NP + NQ$$

where: *NFO* is the number of tender evaluation points awarded for the financial offer made in accordance with F.3.11.7;

Np is the number of tender evaluation points awarded for preferences claimed in accordance with F.3.11.8;

NQ is the number of tender evaluation points awarded for quality offered in accordance with F.3.11.9.

- c) Rank tender offers from the highest number of tender evaluation points to the lowest.
- d) Recommend the tenderer with the highest number of tender evaluation points for the award of the contract, unless there are compelling and justifiable reasons not to do so.
- e) Rescore and re-rank all tenderers should there be compelling and justifiable reasons not to recommend the tenderer with the highest number of tender evaluation points and recommend the tenderer with the highest number of tender evaluation points, unless there are compelling and justifiable reasons not to do so and the process set out in this subclause is repeated.

F.3.11.6 Decimal places

Score financial offers, preferences and quality, as relevant, to two decimal places.

F.3.11.7 Scoring Financial Offers

Score the financial offers of remaining responsive tender offers using the following formula:

$$NFO = W1 \times A$$

where: *NFO* is the number of tender evaluation points awarded for the financial offer.

W1 is the maximum possible number of tender evaluation points awarded for the financial offer as stated in the Tender Data.

A is a number calculated using the formula and option described in Table F.1 as stated in the Tender Data.

Table F.1: Formulae for calculating the value of A

FORMULA	COMPARISON AIMED AT ACHIEVING	OPTION 1 ^A	OPTION 2 ^A
1	Highest price or discount	$A = (1 + \frac{(P - P_m)}{P_m})$	$A = P/P_m$
2	Lowest price or percentage commission/ fee	$A = (1 - \frac{(P - P_m)}{P_m})$	$A = P_m/P$
^a P_m is the comparative offer of the most favourable comparative offer. P is the comparative offer of the tender offer under consideration.			

F.3.11.8 Scoring preferences

Confirm that tenderers are eligible for the preferences claimed in accordance with the provisions of the tender data and reject all claims for preferences where tenderers are not eligible for such preferences.

Calculate the total number of tender evaluation points for preferences claimed in accordance with the provisions of the tender data.

F.3.11.9 Scoring quality

Score each of the criteria and sub criteria for quality in accordance with the provisions of the Tender Data.

Calculate the total number of tender evaluation points for quality using the following formula:

$$NQ = W2 \times SO / MS$$

where: SO is the score for quality allocated to the submission under consideration;

Ms is the maximum possible score for quality in respect of a submission; and

W2 is the maximum possible number of tender evaluation points awarded for the quality as stated in the tender data.

F.3.12 Insurance provided by the employer

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

F.3.13 Acceptance of tender offer

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

- a) Is not under restrictions, or has principals who are under restrictions, preventing participating in the employer's procurement,
- b) Can, as necessary and in relation to the proposed contract, demonstrate that he or she possesses the professional and technical qualifications, professional and technical competence, financial resources, equipment and other physical facilities, managerial capability, reliability, experience and reputation, expertise and the personnel, to perform the contract,
- c) Has the legal capacity to enter into the contract,
- d) Is not insolvent, in receivership, bankrupt or being wound up, has his affairs administered by a court or a judicial officer, has suspended his business activities, or is subject to legal proceedings in respect of any of the foregoing,
- e) Complies with the legal requirements, if any, stated in the tender data, and
- f) Is able, in the opinion of the employer, to perform the contract free of conflicts of interest.

F.3.14 Prepare contract documents

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

- a) Addenda issued during the tender period,
- b) Inclusion of some of the returnable documents, and
- c) Other revisions agreed between the employer and the successful tenderer.

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

F.3.15 Complete adjudicator's contract

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

F.3.16 Notice to unsuccessful tenderers

F.3.16.1 Notify the successful tenderer of the employer's acceptance of his tender offer by completing and returning one copy of the form of offer and acceptance before the expiry of the validity period stated in the tender data, or agreed additional period.

F.3.16.2 After the successful tenderer has been notified of the employer's acceptance of the tender, notify other tenderers that their tender offers have not been accepted.

F.3.17 Provide copies of the contracts

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

F.3.18 Provide written reasons for actions taken

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

ANNEXURE B: HEALTH AND SAFETY SPECIFICATION AND BASELINE RISK ASSESSMENT

HEALTH AND SAFETY SPECIFICATIONS

PREPARED FOR:		PREPARED BY:	
Your Ref.:		Our Ref.:	
APPROVAL DOCUMENT			
Client / Design OHS Agent			
Surname & initials			
Position			
Date			
Signature			

DOCUMENT CONTROL

Document Revision History

Date	Rev.	Prepared by	Changes

Table of Contents

1	Introduction.....	5
1.1	Scope	5
1.2	Overview of the Works	6
1.3	Definitions and abbreviations	6
1.4	Definitions.....	7
2	Health and safety policy	8
3	Roles and responsibilities	8
3.1	Appointment Legal Reference	8
4	Implementation of the SSHSS.....	9
5	Requirements at award stage	9
6	Project specific risk requirements.....	10
7	HSE training and competence.....	10
7.1	Training Needs	11
7.2	Basic Safe Work Training (Induction Training)	11
7.3	Formal Training.....	11
7.4	Records.....	12
8	Duties	12
9	Management and supervision	12
10	Risk management	12
10.1	Risk Assessment.....	13
10.2	Risk Assessment Monitoring	13
10.3	Review of Risk Assessment	13
10.4	Baseline Risk Assessment.....	14
10.5	Continuous Risk Assessment.....	14
11	Legal compliance and document control.....	14
12	Occupational Health and Hygiene	18
12.1	Medical Fitness for Duty.....	18
12.2	First Aid.....	18
12.3	Hygiene Facilities	18
13	Waste management.....	19
14	Hazardous substance management.....	19
15	Principal contractor	19
15.1	Consultations, Communications and Liaison.....	19
15.2	Operational Procedures	20

15.3	Checking, Reporting and Corrective Actions	20
15.4	Other Audits and Inspections by the Employer	20
15.5	Principal Contractor's Audits and Inspections	21
15.6	Inspections by OH&S Representatives and other Appointees.....	21
15.7	Recording and Review of Inspection Results	21
15.8	Project Health and Safety Management Plan.....	21
15.9	Project Health and Safety File.....	23
15.10	Contracting Philosophy.....	24
15.11	Workers Compensation Registration.....	24
15.12	HSE Non-Compliance.....	24
15.13	Indemnity by Principal Contractor.....	24
15.14	The Principal Contractor Conduct.....	25
15.15	Principal Contractor and Contractor Management.....	25
15.16	Public Health and Safety.....	25
15.17	Designing for health, safety and environment	26
15.18	Incident management	26
15.19	Incidents and Accidents	26
15.20	Incident Reporting	27
15.21	Project specific construction requirements.....	27
15.22	Daily Site Attendance Register	27
15.23	Emergency Numbers / Emergency Evacuation.....	28
15.24	Site Security.....	28
15.25	Personal Protective Equipment.....	29
15.26	Site Supervision.....	29
15.27	Structures	29
15.28	Excavations	29
15.29	Cranes.....	30
15.30	Electrical Equipment	30
15.31	Temporary Storage of Flammable Liquids	30
15.32	Water Environments	30
15.33	Housekeeping	31
15.34	Stacking & Storage of Material & Equipment.....	31
15.35	Fire Precautions.....	31
15.36	Intoxicating Liquor and Drugs.....	31

15.37	Confined Space Work & Tunnelling	32
15.38	Site Services	32
15.39	Drinking Water	32
15.40	Accommodation	32
15.41	Brickwork	32
15.42	Formwork.....	33
15.43	Scaffolding.....	33
15.44	Plastering.....	33
15.45	Roof work	34
15.46	Public awareness	34

1 Introduction

ORBIT TVET COLLEGE intends to construct Renovation of electrical workshop at Orbit TVET COLLEGE at Orbit TVET COLLEGE. ORBIT TVET COLLEGE developed Site Specific Health and Safety Specifications (SSHSS) in line with the Baseline Risk Assessment (BRA) as required by the Construction Regulation 5 (1). The Principal Contractor should use this specification when developing the Site-Specific Health and Safety Plan for this project.

1.1 Scope

This SSHSS was developed for the ORBIT TVET COLLEGE in line with the Baseline Risk Assessment (BRA) as required by the Construction Regulation 5(1). The contractor should use this specification when developing his Site-Specific Health and Safety Plan as per the requirements of Construction Regulation 7(1)(b).

The Occupational Health and Safety Act, no 85 of 1993 and its Regulations together with SANS Codes set out minimum standards with regards to Occupational Health and Safety. ORBIT TVET COLLEGE has developed this Occupational Health and Safety Specifications with these minimum standards in mind and in certain stages the requirements of ORBIT TVET COLLEGE exceed the minimum legal requirements to follow best practices and to ensure a healthy and safe workplace for all.

ORBIT TVET COLLEGE in no way assumes The Principal Contractors legal liabilities and responsibilities. The Principal Contractor is and remains accountable for the quality and execution of his health and safety programme for his employees. Furthermore, there is no acceptance of liability by the employer which may result from the Principal Contractor failing to comply with the Occupational Health and Safety Specification (OHSS), the Principal Contractor remains responsible for achieving the required performance level.

It is realized that The Principal Contractor have its own Health and Safety Management system and safe work practices. The intention of this Health and Safety Specification is not to change The Principal Contractors Health and Safety management system, but for The Principal Contractor to use its current Health and Safety management system to draw up a project specific Health and Safety plan according to these specifications as well as to legally comply with the Construction Regulations, GNR.84 of 2014.

It is the responsibility of the Principal Contractor and other Contractors to make themselves conversant and comply with the requirements and conditions contained in the various legislation pertaining to their profession and scope of works at all times.

This specification is not exhaustive of all duties imposed by the Occupational Health and Safety Act, no 85 of 1993 and its Regulations, governing the duties and obligations, of a Designer, Principal Contractor and Contractor performing duties in terms of an agreement with the client (ORBIT TVET COLLEGE). These duties are fully described in the Occupational Health and Safety Act, no 85 of 1993 and its Regulations and it is the duty of every Designer, Principal Contractor and Contractor to acquaint themselves therewith before commencing work.

This specification is compiled to ensure that the Principal Contractor and any other Contractors working for ORBIT TVET COLLEGE directly or through a Principal Contractor, are aware of the Occupational Health and Safety requirements when working on a ORBIT TVET COLLEGE contract, as well as to make them aware of their legal liabilities and responsibilities as per the Occupational Health & Safety Act, Act 85 of 1993, and its Regulations.

1.2 Overview of the Works

The construction will consist of building maintenance and external works. This requires the supply of labour, material, equipment, plant, etc. which are necessary for the maintenance on Mechanical, electrical and structural which generally comprise:

Remove existing roof sheeting
Remove existing paving
Breaking down existing bricks
Extension of existing workshop includes

- Brickwork
- Windows and Doors frames
- Tiling
- Electrical installation
- Plastering and screed
- Glazing
- Painting
- Steel roof trusses
- Roof Covering
- Cupboards and steel lockers
- Signage

1.3 Definitions and abbreviations

Act:	The Occupational Health and Safety Act, 1993 (Act No. 85 of 1993)
Agent:	means any person who acts as a representative for a client;
BRA:	Baseline Risk Assessment
CIDB:	Construction Industry Development Board
COID Act:	Compensation for Occupational Injuries and Diseases Act
DMR	Driven Machinery Regulations, GNR. 295 of 26 February 1988
HIRA:	Hazard identification and risk assessment
MSDS:	Material Safety Data Sheet
OHS Act:	Occupational Health and Safety Act
SHE:	Safety, Health, and Environment
CR:	Construction Regulations
CHSA:	Construction Health Safety Agent
DoL	Department of Labour

1.4 Definitions

The following definitions will apply to the SH&SS, acronyms given hereunder will apply:

Audit – A systematic and documented review of the effectiveness of implementation of processes, programmes and procedures, based on ORBIT TVET COLLEGE process criteria

“Construction Work” means any work in connection with – the construction, erection, alteration, renovation, repair, demolition or dismantling of or an addition to a building or any similar structure, road, railway, runway, sewer or water reticulation system; or the moving of earth, clearing of land, the making of an excavation, piling, or any similar civil engineering structure or type of work.

Hazard Identification and Risk Assessment and Risk Control (HIRA) - Means a documented plan, which identifies hazards, assesses the risks and detailing the control measures and safe working procedures, which are to be used to mitigate and control the occurrence of hazards and risks during Construction or operation phases.

The Act - Means, unless the context indicates otherwise, the Occupational Health and Safety Act, 1993 (ACT NO. 85 of 1993) and Regulations promulgated there under. (OHS Act)

Hazard - Means a source of or exposure to danger (source which may cause injury or damage to persons, or property)

Risk - Means the probability or likelihood that a hazard can result in injury or damage.

Risk Assessment – A process of evaluating the risk(s) arising from hazards taking into account the adequacy of any existing controls and deciding whether or not the risk(s) is acceptable.

Contractor – An employer as defined in section 1 of the OHS Act, who performs construction work and includes Principal Contractors and Sub-Contractors.

Hazardous Chemical Substance (HCS) - Means any toxic, harmful, corrosive, irritant or asphyxiant substance, or a mixture or substances for which an occupational exposure limit is prescribed, or an occupational exposure limit is not prescribed, but which creates a hazard to health.

SHE - Safety Health and environment

Construction Plant - Encompasses all types of plant including but not limiting to, cranes, piling frames, boring machines, and excavators, dewatering equipment and road vehicles with or without lifting machines.

Health and Safety Plan (HSP) - The content of this document which will be made available on site for inspection by an inspector, Technical Officer, Agent, subcontractor, employee, registered

employee organization, health and safety representative, or member of the health and safety committee.

Health and Safety File - Describes the file holding all records on health and safety for the project, which will be available at all times for evaluation, and copy of which will be forwarded to the client upon completion of the project.

2 Health and safety policy

Principal Contractor is expected to prepare the company's Health and Safety Policy that will cover Covid 19. The policy should declare their attitude and approach to the health, safety and welfare or hygiene of their employees and others. Provision must be made to review the policy regularly and the CEO or Managing Director must sign and date the policy to indicate his commitment to ensuring the health and safety of his employees.

3 Roles and responsibilities

The Principal Contractor is considered to be an employer in his own right and shall comply with all legal requirements pertaining to an employer, which include the responsibility to provide as far as reasonably practicable a safe and healthy working environment for his employees, as per Section 8 of the OHS Act. The Principal Contractor shall appoint competent employees in writing.

3.1 Appointment

Legal Reference

Assistant to CEO	OHS Act 16(2)
Health and Safety Representative	OHS Act 17(1)
Nominated Health and Safety Committee Member	OHS Act 19(3)
Principal Contractor	CR 7(1)(c)(v)
Construction Manager & Alternate Construction Manager	CR 8 (1)
Assistant Construction Manager	CR 8(2)
Health and Safety Officer	CR 8(5)
Construction Supervisor	CR 8(7)
Assistant Construction Supervisor	CR 8(8)
Risk Assessor	CR 9(1)
Structure Inspector	CR 11(2)(a)
Temporary Works Designer	CR 12(1)
Temporary Works Supervisor	CR 12(2)
Excavation Supervisor	CR 13(1)(a)
Demolition Supervisor	CR 14(1)
Competent Person in the use of Explosives	CR 14(11)
Material Hoist Inspector	CR 19(8)(a)
Bulk Mixing Plant Supervisor	CR 20(1)
Explosive actuated fastening device Inspector	CR 21(2)(b)
Explosive actuated fastening device cartridge Controller	CR 21(2)(g)(i)
Construction Vehicle & Mobile Plant Operator Authorised	CR 23(1)(d)(i)

Temporary Electrical Installation Controller	CR 24(c)
Stacking and Storage Supervisor	CR 28(a)
Fire Equipment Inspector	CR 29(h)
Incident investigator	GAR 9(2)
Lifting tackle inspector	DMR 18(10)(e)
Ladder inspector	GSR 13(a)
Certified Explosives Manager	R 12(1)
First Aider GSR	GSR 3(4)
Hazardous Chemical Substance Supervisor	

4 Implementation of the SSHSS

This project specific H&S specification (SHSS) forms an integral part of the contract, and the PC is required to make it an integral part of his contract. This specification must be read in conjunction with the OHSA and its regulations and any other standard relating to work being conducted in a safe manner. The information relative to the baseline risk assessment is to be taken into account when developing a Health and Safety Management System to mitigate any injury or health risk.

No work may commence without written approval of the Health and Safety Plan by the Pr.CHSA. Failure to comply with this requirement will result in a penalty, stoppage of part of, or the whole works with no extension of time or allowable claims.

In case of design changes or change in the scope of work an amended SSHSS may be issued that would incorporate the changes.

The Occupational Health and Safety Agent will visit the project monthly or more frequently depending on the prevailing conditions on site. The Agent will also conduct ad – hoc visits to ensure compliance on site. All activities on site and all appropriate documentation will be monitored and reported to the Client, Engineer and PC. Non – Conformances will be issued and penalties or work stoppages instructions will be issued where the need arises. Communication between the OHS Agent and PC will be through the Engineer. The authority of the Client appointed OHS Agent shall be that as contemplated in Section 5 of the construction regulations.

5 Requirements at award stage

The successful tender is required to submit a Site-Specific Health and Safety Plan within 14 days of the tender award. The documentation submitted will be used to assess the competence of the tenderer as required by the Construction Regulation, therefore the information submitted needs to be complete and as close as possible to the final product.

Adequate pricing for H&S is required and appropriate section in the BOQ is to be completed, Failure to complete the section could result in your tender being regarded as non-responsive. The PC shall ensure the following information is submitted as part of H&S Plan within 14 days of the tender award.

Project Specific Health and Safety Plan in line with project specification which will be subject to approval by the OHS Agent. These must include all supporting documentation as required to verify the H&S system.

- A declaration to the effect that PC has the competence and necessary resources to carry out the work safely in compliance with the construction regulation, 7 February 2014.
- A valid letter of good standing with the Compensation Commissioner (COIDA) or Similar (FEMA).
- Detailed technical method statements for approval by ER and appropriate risk assessment and safe work procedures for approval by OHS Agent.
- Site establishment management of traffic and the public safety
- Opening and establishing quarries and borrow pits if these are to be used.
- Construction of offices and accommodation
- Appointments of the following with relevant CV's: Construction Manager; Construction Supervisor; Construction Health and Safety Officer; Risk Assessor; Incident Investigator and First Aider
- An organogram of the site relationship showing at least the above appointments will be required.
- method statements are to be submitted prior to and during the project which will require the approval of the Engineer before the HIRA is submitted for approval of the Pr. CHSA and work on that aspect or activity can commence.

6 Project specific risk requirements

Hazard Identification and Risk Assessment (HIRA), and are to be noted when developing the Site-Specific Health and Safety Plan and associated documentation. Identification of low or medium risks does not mean there is no risk involve. In depth's HIRA's and management systems are required to limit the exposure, likelihood and potential consequences as required by the Act and its relevant regulations. Personal Protective Equipment (PPE) will be issued by PC after analysing the hazards associated with his activities. The PPE is the last line of defence and should be used as such, meaning that it should be used after an Engineering, substitution and administrative control measures have been applied.

These are hazards that have been identified and are expected to be prevalent during the execution of the project refer to BRA.

"As built" drawing show services, however, these have been proven to be inaccurate. The contractor must treat all services as live. Electrical and water lines are to be inspected.

Public unrest - due to the volatile political climate leading up to the elections, the Principal Contractor may experience difficulties in the area. Procedure must be put in place to safeguard works and employees.

7 HSE training and competence

Where appropriate qualifications and training are registered in terms of the provisions of the National Qualifications Framework Act, 2000 (Act No. 67 of 2000), those qualifications and

training must be regarded as the required qualifications and training and employees must have attended courses of the aforementioned nature to be considered competent in the task.

All employees that form part of the construction work must be trained and competent. Employees formally appointed to perform a certain duty must be in possession of a training certificate, received from an accredited registered training provider. All employees must as a minimum have received site specific safety induction training and must receive daily safe task instruction training (DSTI) before any work commences. Construction Health and Safety Officer must be registered with SACPCMP either as a Candidate Construction Health and Safety Officer or as Registered Construction Health and Safety Officer.

7.1 Training Needs

There shall be a system in place to determine the training requirements of each individual, based on the tasks that the employee will perform as well as to ensure the health and safety of fellow employees and the public is not compromised in any way. Special attention should be given to employees who are new hires, new to the task or have combined responsibilities.

7.2 Basic Safe Work Training (Induction Training)

Principal Contractor shall ensure that his employees are inducted into his own company Health and Safety Management System as well as basic safe work training (HSE Induction Training). The Principal Contractor shall ensure that his employees, Contractor's employees and visitors are inducted on site specific health and safety procedures. They will be made aware of the risks and hazards that are prevalent to site.

A Daily Safe Task Instruction (DSTI) must be conducted on site with all employees involved in the project. The DSTI must be carried out each day before work commences and proof thereof must be available on site. Each work crew may conduct their own specific DSTI to discuss the hazards, risks and control measures associated with their task for the day.

Where two or more Contractors or work in the same area, they should have a combined DSTI to ensure they know of the additional hazards the other Contractor or work crew will introduce to their operations and what precautions to put in place.

The Principal Contractor shall have evidence that employees have been trained on the relevant procedures prior to and during the project duration. The evidence will be in a form of attendance register.

7.3 Formal Training

All qualifications for which there are SAQA registered training courses, must be regarded as the minimum required qualifications and training. To be deemed "competent" an employee must have received training at a registered training provider, the training course must be registered and if there is an assessment, the employee must have been found competent after the assessment. A person cannot be deemed competent after awareness training only.

The Principal Contractor shall ensure that the employees, as well as the employees of any Contractors that may be used, have received appropriate training for the type of work that will be performed, e.g. First Aid, Mobile Plant Operator, Working on excavations, Risk Assessment training, Safe Demolition Methods, etc.

7.4 Records

Record of all training shall be kept by the employer and shall be readily available. Records shall make provision for refresher training where applicable. Where an employee is legally appointed with certain duties and responsibilities a copy of the training certificate must be attached to the appointment.

8 Duties

Various duties are imposed on the client, designer, principal Contractor and the Agent by the Construction Regulation, 2014, Sections 5, 6 & 7. ORBIT TVET COLLEGE will comply and carry out the required duties as contemplated in Section 5 of the Construction Regulations, 07 February 2014 and it is expected from the designer and every Principal Contractor to make themselves conversant with the requirements and duties imposed on them and to ensure that they comply with the requirements of section 6 & 7 at all times.

9 Management and supervision

The Principal Contractor shall ensure that the project is managed safely, and legal compliance is ensured at all times.

A full-time competent person must be appointed as a Construction Manager to manage all construction work, including health and safety compliance. The construction manager may not be appointed to manage more than one single construction site.

The construction manager must appoint construction supervisors responsible for construction activities and ensuring occupation health and safety on the construction site.

The Principal Contractor must appoint a full-time or part-time construction health and safety officer, who is registered with the SACPCMP, to assist in the control of health and safety aspects on site.

10 Risk management

The Principal Contractor must follow a formal risk-based approach to ensure hazard control measures are implemented to an acceptable reasonable practical level. The Principal Contractor and his employees shall be responsible to ensure all hazards pertaining to his scope of activity are proactively identified, the risks assessed and appropriately eliminated or minimized and managed on an ongoing basis. Risk assessments shall also identify possible and potential environmental, health and hygiene issues pertaining to each hazard with potential exposures and limits.

10.1 Risk Assessment

The Principal Contractor shall, before the commencement of any construction work or work associated with the aforesaid construction work and during such work, conduct a risk assessment by a competent person, appointed in writing and the risk assessment so produced shall form part of the OH&S plan and be implemented and maintained as contemplated in Construction Regulation 9(1). Competence is a factor of training, knowledge, experience and/or appropriate qualifications.

The risk assessment shall include, as far as is reasonably practicable, at least: The task or task step; the identification of the risks and hazards to which persons may be exposed during the task or task step; The analysis and evaluation of the risks and hazards identified, inclusive of a residual risk rating methodology. The method to be used is not prescribed; a documented plan of safe work procedures, to mitigate, reduce or control those residual risks that have been identified as unacceptably high, by means of the rating system; a monitoring plan; a review plan, inclusive of dates to be adhered to; and Ergonomic related risks are to be analysed, evaluated and addressed as part of the process.

ORBIT TVET COLLEGE has conducted a Baseline Risk Assessment as per clause 5 (1) a of the construction regulation, which must be used by The Principal Contractor to develop task specific risk assessments before work commences.

10.2 Risk Assessment Monitoring

The Principal Contractor shall ensure that a monitoring plan for all risk assessments are in place. Risk assessments must be monitored to ensure effectiveness and employee understanding. The monitoring of risk assessments shall be formal, and records thereof shall be available for audit purposes.

10.3 Review of Risk Assessment

The Principal Contractor shall review the hazard identification, risk assessments and standard safe working procedures prior to any work activity commencement and at each production planning and progress report meeting as the contract work develops and progresses and each time changes are made to the designs, plans and construction methods and processes. The Principal Contractor shall provide the Employer, Contractors and all other concerned parties with copies of any changes, alterations or amendments as contemplated above.

Activities carried out without conducting a risk assessment or found to be non-compliant with the risk assessment, will be stopped until such time a risk assessment is compiled, and work is carried out according to the risk assessment.

Risk assessments must be fully communicated to all relevant personnel and must be considered when establishing training, awareness and competency requirements.

10.4 Baseline Risk Assessment

ORBIT TVET COLLEGE prepared a Baseline Risk Assessment from which the Health and Safety Specifications for this project was prepared. The Baseline Risk Assessment highlights all work for which The Principal Contractor must prepare safe work procedures and or work method statements. It must be noted that the Baseline Risk Assessment is not exhaustive and Principal Contractors are required to identify risks and come up with control measures, this must be identified by Principal Contractor when preparing the Issue Based Risk Assessments. During the briefing, the client will brief tenderers about the hazards and risks that are associated with the anticipated construction work.

10.5 Continuous Risk Assessment

The Principal Contractor shall continuously assess the risks of the activities that are carried out. Risk assessments must be in writing, site specific and must be reviewed continuously to ensure it is current and it address all the relevant hazards and risks associated with the specific activity at the specific site.

The Risk assessment must be discussed with the whole work crew before the activity starts and the work crew must acknowledge in writing having discussed the risk assessment and that they understand it. This acknowledgement must be on site and must be available to the client for audit purposes. The principal Contractor must appoint a competent risk assessor.

The Baseline Risk Assessment for this Project is attached at the back of this document.

11 Legal compliance and document control

a) The Principal Contractor is required to implement systems and procedures to ensure legal compliance through:

- Identification of all relevant HSE legislation, standards and codes applicable to its operations.
- Have available copies of all relevant HSE legislation, standards and codes for reference purposes.
- Update legislation, standards and codes with any changes
- Communicate to all employees any changes that may affect their accountabilities and conformance.
- Incorporate any legal requirements into their HSE management system.
- Monitor and review their HSE management system for effectiveness.

b) The Principal Contractor shall, as a minimum, comply with:

The Occupational Health and Safety Act (Act 85 of 1993) and its Regulations, an up-to-date copy of which shall be available on site at all times.

The Compensation for Occupational Injuries and Diseases Act (Act 130 of 1993), an up-to-date copy of which shall be available on site at all times.

Where work is being carried out on a “mine”, The Principal Contractor shall comply with the Mines Health and Safety Act and Regulations (Act 29 of 1960) and any other OH&S requirements that the mine may specify. An up-to-date copy of the Mines Health and Safety Act and Regulations shall be available on site at all times.

Wherever in the Construction Regulations or this specification there is reference to other regulations (e.g. Construction Regulation 24: Electrical Installations and Machinery on Construction Sites) The Principal Contractor shall be conversant with and shall comply with these regulations.

All legal appointments of The Principal Contractor regarding the Health and Safety of his employees who are to work on the project are addressed and governed by the OHS Act and applicable Regulations. Legal appointments must be in place and must reflect in the project safety file before work commences.

c) Overall Supervision and Responsibility for OH&S

ORBIT TVET COLLEGE will appoint the Principal Contractor in terms of Construction Regulation 5(1) (k). A Mandatory agreement as per Section 37.2 of the OHS Act, shall be signed between ORBIT TVET COLLEGE and the Principal Contractor. The Construction Health and Safety Agent can sign section 37 (2) on behalf of the Client.

It is a requirement that the Principal Contractor, when he appoints other Principal Contractors in terms of Construction Regulations 7(1)(c), 7(1)(d), 7(1)(f) and 7(3) includes in his agreement with such Principal Contractors the following:

OH&S Act (85 of 1993), Section 37(2) agreement: “Agreement with Mandatory”

OH&S Act (85 of 1993), Section 16(2) appointee(s) as detailed in his/her/their respective appointment forms. (Where applicable)

The signed Mandatory agreements shall be placed in the project file for reference and for audit trail purposes.

d) Specific Supervision Responsibilities for OH&S

The Principal Contractor shall appoint designated competent employees and/or other competent persons as required by the OHS Act and Regulations, as well as this specification. Appointments shall be in writing and the responsibilities clearly stated together with the period for which the appointment is made. This information shall be communicated to and agreed with the appointees. Where applicable, the training certificate must be attached to the appointment. Notice of appointments shall be submitted to the Employer. All changes shall also be communicated to the Employer.

It is a requirement that The Principal Contractor shall provide the Employer with an organogram of all sub-Principal Contractors that he/she has appointed or intends to appoint and keep this list updated and prominently displayed on site.

Designation of OH&S Representatives (Section 17 of the OH&S Act). Where the Principal Contractor employs more than 20 persons (including the employees of sub-Principal Contractors) he has to appoint 1 (one) OH&S representative for every 50 employees or part thereof. This is a minimum (legal) requirement. The Principal Contractor may at his own discretion appoint more OH&S representatives according to site specific requirements. General Administrative Regulation 6 requires that the appointment or election of the OH&S representatives be conducted in consultation with employee representatives or employees (Section 17 of the Act and General Administrative Regulation 6 & 7). OH&S representatives shall be designated in writing and the designation shall include the area of responsibility of the person and term of the designation. OH&S representatives must be experienced, permanently employed by The Principal Contractor or his sub-Principal Contractors, trained and able to move freely within their designated area of responsibility. The client or client representative reserves a right to instruct the Principal Contractor to appoint more Health and Safety Representatives depending on the prevailing conditions on site.

e) Duties and Functions of the OH&S Representatives (Section 18 of the OH&S Act)

The Principal Contractor shall ensure that the designated OH&S representatives perform their functions in respect of the workplace or section of the workplace for which they have been appointed. These functions include conduct continuous monitoring and monthly inspections of their respective areas of responsibility, focusing on unsafe acts and unsafe conditions and report thereon to The Principal Contractor. OH&S representatives shall participate in accident or incident investigations. OH&S representatives shall attend all OH&S committee meetings. The complete list of functions can be found in Section 18 of the OHS Act.

f) Appointment of OH&S Committee (Sections 19 and 20 of the OH&S Act)

The Principal Contractor shall establish an OH&S committee, which shall meet at least once a month, where two or more Health and Safety Representatives have been appointed. OH&S representatives must be appointed as OH&S committee members. The number of management appointed members may not exceed the number of OH&S representatives on the committee.

g) Operational integrity

The operational integrity of plant, equipment, structures and protective systems must be monitored and assured on an ongoing basis throughout the project cycle. Hazards must be identified, assessed and as far as reasonably practicable, eliminated or the risks treated to as low as reasonably practicable (ALARP).

h) Construction Plant & Equipment

The Principal Contractor shall maintain all items of plant and equipment necessary to perform the work in a safe condition.

ORBIT TVET COLLEGE reserves the right to inspect items of plant and equipment brought to site and used on site by The Principal Contractor. Should it be found that any item is inadequate,

faulty, unsafe or in any other way unsuitable for the safe and satisfactory execution of the work for which it is intended, The Principal Contractor will be advised of such observation / inspection, and The Principal Contractor shall be required to repair, make safe or remove such item from operation and replace it with a safe and adequate substitute.

The Principal Contractor shall ensure that all plant, equipment, and power tools that are brought onto and used on site are:

- Appropriate for the type of work to be performed.
- Placed on a register and inspected by a competent person or the authorized operator before use, daily or monthly dependent on Legislation and project requirements.
- Record inspection findings on a register that must be kept on site.
- The inspection register shall reflect the serial number of the plant, equipment or power tool.
- Maintained and used in accordance with the manufacturer's recommendations.
- Have adequate machine guarding fitted to all exposed rotating or moving parts, as reasonably practicable that have the potential to cause harm.
- All electrical power supply units are protected with operational earth leakage devices.
- Any defective, damaged or sub-standard equipment must be marked as unsafe for use and removed from operation as soon as possible.

i) Standards and Registers

As standard project procedures, The Principal Contractor is expected to:

- Set up an initial set of registers as per the requirements of the OHS Act and Regulations.
- Complete the registers for each piece of plant, tool and equipment brought on and used on site.
- Maintain a complete, continuous and comprehensive inspection and service history in these registers or checklists.
- Ensure daily, weekly, monthly inspections are done and recorded for all plant, tools & equipment by a competent person as required by the OHS Act and Regulations.
- Have the inspection and maintenance records available for audit purposes.

j) Working at Heights

- All work above 2m will be regarded as working at heights and subject to an approved issue-base risk assessment prior to work being undertaken including working from various forms of stationary, portable and mobile machinery and equipment.
- Working at height will include the following controls: -
- Appointment of a trained and competent scaffold inspector and erector.
- All scaffolding and equipment used for working at heights shall to comply with the requirements of SANS 10085 and Construction Regulations 2014.
- All equipment used for working at heights shall comply with relevant approved design standards.

12 Occupational Health and Hygiene

12.1 Medical Fitness for Duty

All Principal Contractor employees shall undergo medical examinations and be certified fit for duty by an Occupational Health Practitioner before they are allowed to work on site.

The medical certificate must be in the form of Annexure 3 of the Construction Regulations and stipulate the possible exposures the employee might be exposed to during the execution of the project.

It is recommended and in the best interest of The Principal Contractor to implement pre-employment as well as exit medical surveillance, especially with regards to Section 8 of the Noise Induced Hearing Loss Regulation.

12.2 First Aid

According to GSR 3(4), where more than 10 employees are employed at a workplace / worksite, The Principal Contractor shall ensure that there is at least one trained first aider for every group of 50 employees at the workplace/site. First Aid boxes must be provided where more than 5 employees are employed and must be readily available and accessible for the treatment of injured persons at the workplace.

To ensure immediate treatment of an injured person, it is recommended that all work crews have at least one trained first aider, with a fully stocked first aid box, irrespective of the number of people in the work crew. This is especially important when Principal Contractors work at great distances from the nearest emergency facility or town. These persons shall be appointed in writing as the first aiders with their certificates attached as proof of competency.

The minimum contents of the first aid box shall be as per the supplied list in the General Safety Regulations.

All treatments done must be recorded on a register and kept with the first aid box. A trained and appointed first aider must be responsible for the first aid box and its content. Used content must be replenished as soon as possible.

In order to ensure prompt response at the emergency facility it is recommended that the W.CI 2 forms be partially completed with the employers' details.

12.3 Hygiene Facilities

The Principal Contractor and his Principal Contractors shall ensure compliance to Section 30 of the Construction Regulations with regards to facilities on the construction site as well as where accommodation is provided to employees on remote sites. The Principal Contractor shall ensure that the facilities are kept clean at all times, either through a service provider or self-employed

persons. The Principal Contractor shall provide employees with at least one sanitary facility for each sex and for every 30 workers, changing facilities for each sex and sheltered eating areas.

13 Waste management

The Principal Contractor shall comply with all applicable and relevant Waste management legislation, as well as municipal bylaws applicable to waste management.

The Principal Contractor shall remove all waste generated at the construction site on a daily basis or as soon as possible after generation to ensure good housekeeping at all times. The Principal Contractor shall have a waste management plan which must be implemented on the construction site and which will have the objective to ensure that waste is managed according to the Waste Management Hierarchy:

- Reduce what you can. If you cannot reduce then,
- Re-use what you can. If you cannot re-use then,
- Recycle what you can. What you cannot recycle,
- Convert into energy sources. If it cannot be converted to an energy source,
- Dispose of in a landfill – this is only to be done as a last resort and disposed without endangering human health and without using processes or methods which could harm the environment.

14 Hazardous substance management

The Principal Contractor shall ensure that hazardous substances brought onto site are easily identifiable and stored according to the requirements of the General Safety Regulations, GNR. 1031 of 1986, Section 4.

Where flammable liquids are being used or stored, this must be done in a manner which would not cause a fire or explosion hazard.

The Principal Contractor shall have Material Safety Data Sheets (MSDS) readily available for flammable, hazardous and toxic chemical substances and materials brought onto site and shall ensure that his employees are trained in these MSDS's.

Flammable, hazardous or toxic chemical substances may not be stored in empty food or drink containers. Empty flammable, hazardous and toxic containers must be disposed of in a safe manner, which will prevent further use of such a container.

A survey of the construction site must be done during site establishment, to locate any asbestos. Should asbestos be located, the conditions of the Asbestos Regulations, GNR. 155 of 2002 must be followed and complied with.

15 Principal contractor

15.1 Consultations, Communications and Liaison

OH&S liaison between the Employer, The Principal Contractor, The Principal Contractors, the designer and other concerned parties will be through the OH&S committee. In addition to the above, communication may be directly to the Employer or his appointed agent, verbally or in writing, as and when the need arises.

Consultation with the workforce on OH&S matters will be through their construction managers and supervisors, OH&S representatives and the OH&S committee. The Principal Contractor shall be responsible for the dissemination of all relevant OH&S information to The Principal Contractors e.g. design changes agreed with the Employer and the designer, instructions by the Employer and/or his/her agent, exchange of information between Principal Contractors, the reporting of hazardous/dangerous conditions/situations etc. The Principal Contractors' most senior manager on site shall be required to attend all OH&S meetings

15.2 Operational Procedures

Each construction activity shall be assessed by The Principal Contractor so as to identify operational procedures that will mitigate against the occurrence of an incident during the execution of each activity. This specification requires

The Principal Contractor:

- to be conversant with all relevant Regulations.
- to comply with their provisions.
- to include them in his OH&S plan where relevant

15.3 Checking, Reporting and Corrective Actions

The Employer will conduct monthly health and safety and document verification audits in compliance with Construction Regulation 5(1) (o) in order to ensure that The Principal Contractor has implemented and is maintaining the agreed and approved OH&S plan.

The Principal Contractor will ensure that periodic health and safety audits and document verification are conducted at intervals mutually agreed upon between the Principal Contractor and any Principal Contractor, but at least once every 30 days.

The Principal Contractor will be provided with a copy of the Health and Safety audit report within seven days after the audit. The employer or his representative may stop any Principal Contractor from executing a construction activity which poses a threat to the health and safety of persons which is not in accordance with the client's health and safety specification and the Principal Contractor's health and safety plan for the specific site.

15.4 Other Audits and Inspections by the Employer

The Employer reserves the right to conduct other ad hoc audits and inspections as deemed necessary. This will include site safety walks.

15.5 Principal Contractor's Audits and Inspections

The Principal Contractor must conduct his own regular internal audits to verify compliance with his own OH&S management system, as well as with this specification. The Principal Contractor shall furthermore ensure that each Principal Contractor's health & safety plan is being implemented by conducting periodic audits at intervals mutually agreed between The Principal Contractor and Principal Contractors, but at least once per month.

15.6 Inspections by OH&S Representatives and other Appointees

OH&S representatives shall conduct weekly inspections of their areas of responsibility and report thereon to their foreman or supervisor whilst other appointees shall conduct inspections and report thereon as specified in their appointments e.g. vehicle, plant and machinery drivers, operators and users must conduct daily inspections before start-up.

15.7 Recording and Review of Inspection Results

All the results of the abovementioned inspections shall be in writing, reviewed at OH&S committee meetings, endorsed by the chairman of the meeting and placed on the OH&S File.

15.8 Project Health and Safety Management Plan

As per Section 5(1) (l) and Section 7(1) (a) of the Construction Regulations of 2014, The Principal Contractor shall develop, implement and administer a Health and Safety Management Plan. The plan shall be in writing and shall be negotiated between The Principal Contractor and Client or designated OHS Agent and must be approved by ORBIT TVET COLLEGE or the designated OHS Agent prior to the commencement of work on site. The plan shall demonstrate management's commitment to ensure employee health and safety as their primary objective during the contract. As a suggestion, the following elements may be used to develop the H&S plan:

- Introduction
- Mission
- Purpose & Scope
- Health, Safety and Environmental Policy
- Health, Safety and Environmental Goals
- Plan Objectives

- Leadership and Commitment
- Values supporting commitment.
- Roles, Responsibilities and Accountability

- Hazard and Risk Management Process
- Effective Consultation

- Planning

- Principal Contractor HSE Alignment
- Contractors
- On-Site

- Learning and Competency
- Project HSE Training and Competency Requirements
- Principal Contractor & Contractor Duties
- Minimum Training Requirements
- Medical and Induction
- Employee details
- Visitors to site
- Induction

- Involvement, Communication and Motivation
- Safety Meetings
- Health & Safety Behaviour
- Information and Learning

- Hazard and Risk Management on site
- Hazardous Activities
- Hazardous Areas
- Hierarchy of Hazard Control
- Hazard and Risk Identification
- Risk Analysis and Evaluation
- Documented safe work procedures for hazardous activities.
- Hazard and Risk monitoring plan
- Hazard and Risk review plan

- Occupational Health and Hygiene
- Fitness for Work
- Hazardous Substances
- Airborne Chemical Substances
- Noise and Vibration
- Personal Hygiene
- Protection of Outdoor Workers
- Occupational Health Services on Site

- Performance Tracking and Accountability
- Positive Performance Indicators
- Workplace Observations and Audits
- Reporting

- Incident Management
- Emergency Preparedness and Response
- Incident Management
- Injury Management
- Waste Management
- Hazardous Waste
- Non-Hazardous Waste - Recyclable
- Non-Hazardous Waste – Non recyclable

15.9 Project Health and Safety File

The Principal Contractor shall compile a project specific Health and Safety File that consist of all the relevant project specific documentation. The Health and Safety file may consist of multiple files, which when combined should contain all the required documentation.

It is recommended that the project specific Health and Safety file contain at least the following:

- Scope and summary of the project as well as any scope changes.
- Notification of Construction Work to DoL / Copy of Work Permit
- Proof of COID registration (Letter of Good Standing)
- Principal Contractor Health and Safety Policy statement signed by management.
- Mandatory Agreement – OH&S Act 37.2 (Between Employer and Principal Contractor)
- Signed Client Health and Safety specification
- Latest copy of the OHS Act and Regulations.
- Company Organogram depicting Health and Safety Responsibilities, including sub-Principal Contractors.
- Employee list including copy of IDs and medicals.
- Project specific Health and Safety Management Plan agreed with the Employer – See point 16.4 above.
- Relevant OH&S Legal appointments which includes duties and responsibilities as well as competencies (training certificate)
- Copies of minutes of meetings - OH&S committee and other relevant OH&S meeting minutes
- Designs/drawings (Construction Regulation 7(1)(e))
- Site specific Fall Protection Plan (if applicable)
- Risk Assessments
- Principal Contractor Induction material
- Waste management Plan
- Emergency preparedness (first aid, firefighting, emergency plan, etc.)
- Emergency Contact Telephone numbers
- HIV awareness program
- List of hazardous chemical substances used on site.
- Material Safety Data Sheets of hazardous chemicals on site
- List of plant & equipment to be used on site.

- Inspection Checklists/Registers of plant & equipment and emergency equipment
- List of Sub-Principal Contractors including type of work.
- Sub-Principal Contractor 37.2 Mandatory Agreements
- Sub-Principal Contractor appointments which shall include the type of work The Principal Contractor is appointed for.

15.10 Contracting Philosophy

Any site-specific hazards and safety management expectations will be made known to The Principal Contractor prior to the work commencing on site. Legal OHS requirements contained in the OHS Act and Regulations as well as SANS Codes are the minimum requirements The Principal Contractor must apply during this contract with regards to Occupational Health and Safety. The Principal Contractor shall apply, implement and enforce the minimum OHS Act & Regulations and SANS Codes requirements.

15.11 Workers Compensation Registration

The Principal Contractor shall ensure that his employees are covered for any occupational injuries and illnesses in terms of the Occupational Injuries and Diseases Act 130 of 1993, which cover shall remain in place and up to date for the duration of the project. The principal contractor must ensure that only contractors who have letter of good standing are eligible to work under this contract.

15.12 HSE Non-Compliance

It is a legal duty of the client according to the Construction Regulation 5(1) (q) that a Principal Contractor is stopped from executing any activity which poses a threat to the health and safety of persons. Depending on the seriousness of the non-compliance only the specific activity may be stopped until the non-compliance is rectified or the whole operation may be stopped.

It is also the duty of every employee to take reasonable care of his own health and safety and of other persons who may be affected by his acts as per OHS Act, Section 14(a). Keeping this in mind, it is required of The Principal Contractor to ensure his employees has the right to remove themselves from any unsafe situation or work activity, without any negative consequence to them until such time as The Principal Contractor has made the unsafe situation or activity as safe as practicable possible.

15.13 Indemnity by Principal Contractor

The Principal Contractor shall indemnify the Employer against and from all damages, losses and expenses (including legal fees and expenses) resulting from:

- the loss of output and delay caused by the slowing down or partial or total stoppage of work caused by:

- all or any of The Principal Contractor's workforce as a result of a dispute between all or any of the Principal Contractor's workforce and The Principal Contractor; or
- all or any of the Principal Contractor's suppliers' difficulty or impossibility to deliver goods or materials needed to perform the Works.
- Any unlawful, riotous or disorderly conduct by or amongst the Principal Contractor's personnel."

15.14 The Principal Contractor Conduct

Guidelines to the most important rules that shall be implemented and maintained by the Principal Contractor:

- Complete compliance to the OH&S Act 85 of 1993 and Regulations
- Hazard identification and Risk Assessments for all activities
- Daily communication of DSTI talk before work commences.
- Safe access and egress to and from work areas.
- Good housekeeping and stacking practices.
- Safe lifting, rigging and slinging practices.
- Complying to Legal standards for lifting machinery & equipment
- No lifting in wind conditions exceeding 30km/h (This is a guide and is dependent on risk assessments)
- Securing of tools, equipment and material at heights
- Wearing of appropriate personal protective equipment as identified in the risk assessment.

15.15 Principal Contractor and Contractor Management

The Principal Contractor shall establish, maintain and ensure that all his Contractors establish and maintain HSE standards and systems as necessary and to comply with the Legal requirements as well as these HSE specifications.

The Principal Contractor shall be solely responsible for carrying out work on the project, having the highest regard for the health and safety of his employees and people in the vicinity of his work area.

15.16 Public Health and Safety

The Principal Contractor shall, as far as is reasonably practicable, be responsible for ensuring that non-employees affected by the construction work are made aware of the dangers likely to arise from said construction work as well as the precautionary measures to be observed to avoid or minimise those dangers.

This includes:

- Non- employees entering the site for whatever reason.
- The surrounding community
- Passers-by to the site.

15.17 Designing for health, safety and environment

Designing for safety is a process aimed at minimizing injury, death, property damage or destruction and harm to the environment, by utilizing an approach to identify and eliminate or control hazardous areas. The project Designer and Principal Contractor must implement a process that ensures safety is incorporated in the design process, which includes temporary works as contemplated in the Construction Regulations, 2014 Section 6 and Occupational Health and Safety Act 85 of 1993 section 10.

The Principal Contractor must communicate the anticipated risks and hazards resulting from the design to his employees and establish safe work procedures for the temporary works.

15.18 Incident management

The Principal Contractor shall ensure that a culture exists within his company that promotes the recognition, response, reporting and investigation of incidents, including near misses (near hits). The Principal Contractor must implement a procedure for reporting and investigating accidents, incidents and near misses. The Principal Contractor should have a clear objective and target to obtain zero injuries for the duration of the project and such an objective must be communicated to all employees.

Appropriate corrective actions must be implemented, and the applicable learnings must be shared within The Principal Contractors business to prevent a recurrence of the incident or to prevent the near miss from becoming an incident in future.

15.19 Incidents and Accidents

The Principal Contractor and his Contractors shall coordinate their investigation of all accidents/incidents where employees and non-employees were injured to the extent that he had to be referred for medical treatment by a doctor, hospital or clinic. The results of the investigation shall be entered into an accident/incident register, which must be updated with each accident/incident.

The Principal Contractor shall notify the relevant ORBIT TVET COLLEGE Project Manager and or ORBIT TVET COLLEGE OHS Specialist of any incident / accident within the Principal Contractors or his Principal Contractors area of responsibility in writing as soon as possible.

Although the accident / incident is reported to the client, the Principal Contractor has a responsibility and is required by law to report any Section 24 accidents and incidents to the Department of Labour. Any road traffic accident must be reported to the relevant authorities.

It is essential that The Principal Contractor demonstrate that corrective and preventative action has been taken to prevent a similar incident in future and that it is communicated to all The Principal Contractors affected staff. A copy of the investigation, corrective and preventative action taken as well as the attendance register of the employees who attended the discussion of the

incident and the action implemented to prevent a similar incident, must be forwarded to the ORBIT TVET COLLEGE Project Manager and or the ORBIT TVET COLLEGE OHS Specialist.

Investigations must be completed for:

- Near Miss Incidents (To prevent it from becoming an incident)
- First Aid case Incidents
- Medical treatment case Incidents
- Fatalities

15.20 Incident Reporting

The Principal Contractor shall provide the Employer with copies of all statutory reports required in terms of the Act within 7 days of the incident occurring. In addition, The Principal Contractor shall update monthly the Disabling Injury Frequency Ratio (DIFR) and display this information on a signboard at the site office.

The Principal Contractor is responsible for collecting, recording, calculating and reporting his and his sub-Principal Contractors Health & Safety statistics to the ORBIT TVET COLLEGE OHS Specialist.

The statistics should contain at least the following for all employees of all Principal Contractors working on the project:

- Total Number of workers
- Total Number of hours worked (on the ORBIT TVET COLLEGE project)
- Total Number of Near Miss Incidents
- Total Number of First Aid case Incidents
- Total Number of Medical Treatment case Incidents (Excluding Section 24 type incidents)
- Total Number of Section 24 type Incidents
- Preventative actions taken on incidents that have occurred.
- Communication to employees and Principal Contractors of incidents and preventative actions.

15.21 Project specific construction requirements

The clause contains specific requirements for Contract, which must be adhered to in addition to minimum legislative requirements. The scope of work entails the following risks and hazards that will need to be managed throughout the project life cycle.

15.22 Daily Site Attendance Register

The Principal Contractor shall keep a daily site register so as to be able to identify the entire Principal Contractors personnel on site in case of an emergency or evacuation situation. The attendance register must include permanent as well as temporary workers working on the site.

All site visitors and any new Principal Contractors shall report to security / reception upon arrival at site. The Principal Contractor will only be granted first time access to work on the site if all required documentation has been provided and approved.

All visitors need to sign an attendance register when visiting the site. Visitors include all persons which are not permanently working on the site but excludes temporary site workers. Visitors must undergo site induction training before they are allowed on site to make them aware of the site dangers.

15.23 Emergency Numbers / Emergency Evacuation

A list with emergency numbers must be readily available to first aiders and supervisors. Emergency numbers must be site specific and must display the nearest emergency facilities.

The Principal Contractor shall identify and formulate emergency procedures in the event an incident does occur. The emergency procedures thus identified shall also be included in The Principal Contractor's OH&S plan and communicated as part of induction training.

The Principal Contractor must implement an emergency evacuation procedure on site to ensure that in case of an emergency, all staff will leave their place of work when the emergency siren is sound and proceed to the demarcated emergency assembly point. The emergency assembly point must display the sign "Emergency Assembly Point".

An evacuation route diagram must be displayed and visible at strategic points in buildings and on notice boards.

All staff working on site must be given awareness training on the emergency evacuation procedure and evacuation drills must be exercised to ensure all staff know the correct procedure to follow in case of an emergency.

15.24 Site Security

Certain areas where work must be carried out, is recognized unsafe areas and certain other areas may from time to time become unsafe, due to 3rd party actions. The Principal Contractor must as far as reasonably possibly anticipate unsafe areas and must ensure that his site staff is safe from 3rd party actions, which include but is not limited to:

- Unrests,
- Violent Demonstrations,
- Theft,
- Injury from 3rd parties at all times.

The Principal Contractor must, when work is to be carried out in the above-mentioned areas, make provision for security services to accompany site staff during the execution of their work, as The Principal Contractor is responsible for the Health, Safety and Security of his own staff. The provision for security services must form part of The Principal Contractors tender.

15.25 Personal Protective Equipment

Comply with General Safety Regulations, Section 2. Personal protective equipment (PPE) should, however, be the last resort and there should always first be an attempt to apply engineering and other solutions to mitigating hazardous situations before the issuing of PPE is considered. The hierarchy of hazard elimination must be followed before the option of personal protective equipment is considered. The following hierarchy of controls must be followed:

- Elimination
- Passive Controls
- Substitution – Using a cherry picker or man-lift instead of a ladder.
- Engineering Controls – Installing barrier railings; Installing stairs instead of using vertical ladders.
- Active Controls
- Administrative policies and procedures
- Personal protective equipment

Where it is not possible to create an absolutely safe and healthy workplace The Principal Contractor shall inform employees regarding this and issue, free of charge, suitable equipment to protect them from any hazards being present and that allows them to work safely and without risk to health in the hazardous environment.

The Principal Contractor shall include in his OH&S plan the PPE he intends issuing to his employees for use during construction and the sanctions he intends to apply in cases of non-conformance by his employees. Conformance to the wearing of PPE shall be discussed at the weekly inspection meetings.

15.26 Site Supervision

The Principal Contractor shall appoint a competent Construction Manager who shall be responsible for the construction activities and for ensuring occupational health and safety compliance on the construction site.

15.27 Structures

The Principal Contractor shall ensure that all practicable measures are taken to prevent the uncontrolled collapse of new or existing structures or any part thereof, which may become unstable or is in a temporary state of weakness or instability due to the carrying out of construction work. No structure may be loaded in a manner which would render it unsafe.

15.28 Excavations

The Principal Contractor shall ensure that all excavations are carried out under the supervision of a competent person who has been appointed in writing as Excavation Supervisor.

The Principal Contractor must evaluate the stability of the ground before excavation work begins as well as during excavation work. Excavations must be barricaded to prevent unauthorized access.

Borrow pits and rock quarries poses lot of risk on the construction site. The should not commence with the opencast mining or quarrying activities before the necessary DMR approvals are in place. The risk assessment should address the risk associated with the Borrow Pits. All the Borrow pits should be fenced and guarded at all the times.

15.29 Cranes

Crane operators must be competent to carry out their work safely and must be in possession of a valid medical certificate of fitness, issued by an occupational health practitioner.

The wind factor should always be taken into consideration when operating cranes and that a wind speed device is fitted that provides the operator with an audible warning when the speed exceeds the design engineer specification. Upon noticing that the wind speed is equal or more than the specified speed limit, the operator should stop immediately.

Construction Vehicles & Mobile Plant should comply with Construction Regulation, Section 23, National Road Traffic Act, 1996

15.30 Electrical Equipment

The Principal Contractor shall take adequate steps to ascertain the presence of and guard against danger to workers from electrical cables or apparatus which is under, over or on the site. The exact location of underground electric power cables must be determined before any excavators are used for excavation purposes. The location of overhead electrical cables must be assessed when working with cranes and lifting equipment.

All temporary electrical installations must be inspected at least once a week by a competent person and the records of the inspections must be recorded in a register which must be kept on site.

15.31 Temporary Storage of Flammable Liquids

The Principal Contractor must ensure storage areas of flammable liquids are well ventilated and “No Smoking” signs are placed at the entrances and ventilation ducts of the storage areas. Firefighting equipment must be available in suitable positions around the storage areas.

The Principal Contractor must ensure that good housekeeping is practiced in and around the flammable storage areas.

15.32 Water Environments

The Principal Contractor must ensure that a lifejacket forms part of the employees PPE and is worn when the employee is exposed to the risk of drowning, by falling into water.

The risk assessment must make provision for the rescuing of persons in danger of drowning and for preventing employees from falling into the water. When working over water environments, Section 10 of the Construction Regulations – Fall Protection will also apply.

15.33 Housekeeping

The Principal Contractor shall ensure that suitable and acceptable housekeeping is continuously implemented and maintained on the construction site. Off-cuts and waste must be removed by the end of the shift or as soon as practicable. The PC should CR 27 and Environmental Regulations for Workplaces, Section 6(3).

15.34 Stacking & Storage of Material & Equipment

The Principal Contractor shall appoint a competent person in writing with the duty of supervising all stacking and storage operations on site. Stacking shall only take place in areas specifically demarcated for this purpose. Circular items must be secured with wedges or chocks.

Items removed from a stack shall only take place from the topmost layer of the stack. Stacks shall not obstruct any fire extinguishing equipment, first aid equipment, electrical switchgear (DB Boxes) and ventilation or lighting installations. Unstable stacks must be broken down immediately.

15.35 Fire Precautions

The Principal Contractor must provide his own firefighting equipment that is within the service date and safe for use. Firefighting equipment must be on a register and inspected by a competent person who has been appointed in writing.

Suitable and sufficient fire extinguishing equipment must be placed at strategic locations and a sufficient number of firefighters must be available, which must be trained in the use of it.

15.36 Intoxicating Liquor and Drugs

The site limit for intoxication is set to zero to complement a vision of zero tolerance. Any person found to be intoxicated, or consuming intoxicating liquor or illegal drugs, will not be allowed onto the premises and/or will be removed from the premises.

The Principal Contractor has the right to test any person entering the premises for intoxicating liquor or illegal drugs and may refuse entrance on the basis of the outcome of the test.

The Principal Contractor shall ensure that employees taking prescription medicine informs The Principal Contractor of such and shall ensure that the side effect of such medicine does not constitute a hazard to the employee himself or people working in close vicinity to the employee.

15.37 Confined Space Work & Tunnelling

The Principal Contractor shall ensure that only authorized persons enter confined spaces. An entrance log must be kept ensuring people are not left inside the confined space. Adequate air monitoring must be carried out before entering the confined space.

15.38 Site Services

The Principal Contractor shall provide and maintain on the Site adequate and suitable sanitary services and a supply of potable water for The Principal Contractor's, the Employer's and the Engineer's personnel engaged on the Contract and, if necessary, similar facilities elsewhere for such personnel off the Site.

15.39 Drinking Water

The Principal Contractor must ensure that an adequate supply of potable drinking water is available for The Principal Contractor's, the Employer's and the Engineer's personnel engaged on the Contract and, if necessary, similar facilities elsewhere for such personnel off the Site. Employees working in hot conditions must consume enough water per hour to prevent dehydration.

Where water is unsafe for human consumption, it must be indicated by means of adequate signage.

15.40 Accommodation

The Principal Contractor shall comply with the requirements of Construction Regulation 30 with regards to employee's facilities and accommodation. Reasonable and suitable living accommodation must be provided to employees who are far removed from their homes. No accommodation will be allowed on the construction site.

15.41 Brickwork

The area where bricks are to be stacked must be level. Brick work will be constructed in accordance with the specifications standards specified by the engineer / architect, with approved materials. The brick work must be constructed from scaffold platforms on the elevated wall plates. Loading platforms shall also be constructed with scaffolding material for the loading of the bricks and mortar for the different levels, these platforms should be reinforced to take additional loads.

The brick pallets should be lifted with a pallets sling to prevent bricks from falling while being moved to loading platform.

15.42 Formwork

The Principal contractor must indicate the plan to implement formwork on the construction site. All employees must be trained and provided with necessary PPE before formwork commences. Equipment used must be pre inspected by a competent person. All defaulted equipment must be reported and not used. Pre assemble of formwork shutters should be prepared on an open area. Heavy shutters should be lifted with certified chains or slings.

15.43 Scaffolding

Every person required to erect, alter, disassemble and/or inspect scaffolding shall have undergone training and found competent to perform such work. Convenient and safe access must be provided to every scaffold platform. Where the access is a ladder, the ladder shall project at least 900 mm beyond the top of the platform.

All persons working on or from a scaffold platform shall wear safety harnesses which shall be secured to the platform. Scaffolding shall not be erected where electricity can pose a risk.

All scaffolds shall properly propped against displacement and secured vertically on firm foundations. Steel scaffold standards with “heavy”, “medium”, “light” or “very light” platform loading shall not exceed 320, 240, 160 and 80 kg/m² of load respectively, and spaced not more than 1.8 m, 2 m, 2.5m and 3 m apart, respectively.

Every scaffold platform shall comply with the following width dimensions:

- a) “Heavy” not less than 1125 mm and not more than 1380 mm.
- b) “Medium” not less than 1125 mm and not more than 1150 mm.
- c) “Light” not less than 900 mm and not more than 1150 mm.
- d) “Very light” not less than 675 mm and not more than 1150 mm.
- e) A minimum of 3 planks is required on a platform.

The base section of the scaffold must be provided with “foot plate” supports. The size of these plates must be related to the ground conditions. Scaffolding must be secured and effectively braced to ensure stability in all directions. Scaffolding must be secured at suitable vertical and horizontally distances to the structure to which work is being done.

Every plank of a wooden scaffold platform is to be at least 228 mm wide and 38mm thick.

Every plank which forms part of a scaffold platform is to be supported at distances not exceeding 1.25 m and, its ends project not less than 70 mm and not more than 200 mm beyond the last prop.

15.44 Plastering

The plastering work must be constructed from scaffold platforms on the elevated wall plates. The principal contractor must assure the lifting of mortar is performed in accordance with the method statement approved by the project engineer or manager. Housekeeping should be performed to keep the area clean.

15.45 Roof work

Any work must be performed within the requirements of OHS Act legislation: Construction Regulation 10 Fall Protection and 16 for Scaffold, GSR 13 for ladders.

15.46 Public awareness

The project is located in the police station. The Principal contractor must indicate in the SHE plan how the workers and visitors of the police station and the community will be protected from all the construction activities. The adjacent households to the project site must be notified through letters and notices of the hazards and risks associated with the project. The public should be given a platform of raising their concerns emanating from the project to avoid community unrest.

BASELINE RISK ASSESSMENT

RENOVATION OF ELECTRICAL WORKSHOP AT ORBIT TVET COLLEGE

Task#	Task description	Hazard/ aspect/ failure	Potential risk	SHEQ category	Raw risk rating	Suggested mitigation/ control measures	Residual risk rating
1	Introduction & training	Incident occurring due to uninformed individual	Injury Asset damage Environmental harm Quality non-compliance	S/H AD E QA	9(H)	- All employees, contractors & visitors to undergo site induction - Site induction to outline site hazards in the work area as well as the recommended precautionary measures - Site rules required PPE to be communicated - Employees to be trained on tools & equipment required for completing tasks assigned to them - Supervisors to be trained on process control procedure & required records. - Proof of conducted job specific training to be on file in safety office / head office	4 (M)

						• Training matrix to be generated to analyse training requirements for site employees • Training arranged according to needs analysis • Risk assessment to be communicated to all employees to which it is relevant. Record kept of discussion.	
2	Site establishment	Exposure to moving machinery & vehicles	Injury Asset damage	S/H AD	9 (H)	• Management to ensure the site layout is approved by RE • Layout to consider site traffic, plant movement & other interfacing contactor site layouts	4(M)
		Damage to fauna & flora	Environmental harm	EN	6(M)	• Site camp foot print & hauling routes to be established & confirmed with DEO & RE • Bund wall to be built around hazardous storage areas to prevent run off into water system & ground pollution • Construct berms to direct construction site runoff from entering the storm water/ natural water system • Establish waste storage area	2 (L)
		Hazardous chemical storage	Injury Ground pollution	S/H EN	9(H)	• No open flames & no smoking signs to be displayed in the vicinity of hazardous chemical store • All material safety data sheet (MSDS) to be available at all times	4(M)

				• Ensure that the person in charge of the chemical store is adequately and comprehensively informed and trained with regards to the potential risk to health caused by exposure etc. • Ensure hazardous chemical storage is bunded • Ensure hazardous chemical store is well ventilated • Ensure the area is well demarcated and screened off • Ensure all spills are reported immediately • Liquid bulk storage tanks to be bunded • Each bund to be capable of containing the maximum volume of the tank + 10% • Fire extinguisher to be in 10 meter radius	
Insufficient waste management	Water pollution Ground pollution Aesthetic pollution Air pollution	EN	6 (M)	• Ensure the waste storage area has sufficient capacity • Ensure that all loose materials & waste are covered & tied down to be prevent being dispersed by the wind • Ensure storage area clearly marked • Ensure all hazardous waste is removed to an approved dumping site/ facility	2 (L)

				• Colour code and label waste bins for waste separation	
Insufficient storm water management	Water pollution/ storm water system	EN	6(M)	• Evaluate existing storm water drainage patterns vs construction program • Implement temporary drainage channels and berms • Monitor effectiveness of temporary measures	2 (L)
Testing services not available at start up	Production loss business disruption	QA BD	12 (H)	• Site laboratory facility to be erected and equipped during site establishment • Ensure sufficient water and electricity supply • All equipment to be calibrated and copies of certificates submitted to QC officer • Offsite laboratory service to be identified and appointed before construction commences • Conduct start up audit of laboratory facilities	6 (M)
Unapproved material used in construction works	Production loss Business disruption	QA BD	12 (H)	• Sample of aggregates and mix designs to be tested and approved by RE before construction begins • Material approval register and requests established for record purposes	6(M)

Process control measures not planned	Production loss Business distribution	QA BD	12 (H)	- Method statement and quality control plans to be generated submitted to the client rep. for approval before construction activity commences - All supervisors trained in process control measures before construction activity commences	6 (M)
Restricted/ unsafe access/ egress to site	Injury Asset damage	S/H AD	9 (H)	- Implement traffic accommodation at site access points - Ensure required information and warning signage is erected at site access / egress points	6 (M)
Collision with vehicle/ individual while creating access through berm using TLB	Injury Property damage	S/H AD R/S/C	6 (M)	- Only certified and approved operators used - Daily plant pre-inspection checklist to be completed and signed off by supervisor - Toolbox talk and risk assessment conducted before activity commences (the risk assessment are communicated every 3 months – DSTI done daily) - DSTI to be completed and communicated before work commences and communicated before work commences and communication record signed by all employees working in that team.	2 (L)

				• Work area to be barricaded and flagman to control movement of public plant	
Equipment failure during offloading and positioning of containers/ offices (mobile crane)	Injury Asset damage	S/H AD	9(M)	• Management (supervisor) to ensure that only certified and approved operator, crane and lifting tackle to be used. • All lifting equipment to be inspected and registered • Plant pre-inspection checklist to be completed • Supervisor to ensure level and solid ground free of underground services • All four outriggers to be extended and support with timber planks • Check for overhead obstruction (e.g. powerlines, structures) • Operator and rigger to attend (sign on DSTi) toolbox talk and risk assessment training before work commences • Clear layout map/ instruction to be provided to crane operator	4 (M)
Lifted container falling	Injury Asset damage	S/H AD	9(H)	• Supervisor and rigger to ensure correct lifting tackle and attaching method/procedures applied • Correct PPE to be worn by all involved personnel • Access to the area to be controlled	4(M)

Load swinging and striking employees/ other containers	Injury Assets damage	S/H AD	12 (H)	• Area to be barricaded off during lifting activities to prevent unauthorised entry • Two guide ropes to be used on load to ensure stable movement • No lifting during high winds or inclement weather • Swing radius must be identified to ensure that the load can be offloaded in a safe manner • Ensure personnel stay out of the crane swing radius • Ensure there are barrier guards showing swing radius • A boom angle indicator must be on the crane • SWL should be clearly marked on the crane • No overhead lifting will be allowed EVER • Avoid sudden acceleration or breaking during traveling with a load which will cause the load to swing	6(M)
Employee injured whilst erecting fence	Injury	S/H	6 (m)	• Trained and competent workers to be used under supervision for fence erecting • Tools to be inspected before commencement of work • Employees to wear gloves whilst erecting fence	2 (L)

		Fence erected outside approved site footprint	Environmental harm	EN	4 (M)	- Fence line to be set out as approved site layout plan - Fence poles/standards to be planted as per setting out	1(L)
		Public and workers not informed due to inadequate and incorrect signage	Injury Asset damage	S/H AD R/S/C	12 (H)	- Legal required signage must be displayed and be clearly visible at all times - Information, prohibitive, mandatory and emergency signage explained to workers in tool box talks - Signage to be inspected daily to ensure that correct and sufficient signage erected	6 (M)
3	Site security	Theft/ unauthorised entry	Business disruption Asset damage	BD AD	12 (H)	- Fencing to be of minimum 1.8m height with 6m gates - Security service to be appointed to provide security and access control - Employee cards to be issued to site employees/ contractors - Photograph of employees to appear on laminated card	6 (M)
		Employee (including contractor and supplier) under the influence of alcohol or illegal substances	Injury Fatality Asset damage Production loss	S/H AD BD QA	12(H)	- No employee to be allowed to work when under the influence of drugs or alcohol - Random alcohol testing to be conducted on entering site - Disciplinary action to be taken against offenders	6 (M)

4	Emergency preparedness	Insufficient firefighting equipment	Injury Asset damage production loss	S/H AD	9 (H)	• Firefighting equipment analysis to be conducted at site establishment • Firefighting equipment placed as per analysis • Identification signage must be clear and visible • All relevant equipment to be numbered, inspected and on a register • All equipment must be serviced annually or after use • Identified personnel to be trained in firefighting • No personnel shall intentionally or recklessly damage or misuse anything which is provided in the interest of health and safety.	4 (M)
5	First aid	Inadequate medical assassinate Untreated injuries	Aggravated injury	S/H	6 (M)	• Sufficient first aid boxes to be available • Identified personnel trained in first aid • Identity of first aiders communicated • Ensure that appointed first aider is available during each shift • First aid boxes to comply with minimum requirements inspected and registered • First aid treatment register to be maintained	2 (L)

6	Facilities	Insufficient Toilet Facilities	Unhygienic conditions	S/H	3 (L)	Separate toilets for both genders, must be available and clearly identified	2 (L)
		Insufficient management of waste	Illnesses and ailments Aesthetic Pollution	S/H EN	6 (M)	- Separate waste bins for different waste categories to be available and identified - Waste disposal plan and schedule must be maintained - Bins must have lids	4 (M)
		Inadequate eating area	Poor hygiene Illnesses and ailments	S/H	6 (M)	Adequate, cleaning and shaded eating area to be insured	2 (L)
		Inadequate drinking water provided	Water contaminated Employee dehydration	S/H	6 (M)	- Facilities or arrangements to be made to ensure sufficient available drinking water for employees in and out of site camp - Signage to be installed to identify drinking and non-drinking water facilities - Water supply to be increased in heat water conditions	2 (L)
		Unsafe electrical connection	Injury Electrocution	S/H	12 (H)	- All cables to be routed underground - Only qualified electrician to do installation and termination - Certificate of compliance to be issued by electrician	6 (M)
7	Supplier vehicles and deliveries to site by down area	Reckless driving uncertified driver	Injury Fatality Asset Damage	S/H AD	12 (H)	- All drivers to be qualified - Draws up a site specific document stating site routes, site rules and persons to contact upon arriving at	6 (M)

						site. This is sent to the service providers upon signing agreements Vehicle warning/ safety devices to be in working order (construction lights, reverse hooter, etc)	
		Substandard truck	Injury Asset Damage	S/H AD	9 (H)	- Vehicles to be approved and licenced to enter site - Vehicle construction lights to be fitted and working to improve visibility - No visible oil leaks	4 (M)
8	Delivery or loading of materials/ suppliers on site	Restricted access and space in laydown/ loading area	Injury Asset damage	S/H AD	6 (M)	- Lay down area must be well planned to ensure adequate space - Access and offloading space must be included in site layout during site establishment - Storage area to be demarcated and barricaded - No material to protrude through or under the barricading netting	2 (L)
		Poor tacks/ storage practices	Injury Asset damage	S/H QA	6 (M)	- Surface of stacking area must be levelled - Safe stacking heights adhered to - Stacking of material is not permitted to be more than three times higher than the smallest diameter of base - Material only to be removed from the top of the stack	2 (L)
		Employment falling whilst climbing onto	Injury	S/H	9 (H)	Ladder to be used for mounting and dismounting of truck load bed	4 (M)

truck load bed to offload truck				- Additional worker to hold ladder below when worker climbing up and down ladder - Ladder to be numbered and colour coded - Ladder to be inspected on monthly basis and on register	
Insufficient dunnage	Asset damage	QA	4 (M)	- Timber poles/ wooden pallets (dunnage) to be used for stacking material susceptible to damp/ rust - Rebar, steel components should not be lying directly on the ground - Material to be stacked on wood cleared from ground and stacking must be secure	1 (M)
Un-informed operator	Injury Property damage	S/H	6 (M)	- All trucks to report to the site camp for further instruction regarding the final delivery point - Draw up a site specific document stating site routes, site rules and persons to contact upon arriving at site. This is sent to the service provider upon signing agreements - Supervisor to escort truck to site if delivering directly to the work area	4 (M)
Incorrect parking on site	Injury Asset damage	S/H AD	6 (M)	Supervisor to ensure that there is enough space to off load before truck arrives on site	2 (L)

						Traffic accommodation to be planned and implemented if delivery is offloaded close to or in live traffic	
		Load secure	Asset damage	AD QA	9 (H)	- Delivery truck to be inspected for secure load before the truck is unloaded - Site agent/supervisor and safety officer agree on remedial action to have the load offloaded safely - Unstable load to be secured before offloading the consignment - Damaged goods to be recorded on delivery note and supplier informed for credit and resupply - NCR will then be raised against supplier	4 (M)
		Truck driver not equipped with stop blocks and PPE	Injury Asset damage	S/H AD	6 (M)	- Spare stop block to be provided - Engine to be switched off and park brakes engaged - Operator to remain in vehicle in case of the vehicle rolling back or forward - Operator or co-driver are no to be allowed to exit the vehicle without the correct PPE	2 (L)
		Employee cut whilst offloading/ loading	Injury	S/H	9 (H)	- Ensure all materials are free from sharp edges and protruding objects - Gloves to be worn at all times - Employees to offload from top level of load - Supervision at all times	4 (M)

9	Loading and off-loading of truck with crane truck or mobile crane	Unqualified personnel on site`	Injury	S/H	9(H)	• Ensure all personnel have be declared fit for duty by a medical practitioner • Personnel shall undergo site induction • Daily DSTI on task risks to be completed • All appointments to be up to date • Crane operator must be licenced by an authorised training institution • Only competent trained appointed banksmen to assist with lifting operations • All competency certificates to be kept with appointments in the safety office	4 (M)
		Incorrect PPE	Injury	S/H	9 (H)	• Correct PPE to be issued and worn by employees • Hard hats to be utilized during any lifting operations	4 (M)
		Crane truck/ crane/ lifting tackle not inspected before being sent to site	Injury Asset damage Soil contamination Loss of production	S/H AD EN BD	6 (M)	• All cranes to be checked and tested by accredited inspector • Crane to be inspected and approved by site appointment mobile equipment inspector • Non-compliant equipment to be corrected before entering site • Crane to have up to date and valid load test certificate, rope test	2 (L)

						certificate, LMI calibration certificate and crane hook certificate • Full maintenance record of crane on file • Relative crane documents to be kept in operators cab • Crane pre-use checklist available in crane cab, understood and used by operator	
		Incorrect lifting equipment selected	Injury Asset damage	S/H AD	9 (H)	• Task assessed to confirm that lifting equipment is correct • Rigging study to be approved by site management and master rigger (5 tons and more)	4 (M)
		Lifting equipment failure	Injury Fatality Asset damage	S/H AD QA	12 (H)	• Lifting equipment to be inspected and on register with valid load certificate • Peruse inspection prior for use • No damage equipment to be used • All material/equipment that is to be lifted with a sling must be checked before lifting and after lifting from ground • The site appointed person shall inspect and look after the lifting equipment and tools whilst on site • All ropes, chains, hooks or other attaching devices, sheaves, brakes and safety devices of the crane will be examined every 6 months	6(M)

		Falling from height when connecting lifting equipment	Injury	S/H	9 (H)	- No steel on steel lifting (no chain sling to be used on rebar) - Constant supervision of lifting operation - Personnel must be instructed not to walk on the edge of truck load bed - A ladder is to be used when ascending or descending truck from the truck, ensuring 3 point contact with ladder	4 (M)
		Employee pinned between load/load and truck or ground	Injury	S/H	6 (M)	- Ensure loads are stable when offloading - Workers to ensure proper footing - Limbs not to be tangled in the guide rope or chain - No person is allowed standing on, or working under a load while it is in suspension	2 (L)
10	Establishing mobile crane on site	Uneven ground condition	Asset damage Injury Fatality Loss of production	AD S/H BD	8 (H)	- Supervisor and crane operator to do a pre inspection of ground condition - Barricade crane operating area - Ensure all personnel are clear of outrigger extension area - Hands and feet to keep clear from outriggers and pads or sleepers when crane is levelled - Ensure ground where outriggers will be placed is levelled and cleared of obstruction	4 (M)

						• Outrigger pads or sleepers to be placed under outrigger to increase better ground stability • Crane to be 100% levelled/ horizontally	
		Obstruction within boom swing radius	Injury Asset damage	S/H AD	9 (H)	• Supervisor/banks men to ensure area is free of any obstruction • The crane hook block and hook or load must never be slued over personnel of vehicles, especially if personnel are sitting in the vehicles	4 (M)
		Excavation	Injury Fatality	S/H	12 (H)	• Crane not to be established closer than 2 meters to any excavation to prevent possible side wall collapse • No material to be placed on the edge or near the edge of any excavation	4 (M)
		Contact between overhead power lines and crane (arch flash/ electrocution)	Injury Fatality	S/H	6 (M)	• No work to be conducted within 15 meters of any power line • Site manager to ensure a pre-plan meeting and site inspection conducted • Permit to work near power lines to be applied for, accepted and approved by local municipality/ Eskom, site manager and client representative	6 (M)
11	Operating mobile crane on site	Operating slipping whilst ascending or descending from crane	Injury	S/H	9 (H)	• Ensure operator maintain 3 point contact t all times when ascending and descending equipment	4 (M)

						- Operator to ensure access steps are clean and in good serviceable condition - Ensure safety shoes are clean of mud	
		Banks man – slipping, tripping or falling while communicating with crane operator	Injury	S/H	6 (M)	- Ensure level working area free from tripping and slipping hazards - Provide safe working platforms where necessary	2 (L)
		Incorrect lifting equipment/ equipment failure	Injury Asset damage	S/H AD	9 (H)	- Pre-task assessment to be conducted to ensure that the correct lifting equipment and size crane is used - Correct PPE to be worn - Competent employee to be appointed to be responsible for equipment and inspection there off - Use correct and certified equipment - Work within crane and lifting equipment	6 (M)
		Crane toppling over	Injury Fatality Asset damage	S/H AD	8 (H)	- Ensure outriggers are in full extended position on firm and stable ground using spreader boards - Load to be raised slowly to check load stability and centre of gravity - Banks man only person to communicate with crane operator - Operator must always head to an emergency STOP signal, no matter who gives it, except when specialised engineering lifting	4 (M)

						operations are conducted – then only the rigger • Banks man to communicate with hand signals or radio • Lifting not to take place during excessive wind • Banks man to remove gloves when giving hand signals • Banks man to ensure no person is beneath a suspended load • No person to be allowed within the crane swing radius • Crane not to travel with outriggers or boom in extended position	
		Employee injured / property damage whilst load being prepared to be hoisted	Injury Asset damage	S/H AD	9 (H)	• Ensure that operator hoist crane up slowly to rid equipment of slack • Lifting equipment to be connected according to procedures • All lifting equipment must have a valid load certificate • Inspection to be register • Hands to be clear when load hooked up • Banks msn to ensure all personnel are clear when hoisting • No overhead lifting will be allowed	4 (M)
		Loading control of the hoisted load – striking employees, plant or structure	Injury Fatality Asset damage	S/H AD	12 (H)	• Work to lifting procedures/task analysis	4 (M)

						• Area to be barricaded during lifting activities to prevent unauthorised entry • Area to be barricaded during lifting activities to prevent unauthorised entry • Banksman must wear high visibility vest during lifting operations • Banks man to communicate with staff manning guide ropes whistles to be utilized • Ensure sufficient guide ropes attached to ensure stable movement • Work to equipment specifications • Work in crane load chart specifications	
		Inclement weather conditions (high winds; lightning; heavy rain)	Injury Fatality	S/H	12 (H)	• Work within wind guidelines – less than 25km per hr. – evaluate situation in conjunction with operator and site management • Do not work in thunderstorms and lightning • Do not work on elevated positions when raining • Suspended load to be lowered to ground level, outriggers to be retracted, crane to be switched off and operator to remain in cab during lightning storms until further notice • Do not work with any steel	6 (M)

						- Daily DSTI to include risks resulting from adverse weather - No electrical work is to be conducted on crane in were conditions	
12	Hazardous chemical storage	Employees not familiar with MSDS Liquid splashing Employees inhaling fumes Liquid spilling from container No information of hazardous substance	Injury Disability Fatality	S/H EN	13 (H)	- Obtain formal approval of flammable store from the relevant local authority and display the certificate at the entrance to the store - Flammable liquid store to conform all legal requirements - Assessments to be carried out to determine the quantity of flammable liquid kept on site - No open flames and no smoking symbolic signs to be displayed in the vicinity of flammable liquid store - All material safety data sheets (MSDS) to be available at all times - Liquid bulk storage tanks to be bunded - Each bund to be capable of containing the maximum volume of the tank +10% - Fire extinguisher to be in 10 meter radius	5 (L)
13	Plant selection	Substandard Plant/incompetent operators	Injury Property damage Product loss	S/H AD	6 (M)	- All plant to report to safety officer upon arrival on site with the following: - Certified copy of ID - Valid medical certificate	3 (L)

						- Valid training certificate for the equipment she/he will be operating - Site induction to be done before any work commence - Legal appointment letter to be done and signed by the operator - Supervisor to be informed of arrival so that the operator can be informed of his duties - Plant to be inspected and taken photos for site register - Pre-start checklist to be done daily and signed off by the supervisor - All damages and fault to be reported immediately	
14	Refuelling of plant	Fuel spillage during refuelling of plant	Soil contamination	EN	6 (M)	• Bunding or drip tray placed under stationary plant • Spill kit to be available at all times • MSDS available on site • Personnel trained in spill cleaning procedure • Fire extinguisher and relevant required signage to be installed (no smoking, no open flames and hearing protection)	4(M)
15	Operating plant on site	Substandard plant	Injury Asset damage Production loss	S/H AD BD	6 (H)	• Plant to be inspected by site appointed inspector • Plant to be listed on equipment register	4 (M)

						- Daily pre-use checklist to be completed - Plant to be equipped with warning devices (construction light, reverse hooter, flag, etc.)	
		Incompetent operator	Injury Fatality Asset damage Production loss	S/H AD BD	12 (H)	- Operator to be inducted and appointed - Proof of medical fitness to be available - Proof of qualification certificate available/ drivers licence (code EC) - Operator to attend risk assessment and DSTI discussions	6 (M)
		Speeding violation by plant on site	Injury Fatality Asset damage	S/H AD	12 (H)	- Supervisor to monitor plant speed on site - Speed signage displayed on site - Operator to slow down if visibility is poor on site - Operator to adhere to stipulated following distance (40 meters)	6 (M)
		Collision with other vehicle/equipment on site	Injury Fatality Asset damage Ground contamination Production loss	S/H AD EN QA	12 (H)	- Plant to be assigned to designated work area - Tipper truck/ ADTs' assigned to haul roads/ route - Plant / vehicle headlights to be on in bad visibility - Construction plant of the way rule enforced - Warning signage and traffic direction signage erected	6 (M)

						- Vehicles to stay within construction plant operators line of sight (part of site induction) - Site SHE officer to be informed immediately of incident - Incident scene not to be disturbed until investigation is completed - Spill kit to be used if any spillage caused by damaged plant or vehicle - Supervisor to inform client representative to inspect any damage to completed works	
		Excessive dust caused by construction plant	Air pollution	EN	6 (M)	- Dust suppression application rate to be established - Supervisor to monitor dust in work area - Dust suppression application to be increased if excessive dust experience due to activity or weather conditions	2(L)
		Employee struck by flying object from plant operation	Injury	S/H	6(M)	- Section 24 – reportable incident - Personnel not to be allowed within 10 meters of operating plant (e.g. recycler, grader, roller, etc.)	4 (M)
16	Survey setting out points	Incorrect setting out points (demarcation)	Quality NCR Production loss	QA BD	6 (M)	- Ensure surveyor has latest “construction drawings” - Verify survey beacon integrity - Supervisor to confirm that construction as per survey point	4 (M)

17	Clearing and grubbing	Damage to flora, fauna and / or heritage items		EN	9 (H)	• Survey and fence any sensitive area that require protection within/adjacent to the works area in accordance with sensitive area plans and in consultation with the project ecologist • Fence areas of significant flora, fauna habitat or known archaeological sites that are to be retained (protected) • Fence areas of significant flora, fauna habitat or known archaeological sites that are to be retained (protected) • These sites are to be managed in accordance with the working near sensitive areas • Limit of clearing to be marked with Pegs/red and white danger tape at a maximum of 50m centres • Pegs marked clearly indicate clearing side • Limits of clearing to be set out by survey	3 (L)
18	Clearing operations	Damage to watercourses and prepared areas	Water pollution	ENV	12 (H)	• Locate stockpiles clear of properties and away from watercourses where possible. • Provide protection that prevents vegetative material from falling into or entering any creek or stream	6 (M)

						- Where construction activities allow, only remove the upright trunk part of the tree within riparian zones, leaving the stump and roots within the ground to minimise disturbed areas - Access along identified paths and tracks, and vehicle movement plan in place - Transport of clearing plant and equipment across waterways to be undertaken at an approved established access point only	
19	Exposing of existing services; Telkom lines Overhead power lines Electrical cables Water supply lines	Damage to existing services, injury to employees, damage to assets	Injury Fatality Asset damage Community impact	S/H AD S/C	12 (H)	- Prior to executions commencing consult the utilities suppliers/ site owner about underground gas and electricity supplies, obtain copies of service plans - Before work begins, underground cables must be located, identified and clearly marked - Clearing the area where service has been detected - Once a locating device has been used to determine cable positions and routes, excavation may take place, with trial holes dug using suitable hand tools as necessary to confirm this - Excavate alongside the service rather than directly above it	6 (M)

						• Final exposure of service by horizontal digging is recommended as the force applied to hand tools can be controlled more effectively • Insulated tools should be used when hand digging near electric cables • Ensure services are supported once exposed, • Identify the service and fulfil any specific reinstatement requirements when backfilling • Find out the maximum height and reach of your own and contractors equipment (include the height of radio aerials or flashing beacons in the measurements) • Create alternative access routes or work areas to avoid OHPLS entirely where possible • Use barriers and overhead goalposts to control access and traffic routes • Contact the Distribution Network Operator (DNO) to obtain the safe clearance distance. (your DNO can usually supply stickers describing emergency procedures and containing contact numbers that can be stuck in the cabs of vehicles likely to be used near overhead power lines)	
--	--	--	--	--	--	---	--

						- Retract booms of telescopic handlers and lower crane jibs when they are moving on site - Plant working near overhead powerlines is suspended from steel tower; or 9m (plus length of jib) if the lines is supported on wooden poles - Consider the risk of a flashover occurring between the powerline and your equipment; actually touching the line is not necessary for an incident to occur and can be fatal	
20	Excavation	Uncontrolled moving plant	Injury Asset damage	S/H AD	6 (M)	- Equipment may not be left running without operator cabin - Excavator to be park in a safe manner before operator leaves cabin - Section 24	4(M)
		Pedestrian and vehicle/plant movement in close proximity to excavation	Injury Fatality Asset damage Production loss	S/H AD BD	12 (H)	- All excavations will be adequately shored and braced if not sloped - All excavation areas to be barricaded until backfill is complete - Daily excavation inspection conducted before work commenced in area appointed inspector (CR 13 (1)(a)) checklist to be handed to safety officer for filling - Hard hats to be worn when working in excavations deeper than 1.5m	6 (M)

						- Warning and prohibition signage to be installed at access to excavation - Restrict access to excavation area to authorized persons and plant only - Fence to be constructed if deep excavation close to public thoroughfare to reduce accessibility and increase visibility - Flagman to be used to control/ warn plant and pedestrian traffic	
		Poor visibility of excavation area after dark	Injury Asset damage	S/H	9 (H)	- Excavate only what is required for immediate production - Excavation to be backfilled as soon as possible after work completed - Smaller holes, trenches and hollows must also be barricaded and backfilled as soon as practicable - Areas to be barricaded until backfilling can be executed - Reflectors to be placed on barricading for increased visibility - Reflective signage to be used around deep excavations close to public thoroughfares	6 (M)
		Decreased visibility in excavation	Injury Asset damage	S/H	9 (H)	- Positioning of excavator must be in order to facilitate maximum possible visibility - Vehicles in deep excavations must be identified by use of flag and signage	4(M)

						- When poor visibility occurs a flagman/ spotter, should be dedicated to each plant - Flagman to be behind soft berm/safety den (20m radius) - Construction lights and vehicle lights to be switched on - One way traffic flow in and around excavation - Reduce man and machine interface in excavation due to plan fumes	
		Over-excavation	Quality NCR Damage to Flora and Fauna	QA EN	6 (M)	- Excavation setting out points to be clearly marked and visible - Excavation only to take place within identified points - Depth of excavation to be measured regularly to reduce risk of over excavation - Client representative called if unsuitable material found at requires depth. Formal instruction to continue excavating to be requested from client representative.	2 (L)
		Poor or no access/egress to and from excavation	Injury Asset damage	S/H AD	6 (M)	- All excavation will be supplied with sufficient access/egress ladders or ramps for entry and exit - Ladders placed no further than 6m away from nearest workers and no further than 6m apart	2 (L)

						- Access ladder must extend at least 900mm above the top of the excavation level (checked numbered and on register) - Access and egress ramp must not exceed the safe operating parameters of required plant	
		Excavation collapse				- Never work in excavation 1.2m deep or over unless the sides have been suitably shored and braced, or have been benched to prevent collapse - The competent person on site must carry out a risk assessment to decide if shoring is required at depths less than 1.2m - Before entering any excavation, inspect the walls for signs of collapse, particularly after heavy rain - Do not go into unsupported excavations - Never work ahead of the support - Remember that even work in shallow trenches can be dangerous - You may need to provide support if work involves bending, or kneeling in the trench	
21	Placing of storm water pipe and culverts	Loads swinging or falling Substandard lifting equipment being used as lifting	Injury Fatality Asset damage	S/H AD	12 (H)	- Competent trained personnel - Communication between operator and banks man	6 (M)

		equipment not being positioned correctly resulting in shifting of load				• Spotter to be visible to operator at all times to co-ordinate and control loading and offloading • PPE hard hats, safety jackets and gloves • Lifting equipment maintained in a good condition • Use of spreader bar and guide ropes • Supervision at all times • Certified operators • Check lists and registers • Toolbox talks • Lifting gear tested and certified	
22	Handling and storage of excavated material	Excess spoil limiting mobility (rocks, stone boulders etc.)	Injury Asset damage	S/H AD	6 (M)	• Excess spoil will be removed from excavation work area at least 2m from side of excavation • Spoil remaining in work area for backfilling purpose will be stockpiled in an identified safe area • Position of stockpile not to restrict access/egress of work area	
		Material placed too close excavation side resulting in sides collapsing	Injury Fatality Asset damage	S/H AD	12 (H)	• No excavated material will be placed within 2m from excavation edge • All excavation sides will be battered to prevent collapsing of materials • Spoil at edges will not exceed height of 2m and will be shored 1-2 at all times	
23	Fixing reinforcing	Employee falling whilst carrying	Injury	S/H	6 (M)	• Employees to make use of demarcated walk ways	2 (L)

		reinforcing / mesh to work area				• Foreman and site supervisor to ensure that walk ways are clear and proper housing conducted on regular basis • No material to protrude from demarcated area (gum poles or rebar)	
		Employees carrying material that is too heavy	Injury	S/H	6 (M)	• Supervisor to ensure that sufficient number of employees assigned to carry reinforcing depending on size, length and weight • Workers delegated to carry steel to be rotated • Heavy material to be lifted with crane/ hi-ab • Gloves to be utilized at all times	2(L)
		Employees' hand cut whilst working with steel/ mesh	Injury	S/H	4 (M)	• All employees to wear gloves at all times • Correct tools to be used for task	3 (L)
		No materials traceability of reinforcing / mesh in structure(s)	Non-compliance to client / ISO requirements	QA	9(H)	• Requisition/orders to be detail for which structure steel is ordered • Suppliers to reference structure and mill certificate on delivery note • Mill certificates to accompany deliveries to site	4 (M)
		Employee falls and injured due to pieces of reinforcing offcuts and binding wire ground	Injury Aesthetic pollution	S/H EN	6 (M)	• All material and offcuts to be cleared between and after each shift • All offcuts to be placed in an area away from walk way	2 (L)

						• Offcuts to be contained in containers and disposed of correctly	
24	Erecting shutters	Employees injured whilst lifting shutter into position	Injury	S/H	6 (M)	• Supervisor to ensure more than one person handling heavy shutters • Crane to be used for placement of heavy shutters placed in deep excavation/ areas with difficult access	
		Shutters not secured sufficiently causing the shutter to kick during concrete pouring	Injury Production loss Ground contamination	S/H	9 (H)	• Supervisor to ensure that shutters are safe and stable prior to moving to next shutter • Cover requirements between shutter and reinforcement to be checked before pouring concrete	
25	Placing concrete	Concrete discharged onto concrete hands		S/H	6 (M)	• Employees receiving concrete must stand clear whilst concrete is discharged • Correct PPE to be worn at all times	
		Concrete hands injured whilst placing concrete by hand		S/H	6 (M)	• Only trained and competent employees to conduct task • DSTI to be attended before commencement of task • Sufficient space must be allowed between workers to allow for swinging and movement radius • Long socks must be worn with gumboots • Safety glasses to be worn during concrete operations	

						Only approved and inspected hand tools to be used	
		Employees injured whilst standing on rebar during placement of concrete	Injury	S/H	6 (M)	- Safe working platform provided for employees required to stand on rebar whilst placing concrete to prevent feet and leg injuries - Safety gum boots to be worn at all times - All upright rebar to be fitted with end caps	2 (L)
		Employees injured when poker slips from operators hand whilst vibrating concrete	Injury	S/H	6 (M)	- Ensure employee is trained in using a vibrating poker - Operator to have firm footing and proper grip/ hold on vibrator - Correct PPE to be worn at all times (safety glasses) - Supervision at all times	2 (L)
		Defective vibrator	Injury Asset damage	S/H	6 (M)	- Vibrator and motor must be inspected prior commencing with task - Ensure proper machine guard, no exposed components of the vibrator motor	2 (L)
		Concrete spilled/ discharge onto ground	Ground pollution	EN	9 (H)	- Waste and spilled concrete must be cleaned up and removed from work area immediately - Ensure that affected area is properly cleansed - Contaminated ground to be removed and disposed of	4 (M)

						• Safety department to be notified	
		Poor visibility resulting in poor control of operation	Injury Quality NCR	S/H QA	6 (M)	• No work to be conducted after sun set without adequate lighting (mobile lighting units) • Design a traffic management and lighting plan • Notification of night work to be handed in to relevant parties in time for approval • Schedule to be drafted for setting up the traffic control devices • Correct and high visibility PPE to be worn	2 (L)
		Uncontrolled banana bucket movement	Injury Asset damage Production loss	S/H	9 (H)	• Bucket to be inspected before use / CoC to be available on site for inspection • Employees to stand clear of bucket during task • Employees to keep eye contact with bucket • Bucket to be fitted with guide rope • Movement to be controlled by tanks man • No lifting of bucket during wind above 25km/h • Task to be supervised • Equipment to be clean after each pour	4 (M)

		Concrete starting to set due to transport/site delay	Quality NCR Production loss	QA BD		• Slumps check to be done to verify slump • No water is to be added to concrete batch • Concrete not to be poured • Delivery note number to be recorded and batch returned to site • If delivery delayed due to supplier – delivery note to be submitted to clerk for credit note • NCR issued to supplier	1 (L)
26	Direct concrete discharge from ready mix truck	Standard truck on site	Injury Fatality Asset damage Pollution (air, noise, ground)	S/H	12 (H)	• Vehicle maintenance records to be available for inspection as per procumbent Terms and Conditions • Operator to have valid driver's licence • Vehicles found to be substandard/ polluting the environment will be recorded and sent off site. The vehicle will not be allowed on site before confirmation is received that the vehicle has been repaired	4 (M)
		Truck on incorrect routes/ site	Loss of production	BD	12 (H)	• Trucks to be escorted in and out of site at all times • Site plan to be supplied to Ready Mix Plant • Only routes as per approved traffic plan to be utilised • Driver to obey all road signs, instruction and site	4 (M)

		Unsafe positioning of truck during discharge of concrete	Injury Fatality Asset damage	S/H AD	12 (H)	• Supervisor to ensure that there is sufficient space for the truck to discharge its load safely • Traffic accommodation to be planned and implemented if delivery is offloaded close to or in live traffic • Vehicle to be positioned behind traffic barriers • Flagman to be in place at all times to instruct operator and traffic • Flag man to be inside “safety den” (20m radius) • Operator to obey flagman instructions • Truck must be positioned on a level and stable area, stop blocks to be used when deemed necessary by supervisor	4 (M)
		Uncontrolled movement of truck	Injury Fatality Asset damage	S/H AD	12 (H)	• Driver to ensure vehicle is in neutral and the park brake is activated when discharging concrete • Vehicle may not be left running without the driver being in the cab/ in control of the vehicle • Vehicle to be parked in a safe manner before the driver leaves the vehicle • Stop blocks to be used if vehicle is parked and unattended	4 (M)

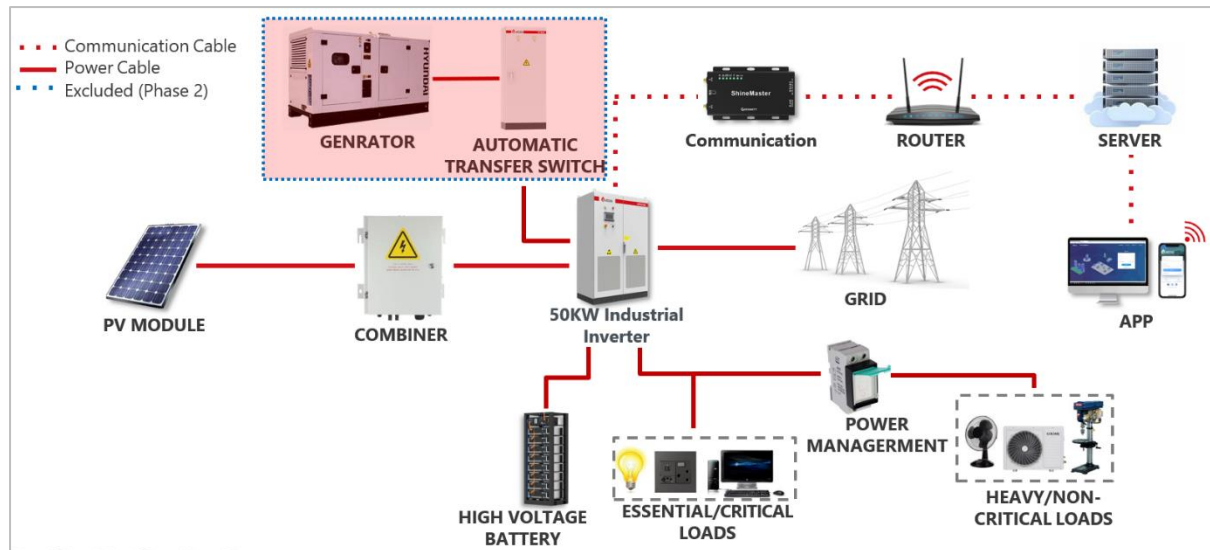
27	Using electric small tools	Machine used by incompetent employee/ unauthorised user	Injury Asset damage	S/H	9 (H)	• Ensure that the employee is competent in using the specific machines • Conduct Planned Task Observation to confirm employee ability • Ensure machine not to be left unsupervised	4 (M)
		Employee injured due to: -spark created from cutting/grinding process -flying objects -inadequate work space	Injury Fire	S/H EN	6(M)	• Correct PPE to be worn at all times • Other employees to be instructed to stay clear of cutting/ grinding activity • Cutting/ grinding operations not to be done in high traffic areas without screens being erected • Material to be secured by another person when cutting/ grinding / drilling (loose material) • Off cuts to be contained in a drum (store properly) • Fire extinguisher in close proximity to activity • Ensure employees are not wearing loose clothes • Adequate space should be allocated for task • Space identified for materials	2 (L)
		Defective tool/machine	Injury Fatality	S/H	9 (H)	• Pre-use inspection/ checklist to be done before use • Discontinue use of worn /defective sundry until (drill bits, grinder disks, etc)	4 (M)

						- Machine guards are to be in place and not removed - All equipment defects must be reported to supervisor and storeman and removed from site	
		Employee injured as a result of an electric shock				- Electrical small tools not to be used whilst employee standing in water or rain - Plugs and cables to be checked and reported if damaged	
		Incorrect storage	Asset damage Property loss	S/H	6 (M)	- Storage to be controlled by a trained and competent storeman - Equipment not to be unsupervised when used on site	2 (L)
28	Compaction of material	Incompetent operator Poor communication Non-compliance to safety regulations	Injury Property damage	S/H	9(H)	- Ensure trained competent operators at all times - Ensure supervision at all times	3 (L)
		Untrained personnel Inadequate flagman				- Ensure appointed flagman on duty - Ensure flagman is aware of risk and duty of task - Ensure mini risk assessment conducted and communicated to all task to mechanical foreman	

ANNEXURE C: DRAWINGS



Figure 1: Orbit Collage building layout



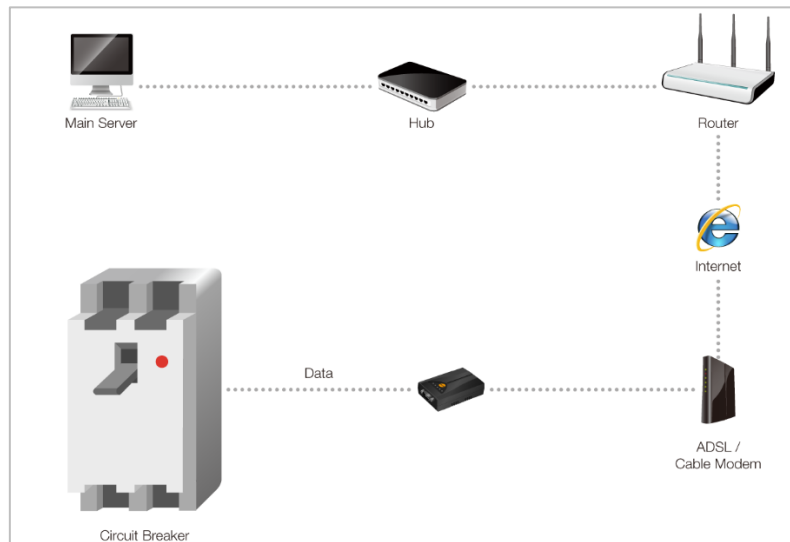
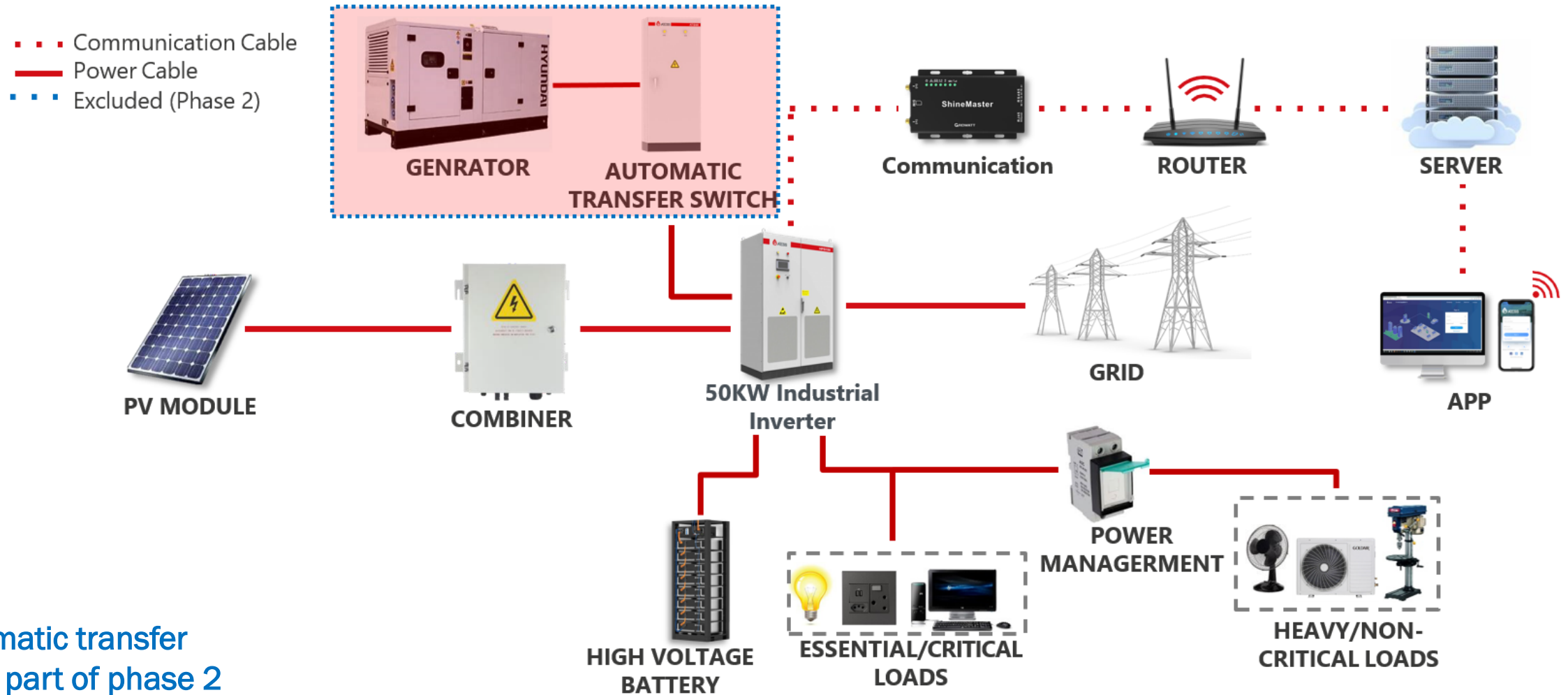


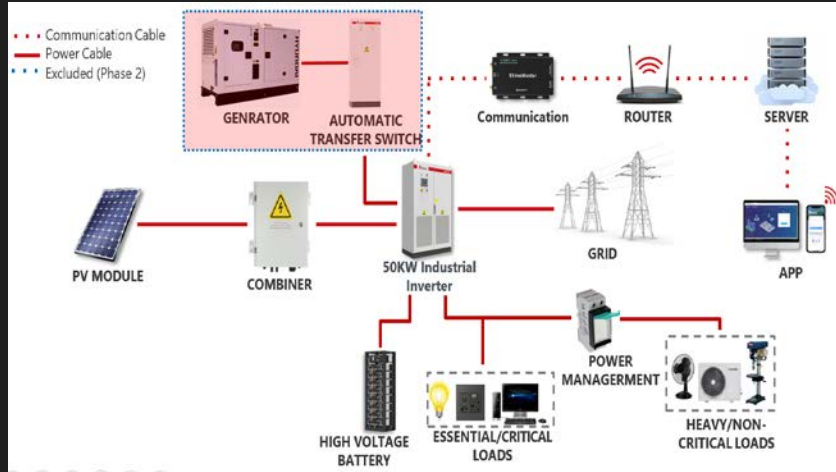
Figure 3: circuit breaker remote control

System Design



*Automatic transfer
switch part of phase 2

System Design



System can be scaled to 200kW

No.	Component	Function
1.	50kW 3 phase invertor	Convert DC power to AC, regulate and manage the flow of electrical power
2.	Photovoltaic (PV) Panels	Produce electrical energy from the sun
3.	Combiner box	Bring the output of several solar strings together to ensure the correct voltage for the invertor
4.	High voltage lithium ion batteries	Store electrical energy
5.	Communication and monitoring	Communication system, routers, cloud server, apps, etc. for data collection, reporting and monitoring
6.	Power management	For remote circuit breaker control
7.	Grid	Eskom power